

CALIFORNIA COASTAL COMMISSION

NORTH CENTRAL COAST DISTRICT
455 MARKET STREET, SUITE 300
SAN FRANCISCO, CA 94105
PHONE: (415) 904-5260
FAX: (415) 904-5400
WEB: WWW.COASTAL.CA.GOV



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LCP-2-HMB-20-0081-2 (LAND USE PLAN UPDATE)

APRIL 15, 2021

EXHIBITS

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EXHIBITS

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Planning Area





Local Coastal Land Use Plan

City Council Final Approved Draft

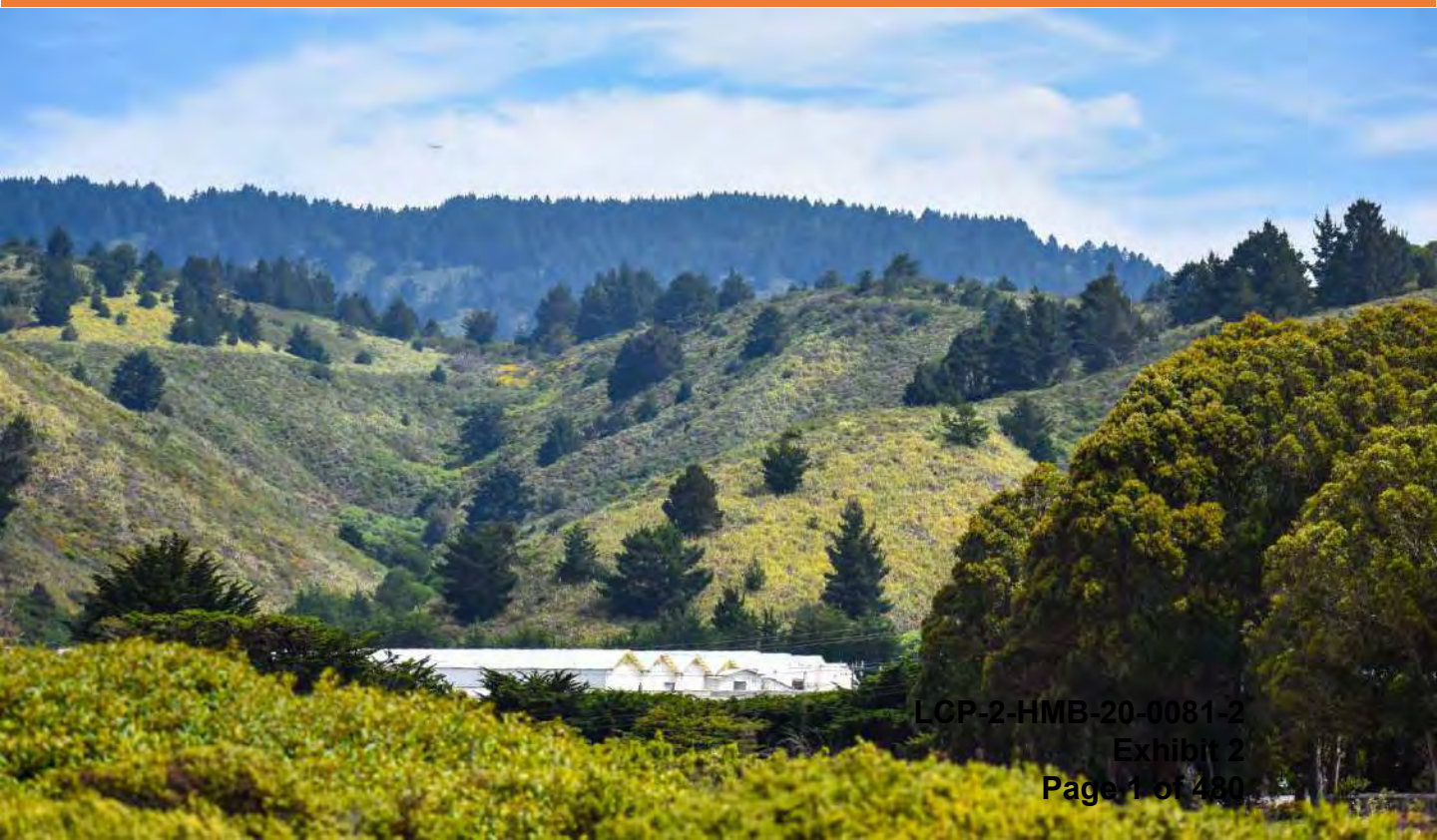


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1. Introduction and Framework

This document is the Land Use Plan component of the City of Half Moon Bay's Local Coastal Program. It was comprehensively updated in 2020 and contains the primary policies governing land use and development within the city limits.

This chapter introduces the updated Land Use Plan. It includes an overview of the Land Use Plan's regulatory framework, organization, relationship to other City plans and regulations, and administration. The chapter lays out the primary land use issues for Half Moon Bay, and summarizes existing land use conditions and trends, as well as changed circumstances since the Land Use Plan was first certified. The chapter further acknowledges the planning priorities stemming from the extended community engagement process that was conducted with oversight by a community advisory committee, the Planning Commission, and City Council. It concludes with foundational policies for the Land Use Plan.

Land Use Plan Framework

CALIFORNIA COASTAL ACT

The California Coastal Act of 1976 requires every coastal city and county to have a Local Coastal Program (LCP) to plan for and regulate land use in the coastal zone. LCPs implement Coastal Act policies within local jurisdictions. LCPs contain land use policies, programs, maps and implementing ordinances. The California Coastal Commission reviews LCPs for compliance with the Coastal Act. Once an LCP is certified by the Commission, the local government is delegated the authority to issue coastal development permits consistent with its LCP.¹

The purpose of the LCP is to locally implement the Coastal Act and the State's overarching goals for the coastal zone, which are to:

- (a) Protect, maintain, and, where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.
- (b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.

¹ California Public Resources Code (PRC) 30001 et seq.; PRC 30500.

- (c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.
- (d) Assure priority for coastal-dependent and coastal-related development over other development on the coast.
- (e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.²

BASED ON THE CHAPTER 3 POLICIES OF THE CALIFORNIA COASTAL ACT SECTIONS 30200-30265, COASTAL RESOURCES CAN INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

AGRICULTURAL PRODUCTION AND AGRICULTURAL LANDS

ARCHAEOLOGICAL OR PALEONTOLOGICAL RESOURCES

COASTAL WATER BODIES (E.G. WETLANDS, ESTUARIES, LAKES, ETC.) AND THEIR RELATED UPLANDS

ENVIRONMENTALLY SENSITIVE HABITAT AREAS, INCLUDING RARE HABITATS, WILDLIFE CORRIDORS, AND OTHER AREAS THAT ARE ESPECIALLY VALUABLE BECAUSE OF THEIR SPECIAL NATURE OR ROLE IN AN ECOSYSTEM

GROUND WATER RESOURCES

MARINE RESOURCES

NATIVE TREES

NATURAL LANDFORMS

PUBLIC ACCESS AND PUBLIC ACCESS FACILITIES AND OPPORTUNITIES

RECREATION AREAS AND RECREATIONAL FACILITIES AND OPPORTUNITIES (INCLUDING RECREATIONAL WATERORIENTED ACTIVITIES)

SCENIC PUBLIC VIEWS AND VISUAL RESOURCES

SHORELINE PROCESSES/SAND SUPPLY & TRANSPORT

SPECIAL COMMUNITIES

TIMBERLANDS & SOILS

VISITOR-SERVING USES

WATERCOURSES (E.G., RIVERS, STREAMS, AND CREEKS, ETC.) AND THEIR RELATED CORRIDORS AND UPLANDS

WETLANDS

Source: Agriculture in the Coastal Zone: An Informational Guide for the Permitting of Agricultural Development, Ca Coastal Commission, Sept. 29, 2017, Page 12

² CA PRC 30001.5

An LCP must include a Land Use Plan and an Implementation Plan. The Land Use Plan specifies the allowable kinds, locations, and intensities of development in the jurisdiction's coastal zone, and the resource protection and development policies necessary to meet the requirements of the Coastal Act. These policies include requirements to protect wetlands, riparian and other sensitive coastal resources; protect and maximize public access to and along the shoreline; concentrate new development in existing developed areas and assure adequate public services for new growth; protect agricultural lands, scenic landscapes and cultural resources; manage environmental hazards; and provide for certain priority coastal land uses, such as visitor-serving and coastal-dependent development. The Implementation Plan must include zoning, development standards and permitting procedures consistent with and adequate to carry out the Land Use Plan for any new development located above the mean high tide.³ The Coastal Commission retains permitting jurisdiction below the mean high tide and on public trust lands, and has appellate oversight of locally-issued coastal development permits in specific geographic areas and over major public works or energy projects that may be permitted by a local jurisdiction pursuant to its LCP. Specific geographic areas in the appeals jurisdiction include land between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or the mean high tide line, whichever is the greater distance; lands within 100 feet of any wetland, estuary, or stream; and lands within 300 feet of the top of the seaward face of any coastal bluff.⁴

The City of Half Moon Bay lies entirely within the coastal zone (Figure 1-1) and is therefore subject to the California Coastal Act. The Coastal Commission first approved the City's Land Use Plan in 1985. It was updated in 1993 and effectively certified with the complete LCP when the Commission approved the Implementation Plan in 1996. Hereinafter referred to as the "1996 Land Use Plan," the City's first certified Land Use Plan established the extent and distribution of intended land uses based on the conditions at that time. The 1996 Land Use Plan included land use designations and policies specifying the allowable types, locations and intensities of development in the city, consistent with the Coastal Act. The plan sought to meet the social and economic needs of Half Moon Bay residents while achieving the mandates of the Coastal Act through coastal resource protection and development policies that addressed coastal access and recreation, environmentally sensitive habitat areas and water resources, coastal hazards, archaeological and paleontological resources, visual resources, agriculture, development, and public works.

The Implementation Plan included a revised zoning code and map, subdivision code, and other programs and actions necessary to implement the various provisions of the 1996 Land Use Plan.⁵ Since certification, both the 1996 Land Use Plan and the associated Implementation Plan of the LCP have been amended numerous times, mostly to refine project-specific land

³ CA PRC 30108.5; 30512, 30513.

⁴ CA PRC 30603.

⁵ City of Half Moon Bay Titles 18 (zoning) and 17 (subdivisions). See, also, California Coastal Commission, *Approval with Modifications of City Half Moon Bay LCP Proposed Implementation Plan*, December 13, 1995, <https://documents.coastal.ca.gov/reports/1995/12/W14c-12-1995.pdf>.

use and zoning designations or add new procedures. The City has issued well over one thousand coastal development permits since LCP certification. Amendments to the LCP made between 1996 and 2020 as well as appeals of City actions made to the Coastal Commission are summarized in Appendix D.

COASTAL ZONE PRIORITY USES

Coastal Act policies prioritize coastal-dependent and coastal-related development over other development on the coast. With respect to private lands suitable for development, priority uses relevant to Half Moon Bay include commercial recreational facilities and other uses supportive of coastal tourism such as restaurants, retail, and accommodations geared toward visitors. Lower-cost visitor-serving uses, especially overnight room rentals, are encouraged. Coastal-dependent, visitor-serving, and recreational uses, including no-cost uses such as regional public coastal recreation, are addressed further in Chapter 5. Coastal Access and Recreation. Coastal Act Priority Uses take priority over most residential, general industrial, or general commercial development under the Coastal Act; however, Coastal Act Priority Uses are not prioritized over agriculture or coastal-dependent industry. Community interest in environmental resource and agricultural preservation are consistent with Coastal Act priorities.

While Coastal Act Priority Uses provide many benefits to local residents, visitor-serving facilities such as restaurants, hotels, and retail are generally considered to be service industry businesses. These businesses provide employment opportunities for local residents, but are typically set at lower wages. Combined with high housing prices on the coast, it has become difficult for local residents to support themselves with local jobs. In order to provide housing affordable to the local workforce and maximize opportunities for people of all income levels to access and live on the coast, this LCP establishes affordable housing as a Local Priority Use and introduces a Workforce Housing Overlay land use designation; which are Coastal Act Priority Uses when specifically associated with agricultural uses, as is all farmworker housing.

This Land Use Plan comprises the City's reexamined and updated policy approach for carrying out the Coastal Act in a manner that addresses changed conditions since certification of the 1996 Land Use Plan. The updated Land Use Plan reflects current conditions and community priorities, and anticipates future needs with a new planning horizon of 2040. The foundational considerations for this update are presented later in this chapter. Comprehensive updates to the Implementation Plan were incorporated with the Land Use Plan update to ensure that the zoning regulations, maps, subdivision code, and other applicable provisions are consistent with the updated Land Use Plan and the Coastal Act.

REGIONAL SETTING AND PLANNING AREA

Half Moon Bay is situated along the San Mateo County coastline approximately 23 miles south of downtown San Francisco and at the edge of the Bay Area region (Figure 1-1). It is

connected to Pacifica and San Francisco to the north and to Santa Cruz to the south by Highway 1, and is connected to San Mateo, the Peninsula, and the East Bay to the east by Highway 92. As one of the earliest settlements in San Mateo County, Half Moon Bay has a traditional downtown and unique agricultural heritage. The city is a popular recreational destination due to its plentiful beaches and parks and its scenic setting on the Pacific Ocean with a backdrop of open bluffs and forested hills.

The Planning Area for the City's LCP extends approximately six miles along the Pacific coast and encompasses approximately 4,267 acres (Figure 1-2). It includes the entire City of Half Moon Bay as well as some unincorporated land along the Highway 92 corridor east of the City, nurseries and agricultural land located directly east of Highway 1 and north of Miramontes Point Road, and the Moonridge neighborhood of affordable farm labor housing on the south side of Miramontes Point Road. These unincorporated areas are governed by the County of San Mateo but are included in the Planning Area for consideration because they are directly related to planning concerns in Half Moon Bay.

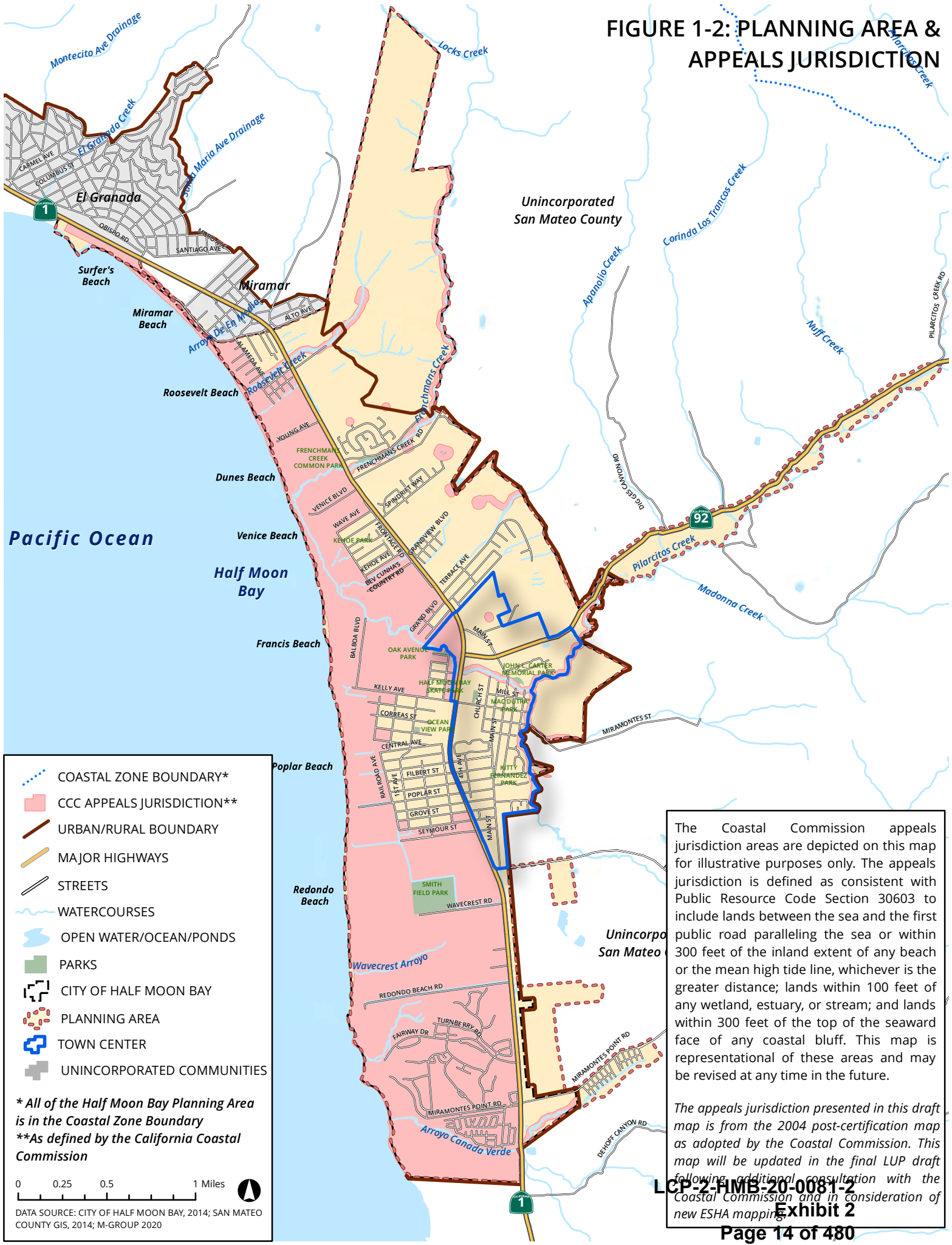
Beyond the Planning Area, Half Moon Bay's "sphere of influence" extends into the unincorporated communities of El Granada, Miramar, Princeton, Moss Beach, and Montara (Figure 1-1). The purpose of the sphere of influence is to ensure the provision of efficient services while discouraging urban sprawl and conversion of agricultural and open space lands by preventing overlapping jurisdictions and duplication of services. Half Moon Bay's sphere of influence area is similar to the San Mateo County Midcoast LCP planning area and relies on many shared services, such as Highway 1 and the Cabrillo Unified School District, as well as similar services such as the municipal water and sewer providers.

The City's Planning Area interfaces with San Mateo County in other ways as well. The County area beyond City limits has a direct impact on drainage, circulation, and habitat concerns in Half Moon Bay as it shares the larger San Mateo Coastal Hydrologic Area, limited highway system, and endemic habitat for many sensitive species. The planning and conservation efforts of San Mateo County can affect that of Half Moon Bay, and vice versa. As such, this Plan has been coordinated with the efforts of the San Mateo County LCP to promote consistency and maximize coastal resource protection.

FIGURE 1-1: REGIONAL SETTING



FIGURE 1-2: PLANNING AREA & APPEALS JURISDICTION



..... COASTAL ZONE BOUNDARY*
 CCC APPEALS JURISDICTION**
 URBAN/RURAL BOUNDARY
 MAJOR HIGHWAYS
 STREETS
 WATERCOURSES
 OPEN WATER/OCEAN/PONDS
 PARKS
 CITY OF HALF MOON BAY
 PLANNING AREA
 TOWN CENTER
 UNINCORPORATED COMMUNITIES

* All of the Half Moon Bay Planning Area is in the Coastal Zone Boundary
 **As defined by the California Coastal Commission

0 0.25 0.5 1 Miles

DATA SOURCE: CITY OF HALF MOON BAY, 2014; SAN MATEO COUNTY GIS, 2014; M-GROUP 2020

The Coastal Commission appeals jurisdiction areas are depicted on this map for illustrative purposes only. The appeals jurisdiction is defined as consistent with Public Resource Code Section 30603 to include lands between the sea and the first public road paralleling the sea or within 300 feet of the inland extent of any beach or the mean high tide line, whichever is the greater distance; lands within 100 feet of any wetland, estuary, or stream; and lands within 300 feet of the top of the seaward face of any coastal bluff. This map is representational of these areas and may be revised at any time in the future.

The appeals jurisdiction presented in this draft map is from the 2004 post-certification map as adopted by the Coastal Commission. This map will be updated in the final LUP draft following additional consultation with the Coastal Commission and in consideration of new ESHA mappings.

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 Exhibit 2

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Land Use Plan Organization

Land Use Plan Chapters

As brought forward and updated from the original plan, the 2020 Land Use Plan presents each subject area by chapter. The organization of the Land Use Plan has been modified in two ways: the chapters have been re-ordered to improve sequencing of the Land Use Plan's narrative, and the Land Use Plan no longer includes a chapter referring to the City's General Plan Housing Element because the Housing Element, although consistent with and supported by the Land Use Plan, is not a part of the Land Use Plan. This updated Land Use Plan contains nine chapters as follows:

Chapter 1. Introduction and Framework. This chapter summarizes the Land Use Plan's regulatory framework; reviews the history and background for land use planning in the City; identifies land use issues of primary significance; presents an overview of existing conditions, trends, and other changed circumstances; acknowledges the robust community participation process that established the foundation for the Land Use Plan; and describes the existing land use pattern of the City. The chapter concludes by bringing forward the broadest foundation policies from the 1996 Land Use Plan.

Chapter 2. Development. This chapter presents the City's land use map and describes each land use designation. Policies for the Town Center and Planned Developments are detailed to support and regulate development in a way that carries out Coastal Act and community priorities.

Chapter 3. Public Works. This chapter considers the capacity of public works infrastructure and systems and provides detailed policies to ensure that capacity is adequate to serve existing and potential development including priority land uses without inducing growth. In conjunction with the Town Center, Highways 1 and 92 are identified as the Town Boulevard.

Chapter 4. Agriculture. This chapter provides policies for protection of prime soil resources and support for the long-term viability of Half Moon Bay's agricultural uses in context with the City's approach to development and growth management.

Chapter 5. Coastal Access and Recreation. This chapter features policies to ensure that maximum public access to the coast is maintained, enhanced and sustainable. This chapter also contains policies relating to regional open spaces and beaches, the trail system, City parks and recreation, and commercial coastal recreation as they pertain to Coastal Act policies to ensure the public has adequate access to coastal recreation.

Chapter 6. Natural Resources. This chapter includes policies to protect, manage and restore environmentally sensitive habitat areas, wetlands, and marine and riparian habitats; protect water quality; and preserve beaches and bluffs. This chapter features a comprehensive update to the City's sensitive habitat map.

Chapter 7. Environmental Hazards. Climate change related hazards including sea level rise and drought are described along with other environmental hazards pertinent to Half Moon Bay such as seismic and geologic hazards, erosion and sedimentation, flooding, and wildland fires. This chapter provides detailed policies that respond to Coastal Act provisions for hazard avoidance and minimizing adverse impacts.

Chapter 8. Cultural Resources. This chapter includes policies to protect cultural resources including paleontological and archaeological resources.

Chapter 9. Scenic and Visual Resources. This chapter identifies visual elements of the City's coastal environment and includes policies to protect scenic resources and enhance the visual quality of Half Moon Bay.

Land Use Plan Policies

Each chapter of the Land Use Plan includes narrative and policies. The narrative provides explanation of and justification for the policies and is considered to be part of the Plan. The policies establish planning requirements, programs, and standards for development project review. The use of "shall" indicates that a policy statement is binding; whereas the use of "should" or "would" is not mandatory but is strongly recommended to provide flexibility for consideration of how the policy statement may be better addressed; and "may" is permissive.

Maps and Land Use Designations

Maps in the Land Use Plan illustrate a number of policies relating to land use, public works, coastal access, coastal recreation, natural resources, coastal hazards, cultural resources, and scenic and visual resources. The Land Use Map, land use designation descriptions, and other figures are important parts of this plan that contain unique information not presented elsewhere.

Appendices, Glossary and List of Acronyms

The following appendices are provided for reference, some of which are adopted parts of the Land Use Plan as noted below:

Appendix A. A summary of the amendments needed to bring the Implementation Plan into conformance with the updated Land Use Plan, as well as a summary of procedures and other State and federal regulations related to carrying out the Local Coastal Program and coastal development permit review. This is an adopted part of the Land Use Plan.

Appendix B. Additional information regarding the Land Use Plan buildout calculations and infrastructure modeling for buildout scenarios summarized in Chapter 3. Public Works. This is an adopted part of the Land Use Plan.

Appendix C. Tables of plant and animal species found in the planning area and referenced in Chapter 6. Natural Resources. This table is expected to be amended over time and is therefore not an adopted part of the Land Use Plan.

Appendix D. The history of amendments made to the 1996 certified LCP since adoption, as well as a summary of Coastal Commission actions taken on coastal development permit appeals. This listing is for informational purposes only and is expected to be amended over time as additional amendments and/or appeals are heard by the Coastal Commission. Therefore, it is not an adopted part of the Land Use Plan.

Appendix E. Public Engagement. A summary of the public outreach events, public study sessions, and public hearings held throughout the Land Use Plan update process. This is an informational appendix and is therefore not an adopted part of the Land Use Plan.

Glossary and Acronyms. The plan concludes with a glossary to define important terms and concepts, and a list of acronyms that appear throughout the chapters of the Land Use Plan. The glossary and list of acronyms are an adopted part of the Land Use Plan.

A comprehensive update to the City's General Plan was prepared in coordination with this Land Use Plan update. The General Plan update embodies the expressed goals of the community and establishes concrete and achievable actions for the 2040 planning horizon. For Half Moon Bay, the Land Use Plan serves as the land use element of the Half Moon Bay General Plan.

Relationship between Plans and Regulations

Half Moon Bay has numerous plans and regulations in addition to the LCP, often with topics that relate to development and coastal resource protection. All of these plans and regulations are meant to be consistent with each other. In the event that these policies are ambiguous, the City shall interpret them in the way that best protects sensitive habitat and other coastal resources and maximizes public access and recreation opportunities.

GENERAL PLAN

State law requires the City to adopt a general plan that provides comprehensive policy direction for the long-term physical development, preservation, and conservation of the city. The General Plan must address at least seven elements: land use, housing, circulation, conservation, open space, noise, and safety.⁶ Optional elements are also allowed.

Special requirements apply to the general plan's housing element, including that it address affordable housing and that the City update it every five to eight years.⁷ At the time of the Land Use Plan update, the housing element had been certified by the Department of Housing

⁶ CA Government Code 65000 et seq.

⁷ Article 10.6 (Sections 65580 to 65589.8) of the Government Code.

and Community Development in October 2015. The housing element will be updated several times over the course of the 2040 planning horizon of this Land Use Plan.

In addition to mandating housing policy and other planning requirements, California passed SB 375 to better align the State's efforts to reduce greenhouse gas emissions with regional housing and transportation planning. The nine-county Bay Area region, which includes San Mateo County, implemented this law by adopting and subsequently updating "Plan Bay Area," a regional transportation and sustainable community strategy. The City considers this regional plan when implementing its General Plan and LCP.

The Land Use Plan carries out the policies of the Coastal Act as well as the land use objectives of the Half Moon Bay General Plan. Therefore, it is important that the City's General Plan and Land Use Plan are well-integrated and internally consistent, and that the City's long-range planning also aligns with regional Bay Area planning.

Relationship Between the Land Use Plan and General Plan

The Land Use Plan and General Plan are standalone policy documents with overlapping subjects. As previously stated, Half Moon Bay's Land Use Plan is incorporated into the City's General Plan as the Land Use Element and covers many issues that must be addressed by the General Plan. The General Plan also contains the following separate elements, consistent with State General Plan law:

Housing. This element was certified by the State in 2015 and fulfills the City's policy obligations with regards to the provision and protection of affordable housing. The next update will be in 2023.

Circulation. Building upon the Coastal Access and Recreation chapter of the Land Use Plan, the Circulation Element includes additional policies to support circulation for all modes of travel.

Conservation and Open Space. Consistent with the Natural Resources chapter of the Land Use Plan, this element includes policies relating to open space preservation and resource conservation.

Noise. This element includes policies to limit the impacts of noise and vibration sources through land use planning, site planning, building design requirements, and other measures.

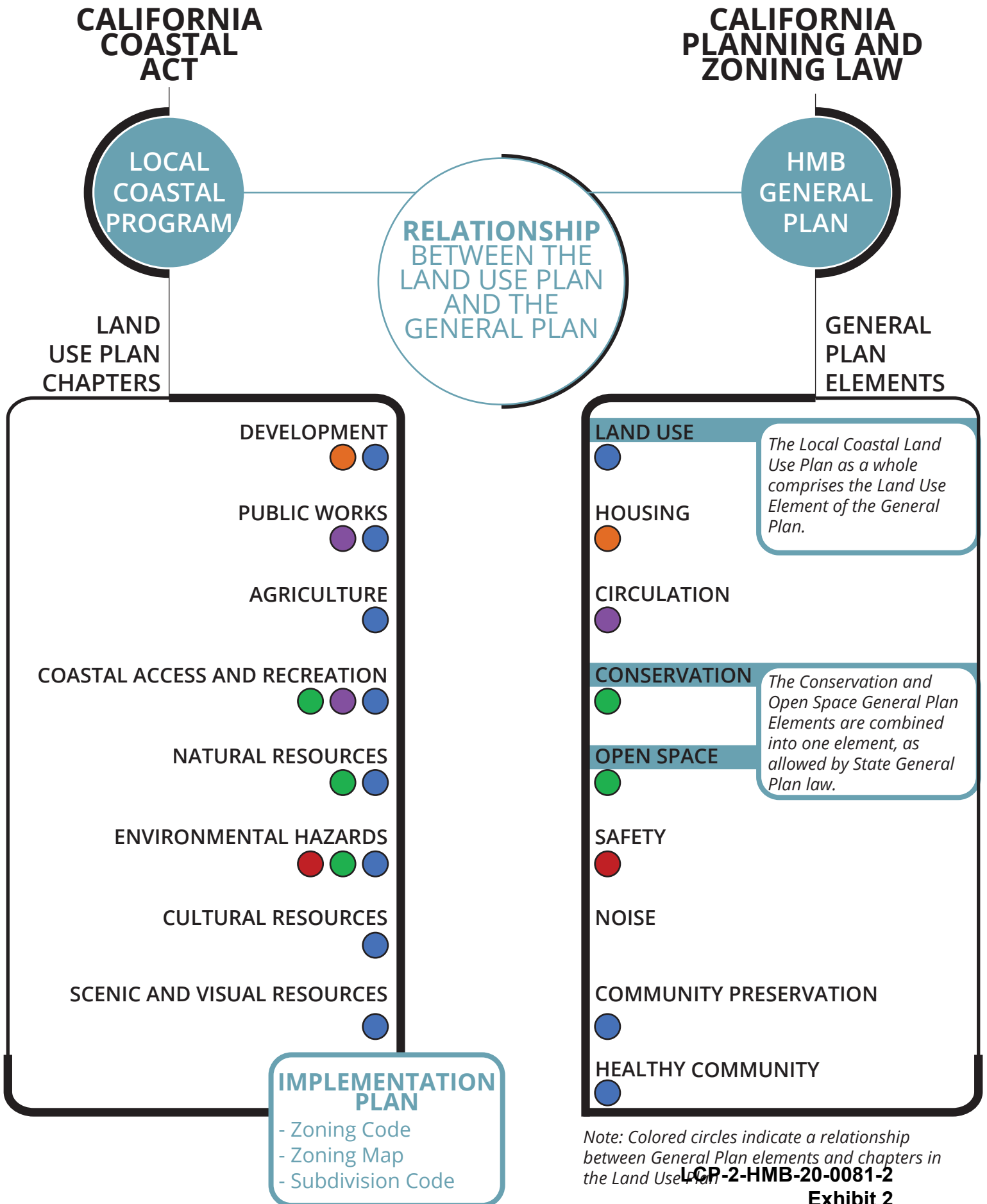
Safety. The Safety Element incorporates the Environmental Hazards chapter of the Land Use Plan. This element also includes policies guiding the City's emergency preparedness and response obligations and strategies.

Optional Elements. The General Plan will include two optional elements. The Healthy Community Element establishes community priorities for wellness, including a healthy food system, active living, healthcare, and City parks and recreation facilities and programs. This element will include mandatory environmental justice policies as well. The Community

Preservation Element covers historic resources, community character, and neighborhood design and preservation.

Each of the General Plan elements are intended to be supportive of and consistent with the Land Use Plan. Figure 1-3 graphically illustrates the relationship between the Land Use Plan and General Plan elements.

FIGURE 1-3: LAND USE PLAN AND
GENERAL PLAN ELEMENTS RELATIONSHIPS



Relationship to Other Plans

Several other plans had been or were pending adoption at the time of this Land Use Plan update. These plans are implementation tools that are meant to be updated more frequently than the Land Use Plan. Although these plans are not considered to be part of the LCP for purposes of governing coastal development permit decisions, they are intended to be consistent with the LCP, and any inconsistencies must be corrected in reasonable time. Examples of such plans include:

- Bicycle and Pedestrian Master Plan
- Parks Master Plan
- Engineering Standards
- Green Infrastructure Plan
- Storm Drain Master Plan
- Capital Improvements Program (updated annually)
- Sewer Master Plan
- Urban Water Management Plan (Coastside County Water District)

Additional plans and programs will likely be prepared over the course of the planning horizon and will need to be consistent with Land Use Plan policy.

Relationship to Ordinances and Implementing Actions

The Land Use Plan and General Plan provide the policy basis for the City's land use regulations and programs. As previously described, the LCP's Implementation Plan includes the necessary zoning ordinances and other implementing measures to implement the Land Use Plan. State law requires consistency between the Implementation Plan and Land Use Plan. Any ambiguity in these Plans' policies can be interpreted in the way that best protects ESHA and other coastal resources and public coastal access.

Other Regulatory Planning Considerations

Uses and Standards. The Land Use Plan land use designations are more general than the Zoning Ordinance districts. Multiple zoning districts may be consistent with a single land use designation, as long as all of the densities, intensities and use types allowed in each zoning district are also permitted in the relevant Land Use Plan land use designation.

Spatial Correlation. The Zoning Map should reflect the general pattern of land use depicted on the Land Use Plan's Land Use Map. However, the two need not be identical. Land use designations of developed areas are well defined on the Land Use Map. For undeveloped areas such as for Planned Development designation, land use designation details will be established through adoption of master plans.

Timing. State law allows a "reasonable time" for updating and reconciling the zoning ordinance with the General Plan. This applies to the Land Use Plan in so far as it is the City's General Plan Land Use Element.

Other Regulatory Agencies. Other agencies have jurisdiction over the City's land use planning and permitting requirements, including the Governor's Office of Planning and Research, Department of Housing and Community Development, California Department of Transportation, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, and the California State Water Resources Control Board. The policies of this plan are intended to be consistent with the mandates of these regulatory agencies.

Original Certified 1996 Land Use Plan

In addressing its land use planning obligations, the City has long faced challenging infrastructure constraints including limited water supply, sanitary sewer capacity, stormwater management, and traffic capacity on Highway 1. The City has also struggled with a fragmented land use pattern that includes both agricultural land and other undeveloped large tracts of land west of Highway 1. The possible development of these lands with more urban uses has raised potential conflicts with the growth-management and resource protection requirements of the Coastal Act and the City. This section provides background discussion of these issues and the City's voter-enacted growth management policy, which is carried forward by this Land Use Plan.

The 1996 Land Use Plan acknowledged the fragmented land use pattern within the city limits and identified three main land use issues at that time:

The City's pre-Coastal Act development history has not always been consistent with resource protection policies of the Coastal Act. The existing land use pattern, involving several diverse neighborhoods separated by undeveloped areas, development on hazardous and sensitive areas, and numerous conflicts between residential and recreational uses, poses significant problems for the City in its efforts to balance the need for economic growth and development and the specific resource protection policies of the Coastal Act. . . .

The most significant planning issues involve (1) provision of adequate sites for the development of housing to meet the City's share of existing unmet and projected regional housing needs, (2) actions the City can and should take to encourage the achievement of Coastal Act goals, including the preservation of prime agricultural, open space, and recreational lands in the unincorporated areas of the San Mateo County coastside, by concentrating development within the boundaries of the City . . . , and (3) limiting future residential population growth to a maximum annual increase of 3%.⁸

⁸ 1996 Land Use Plan, p. 18.

In 2009, the LCP was amended to incorporate Measure D, which lowered the allowable annual growth rate in the city from the originally approved 3 percent to 1 percent, or 1.5 percent under certain circumstances (see below for more detail).

Land use planning and growth management in the City must consider natural resource protection, shoreline and hazards management, maximizing public access and recreation, assuring adequate affordable housing, and protecting community character. Three core policy issues addressed in the 1996 Land Use Plan continue to be important: (1) concentrating development and protecting agriculture; (2) determining appropriate land uses in areas designated for “planned development”; and (3) managing growth and providing public services. These policy concerns still shape the basic land use planning constraints and opportunities for the City. These issue areas are discussed further below, and are addressed through policies in subsequent chapters of this plan in a manner consistent with the resource protection, hazard management, and coastal access policies of the Coastal Act.

While many of the issues addressed in the original Land Use Plan are enduring, many changes to land use characteristics, development trends, and regulations governing environmental preservation, housing, land use, and other planning issues also have taken place. Since 1985 the LCP has been amended numerous times to address changing conditions, laws and issues. Notably, the Land Use Plan was amended in 1993 to include the annual residential population growth limitation policy known as Measure A, later amended by Measure D. This comprehensive Land Use Plan update in 2020 addresses climate change and environmental hazard concerns related to sea level rise, as well as changed circumstances since 1985 when much of the Land Use Plan was first established, although not yet certified.

Concentration of Development and Protection of Agriculture

One of the most important land use policies of the Coastal Act is the requirement that new development be concentrated in already-developed areas that have adequate public services for existing and planned new development. Coastal Act section 30250 states:

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.⁹

This policy works in conjunction with other Coastal Act policies to limit urban sprawl and protect rural agricultural lands throughout the coastal zone. For example, Coastal Act section

⁹ CA PRC 30250(a).

30241 requires the protection of coastal agriculture through the establishment of stable urban-rural boundaries and other means:

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas' agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

(a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.

(b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.

(c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.

(d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.

(e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.

(f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.¹⁰

When the Land Use Plan was originally being developed, it was recognized that Half Moon Bay's pattern of developed and undeveloped areas, some of which were in agricultural production, raised some challenging land use questions under the Coastal Act (see Figures 1-4 and 1-5).¹¹ The Land Use Plan originally concluded that overall, the City of Half Moon Bay is an urban area where new development should be concentrated, in order to protect the rural and agricultural lands of San Mateo County outside the city limits. At the same time, the Land Use Plan acknowledged the need to protect resources on undeveloped lands within city limits:

¹⁰ PRC 30241. Coastal Act Section 30242 addresses other agricultural lands not governed under Section 30241.

¹¹ For background, see, Dickert et al., *Collaborative Land-Use Planning for the Coastal Zone: Volume II, Half Moon Bay Case Study*, University of California (1976).

Half Moon Bay, as a result of prior development patterns and very early subdivisions, is an urban area. It is, in fact, the only urban center for its sub-region, the San Mateo County coastside. Therefore, Coastal Act policies would favor concentration of new development within the City as an urban area in lieu of development in substantially more rural areas to the north, east, or south. On the other hand, Half Moon Bay also has some characteristics of a semi-rural community. Substantial open land exists interspersed with urban development, some of it in marginal agricultural use.¹²

The original Land Use Plan concluded that Half Moon Bay is an “urban area” for purposes of the Coastal Act by stating: “the Urban/Rural Boundary shall be the City Limit boundary of the City of Half Moon Bay.”

The original Land Use Plan also discussed in detail the future viability of agricultural lands within city limits (Figure 1-5), and observed that over the long run there may be limited if any potential for productive agriculture in the city except for greenhouse-related production:

The City is already an urban area . . . Severe urban conflicts have already irreversibly impaired virtually all open field agricultural land use. While it may be feasible to maintain a few of the existing field flower operations in the short term, the existing operators do not foresee any growth. The economics of modern farming require a unit size larger than any available in the City. If expansion is to occur, it will occur in more attractive and less urbanized areas elsewhere.

Nonetheless, in light of other available and more logical areas for new development within the city, the Land Use Plan specifically included policies requiring that existing agricultural and open space lands be put “in reserve” and only developed according to a phasing scheme.

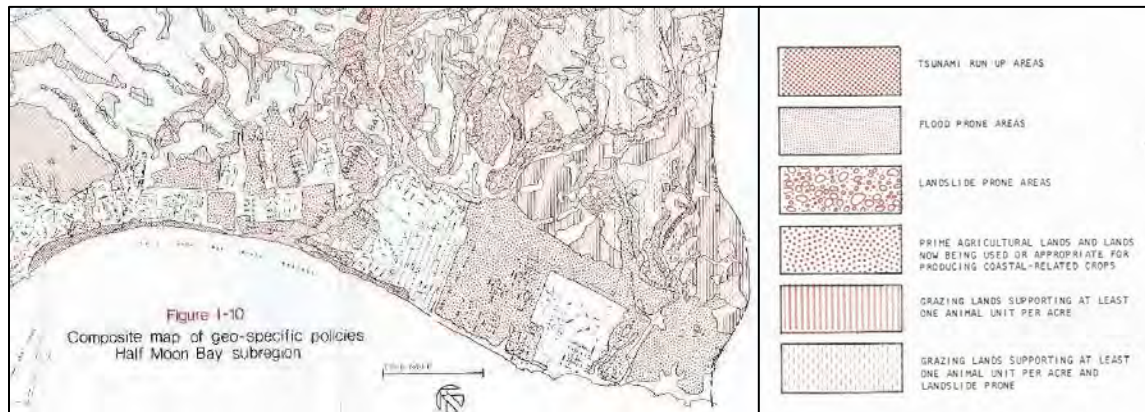
¹² 1996 Land Use Plan, p. 127.

FIGURE I-4: DEVELOPED AND AGRICULTURAL LANDS, 1970



(Source: UCSC aerial photo collection, composite.)

FIGURE I-5: AGRICULTURAL LANDS, CIRCA 1976



(Source: Dickert, et al. 1976.)

This phasing scheme was reflected in the 1996 Land Use Plan by tying expanded development of urban reserve lands to the expiration of any Williamson Act agricultural preservation contracts or ten years from Land Use Plan approval; and limiting development of open space reserve lands until all other areas appropriate for infilling development have been developed.¹³ The Implementation Plan repeated these requirements and further clarified that LCP amendments would be necessary to convert lands in reserve to other development uses. It also added a standard for urban reserve lands, which required that other developable areas

¹³ The Williamson Act provides a tax incentive to keep agricultural lands in production by enabling local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use.

in the city undergo “substantial development” before the City considers conversion of urban reserve lands to residential or commercial designations. This additional standard was added into the code by the Coastal Commission when the Implementation Plan was certified to assure that the Commission would be able to review whether conversion of reserve lands was warranted in light of development trends in the city.¹⁴

Finally, the original Land Use Plan included policies to protect greenhouses and water supply for the floriculture industry; and to promote the enhancement of agriculture within the city limits by potentially retiring or transferring development rights, leveraging partial development of agricultural lands for preservation of the remainder, and deferring development fees for lands kept in production.

Undeveloped Land and Planned Development Areas

In addition to identifying areas that should be put “in reserve” for potential future development, the 1996 Land Use Plan categorized undeveloped city land based on its development and subdivision status, contiguity to existing developed areas, risk from hazards, and coastal resource value. Six resulting categories were used to analyze the residential buildout potential and identify areas where coastal resource issues were more important to consider. The categories were defined as follows:

Category 1. Existing neighborhoods;

Category 2. Undeveloped “paper” subdivisions (i.e., undeveloped areas for which maps have been recorded showing the land divided into lots, roads, etc.);

Category 3. Un-subdivided lands, either contiguous with existing development or generally surrounded by development, without significant habitat value;

Category 4. Un-subdivided lands not contiguous with existing development and having agricultural, recreational, or habitat value;

Category 5. Un-subdivided lands contiguous with existing development and having agricultural, coastal recreation, or habitat value; and

Category 6. Un-subdivided lands not contiguous with existing development and having agricultural, coastal recreation, habitat, and scenic value.

Although Categories 2 and 3 were thought to have little to no habitat value at the time, subsequent studies indicate that some lands with these designations have been found to contain environmentally sensitive habitat or have the potential for such habitat to be present.

¹⁴ California Coastal Commission, Approval of HMB IP (1995), pp. 24-5.

The original 1996 Land Use Plan identified 17 areas out of these six categories, located both inside and outside of the city's downtown area, where a Planned Development (PD) land use designation would be used. The purpose of the PD designation was to ensure that any future development was well-planned:

The purpose of the Planned Development designation is to ensure well-planned development of large, undeveloped areas planned for residential use in accordance with [the Coastal Act's] concentration of development policies. It is the intent of this designation to allow for flexibility and innovative design of residential development, to preserve important resource values of particular sites, to ensure achievement of coastal access objectives, to eliminate poorly platted and unimproved subdivisions whose development would adversely affect coastal resources, and to encourage provision for low and moderate income housing needs when feasible. It is also the intent of the Planned Development designation to require clustering of structures to provide open space and recreation, both for residents and the public. In some cases, commercial development such as convenience stores or visitor-serving facilities may be incorporated into the design of a Planned Development in order to reduce local traffic on coastal access roads or to meet visitor needs.¹⁵

The 17 PDs were all assigned a maximum buildout potential based on circumstances at the time of original certification. When the Land Use Plan was first certified, most of these PDs were considered "paper subdivisions," meaning they were undeveloped areas for which maps had been recorded showing the land divided into lots, roads, etc., well before the Coastal Act was passed. Under the Subdivision Map Act, it is likely that some of the lots are not legal or are not separate lots at all. The Land Use Plan recognized that these areas needed to be re-planned in order to meet the requirements of the Coastal Act. In some cases, the Land Use Plan specifically identified land acquisition or leaving an area undeveloped as the preferred outcome, considering the resources and circumstances of the particular cases. The 1996 Land Use Plan specifically stated:

*In order to resolve conflicts between the future potential of all these subdivisions and relevant Coastal Act policies, all but two of the undeveloped subdivisions are proposed to be designated Planned Development Districts for low density development. **This designation will require re-planning and replatting of the areas and substantial reductions in permitted densities to achieve reasonable patterns of development protective of coastal resources consistent with modern development standards** [emphasis added].*

In addition, the 1996 Land Use Plan required that a specific plan be completed for all but four of the PDs, to assure that the entire PD was planned before any development took place. Each of the PDs also had policy conditions tailored to their circumstances. Policy conditions

¹⁵ 1996 Land Use Plan Policy 9.3.2.

specified potentially allowable land use, maximum buildout thresholds, access requirements, infrastructure needs and site constraints.

Since certification of the PD areas, eight PDs have obtained approved specific plans and/or have been effectively built out. These include Miramar Beach, Guerrero Avenue, Dykstra Ranch, Matteucci, Andreotti, Country Club, South Main Street/Cassinelli, and Wavecrest Restoration South (part of the Wavecrest Restoration PD). At the time of this Land Use Plan update, the remaining PDs were substantially undeveloped and include Nurserymen's Exchange, Surf Beach/Dunes Beach, Venice Beach, Public Facility, Pilarcitos West Urban Reserve, Carter Hill, Podesta/Silvera, L.C. Smith Estate, Arleta Park/West of Railroad, and Wavecrest Restoration North (part of the Wavecrest Restoration PD). The updated Land Use Plan comprehensively reconsiders the PDs in Chapter 2. Development.

Growth Management and Public Services

In addition to requiring the concentration of development in existing developed areas, Coastal Act Section 30250 requires that new development have adequate public services, and Section 30254 requires that new public services be sized to support a level of development that would be consistent with the growth allowed by the policies of the certified LCP. Coastal Act Section 30250(a) effectively defines an existing developed area as one with adequate public services:

New residential, commercial, or industrial development . . . shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services

Coastal Act Section 30254 specifically states that:

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the [Coastal Act] . . .

In this way, new development of public infrastructure in the City should not induce growth that would be inconsistent with the Coastal Act.

The 1996 Land Use Plan addressed these requirements with a specific focus on water, wastewater and road capacity, acknowledging limited capacity in all three of these critical services at the time of LCP certification:

Water supply, sewage treatment, and roads, the basic public works which are required for new development, all have limited capacity at present. New development is presently limited because of the lack of available connections to the public water system.¹⁶

¹⁶ 1996 Land Use Plan, p. 193.

Several policies in the 1996 Land Use Plan were fundamental for addressing public services and development in the city. First, consistent with Coastal Act 30250, the LCP required that all new development have adequate public services at the time of approval:

*. . . No permit for development shall be issued unless a finding is made that such development will be served upon completion with water, sewer, schools, and road facilities, including such improvements as are provided with the development.*¹⁷

Accordingly, the 1996 Land Use Plan specifically required the planning commission or city council to make a finding that services will be available for new development and stated that the “[l]ack of available services or resources shall be grounds for denial of the project or reduction in the density otherwise indicated in the Land Use Plan.”

Second, the LCP required that new public works facilities be limited to a capacity that does not exceed the requirements for projected build-out of the 1996 Land Use Plan, but also that any particular service capacity expansions be phased with other services and according to the development phasing set out in the development chapter of the Land Use Plan (i.e. develop existing infill lots and appropriate PD areas *before* Urban and Open Space Reserve lands).¹⁸ In 1993, the Coastal Commission approved an amendment to the LCP requiring that development and service expansions stay within the limits of 3 percent annual growth pursuant to Measure A (now 1 - 1.5 percent pursuant to Measure D, see below).¹⁹ Notably, additional units allowed pursuant to density bonuses for the provision of affordable housing were exempted:

9.4 Residential Growth Limitation
[...]

- c. The following developments shall be exempt from the limitation in subsection 9.4(a):*
- 1. Replacement of existing units on a one-for-one basis;*
 - 2. Density bonuses for the provision of low or moderate income dwelling units as required by State law.*

Third, 1996 Land Use Plan Policies 10-4 and 10-13 required that public service capacities be reserved for Coastal Act Priority Uses. These use categories include marine-related, commercial-recreational, equestrian facilities, hotel/motel, restaurant, public recreational, local recreation, campsites, beaches, indoor floriculture, and field flowers and vegetables.²⁰

¹⁷ 1996 Land Use Plan Policy 9-2, p. 144.

¹⁸ 1996 Land Use Plan Policy 10-3, p. 205.

¹⁹ 1996 Land Use Plan Policy 10-6 states that “[t]he City shall limit the size of each permitted public works facility to that size and capacity required for the extent and amount of development existing and proposed within the first two phases of development as shown on Table 9.3”.

²⁰ 1996 Land Use Plan, p. 205; 207. Also, see Table 10-3, p. 218.

Chapter Ten of the 1996 Land Use Plan also included specific discussion and policies to implement the overarching public services policies in the areas of water, wastewater and road capacity. This included limiting service expansions to the growth contemplated in the Land Use Plan and phasing any expansions with the required growth phasing of the Land Use Plan and other available services. Each discussion also specifically contemplated the appropriate level of capacity. For example, with respect to road capacity, the Land Use Plan originally established Level of Service (LOS) C as the acceptable level to maintain consistency with the Coastal Act, except during peak commuting and recreational hours, when LOS E was acceptable. Water and sewer capacity were allowed to expand to a level to serve anticipated LCP buildout, except that it had to be phased so as to not induce growth, particularly through increased service costs.

Changed Land Use Circumstances

The land use issues identified by the original Land Use Plan must also be considered in light of changed circumstances since the LCP was first approved. This section summarizes important changes in population growth, public services, land use trends and ownership, the environment and habitat assessments, and public policy that shape the policies of this updated Land Use Plan.

Population Trends and Measure D

Between 1980 and 2000 Half Moon Bay's population increased by 63 percent, with annual average (compound) growth rates of 2.0 percent in 1980s and 2.9 percent in 1990s. However, growth slowed in the years that followed. Between 2000 (Census 2000 population 11,842) to 2017, the average growth rate was just over one-third percent, resulting in an estimated population of 12,565 in 2017²¹. This small growth rate and estimated population is reflected in the annual allocation of Measure D certificates further described in this section.

Half Moon Bay's population has also grown older. Between 1990 and 2017, the proportion of children (ages 0 to 17) dropped slightly from 24.1 percent of the population to 18.8 percent. Adults in their higher education and working years (18 to 64) represented 67 percent of Half Moon Bay's population in 1990, and 60 percent in 2017. Meanwhile, the 65 and older segment grew from 9.6 percent of the population in 1990 to nearly 21 percent in 2017. Looking at the smaller age ranges tracked by the Census Bureau since 2000, each segment up to and including age 45 to 54 declined as a share of Half Moon Bay's population between 2000 and 2017, while each segment from 55 to 64 and higher grew.

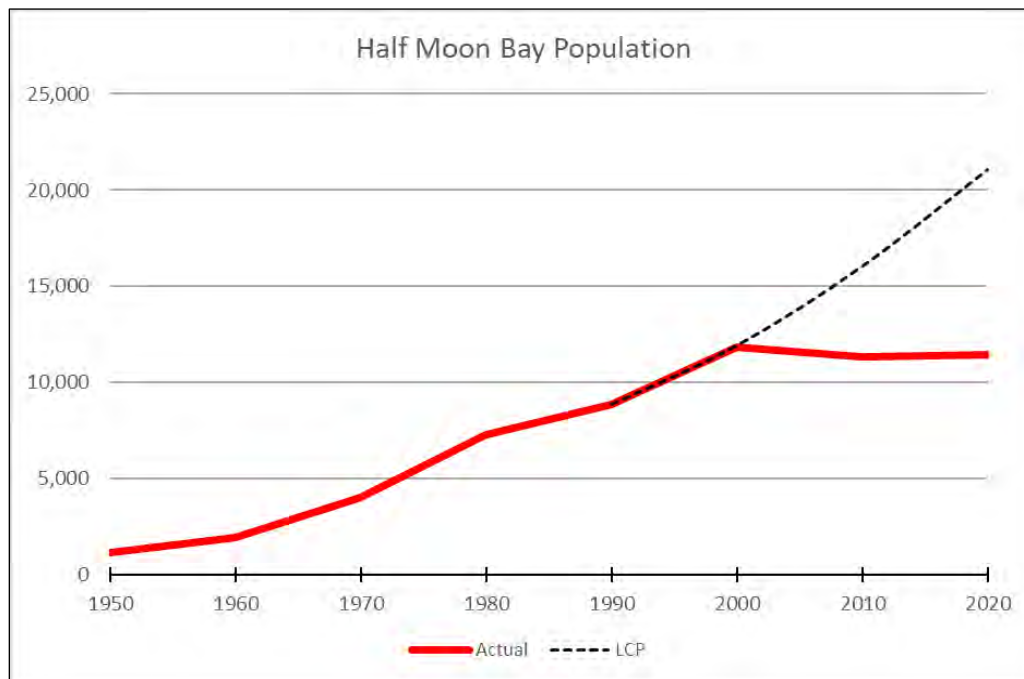
The 3 percent annual population growth in Half Moon Bay between 1980 and 2000 put pressure on the City's infrastructure, particularly Highway 1 and available water service. Concern grew about the ability of the City to provide and finance public services for new

²¹ All population demographics in these two paragraphs from American Community Survey 2013-2017 and the US Census.

development. In 1999 City voters passed Measure D, which reduced the maximum allowed annual residential growth rate in the city to 1 - 1.5 percent. Previously, Measure A had stipulated a maximum annual residential growth rate of 3 percent (Figure 1-6). Measure D was submitted to the Coastal Commission as an LCP amendment, with additional implementation measures, and was certified in 2009. As summarized by the Commission:

... the property taxes and development fees generated by new residential development [in Half Moon Bay] are not sufficient to cover the cost of expanding infrastructure and services to meet the needs of new residents, especially in terms of road capacity, water supply, sewer services, school facilities and open space. Therefore, the decrease in the 3% residential growth rate allowed in Measure A to the 1% - 1.5% residential growth rate allowed in Measure D will protect the City and coastal resources by helping to ensure that new residential development does not outpace the expansion of infrastructure and public services.²²

FIGURE I-6. PROJECTED 3% AND ACTUAL POPULATION GROWTH



Source: MTC-ABAG Library, Bay Area Census data

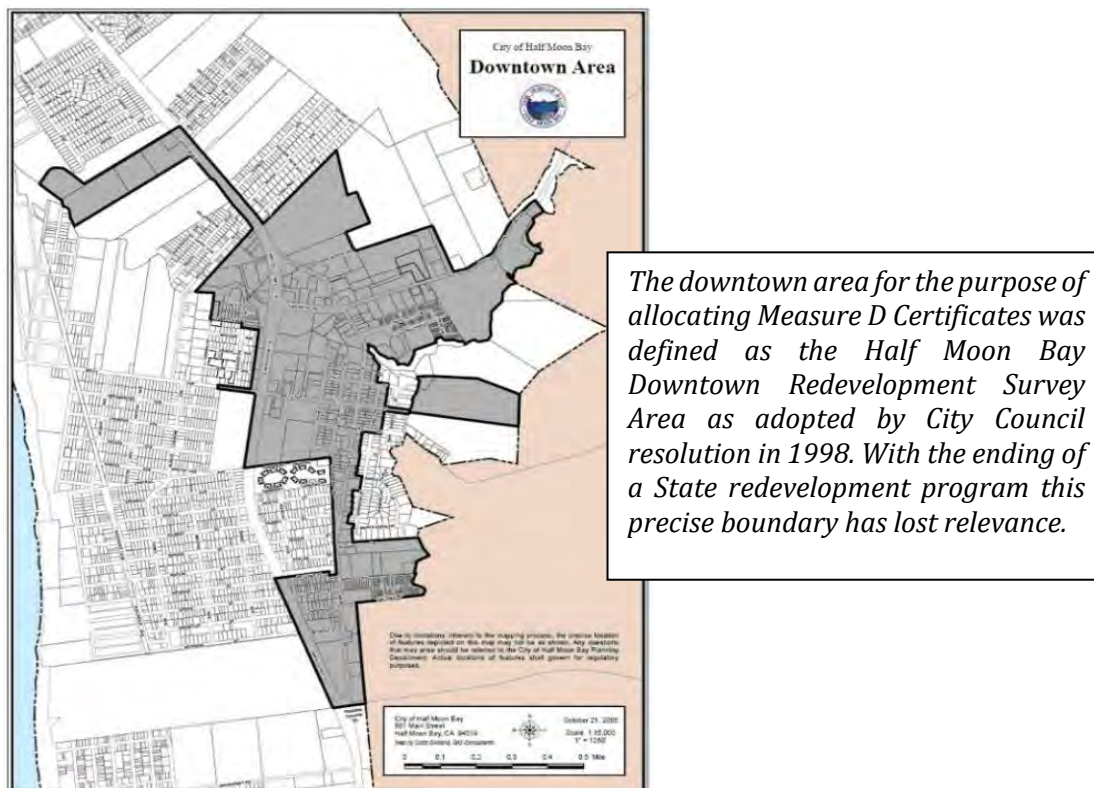
Measure D reduced the base maximum annual residential growth rate from 3 percent to 1 percent, but allowed the City to increase this rate an additional 0.5 percentage points for new units in a defined “downtown” area only (Figure 1-7). The measure also directed that at least half of the 1 percent growth be reserved for units outside of the downtown, but allowed this

²² California Coastal Commission, Approval of Measure D, Half Moon Bay LCP Amendment 2-05 Parts A and B (Major), March 12, 2009, <https://documents.coastal.ca.gov/reports/2009/3/Th6b-3-2009.pdf>, p. 8.

growth to be allocated in the downtown if there were insufficient applications for development outside the downtown. Like Measure A before it, Measure D exempted from the growth limitation the replacement of existing units on a one-for-one basis and density bonuses for the provision of lower income housing.²³

The Measure D growth policy is implemented by IP Chapter 18.04 and the subdivision code, Chapter 17.06. Chapter 18.04 restates the basic requirements of Measure D and the 2009 amended Land Use Plan policies. Chapter 17.06 establishes the procedures for the City Council to determine the amount of growth allowed in the downtown and surrounding areas every year. Chapter 17.06 also establishes a point system for prioritizing applications for new dwelling units. The system prioritizes development in the downtown and infill development (e.g. vacant lots surrounded by existing development with existing public services). Other criteria to gain points include affordability, provision of open space, pedestrian improvements, design excellence and other measures that promote environmentally sound growth. Measure D allows the City to update these procedures where necessary to address changing conditions and priorities, provided the procedures are consistent with Measure D.

FIGURE I-7. MEASURE D DOWNTOWN AREA



²³ See, *Id.* The amended Policy 9-4 is implemented by updated IP sections 18.04.10, 18.04.20 and 18.04.30.

Social Equity and Environmental Justice

In 2016, the Coastal Act was amended giving the Coastal Commission authority to specifically consider environmental justice when making permit decisions. In part, Section 30107.3 of the California Coastal Act defines environmental justice as the “fair treatment of people of all races, cultures, and incomes with respect to the development, adoptions, implementation, and enforcements of environmental laws, regulations, and policies.”

To implement the amendment, the Commission approved a comprehensive environmental justice policy in March 2019. The policy states:

“Coastal Development should be inclusive for all who work, live, and recreate on the California’s coast and provide equitable benefits for communities that have historically been excluded, marginalized, or harmed by coastal development.”

The policy is supported by a Statement of Principles, all of which must be considered in the Commission’s oversight of policy and project review within the Coastal Zone. The Statement of Principles address tribal concerns, meaningful engagement and participation in the planning process, coastal access, housing, local government, accountability and transparency, climate change, and habitat and public health. The Land Use Plan includes a new foundation policy to ensure that Half Moon Bay’s LCP implementation decisions are consistent with these principles. The Land Use Plan also includes several important provisions of such equitable benefits in the city. Most notably, a Workforce Housing Overlay is established to support affordable housing options for individuals who work in agricultural and service industries in the Planning Area. Workforce Housing Overlay units would be Local Priority Uses under this LUP. As established through policy, all farmworker housing, including Workforce Housing Overlay units that support agriculture, and public coastal recreation, are also considered Coastal Act Priority Uses by the Coastal Commission.

Water Supply and Highway Capacity

Since the Land Use Plan was first approved in 1985 and later certified in 1996, water supply and traffic capacity for new development have become even more constrained. In 2003, the Coastal Commission approved a coastal development permit for a major water pipeline replacement/expansion project by the Coastside County Water District (CCWD), within which the City of Half Moon Bay is located. The Commission evaluated the public service constraints at the time and concluded that the road capacity on Highways 1 and 92 was deficient under the LCP, and that it was important that any pipeline replacement project not induce growth beyond this limited road capacity. The Commission also recognized that after CCWD had sold “Phase 1 Crystal Springs” water connections created in 1987 to finance improvements to its system, there were 1,324 unused connections remaining for new development at that time. Therefore, to assure that the pipeline project did not induce growth further, the Commission limited the use of the new pipeline to existing connections until other infrastructure, particularly transportation, was adequate for the growth that would be

served by any expanded water supply. The Commission placed a special condition on the pipeline project that stated:

*No increase in water supply or distribution capacity shall be permitted within the CCWD Service District in excess of the Phase I limitations specified . . . above, unless the existing or probable future capacity of other related infrastructure, including but not limited to the San Mateo County Mid-Coast and City of Half Moon Bay regional transportation system, is sufficient to adequately serve the level of development that would be supported by the proposed increase in water supply and/or distribution capacity.*²⁴

The Commission's permit also required the CCWD to monitor and annually report on the status of these water connections as they were installed. This permit effectively limited the number of new residential units that could be permitted in the CCWD service area to approximately the number of remaining sold, but not yet installed, non-priority water connections.²⁵ At the time of this Land Use Plan update, CCWD informed the City that this number was approximately 820, some subset of which might serve development in Half Moon Bay, until the capacity of transportation and other infrastructure is deemed adequate to support additional growth beyond this number.²⁶

The traffic capacity concerns raised by the Coastal Commission's review of the CCWD pipeline project were again squarely framed by the Coastal Commission's approval of the San Mateo County Midcoast LCP Update in 2012 and subsequent planning actions. The Commission's review of the County's proposed update examined growth issues closely, including water supply and traffic capacity. The approved LCP update limited residential growth to 1 percent in the unincorporated Midcoast coastal zone, which equated to approximately 40 units a year. This number includes affordable and second units. The growth limitation must stay in effect until a comprehensive congestion management plan that accommodates projected traffic demand is completed and approved as part of the County's LCP. The LCP also requires mitigation to offset vehicle trips from new development and supports in-lieu mitigation fees and mandatory merger of substandard lots.²⁷

Agriculture

Another significant land use change since the 1996 Land Use Plan concerns agriculture. First, there is renewed interest in community-level agriculture, which potentially requires reconsideration of the original LCP's determination that continuing agriculture within the city limits was not likely to be feasible. Notably, in 2017 POST purchased the 18.5-acre Andreotti property on Kelly Avenue west of Highway 1. This property is one of the last

²⁴ CCC, A-1-HMB-99-20, Special Condition 4D, p. 15.

²⁵ Typically, one water connection is required per each single-family home. Larger homes with more water fixtures may require additional connections or partial connections; multi-family development, especially with smaller units and fewer fixtures, may require fewer than one connection per unit.

²⁶ CCWD, Urban Water Management Plan, September, 2016, p. 3-4. In addition, according to the CCWD's 2015 Urban Water Management Plan, there were about 202 unsold connections available for affordable housing and another 209 for Coastal Act priority Uses in the whole service area. See discussion in Chapter 3 for more detail.

²⁷ San Mateo County LCP, Policy 1.23 and 2.53.

remaining farms in the city, and the purchase enabled the property to continue in agricultural use.²⁸ Second, like many local governments in California, Half Moon Bay is actively addressing the emerging cannabis economy, including considering what types of cultivation and ancillary uses may be appropriate and in which locations. Voter approved ballot measures in 2018 allowed for commercial cannabis nursery starts in existing greenhouses and also established a commercial cannabis business tax.

Land Acquisitions

Many significant land acquisitions have occurred in some of the PD and Urban Reserve areas. For example, both the Peninsula Open Space Land Trust (POST) and the Coastside Land Trust have acquired significant numbers of parcels and acreages of land in the Wavcrest PD (Figure 1-8). Other significant land acquisitions include the Beachwood and Glenree property by the City, and the Halstead property by POST. This Land Use Plan considers changed land use opportunities and potential buildout in relation to new ownership opportunities since 1985, especially within the undeveloped PDs (see Chapter 2).

FIGURE I-8: LAND ACQUISITIONS



NORTH



SOUTH

²⁸ Peninsula Open Space Trust News Archive. "POST Protects 18-acre Farm in Half Moon Bay." August 2, 2017. Accessed at <https://openspacetrust.org/post-news/post-protects-18-acre-farm-in-half-moon-bay-2/>

Lot Retirement

The limited capacity of Highways 1 and 92 has also led to the implementation of lot retirement measures in Half Moon Bay through various coastal development permit actions. In 2001, the Coastal Commission staff recommended that the proposed Wavecrest subdivision retire vacant lots within the City to offset traffic impacts associated with the development of proposed new residential lots. Ultimately, the Wavecrest project was withdrawn, but in the subsequent Pacific Ridge subdivision, approved by the Coastal Commission following a settlement agreement that included the City, lot retirement was required.²⁹ This action authorized 63 new homes in the Dykstra Ranch PD. The permit required the developer to pay an in-lieu fee to the City for the purposes of lot retirement, again to offset the cumulative traffic impacts of the new development.

In 2007, the Carnoustie subdivision in Ocean Colony was approved by the City. As proposed by the applicant, the project included the retirement of vacant lots on a one-for-one basis for each of the 34 newly created lots. The Coastal Commission found on appeal that the subdivision did not raise any substantial issues, in part because of the inclusion of lot retirements to address cumulative traffic impacts.³⁰ Finally, the 2014 Gibraltar Capital subdivision (later referred to as the Creekside subdivision) was approved on appeal to the Coastal Commission, and it too required the retirement of vacant lots to offset the impacts associated with the creation of 10 lots.³¹ As discussed in Chapter 2, lot retirement policy is brought into the Land Use Plan to address the cumulative impacts of growth, especially on the City's highly constrained circulation system.

Climate Change and Hazard Planning

The effects of climate change on environmental hazards, especially planning for sea level rise, were not anticipated in the 1996 Land Use Plan. Consideration of climate change provides overarching context for hazard planning. Extreme weather conditions are expected to intensify worldwide as global temperatures rise, disrupting past climate patterns. For coastal communities, it is foreseeable that the effects will be especially severe because extreme weather conditions – such as severe storms – exacerbate hazards already present in coastal settings. Such hazards, particularly when exacerbated by sea level rise, pose a number of concerns related to existing and new development capacity, safeguarding of major infrastructure, and protection of public access and sensitive habitat areas. The Land Use Plan addresses climate change and sea level rise in consideration of environmental hazards and the associated land use and infrastructure planning implications. The Plan also supports the City's approach to sustainability and greenhouse gas reduction through policies that facilitate

²⁹ CCC, A-1-HMB-99-022-A-1 (Pacific Ridge), October 15, 2008.

³⁰ CCC, A-2-HMB-07-034, November 16, 2007.

³¹ CCC, A-2-HMB-12-011, July 2014. This permit subsequently expired and the City recently re-approved the subdivision. In consideration of the Coastal Commission's policy direction regarding lot retirements in Half Moon Bay, the applicant included lot retirements as part of the project application.

alternative modes of transportation, clean energy options, and urban forest protection and enhancement.

Environmentally Sensitive Habitat Areas

While the goal of maintaining the natural beauty of the city is not a changed condition from the 1996 Land Use Plan, the continuous need to ensure resilient, properly functioning ecosystems has evolved the City's approach to habitat protection over the years. For the 2020 Land Use Plan update, the City prepared an extensive evaluation of natural resource areas, including wetlands, riparian areas, and other sensitive habitats. This effort produced the updated habitat maps in the Natural Resources chapter of the Land Use Plan. The updated maps replace the Water Resources Overlay Map from the 1996 Land Use Plan, which had only been revised once since certification. This research and mapping of changed environmental conditions significantly informed policy options for this Land Use Plan, particularly concerning undeveloped lands. These policies have a broader, ecosystem-based approach for considering habitat functionality and vulnerabilities, from a cumulative perspective, as they relate to existing and new development.

Hydrology

The 1996 Land Use Plan acknowledged that extensive runoff from the coastal hills results in significant drainage problems. This occurs where natural contours, swales and gullies, or channelized areas are unable to handle the volume of water. Development and its associated impermeable surfaces make matters worse by increasing flow volume and velocity. This further contributes to erosion along watercourses, downstream sedimentation, and risk of localized flooding. These conditions have been documented in several watercourses in Half Moon Bay. The Seymour Watercourse, for example, has been excessively undercut, eroded, and widened. Climate change and sea level rise will likely exacerbate these hydrologic issues with intensified storm events, increased flood risk, and potential sea water intrusion. The updated Land Use Plan recognizes the need to address existing conditions which have worsened since 1996, as well as future conditions. One significant new approach introduced in the updated Land Use Plan is identification of City-owned properties suitable for large-scale stormwater detention and infiltration.

Several sustainability planning concepts have emerged to address hydrology and stormwater runoff management in recent years. The "one water" approach considers all water as a resource within the context of an integrated system. Sources include the municipal potable water supply, ground water, watercourses including creeks and drainages, stormwater runoff, wastewater, and recycled water. Green infrastructure is an implementation method for the one water approach utilizing natural systems and low-impact development to manage stormwater. As discussed in later chapters, the Land Use Plan incorporates green infrastructure approaches and requires that development provide adequate land area for implementation of green infrastructure systems.

Complete and Green Streets

The Land Use Plan is consistent with the Circulation Element of the City’s General Plan, which enumerates policies for “Complete Streets.” These policies ensure that the City routinely designs and operates the right-of-way to enable safe access for all users, regardless of age, ability, or mode of transportation, including active modes such as cycling and walking. Complete Streets make it easier to cross the street, walk to shops, and bicycle to work, and make it safer for people to walk to and from bus stops. As the practice advances, green infrastructure is being incorporated into complete streets which are thereby evolving into “green streets.”

Regional Planning Context

As discussed above, Plan Bay Area is the “sustainable communities strategy” for the nine-county regional planning area overseen by the Bay Area Association of Governments (ABAG). In 2017, Plan Bay Area was updated with a 2040 planning horizon and an update to 2050 was underway at the time of this Land Use Plan update. With respect to Half Moon Bay and San Mateo County, the recent plan notes:

*San Mateo County is strategically located between San Francisco and Silicon Valley. The Coast Range divides the county into two distinct parts: the bayside and coast. Ninety percent of development in the county is located on the bayside. The communities along the bayside of the Peninsula are home to Fortune 500 headquarters, globally significant firms and research entities as well as many charming town centers and residential neighborhoods. **Jobs and housing growth is expected to concentrate in bayside communities, which will reduce growth pressures on the coast and allow the county to retain its agricultural, scenic and natural resource areas in the hills and coastside.***³² [emphasis added]

It is important for the City to consider regional growth and planning dynamics in the Land Use Plan, particularly with respect to housing and transportation needs.

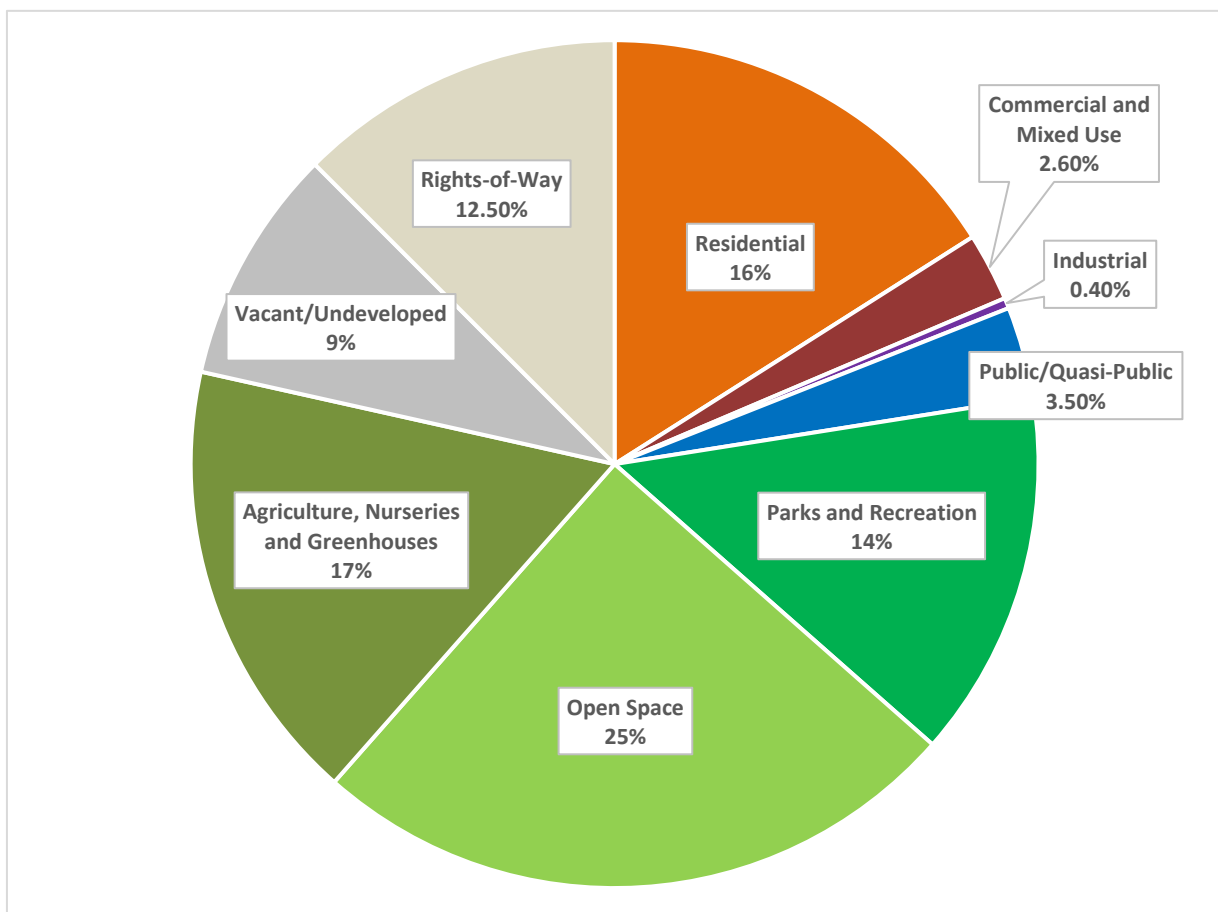
Existing Land Use Pattern and Distribution

The City’s existing land uses are important factors in considering changes since the Land Use Plan was first certified in 1996. Figure 1-9 presents the distribution of existing land uses in the Planning Area; and Table 1-1 provides a more detailed breakdown of existing land uses in the City, unincorporated County land, and the Planning Area as a whole. As shown in the pie chart, almost half of the entire Planning Area is undeveloped—the amount of vacant land, open space, and parks and recreational space totals 48 percent. These types of undeveloped lands are all distinct uses and are described further below. Figure 1-10 indicates that the Planning Area contains an alternating mix of urban and undeveloped or rural land uses

³² <http://www.planbayarea.org/counties/focus-san-mateo-county>.

clustered around Highways 1 and 92. Vacant land, agricultural land, parks and recreational land, open space, and residential uses are the most dominant land uses. Large tracts of land are used for agricultural, nursery and greenhouse operations around the edges of the city and along Highway 92, although the majority of land that is undeveloped is vacant rather than in agriculture or agriculture-related use. A greater diversity of other land uses is found in the City's Town Center. Existing land uses were determined using spatial analysis and data from the San Mateo County Assessor.

FIGURE 1-9: EXISTING LAND USES IN THE PLANNING AREA



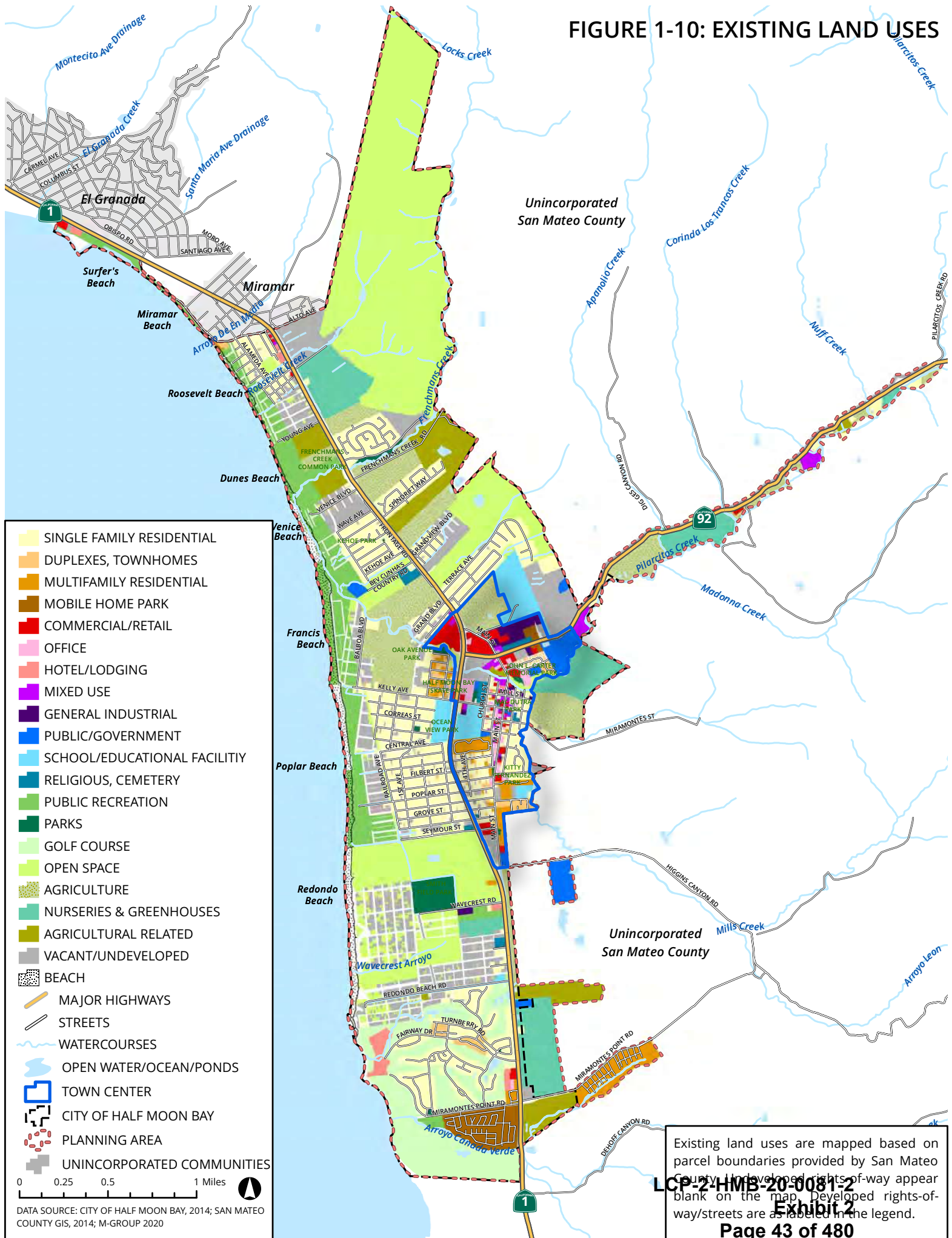
Source: San Mateo County Assessor's Office, 2014; M-Group, 2019

Table 1-1: Existing Land Uses in the Planning Area

	Acres		
Land Use	City	County	Total
Residential			
Single Family Residential	511	15	526
Duplexes, Townhomes	48		48
Multifamily Residential	26	40	66
Mobile Home Park	55		55
Residential	640	55	695
Commercial and Mixed Use			
Commercial/Retail	43	3	46
Office	18		18
Hotel/Lodging	24		24
Mixed Use	16	6	22
Commercial and Mixed Use	101	9	110
Industrial			
General Industrial	18		18
Public/Quasi-Public			
Public/Government	38	20	58
Schools/Educational Facility	78		78
Religious, Cemetery	17		17
Public/Quasi-Public	133	20	153
Parks and Recreation			
Beaches and Public Recreation	306		306
Parks	38		38
Golf Course	258		258
Parks and Recreation	602		602
Open Space			
Open Space	1,067		1,067
Agriculture, Nurseries and Greenhouses			
Agriculture	273	50	323
Nurseries & Greenhouse	137	107	244
Agriculture Related	138	32	170
Agriculture, Nurseries and Greenhouses	548	189	737
Vacant/Undeveloped			
Vacant/Undeveloped	375	21	396
ROW, Others			
Streets, Rights-of-Way, Easements	507	26	533
Total	3,990	320	4,310

Source: San Mateo County Assessor's Office, 2014; M-Group, 2019

FIGURE 1-10: EXISTING LAND USES



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Exhibit 2

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Residential

Residential land uses cover about 16 percent of the Planning Area (excluding streets and other rights of way). Single-family residential makes up 76 percent of the Planning Area's residential land and 12 percent of all land. Multifamily residential, townhomes, duplexes and mobile home parks make up the remainder of residential uses. North of Kelly Avenue and in the Arleta Park subdivision, most single-family residential land exists in pockets surrounded by agricultural fields, vacant land, and open space.

In the Town Center, single-family residential development is interspersed with other residential uses as well as mixed-use and non-residential uses such as commercial, office, and institutional. In the southern part of the city, most single-family development is located in the Ocean Colony subdivision.

Most of the other residential housing types are located in the Town Center and the Pilarcitos neighborhood, including a mix of duplexes and multifamily development and the Hilltop Mobile Home Park on Highway 92. These housing types are also found at the southern end of the city in Ocean Colony and Cañada Cove.

Commercial and Mixed Use

Commercial and mixed-use development covers about 2.6 percent of land in the Planning Area. Commercial/retail uses comprise 42 percent of this area and are concentrated near the junction of Highways 1 and 92 and in the Town Center. Office and mixed-use lands are also concentrated in this area. Hotel and lodging uses are found in the northern and southern ends of the city along Highway 1.

Industrial

Industrial uses account for less than one percent of the Planning Area, and include warehouses, storage, light manufacturing, a concrete batch plant, and a power substation, primarily concentrated near Highway 92.

Public/Quasi-Public

Public/quasi-public uses include schools and educational facilities, public and government uses, churches, and cemeteries, and account for about 3.5 percent of the Planning Area. Within the study area, all public/quasi-public uses are located within City limits except for the historic Johnston House site along Higgins Canyon Road. The largest share of these uses belongs to schools and educational facilities, located mostly in the center of the city.

Parks and Recreation

Recreational uses include both public and private recreational areas that cover a total of 602 acres (14 percent) of the Planning Area, all of which are located within City limits. The majority of these uses are located to the west of Highway 1. Public areas include City and

regional beaches, parks, and recreational land, while private areas include commercial recreation such as golf courses. Golf courses account for 43 percent of the City's total recreational land, located in the southern portion of the city. Beaches and public recreation make up 51 percent of all recreational land uses, covering 306 acres along the coast. There are approximately 38 acres of City parks (some of this land, at Smith Field, is undeveloped). Some of this recreational land is classified here as another use, such as public/government (e.g. the Johnston House) or open space, but includes some City park characteristics and is counted toward the City's park land standards. This is covered further in Chapter 2. Coastal Access and Recreation.

Open Space

Open space constitutes approximately 1,067 acres, or 25 percent of the Planning Area, making this the largest land use in the Planning Area. This category includes dedicated open space lands, such as the Pacific Ridge open space parcels, as well as undeveloped land held as open space by conservation trusts such as Coastside Land Trust. Open space lands are concentrated west of Highway 1 along the bluffs adjacent to Poplar Beach and in the Wavecrest area in southern Half Moon Bay.

Agriculture, Nurseries and Greenhouses, and Other Agriculture-Related Uses

Agriculture and related uses cover close to 17 percent of the Planning Area (737 acres). A dominant form of agricultural use is open field production, though on some large tracts, portions of the land may be left vacant. Nurseries and greenhouses have a substantial presence in the Planning Area and are located mainly at the edges of the city and along Highway 92. Other agriculture-related uses include lumber yards and soil farming. These agriculture and agriculture-related uses are distributed throughout the Planning Area.

Vacant/Undeveloped Land

Vacant or undeveloped land covers 396 acres, or 9 percent of the Planning Area. Vacant or undeveloped land primarily presents in small parcels scattered among residential land uses, undeveloped PDs, and larger properties east of Highway 1 and north of Highway 92.

Streets, Rights-of Way, Easements

Streets, other public rights-of-way, and access and utility easements cover about 12.5 percent of land in the Planning Area. This includes "paper streets," which are streets that are not developed but are included on recorded maps showing land divided into lots, roads, etc.

Policy Direction

Comprehensively updating the City's LCP provided an opportunity to revisit fundamental land use policies and continuing planning challenges in Half Moon Bay. These include growth management measures, land use designations and policies, and specific zoning designations, rules and procedures to facilitate an environmentally sustainable, economically strong, community development strategy consistent with the Coastal Act and other State land use requirements. The update process was overseen by a General Plan Advisory Committee from 2014 through January 2017 and afterwards by the Half Moon Bay Planning Commission and City Council.

COASTAL COMMISSION PLANNING GUIDANCE

The Coastal Commission provides guidance for updating LCPs consistent with the Coastal Act and community-specific conditions and needs. With respect to each Coastal Act topic area, as covered here and in the following chapters of the Land Use Plan, the Commission's guidance acknowledges the need to address population growth projections, development patterns and local needs, public facilities constraints, new pressures on coastal resources and public access, and new regulatory laws or scientific information that affect land use decisions and planning.³³

In this light, community priorities and local context are essential to the LCP update process. The intent of the Land Use Plan update is to represent the City's changed conditions, growth patterns, priorities and needs since original LCP certification and to guide land use and new development accordingly. As described above, the City's residential growth limitation, public service constraints, and local priorities of protecting natural resources, supporting agriculture operations, and preserving community character illuminate the ongoing need for coastal resource protections.

COMMUNITY PLANNING CONTEXT

During the extensive Land Use Plan update public engagement process, community members clearly expressed their interest in maintaining and enhancing community character. Their input indicated concern about the fragility of the historic Downtown area, the need to protect neighborhood integrity, and the overall experience of Half Moon Bay's scenic and visual resources including agriculture, open space, and sensitive habitat areas. This led to the development of optional General Plan elements including a Healthy Community Element and Community Preservation Element to address these community planning needs.

³³ California Coastal Commission Local Coastal Plan Update Guide, Part I – Introduction.

In parallel with the Land Use Plan update process, several community planning efforts were advanced. Residential design guidelines, consistent with the Zoning Ordinance were adopted. Approval and construction of a new library followed an in-depth community input process. Two master plans prioritizing local circulation and recreational needs – the Bicycle and Pedestrian Master Plan and the Parks Master Plan – were prepared with direction from a new Bicycle and Pedestrian Advisory Committee and the Parks and Recreation Commission. Both master plans were well received by the local community. Through implementation, they will support the needs of the local population while also improving coastal access and recreation consistent with the Coastal Act.

Through these efforts, the Half Moon Bay community expressed a desire for a higher level of sensitivity to local needs in the Land Use Plan. The Land Use Plan thus includes policies that support protection and improvement of community character to address these community concerns.

GENERAL PLAN ADVISORY COMMITTEE

Early in the update process, the General Plan Advisory Committee established Guiding Principles for the Land Use Plan, summarized here:

1. Maintain Half Moon Bay's small-town character and quality of life, and strengthen community connections through activities and improved public gathering places.
2. Enhance the city's scenic visual quality and coastal landscape setting, and ensure protection of environmental and surrounding agricultural resources through conservation and sustainable development.
3. Foster a complete and balanced community, with enhanced local commercial options, business incubation and growth, and diverse residential opportunities.
4. Promote pedestrian, bicycle, and transit mobility; increased connectivity between the city's neighborhoods; and enhanced coastal and open space access.
5. Encourage Downtown vitality with a more diverse array of uses and amenities.
6. Promote visitation and the city's development as a hub for the Midcoast. Gracefully accommodate tourism, balancing it with local needs and the community's character.

The advisory committee strived to work to consensus and in their final meetings they identified key policy direction for the Planning Commission to consider.

PLANNING COMMISSION

The Planning Commission's oversight began in early 2017 and included reviewing working drafts of every chapter of the Land Use Plan. They considered and incorporated the policy direction recommended by the General Plan Advisory Committee. The Commission

developed the Town Center as defined by City Council as the Planning Area's land use foundation. The Commission further supported Town Center planning for the benefit of visitors and residents with the Town Boulevard, to improve multi-modal circulation along the Highway 1 and 92 corridors where roadway capacity is highly constrained. They also confirmed the hierarchy of priorities for land development and conservation, specifically with respect to the challenge of regulating development with special focus on residential, commercial, and agricultural land uses, as follows:

Residential

- Refine the Land Use Plan's concentration and phasing of development through policies that prioritize new development in the Town Center and existing neighborhood infill sites.
- Consider developing additional policies and procedures to streamline infill and Town Center development, including consideration of categorical exclusion areas.
- Consider opportunities for mixed-used and multi-family developments in the Town Center, including the Podesta PD.
- Prioritize infill and designate affordable housing as a Local Priority Use eligible for affordable housing priority water connections.
- Facilitate development of more affordable housing types including multi-family, mobile homes, and accessory dwelling units (ADUs) to support local housing needs and minimize public service demands (i.e. water, traffic).
- Consider a lot retirement program and policy options to better address undeveloped PD and urban reserve areas in light of continued limited urban services.
- Update PD policies for undeveloped areas to reflect updated resource mapping and other land use constraints (acquisitions, hazards, recreational demands, etc.)

Commercial

- Develop policies to incentivize infill retail, mixed-use, visitor-serving lodging, light industrial, research and development, and cottage industries to address jobs-housing balance and match within the Town Center.
- Provide for home occupations and limited neighborhood services in existing neighborhoods while maintaining neighborhood character.
- Develop policies and ordinances to address short-term vacation rentals.
- Consider infill and redevelopment options along the Highway 1 and 92 corridors, including retail, lodging and light industrial uses.
- Update the PDs where applicable to provide for appropriate retail and visitor-serving lodging.

Agriculture

- Consider opportunities to support community-level agriculture, as well as agriculture compatible and ancillary uses in urban and open space reserve and PD areas.
- Accommodate City Council direction in the event they seek to allow cannabis cultivation in greenhouses as infrastructure and community character constraints allow.

The Planning Commission's input addressed every topic area covered by the Land Use Plan and included careful consideration of consistency with the California Coastal Act, policy consistency within and between all of the Land Use Plan chapters, and consistency with the General Plan. They emphasized the importance of carrying forward and updating the principles in five foundation policies from the 1996 Land Use Plan, which conclude this Framework chapter below.

CITY COUNCIL

Town Center

In 2017, the City confirmed the downtown core map relevant to the Land Use Plan and the identification of the Town Center. The Half Moon Bay City Council determined that the central portion of the City would be the area where future development should be concentrated to support a vibrant town center with a diverse mix of businesses, shops, housing types (including affordable housing), and public spaces. The area is comprised of the historic Downtown, and the mixed use and commercial areas to the north and south (Figure 1-2). More specifically, the Town Center includes all of the land designated Commercial – General, including the Main Street area and the land around the intersection of Highways 1 and 92, as well as adjacent residential and mixed-use neighborhoods with other land use designations. The Town Center concept is a foundation of the Development chapter of the Land Use Plan, which contains policies that differentiate between lands inside and outside of the Town Center.

Affordable Housing

Affordable housing continues to be a central issue in Half Moon Bay. At the time of the Land Use Plan update, the State of California had certified the City's General Plan Housing Element in October 2015. The regional housing need allocated to the city for the 2015-2023 Housing Element cycle totaled 240 units (52 very low, 31 low, 36 moderate, 121 above moderate). In conjunction with the Land Use Plan update, the City Council identified affordable housing as a top priority for several consecutive years. In study sessions the Council focused on providing permanent affordable housing, preserving existing inventory, and encouraging other activities to support affordable housing. Associated issues that need consideration include providing water connections for affordable housing, partnering with developers for lower income affordable housing, and addressing the short-term vacation rentals trend. Perhaps most significantly from an implementation perspective, City Council directed that

this update designate affordable housing as a Local Priority Use eligible for water connections reserved for affordable housing.

The backdrop of the City's focus on affordable housing was a statewide housing shortage. A significant amount of housing legislation came out of that timeframe. Some of the legislation was applicable to Half Moon Bay, including changes to State accessory dwelling unit ordinance. Other laws, such as SB 35 (affordable housing streamlining enacted in 2017) and SB 330 (Housing Crisis Act of 2019), included substantial exemptions for the Coastal Zone. Despite these allowances, the City Council sought to address local housing needs within the confines of Measure D and specifically directed that the Land Use Plan update facilitate production of more affordable and diverse housing options.

State law on accessory dwelling units (ADUs) was rapidly developing at the time of the 2020 Land Use Plan update. ADUs provide a form of affordable housing with their smaller size, and support infill in residential neighborhoods that have already been developed and where infrastructure is provided, consistent with Coastal Act policy for concentrating development (Section 30250). This Land Use Plan recognizes the need to comply with State ADU law where consistent with protection of coastal resources as another means of affordable housing options.

Community-Based Planning

Community involvement was the hallmark of the Land Use Plan update process. The extensive community input introduced a range of topics and policy needs relevant to community character and the changing needs of the City's population, such as the aging of the local community, beyond the scope of the Coastal Act. However, these considerations, especially affordable housing, are so important to the community that City Council ensured that they are addressed in policy embedded into the Land Use Plan. This Land Use Plan update establishes that the community's needs are necessities supportive of Half Moon Bay's obligation to provide for visitor-serving priority uses, even though the community's needs in some cases, especially for diverse and more affordable residential development, are traditionally considered to be non-priority. Community engagement efforts for the Land Use Plan update are summarized in Appendix E.

Sustainability and Resilience

Leading up to the Plan update, the Half Moon Bay City Council emphasized sustainability and resilience through climate adaptation planning, emergency preparedness programs and identification of infrastructure investments that would withstand future conditions anticipated to be exacerbated by climate change. Policies in every chapter of the Land Use Plan align with these City priorities and are consistent with the Coastal Act and Coastal Commission guidance.

Land Use Plan Framework Policies

This Framework chapter has given an overview of the legal framework for the City of Half Moon Bay LCP, the context and primary issues addressed in the original Land Use Plan, and the City's changed land use circumstances and existing conditions since certification of the Land Use Plan in 1996. This overview is provided to set the context for the chapters and policies that follow that will govern land use and development in Half Moon Bay. The original Land Use Plan contained five foundational policies that are brought forward, updated, and supplemented here to guide policy application and decision making.

- 1-1. Coastal Act Guiding Policies.** The Chapter 3 policies of the Coastal Act (Sections 30210-30264) are the guiding policies of the Land Use Plan and are incorporated herein by reference and set forth in full.
- 1-2. Coastal Resource Protection Priorities.** Protection of ESHA, public access and other coastal resources are a high priority for the City. To the extent that any policies in this Land Use Plan (which serves as the City's General Plan Land Use Element) and other elements of the City's General Plan are ambiguous, the City shall interpret them in the way that best protects ESHA and other coastal resources and maximizes public access. In advance of updating the Implementation Plan for conformance with the policies of the 2020 Land Use Plan, the policies of the Land Use Plan shall provide the standard of review for any proposed new development, including where these policies are more protective of ESHA and other coastal resources and maximize public access as consistent with the Coastal Act.
- 1-3. Findings for Development Approval.** The City shall make the findings for all development that requires a discretionary permit that the development meets the standards set forth in all applicable Land Use Plan policies. The City shall not issue a development permit if it cannot make the required findings.
- 1-4. Plan Narrative.** The narrative of the Land Use Plan is intended as elaboration of and justification for the Plan policies and map designations. Therefore, the narrative shall be considered a part of the Land Use Plan, serving as interpretive guidance and findings justifying the specified policies and maps.
- 1-5. Social Equity and Environmental Justice.** Implementation of the LCP shall promote social equity and environmental justice, including the fair treatment and meaningful involvement of people of all races, cultures and incomes.
 - a. When acting on a coastal development permit, amending the LCP, or otherwise implementing the LCP, the City shall consider environmental justice and, where applicable, the equitable distribution of environmental benefits throughout the state. The City shall encourage equitable civic engagement and social inclusion in public decision-making regarding coastal development, prioritizing efforts to reach low-income households and limited English-speaking households.
 - b. No person shall be discriminated against by implementation of the LCP on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, genetic information, or disability.

2. Development

This chapter includes the Land Use Map, land use classifications, standards for density and intensity, and policies for development in Half Moon Bay. At the time of this Land Use Plan update, twenty-eight percent of the city consists of vacant or undeveloped land. New development is constrained by the ability to provide or expand public infrastructure and the capacity of existing facilities, the presence of environmentally sensitive habitat areas, agriculture, environmental hazards, and visual resource protection. Land Use Plan policies aim to define Half Moon Bay's physical development, preservation and restoration priorities which reinforce the community's vision while supporting Coastal Act goals.

Land Use Plan Framework

The Land Use Plan framework reflects Coastal Act priorities, as well as the vision and priorities expressed by community members during the Plan Update process. The Half Moon Bay community deeply values the city's unique character, derived from its setting between the foothills and the Pacific Ocean, as well as the small-town feel produced by the built environment and close-knit neighborhoods. Numerous elements contribute to Half Moon Bay's coastal and rural agricultural setting and its identity as a smaller-scaled community in close proximity to larger Bay Area cities. These elements include the beaches and views of the ocean, coastal habitats and bluffs, as well as surrounding and interspersed farmland. The city's development pattern is largely defined by alternating residential and agricultural land uses, as well as small-scale and historical architectural styles, with a defined town center. The Land Use Plan, composed of the Land Use Map, land use designation classification system, and supporting policies seeks to preserve or enhance these aspects of Half Moon Bay's coastal small-town character, and address community priorities such as development scale, visual quality, environmental resources, historic resources, community heritage and culture, community connections, and Downtown vibrancy.

As discussed in Chapter 1. Introduction and Framework, comprehensively updating the City's LCP provides an opportunity to revisit fundamental land use policies and continuing planning challenges in Half Moon Bay. These include growth management measures, land use designations and policies, and specific zoning designations, rules and procedures to facilitate an environmentally and economically sustainable strategy consistent with the Coastal Act and other State land use requirements while also tending to community needs. The 2020 Land Use Plan update achieves the following major Coastal Act and community goals:

- Prioritizing the preservation of community character, protection of environmental resources, and avoidance of and adaptation to challenging environmental hazards;

- Limiting and focusing development to that which is most needed to support the community locally and with respect to its regional, coastal zone, and agricultural context;
- Regulating development using best available science on climate change impacts including sea level rise and extreme weather conditions;
- Recognizing that infrastructure is at or near capacity and that expanding it, especially the roadway network, will be more detrimental than beneficial; and
- Putting forth a clear intent for the planning horizon of this Land Use Plan to manage growth, restore natural systems, and proceed within a context of sustainability and resilience.

The updated plan is reframed, and while some specific policies and standards in the updated plan remain unchanged from the 1996 Land Use Plan, this chapter presents a significantly revised approach to growth and development from the 1996 Land Use Plan. Half Moon Bay's future buildout is reduced through policies that acknowledge fundamental land use and infrastructure constraints. Ultimately, the updated Land Use Plan reflects the wisdom of the community and will reinforce community resilience as the foundation for decision-making.

Significant changes from the 1996 Land Use Plan are introduced in Chapter 1. Introduction and Framework and addressed further in the policies of this chapter. They include introduction of a Town Center as the City's central area where commercial development, mixed-use neighborhoods, and public spaces should be concentrated; implementation of Measure D, the City's 1 percent annual residential growth limitation; and Planned Development (PD) designation updates, including the reversion of many substantially developed PD areas to applicable land use designations and updated mapping of resources and other land use constraints for the remaining PD areas.

COASTAL ACT DEFINITIONS AND POLICIES

The Coastal Act calls for new development to be concentrated in existing developed areas with available public services, and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources (Section 30250). The Coastal Act requires that new development avoid environmental hazards and protect coastal resources, including public access, sensitive habitat areas, and scenic and visual quality (Sections 30251, 30252, 30253). The Coastal Act states that new or expanded public facilities must be designed to accommodate needs generated by development that is consistent with the LCP, but not to induce new development beyond what is anticipated in the LCP. The Act also establishes specific development priorities for coastal-dependent uses and visitor and recreational uses, which are considered further in Chapter 5 of this Land Use Plan (Coastal Access and Recreation). All of these Coastal Act policies and issue areas are addressed in this and other Land Use Plan chapters, and govern the type of use allowed and applicable coastal resource protection policies.

The following Coastal Act definitions and policies are specifically relevant to the regulation of development and are incorporated into this Land Use Plan (LUP).

Chapter 2: Definitions

Section 30101. Coastal-dependent development or use

"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

Section 30101.3 Coastal-related development

"Coastal-related development" means any use that is dependent on a coastal-dependent development or use.

Section 30106. Development

"Development" means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511).

As used in this section, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line.

Section 30107.3. Environmental Justice

(a) "Environmental justice" means the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

(b) "Environmental justice" includes, but is not limited to, all of the following:

- (1) The availability of a healthy environment for all people.
- (2) The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities.
- (3) Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decisionmaking process.
- (4) At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions.

Article 3: Recreation

Section 30222. Private lands; priority and development purposes

The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

Article 5: Land Resources

Section 30240. Environmentally sensitive habitat area; adjacent developments

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Article 6: Development

Section 30250. Location; existing developed area

- (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.
- (b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.
- (c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.

Section 30251. Scenic and visual qualities

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

Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Section 30252. Maintenance and enhancement of public access

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

Section 30253. Minimization of adverse impacts

New development shall do all of the following:

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

Section 30255. Priority of coastal dependent developments

Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.

Section 30010. Compensation for taking of private property; legislative declaration

The Legislature hereby finds and declares that this division is not intended, and shall not be construed as authorizing the commission, port governing body, or local government acting pursuant to this division to exercise their power to grant or deny a permit in a manner which will take or damage private property for public use, without the payment of just compensation therefor. This section is not intended to increase or decrease the rights of any owner of property under the Constitution of the State of California or the United States.

HALF MOON BAY GENERAL PLAN

All California local jurisdictions are required by State law to adopt a general plan that provides comprehensive policy direction for the future growth and resource conservation within the jurisdiction. The State Office of Planning and Research provides General Plan Guidelines for local jurisdictions to use in periodic general plan updates. Pursuant to the General Plan Guidelines, land use elements are intended to reflect the community's vision of what to put where. This is accomplished by establishing designations and uses for public and private land, defining population density and building intensity standards, and considering conflicts and impacts of new growth. Correspondingly, this Development Chapter lays out the City's land use designations with allowed uses and densities in consideration of population and development growth patterns and local community priorities.

SAN MATEO COUNTY GENERAL PLAN

San Mateo County's General Plan is applicable to the unincorporated lands and communities throughout San Mateo County. It specifically integrates the County's certified Local Coastal Program for the portion of San Mateo County located within the coastal zone. Although the County's General Plan/Local Coastal Program does not impose regulations on the City of Half Moon Bay, it influences and is influenced by the City's planning efforts. The 280 acres of the Planning Area located outside of Half Moon Bay city limits are covered by San Mateo County's General Plan/Local Coastal Program, which establishes policies to guide County decision-makers in matters related to land use, development, and resource management. County lands included in the Planning Area are considered "Rural Lands" and are subject to the policies of the Rural Land Use chapter of the County's plan. Rural Land Use policies focus on the protection and enhancement of resources in order to preserve biodiversity, efficiently manage resources, protect scenic quality, provide recreational opportunities, protect public health and safety, minimize environmental damage from development, and promote local employment opportunities.

San Mateo County's Agriculture land use designation applies to County lands currently under agricultural cultivation or in use for the grazing of livestock, lands suitable for agriculture or which contain soils with agricultural capability (including prime agricultural land), or ancillary lands which may not be suitable for agriculture, but which may be strategically located to protect agricultural lands from the encroachment of incompatible land uses. The designation applies to land along the south side of Highway 92 and the east side of Highway 1 that are outside of Half Moon Bay City limits but included in the Planning Area. It also applies to the Moonridge farmworker housing community.

Land Use Map and Designations

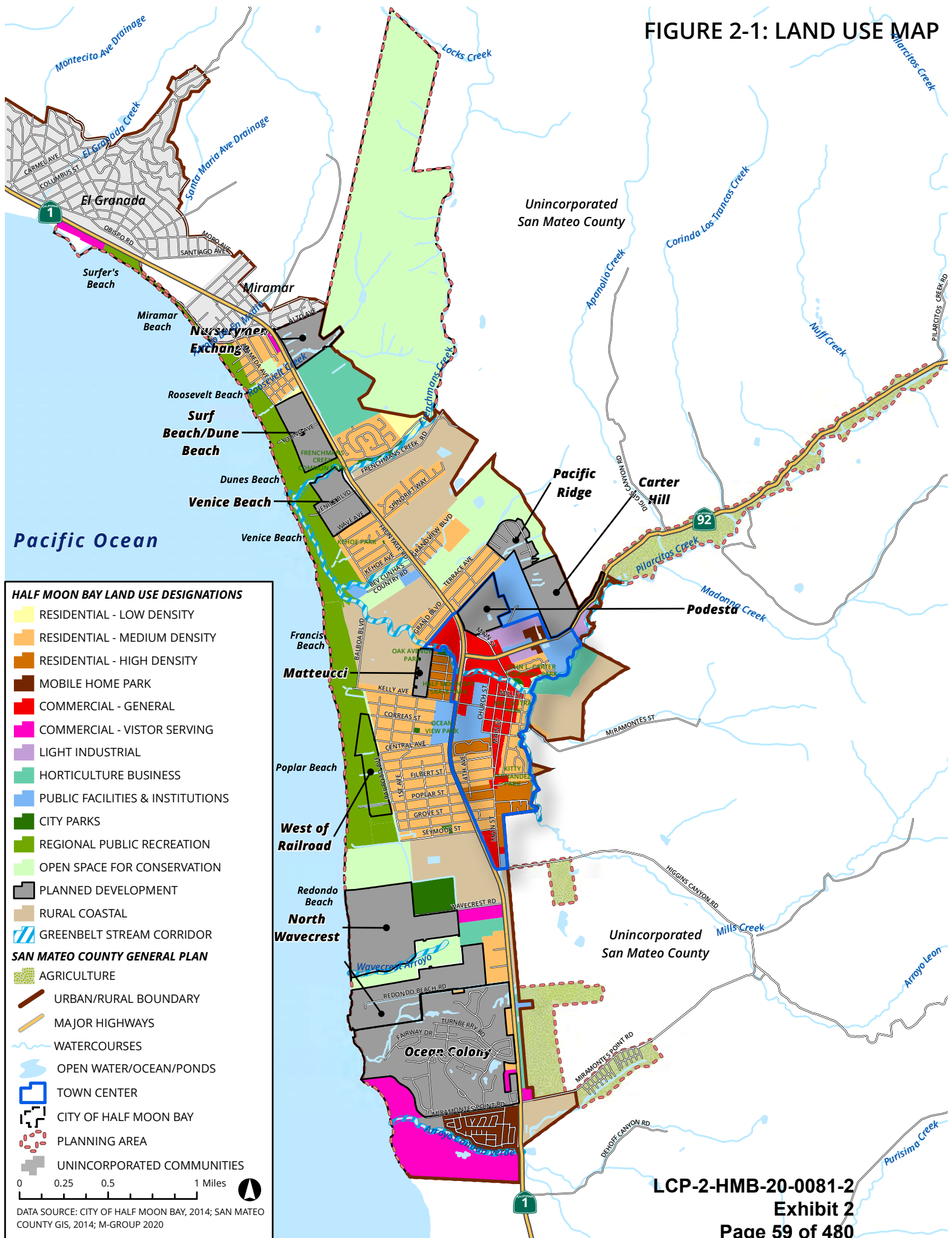
The City of Half Moon Bay is located fully within the coastal zone. Therefore, the LUP comprises the Half Moon Bay General Plan Land Use Element, as further explained in Chapter 1. The Land Use Map, Figure 2-1, presents the City's land use designations, which serve as both the LUP and General Plan land use designations. The Land Use Map will be used in conjunction with policies established in the Plan to review and approve, modify or deny

proposed development projects. Fifteen land use designations establish allowed land use, maximum density and intensity, and the type and character of development that is allowed. Two overlay designations, namely the Workforce Housing and the Greenbelt Stream Corridor overlays, when applied in combination with land use designations, enact additional land use criteria and development standards in certain parts of the city. The Workforce Housing Overlay is unmapped and may be applied to specific properties in accordance with the policies set forth in this chapter, while the Greenbelt Stream Corridor Overlay is shown on the Land Use Map and applied in accordance with relevant policies.

Per State Law, general plan land use elements must establish standards for population density and building intensity for each land use classification. In its role as a land use element, the LUP specifies residential densities in housing units per acre. For nonresidential uses, the Plan specifies a maximum permitted ratio of floor area to site area, or floor area ratio (FAR). In all cases, listed densities and FAR are maximums per gross acre. Actual allowable development on any given site shall be evaluated based on coastal resource constraints during the development review and/or master planning process. Moreover, maximum density and intensity standards do not imply that development must be approved at the maximum intensity specified for each use. Zoning regulations consistent with LUP policies and/or site conditions may result in lower densities/intensities. Compliance with State density bonus regulations for below market or senior housing are in addition to densities otherwise permitted pursuant to the land use designation's density limits and may result in higher attainable densities/intensities.

Land use designations and policies lay the foundation for implementing zoning ordinances and control future development. Details on development standards are established in the Local Coastal Implementation Plan (IP), which includes the City's Zoning Ordinance. More than one zoning district may be consistent with a single Land Use Plan land use designation. Uses and development that were lawful when they were established may continue under the updated Land Use Plan as further described in policies below.

FIGURE 2-1: LAND USE MAP



LAND USE DESIGNATIONS

The following definitions describe the principal permitted uses for each land use designation indicated on the Land Use Plan Map. For each designation, the maximum density for residential development and maximum floor-area-ratio (FAR) for non-residential development establish the upper limit of allowable development, provided that such buildout can be achieved consistent with all other policies of the LCP (including the Land Use Plan, Zoning Map, Zoning Ordinance, and Subdivision Ordinance), as well with applicable policies of the Coastal Act. Density bonuses, as consistent with Policy 2-19 and State law, may allow for higher densities than specified as maximums for any residential land use designation when such increase does not result in adverse coastal resource impacts or exceed infrastructure capacity. The land use designations cover approximately 3,900 acres of public and private lands throughout the city.

Residential - Low Density (Up to 2.0 units per acre)

This designation provides for single-family residential development at relatively low overall densities with a minimum lot size of 0.5 acres. It is found in two areas of the city. Approximately 17 acres of land are designated Residential - Low Density.

Residential - Medium Density (2.1-16.0 units per acre)

This designation provides for single-family development with minimum lot sizes of 5,000 square feet and allows for detached and attached single-family residential units and duplexes. Most of the city's existing residential neighborhoods have this designation. Approximately 587 acres in Half Moon Bay are designated Residential - Medium Density.

Residential - High Density (16.1-30.0 units per acre)

This designation applies to areas suitable for multifamily development of densities as high as one residential unit for every 1,500 square feet of lot area with a minimum lot size of 5,000 square feet and up to 30 units per acre. It is mapped within and adjacent to the Town Center. This designation provides for flexibility in development form and can include multifamily apartment buildings and clustered development including duplexes, triplexes, townhomes, with private and shared open space. The Residential - High Density designation covers about 73 acres in Half Moon Bay.

Mobile Home Park (Up to 21 units per acre)

The intent of this designation is to protect and preserve existing mobile home parks and to allow for possible designation of other appropriate sites for mobile home park development in the future. Mobile home parks provide affordable housing opportunities, and individual mobile home sites within a park shall not be sold separately. A comprehensive development plan for the entire property that incorporates common facilities and amenities is required prior to approval of development of new mobile home parks. Approximately 64 acres are designated Mobile Home Park.

Workforce Housing Overlay (density specified through policy for each underlying land use designation)

This overlay designation is unmapped and will be applied through policy to specific parcels or portions of parcels suitable for medium or high density residential development with Horticultural Business, Rural Coastal, Regional Public Recreation, or Public Facilities and Institutions land use designations. The residential development is intended to be affordable, and located within the underlying designations as follows:

Horticultural Business and Rural Coastal. For lands designated for agricultural uses, a Coastal Act priority use, the overlay is intended to facilitate development of affordable workforce housing for farmworkers. The overlay may be applied to certain parcels that are too small to farm, or to portions of larger agricultural parcels most suited for farmworker housing.

Regional Public Recreation. Lands owned by the City, the County, and State Parks comprise this land use designation, which provides for coastal access and recreation. Coastal access and recreation are Coastal Act priority uses. As applied within this land use designation, the Workforce Housing Overlay would support housing for State Parks employees. It may also support relocation of existing housing reserved for State Parks rangers and staff away from eroding coastal bluffs and other resources. Local residency of these essential employees supports public coastal access.

Public Facilities and Institutions. This designation covers a broad range of public and quasi-public uses, several of which would be compatible with residential use, including churches, schools, and some City properties such as the Ted Adcock Community Center and surrounding campus.

The Workforce Housing Overlay could enable development of approximately 300 housing units within the City for local workers and their households who are typically in the extremely low, very low, and low income brackets.

Commercial – General (0.5 - 2.0 FAR and 30 units per acre)

This designation is intended to support a vital mixed-use Town Center with a concentration of services, employment, and residential uses in central Half Moon Bay. It supports a variety of commercial activities including downtown retail, service and office uses, shopping centers, visitor-serving facilities, health care, and live-work spaces. Permitted uses include amenities for day-to-day needs, offices including those associated with small-scale laboratories and research and development uses, wholesale, and retail activities. Single- and multi-family residential uses, with a maximum density equivalent to the Residential – High Density designation, are also allowed throughout this designation, but are restricted to upper stories along Main Street between Correas Street and Pilarcitos Creek and permitted at the ground level elsewhere. Typical maximum building height is three-stories. Approximately 123 acres are designated Commercial - General.

Commercial – Visitor Serving (0.25 – 1.0 FAR and 16 units per acre)

This designation applies to areas suitable for commercial uses intended to serve the coastal recreational needs of visitors. Visitor-serving commercial areas are sited near coastal recreational areas or along Highway 1. Uses may include visitor accommodations, restaurants, bars, art galleries, equestrian supply, fishing and boating facilities, and other similar uses. Small-scale neighborhood convenience businesses and service stations are allowed; however, this designation does not permit retail that will not also support coastal access or recreation. Single- and multifamily residential uses, with a maximum density equivalent to the Residential – Medium Density designation, are also conditionally allowed in this designation provided that the primary use of the development is for visitor-serving uses. The Commercial – Visitor Serving designation applies to 161 acres in Half Moon Bay.

Light Industrial (Up to 0.75 FAR and 5 units per acre)

This designation allows for uses such as light industrial, distribution, repair, construction, and storage. It also allows mixed-use industrial and residential for the purpose of live-work uses in certain cases. This designation is limited to areas along Highway 92. Half Moon Bay has approximately 30 acres of land designated Light Industrial.

Horticultural Business (Up to 1.0 FAR)

This designation permits nurseries and greenhouses, and ancillary field production and is intended to support existing nursery businesses and their infrastructure. The Land Use Plan applies this designation to three main areas: in the north of the city, along the east side of Highway 1; along Pilarcitos Creek east of the downtown area; and adjacent to the Wavecrest area along the west side of Highway 1. This designation also facilitates research and development, farm produce stands and similar small-scale commercial operations ancillary to the primary use. This designation covers 140 acres in the City of Half Moon Bay.

Rural Coastal

This designation applies to lands in agricultural use, agricultural compatible uses, and some open lands containing steep slopes and/or habitat value. While these lands are all outside of the Town Center, they are within the Urban Boundary and generally adjacent to residential neighborhoods. These lands contain prime and non-prime agricultural soils as defined by the Coastal Act and support active agriculture or agriculture compatible operations. Some parcels in this designation are too small to support viable agriculture operations and are more suited to support supplemental agricultural uses. Permitted uses include agricultural uses such as open field farming, greenhouse operations, and horse breeding; agricultural compatible uses including recreational equestrian uses, public recreation, and habitat restoration; agricultural supplemental uses such as research and development, agritourism, and temporary or seasonal uses; agricultural ancillary uses such as barns, animal shelters, and

storage facilities; and very low-density residential uses. The Rural Coastal designation covers a total of 472 acres. This designation is established with the 2020 Land Use Plan update.

Public Facilities and Institutions (Up to 1.0 FAR)

This designation provides for educational, governmental, agricultural, habitat restoration, and institutional uses, such as public schools, public works and utilities yards and maintenance buildings, community gardens, public hospitals, and quasi-public uses including churches, and healthcare uses such as hospitals, clinics, and assisted living facilities. The Public Facilities and Institutions designation covers 120 acres.

Regional Public Recreation

The purpose of the Regional Public Recreation areas is to identify and preserve the publicly owned beaches and associated uplands that should be maintained by the California Department of Parks and Recreation or other public agencies including the City. The Land Use Plan considers such areas to be the city's major coastal recreational resource. This designation can be found along the coast from the northern end of the city to the Seymour Watercourse. Approximately 326 acres in Half Moon Bay are designated Regional Public Recreation.

City Parks

This designation is intended to identify and preserve lands for local park or recreational use, especially City parks and indoor or outdoor recreational facilities. For this update, the City Parks designation is applied to existing and planned City parklands and covers 38 acres.

Planned Development

The Planned Development (PD) land use designation was established to ensure comprehensive planning for the city's undeveloped lands. The intent of this designation is to allow for appropriately sited and scaled development including all associated infrastructure while maintaining community character and protecting the area's coastal resources and environmental attributes, including scenic resources, environmentally sensitive habitat areas, and viable farmland. The designation requires that each PD be master planned comprehensively as a whole with the inclusion of any possible residential uses, neighborhood recreational facilities, commercial recreation, and office or industrial uses determined prior to approval of any development within the PD area, with phasing of development also made part of the overall planning consideration. The master plan may be a specific plan, a precise plan, or an existing, previously approved Planned Unit Development Plan (see Appendix D for more detail). The maximum density for each PD is specified in the Land Use Plan's policies and further defined through the specific plan or precise plan. PD master plans shall be reviewed and approved as a Land Use Plan amendment requiring certification by the Coastal Commission, with the policies of Chapter 3 of the Coastal Act as the standard of review as informed by the PD section of this chapter. The Land Use Plan provides for a limited range of uses in PD areas in advance of master plan certification such as trails, agriculture, and habitat restoration. PD areas will be generically designated specific plan or precise plan on the zoning

map until such time as the appropriate master plan is certified, and then the zoning will be amended to be the master plan. The PD designation covers a total of 802 acres.

Open Space for Conservation

This designation is established with the 2020 Land Use Plan update. The Open Space for Conservation designation applies to lands intended for permanent conservation and are therefore not held in reserve for potential future development. Habitat protection, management, and restoration as well as hazard avoidance are the primary uses. Ancillary uses may be strictly limited in cases where habitat is especially fragile, or hazard risk is high, such as in the case of extremely steep slopes subject to erosion or landslide. If found to be compatible, uses could include public trails, education, passive open space amenities, and grazing for fuel modification and/or ESHA enhancement. Green infrastructure implementation measures such as stormwater detention swales, ground water recharge wells, de-channelization of channelized watercourses, and stormwater harvesting systems for reuse may support the primary intent for habitat restoration or reducing flood, erosion, and other hazards. This designation applies to 917 acres of land that are publicly owned ESHA, areas containing high resource value and hazard risk, and areas with recorded deed restrictions for habitat conservation.

Greenbelt – Stream Corridor Overlay

Greenbelt – Stream Corridor is an overlay land use designation applied to specified watercourses and adjacent riparian vegetation. The overlay is intended to further ensure preservation and protection of riparian ESHA consistent with Coastal Act requirements by applying the relevant policies set forth in the Natural Resources chapter. The Greenbelt – Stream Corridor overlay is applied to Frenchmans Creek, Kehoe Watercourse, Pilarcitos Creek, Arroyo Leon, Wavecrest Arroyo, and Arroyo Canada Verde. The minimum boundaries of this overlay are established as of the 2020 Land Use Plan update to be coterminous with the extents of riparian vegetation as presented in Figure 6-2 Environmentally Sensitive Habitat Areas (Habitat ESHAs). The boundaries will be adjusted to new extents over time with future updates to Figure 6-2; however, this designation is coterminous with the extents of riparian vegetation at any time.

PLANNING CONTEXT

Land use designations are applied throughout the City to support Coastal Act priorities, meet local needs, and reflect the changed land use circumstances and policy direction discussed in Chapter 1. Introduction and Framework. Overarching land use goals include concentrating development in the Town Center, supporting the long-term viability of agricultural operations, fostering opportunities for a diverse range of affordable housing, and ensuring coastal resource protection and hazard avoidance. The following section provides context

for Land Use Plan policies that address the city's land use planning foundation, growth management approach, and Town Center focus.

Land Use Planning Foundation

The Land Use Plan includes foundational land use policies that are applicable throughout the city. These foundational policies set forth two categories of priority land uses: those identified in the Coastal Act and those identified by the City. Uses that do not fall under one of these two priority land use categories are considered non-priority. Land uses are prioritized in the Planning Area as follows:

1. **Coastal Act Priority Uses:** Coastal-dependent uses, visitor-serving commercial, agricultural uses, and coastal access and recreational facilities. Coastal Act Priority Uses are treated as the top tier priority throughout the City's LCP. As such, land use designations, infrastructure, and policies throughout the LCP seek to ensure the on-going viability of these uses.
2. **Local Priority Uses:** Affordable housing. Affordable housing, including but not limited to units created through the Workforce Housing Overlay designation, is specifically identified as a Local Priority Use. Affordable housing as a second tier priority is envisioned to support the local workforce, with the intent of facilitating a range of housing types for those who live and work on the coast, fostering the economic development of the city, and reducing commuter traffic congestion. Most significantly, affordable housing as a Local Priority Use will support Coastal Act Priority Uses by providing housing priced and located so as to be especially suited for employees in the agriculture and coastal recreation sectors. With diverse and affordable housing as a pillar of this Land Use Plan, the City will be able to harmonize the goals of the Coastal Act with those of State Housing law and the City's Housing Element.
3. **Non-Priority Uses:** Market-rate housing, general commercial, and general industrial. While important for supporting the general population of Half Moon Bay, these uses are identified in the Coastal Act as non-priority. These uses are supported in the LCP as a third tier after Coastal Act Priority Uses and Local Priority Uses.

A principal goal of the Land Use Plan is to facilitate and encourage these two types of priority uses within the Planning Area. Identifying Coastal Act and Local Priority Uses is essential for achieving land use planning goals and providing public infrastructure such as priority water connections where applicable, as discussed further in Chapter 3. Public Works.

Foundational policies also implement Coastal Act goals such as concentrating development in existing urbanized areas, ensuring coastal development permit review of new development, and requiring Land Use Plan amendments for master plan certification. With the Land Use Plan comprising the Land Use Element of the General Plan, it is necessary to establish procedures for initiating amendments that will affect both Plans. City Council authorization to initiate such amendments will provide guidance for this process.

Growth Management

As discussed in Chapter 1, Measure D was passed in 1999 to control the pace of residential development in Half Moon Bay and to reduce pressure on public infrastructure systems including water, sewer, and traffic. Measure D incentivizes development in a defined Downtown Area, which overlaps with but differs from the boundary of the Town Center emphasized in this Plan, by providing additional allocations each year in this area. To further support this measure, LUP policies address the impacts of residential development through growth management strategies including lot retirement, lot mergers, and transfer of development rights. The intent of these policies is to concentrate development in existing developed areas, specifically the Town Center, while limiting development in areas where coastal resources, environmental hazards, and public infrastructure constraints are present.

To ensure new development can be supported by the City's public services, development impact fees are necessary to implement. These fees allow the City to provide infrastructure improvements in pace with new and anticipated development in a non-growth inducing manner. Policies provide for requiring and updating development impact fees and address the need for fiscally sustainable development.

Growth management policies also consider the City's jurisdictional boundaries and sphere of influence as defined by the San Mateo County Local Agency Formation Commission (LAFCo). Several areas outside of the city limits were included in the Planning Area for this Land Use Plan because they directly relate to planning concerns in Half Moon Bay. These areas, as well as others within the City's sphere of influence could be considered for annexation from the County at a future time. The city and greater Midcoast area are also served by several overlapping public service districts, as addressed further in Chapter 3. Public Works and have potential for consolidation or other organizational changes that could improve public service provision. Any such boundary or special district changes are overseen by LAFCo, whose role is to discourage urban sprawl, prevent premature conversion of agricultural and open space lands, and support efficient provision of public services.

Town Center

This Land Use Plan identifies a Town Center within which future development should be concentrated to support a vibrant, walkable core area with a diverse mix of pedestrian-oriented businesses, shops, housing types, and public spaces. The Town Center includes almost all lands designated Commercial – General, including the Main Street area and the land around the intersection of Highway 1 and Highway 92, as well as some adjacent residential and mixed-use neighborhoods with other Plan designations. A detailed diagram of the Town Center area is provided as Figure 2-2.

Policies for the Town Center address the need for holistic Town Center planning. Residential development policies for the Town Center will ensure that new neighborhoods, mixed-use areas, and higher density infill sites will generate less traffic, greenhouse gas emissions, energy and water demand, and other impacts than neighborhoods outside this area. Components of residential development that support sustainability goals include providing

housing for a mix of income levels, requiring a range of housing types emphasizing smaller homes, and mandating that the entire Town Center and its neighborhood components be designed such that pedestrian circulation is prioritized.

Commercial and mixed-use development policies for the Town Center will ensure that service needs are met for both residents and visitors. Again, walkability is prioritized over vehicular access. While vehicle traffic within the Town Center will continue to be congested during peak periods, well-connected biking, walking and transit facilities for shopping and services will be readily available to provide options. Parking is also a necessary component in the Town Center. Consistent with the Coastal Access and Recreation chapter's parking policies, public parking facilities east of Highway 1 can serve visitors to both the Heritage Downtown and beaches.

Policies also address specific considerations for three defined Town Center areas. The Town Center broadly consists of three areas, including:

Heritage Downtown. Heritage Downtown centers on Main Street between the Main Street Bridge and Correas Street. It contains the highest concentration of the City's designated historic resources and presents a traditional small-town street grid with commercial buildings fronting directly onto sidewalks, contributing to a pedestrian-oriented neighborhood. Heritage Downtown is treasured by the local community and also critical for Half Moon Bay's tourist economy. It provides a concentration of visitor-serving commercial uses including retail, restaurants and accommodations. Much of Heritage Downtown is included in an adopted Downtown Specific Plan, which will require replacement or updating to implement the LUP. An intention of the Land Use Plan update is to facilitate a mix of land uses that support a vibrant downtown and protect the historical setting and scenic hillside views. Flexibility in change of use has been identified as key to ensuring that underutilized lots and vacant tenant spaces can be more readily developed and/or occupied with permitted uses.

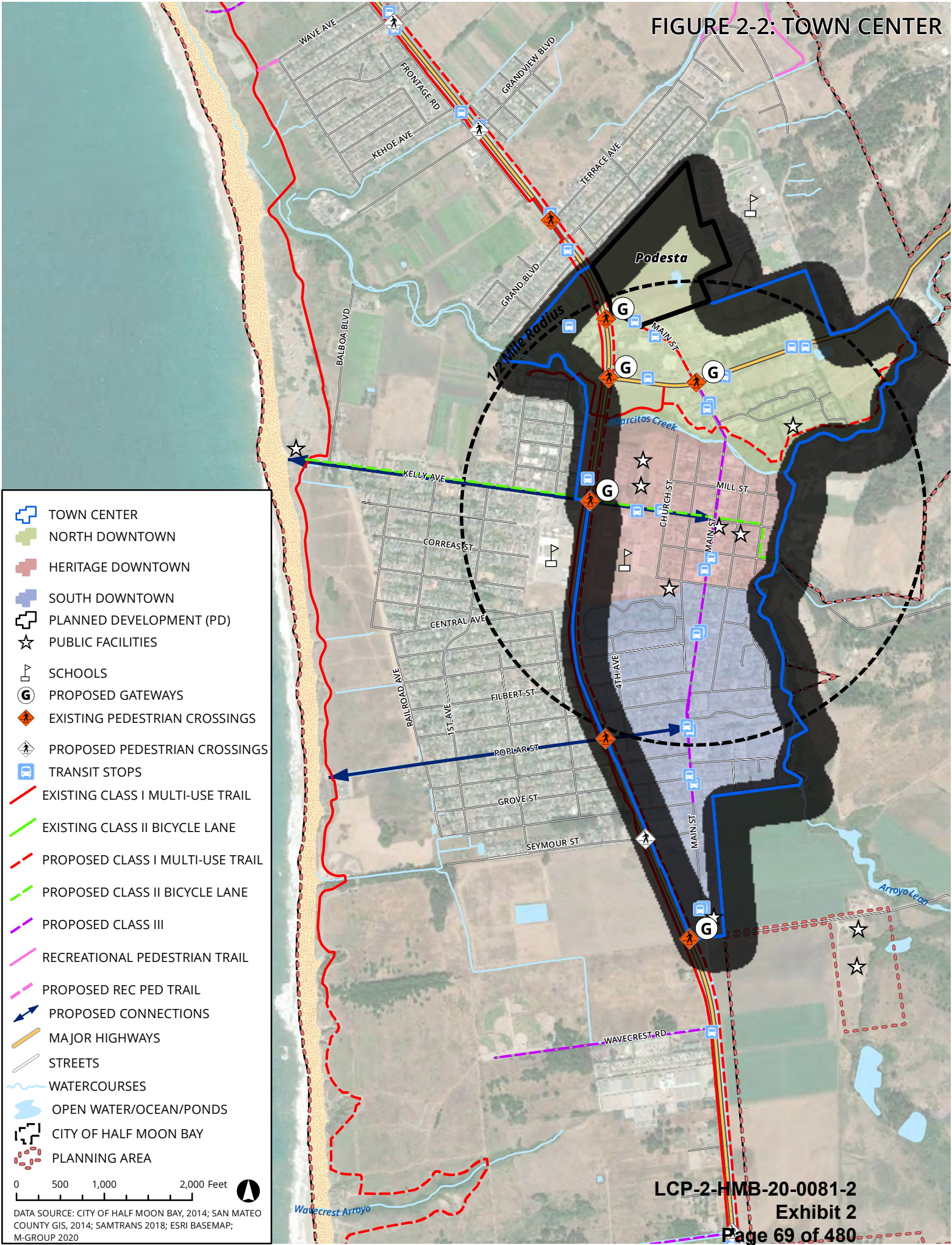
North Downtown. North Downtown includes the lands north of Main Street Bridge and around the intersection of Highways 1 and 92. Existing development in North Downtown is dominated by single use commercial, surface-parked shopping centers, and service commercial development. North Downtown also contains the majority of the city's Light Industrial land use designation, supporting uses such as a concrete batch plant and auto repair services. Development within North Downtown prior to the LUP update had been primarily limited to change of use within existing commercial development and very limited new construction. Allowing for commercial and residential mixed-use retrofit of existing shopping center sites would provide housing in a location consistent with the sustainability intent for the Land Use Plan update.

Several underdeveloped properties of note are located in North Downtown. The "Goat Farm" parcels east of the Hilltop Mobile Home Park on the north side of Highway 92 provide room for expansion of the Hilltop Mobile Home Park. Formerly included in the Andreotti PD, parcels fronting the south side of Highway 92 east of Main Street could be developed for uses with low trip generation rates due to access challenges. An undeveloped 6.5-acre parcel on

the southeast corner of Highway 1 and Highway 92 referred to as “Cabrillo Corners,” is a challenging development site because of proximity to Pilarcitos Creek, low elevation subject to flood hazards, and limited site access options. One PD area, Podesta, is located within North Downtown. It is discussed in the next section. Policies in this Chapter encourage exploration of land use options for these underutilized Town Center properties in relationship to improvements for implementing the Town Boulevard along Highway 92.

South Downtown. South Downtown includes lands south of Correas Street between Highway 1 to the west, and Arroyo Leon to the east. South Main Street runs up the center of South Downtown. The area is mostly residential. Older subdivisions with modest sized homes make up much of the west side of the area at medium residential densities. A private elementary school and affordable senior and family housing are located within the east side of South Downtown, where residential densities tend to be higher. The Half Moon Bay Fire Station is located at the south end of the area. The boundaries of Highway 1 and agricultural uses require special attention with respect to compatibility, buffering, and land use impacts. In South Downtown, development leading up to and including 2020 consisted of mixed-use and residential development. Several vacant lots remain in South Downtown and offer some of the best opportunities for new residential development at higher densities within Town Center.

FIGURE 2-2: TOWN CENTER



POLICIES - GENERAL

Policies applicable to all development are provided below. Policy consistency meeting long-term land use needs, growth management, and the Town Center are also addressed in this section.

Policies - Land Use Planning Foundation

- 2-1. Land Use Plan Map.** Apply Land Use Plan designations in accordance with the policies of this Land Use Plan.
- 2-2. Complete Policy Compliance.** Ensure that all new development as defined by the Coastal Act complies with the policies of the Land Use Plan. New development means any project for which a coastal development permit is required. Allow flexibility only when the Land Use Plan provides for an exception.
- 2-3. Priority Land Uses.** Define priority land uses and support development of such land uses throughout the City by the following categories:
 - a. Coastal Act Priority Uses: Coastal-dependent uses, agricultural uses, visitor-serving commercial uses, and coastal access and recreational facilities. Coastal Act Priority Uses are considered top tier priority in this LCP; and furthermore, as consistent with Coastal Act Section 30222, coastal-dependent industry and agriculture take precedence over all other uses including visitor-serving commercial recreation facilities.
 - b. Local Priority Uses: Affordable dwelling units for extremely low, very low, and low-income households. Local Priority Uses are considered second tier priority behind Coastal Act Priority Uses in this LCP.
- 2-4. Sustainable Land Use Pattern.** Concentrate new development within the defined Urban Boundary by prioritizing development in the Town Center, allowing for infill development within established neighborhoods, and protecting the rural, open space, agricultural and habitat values of undeveloped areas.
- 2-5. Housing Element Conformance.** To ensure conformance with Coastal Act policies and priorities, focus the Housing Element's inventory of adequate sites within Town Center and through the Workforce Housing Overlay land use designation.
- 2-6. Housing Diversity and Affordability.** Encourage a diversity of housing types, including housing at a range of affordability levels, densities, sizes, and ownership types with equitable access to environmental benefits. Meet the needs of Half Moon Bay's diverse population, including young families, multi-generational families, students, young professionals, and seniors.
- 2-7. Housing Stock Preservation.** Safeguard existing housing stock so that it is preserved and used as full-time housing through the establishment of programs and ordinances.
- 2-8. Community Needs.** Support the development of land uses desired by the community and which contribute to quality of life. Uses include affordable and diverse housing types such as farmworker housing and smaller homes; light industrial uses including

live-work and artisan uses; adaptive reuse of heritage buildings; agriculture and agriculture-compatible uses along with supportive accessory uses; commercial including neighborhood and local-serving uses; quasi-public uses including childcare, healthcare, animal care, and assisted living; and public uses including parks and other community facilities.

- 2-9. Master Plan Certification.** All plans established for implementing Planned Development land use designations shall be certified by the Coastal Commission as a Land Use Plan amendment with the policies of Chapter 3 of the Coastal Act as the standard of review prior to City approval of applications for required entitlements including but not limited to coastal development permits and subdivisions. Plans subject to this requirement include specific plans and precise plans.
- 2-10. Land Use Plan and General Plan Amendment Initiation.** The City shall establish procedures for initiating amendments to its General Plan, including the LUP. The procedures shall set forth a process for amendments proposed by the City Council, Planning Commission, and private applicants. The City will not process private General Plan amendment applications, or associated development applications (except as required by State law), unless the City Council has approved initiating the General Plan amendment. Authorization to proceed with a General Plan amendment application shall in no way presume approval of the amendment or project.
- 2-11. Development Permit Requirements.** Require a coastal development permit for any project that meets the definition of development pursuant to Coastal Act Section 30106. Exempt certain categories of development from coastal development permit requirements pursuant to Title 14, Division 5.5, Chapter 6 of the California Code of Regulations. Establish a local coastal development permit waiver process for other types of de minimis development including qualifying agricultural uses, smaller structures, or temporary uses.
- 2-12. Non-Conforming Uses.** Update the non-conforming uses implementation regulations in the IP to address standards for non-conforming uses and development with respect to land use, environmental hazards, and biological resources. Uses and development that were lawful at the time they were established may continue under the policies of this Land Use Plan unless the use is discontinued for a period of up to five years for agricultural uses, and up to one year for all other uses.
- 2-13. Constitutional Use of Property.** Nothing in this Land Use Plan is intended to nor shall be construed as authorizing the City of Half Moon Bay to grant or deny a permit in a manner which will take or damage private property for public use without the payment of just compensation.
- 2-14. CEQA Thresholds of Significance.** Use thresholds of significance for CEQA review purposes for impacts that require special consideration in Half Moon Bay.

Policies - Growth Management

- 2-15. Urban-Rural Boundary.** Review and update the urban-rural boundary to classify those areas appropriate for long-term agricultural use, as well as those essential for natural resource conservation and hazard avoidance, as rural. The rural classification restricts the expansion of urban services and infrastructure to these areas to provide protection from urbanization.
- 2-16. Residential Growth Management.** Provide for compatible and orderly residential growth at a managed pace and ensure that future development is consistent with the city's growth management standards. Measure D (Residential Growth Limitation Ordinance) added the following provisions to the Land Use Plan and they may not be amended or repealed except by a majority vote of the people of Half Moon Bay as follows:
- a. The number of dwelling units which the City may authorize each calendar year may not exceed the number of units which would result in a growth of 1 percent in the City's population as of January 1 of that year. In determining the number of permissible units, the City shall use the most recent United States Census figures for Half Moon Bay to calculate the average number of persons per household.
 - b. The number of dwelling units authorized each year under subsection a. may be increased by 50 percent for additional dwelling units in the Downtown Area.
 - c. Applications for new units from areas of the City outside the Downtown Area have priority for one-half of the units authorized under subsection a. If fewer applications are received, the remainder of these units may be authorized in the Downtown Area.
 - d. Subject to subsections b. and c., the city shall allocate permissible dwelling units among applications under the existing allocation system in the Municipal Code, to the extent feasible, and subsequent modifications by the City Council.
 - e. The limitations in the Section shall not apply to replacement of existing dwelling units on a one-for-one basis, nor shall it apply to density bonuses for the provision of low and moderate income housing to the extent required by State law.
 - f. The Downtown Area is the area designated as the Downtown Half Moon Bay Redevelopment Survey Area in City Resolution No. C-91-98, November 3, 1998.
- 2-17. Residential Growth Management Administration.** Update the Measure D implementation regulations in the IP to prioritize housing that is affordable and sustainable, and located within the Town Center and/or Workforce Housing Overlay designation.
- 2-18. Minimum Residential Density Zoning Provisions.** Establish minimum residential densities for areas with mixed-use zoning, specific plans, or precise plans within Town Center; and for all areas with R-3 zoning.
- 2-19. Affordable Housing Density Bonus.** Provide for density bonuses above the maximum densities cited for each residential land use designation, including mixed-

use and PD designations, that provide for residential development consistent with California Government Code Section 65915, the Housing Element, and the Coastal Act, and when such increase in density does not adversely affect coastal resources.

- 2-20. Development Intensity Reductions.** Reserve the right to reduce the density and/or intensity specified in the Land Use Plan for a particular parcel or area if it is determined that such reduction is necessary to comply with the Coastal Act and LUP policies.
- 2-21. Lot Retirements.** Require mitigation for the individual and cumulative impacts of development when a new residential lot is created through retirement of development potential on an existing and separate lot, pursuant to the following criteria:
- a. At least the same number of lots shall be retired as are created;
 - b. The retired lot(s) shall be located within city limits and have potential for residential development, including lots with PD land use designations where residential development is a potentially permitted use;
 - c. Retirement of development potential may occur through recordation of a no-build restriction, an accepted offer to a land trust, or through an in-lieu fee to support such retirement; and
 - d. Deed restricted affordable housing shall be exempt from lot retirement requirements.
- 2-22. Transfer of Development Rights.** Establish a transfer of development rights (TDR) program with the intent of retiring lots located within PD designated areas outside the Town Center where coastal resource constraints may preclude or limit development. The program would allow the transfer of development rights to increase residential density or buildout allowances on properties within the Town Center for sites without coastal resource constraints and/or to receiver sites outside the Planning Area through regional or coastal TDR planning efforts. The TDR program may similarly allow for increased non-residential intensities (FAR).
- 2-23. Lot Mergers.** Require lot mergers for contiguous substandard lots under common ownership in order to create standard sized lots for the underlying zone.
- 2-24. Infrastructure Capacity and Design.** Design public infrastructure, including water, sewer, stormwater management, communications, energy, and transportation systems meet the needs of anticipated development without inducing growth, support new technology, and shift away from fossil fuels. Infrastructure shall be designed according to best practices for sustainability, maintenance, aesthetics, resilience, and durability. As applicable, new infrastructure shall be undergrounded.
- 2-25. Development Impact Fees.** Periodically review, prepare nexus studies, and update development impact fees, including to reflect climate change impacts. Establish additional fiscal impact measures necessary to assure that new development permitted by the Land Use Plan will generate sufficient revenues to cover costs to the

City for providing public services (e.g. public safety, parks, schools, roads, and utilities, etc.).

- 2-26. Fiscally Sustainable Development.** New development shall fully fund the development, operation, and maintenance of public infrastructure required for the new development.
- 2-27. Sphere of Influence.** The sphere of influence includes unincorporated Miramar, El Granada, Princeton, Moss Beach, and most of Montara; additional areas for consideration include contiguous developed sites such as Moonridge, the City-owned Johnston House property, and the greenhouse uses at the southeast end of town. Consider the City's sphere of influence in any annexation process or large-scale land use and development projects and work with the San Mateo County Local Agency Formation Commission (LAFCo) to make appropriate adjustments to the City's sphere of influence.
- 2-28. Special Districts and Development.** Consider consolidation or other changes of special districts that will improve the provision of public services in Half Moon Bay and the unincorporated Midcoast. Consult with San Mateo County regarding infrastructure, development, and land use policy decisions affecting areas within the City's sphere of influence that may have significant environmental impacts or otherwise affect demand for city services or Midcoast infrastructure capacity.
- 2-29. Annexations.** Study and consider annexations to the city limits or changes to special districts in coordination with LAFCo and other County and State agencies as appropriate to ensure consistency with applicable government codes and local policies including the urban-rural boundary.

Policies - Town Center

- 2-30. Town Center Planning.** Prepare and adopt an updated plan or zoning regulations and associated programs for the Town Center that includes use requirements, design standards, and circulation and parking management strategies. Specifically, Town Center planning shall include:
- a. Uses. Provisions to encourage a diverse mix of uses, including a range of housing types and affordability levels and non-residential uses that support the needs of the local community and visitors;
 - b. Historical and Architectural Character. Measures to protect the historical and architectural character of Heritage Downtown;
 - c. Highway Frontages. Design standards to improve the appearance of Highway 1 and 92 frontages, such as through frontage enhancements, setbacks and build-to lines, as well as transitions with stepped down heights, setbacks, or other means between more intense uses along the highway frontages that abut residential uses;

- d. Main Street and Highway 92 Intersection. Study of the Highway 92 and North Main Street area for development options that will provide visitor and neighborhood services as well as traffic congestion solutions;
 - e. Streetscapes. Streetscape plans, including those focused on smaller areas, such as Kelly Avenue or Church Street, may be considered individually or in conjunction with a more comprehensive plan for Heritage Downtown;
 - f. Signage. Wayfinding and informational signage for Downtown and coastal attractions; and
 - g. Circulation and Parking. Multi-modal circulation and parking provisions and management to support a “park once and walk” approach for visitors to Downtown and the beach.
- 2-31. Town Center Water Connections.** For new and existing mixed-use or multi-tenant Town Center development, do not require new, non-priority water connections for non-priority uses where the principle use of the site or building is a priority use and priority water connections will adequately serve both the priority and non-priority uses. Otherwise, if the priority water connection capacity is inadequate, non-priority water connections must be secured for non-priority uses. In the event that the priority use converts to a non-priority use, the City shall review the change in use for compliance with coastal development permitting requirements.
- 2-32. Heritage Downtown Uses.** Allow a mix of uses including residential, commercial, personal and professional services, public and quasi-public uses throughout Heritage Downtown to support a self-sufficient neighborhood for residents while accommodating visitor-serving uses for tourists.
- 2-33. Heritage Main Street Uses.** Establish Heritage Main Street between the Main Street Bridge and Correias Street, located within the heart of Heritage Downtown, and require retail, eating and drinking establishments, and other similar active ground-floor dependent uses at the first floor to foster a distinctive, vibrant pedestrian-oriented atmosphere. Promote small hotels with lobbies at the ground level. Allow office and residential as a permitted use on all floors, except as a frontage use.
- 2-34. Heritage Downtown Height Limits.** In Heritage Downtown, limit building heights to two to three stories on Heritage Main Street; and three stories elsewhere. Set back upper stories where necessary to protect scenic views of the hillsides from Main Street.
- 2-35. North Downtown Main Street Uses.** Establish a mixed-use neighborhood environment along North Main Street between Highway 92 and the Main Street Bridge with residential, visitor and local serving commercial, personal and professional services. Allow offices and other uses requiring minimal customer visits on North Main Street between Highway 92 and Highway 1.
- 2-36. North Downtown Shopping Center Conversions and Retrofit.** Allow for commercial and residential mixed-use retrofit or residential conversions of buildings within the North Downtown commercial centers. Allow residential uses on the

ground floor and for commercial and residential mixed-use to be horizontal (side-by-side) or with residential above commercial uses.

- 2-37. North Downtown Underdeveloped Properties.** Establish uses for the underdeveloped properties along the Highway 92 corridor as follows:
- a. **Goat Farm.** Allow this property to develop as an extension of adjacent Hill Top Mobile Home Park while also maintaining access to adjacent industrial land uses.
 - b. **Highway 92 Industrial Frontage.** Allow low intensity uses including light industrial and live-work units with low trip generation rates compatible with adjacent residential development to the south.
 - c. **Cabrillo Corners.** Consider appropriate land use options for this low-lying property on the southeast corner of Highways 1 and 92 that address hazard and environmental site constraints, including but not limited to ingress and egress, ESHA buffer requirements from the Pilarcitos Creek riparian corridor, and flooding resiliency requirements for flood zone development.
- 2-38. South Downtown Main Street Uses.** Allow mixed-use development along Main Street in South Downtown, including residential development on second and third stories above commercial development; or in horizontal format with residential development adjacent to commercial development.
- 2-39. South Downtown Residential Priority.** Maintain residential use as a primary use within South Downtown. Increase residential densities to encourage residential development of vacant sites along South Main Street and Poplar Street.
- 2-40. South Downtown Agriculture Transitions.** Require buffers on non-agricultural lands between private development and agricultural uses to the south and east of South Downtown.

Planned Development Land Use Designation

The Planned Development (PD) land use designation is applied to numerous areas throughout the city. PD policies require comprehensive planning while allowing flexibility for the sake of protecting coastal and visual resources, maximizing coastal access, avoiding hazards, and addressing infrastructure limitations. Allowed uses in PD areas vary and may include residential, mixed-use, commercial, and public facilities uses.

PLANNED DEVELOPMENT CONTEXT

Prior to the 2020 Land Use Plan update, there were eighteen areas designated PDs. Evaluation identified opportunities for simplifying and clarifying the City's approach to planning for these areas. In some cases, PDs are renamed and/or PD boundaries are revised. Many PDs are redesignated to other applicable land use designations because they have been

developed or are affected by other changed circumstances. These former PDs include the following:

- Miramar Beach (Casa Mira): Residential – Medium Density
- Guerrero Avenue Site: Developed lands Residential – Medium Density; deed restricted wetlands Open Space - Conservation
- Stoloski/Gonzalez: Residential – Low Density
- Portions of Dykstra Ranch (Pacific Ridge): Deed restricted habitat areas Open Space – Conservation
- Public Facilities PD area owned by the City near the Sewer Authority Midcoast (SAM) treatment plan plant: Open Space – Conservation
- Andreotti: City Park, Residential – Medium Density, Commercial – General, and Light Industrial
- Main Street Park: Residential – High Density
- L. C. Smith Estate: Commercial - General
- Pilarcitos West Urban Reserve: Rural Coastal
- Wavecrest Restoration Project (southern portion): Commercial – Visitor Serving

Future development and redevelopment in the above listed areas is subject to terms of settlement agreements and/or deed restrictions if applicable, the policies of the assigned land use designation and its associated zoning requirements, and any Coastal Development Permit conditions of approval that remain relevant.

The ten remaining PDs included in the 2020 Land Use Plan update are indicated on Figure 2-3: Established Neighborhoods and Planned Developments. The three substantially developed PDs are described below, and the seven remaining substantially undeveloped PDs are considered later in this section.

FIGURE 2-3: ESTABLISHED NEIGHBORHOODS AND PLANNED DEVELOPMENTS (PD'S)

PD'S: SUBSTANTIALLY UNDEVELOPED
PD'S: SUBSTANTIALLY DEVELOPED
ESTABLISHED NEIGHBORHOODS

1. MIRAMAR
2. FRENCHMAN'S CREEK
3. SEA HAVEN
4. CASA DEL MAR
5. GRANDVIEW
6. HIGHLAND PARK
7. GRAND-BELLEVILLE
8. PILARCITOS
9. TOWN CENTER
- 9A. NORTH DOWNTOWN
- 9B. HERITAGE DOWNTOWN
- 9C. SOUTH DOWNTOWN
10. ALSACE LORRAINE
11. ARLETA PARK
12. CANADA COVE
13. MOONRIDGE

MAJOR HIGHWAYS
STREETS
WATERCOURSES
OPEN WATER/OCEAN/PONDS
PARKS
CITY OF HALF MOON BAY
PLANNING AREA
UNINCORPORATED COMMUNITIES

0 0.25 0.5 1 Miles

DATA SOURCE: CITY OF HALF MOON BAY, 2014; SAN MATEO COUNTY GIS, 2014; M-GROUP 2018

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SUBSTANTIALLY DEVELOPED PLANNED DEVELOPMENTS

Three substantially developed PDs are kept in the PD land use designation due to various complexities associated with their establishment and/or on-going conditions. For these substantially developed PDs, policies from the 1996 Land Use Plan are replaced to reflect actual buildout, allowances for additional development, and requirements in the event of substantial buildout.

Pacific Ridge (portion of former Dykstra Ranch)

Estimated Site Area	29 acres gross
Allowed Uses	Residential
Maximum Development	63 residential units
Development (2020)	Phase 1 of three-phased subdivision is built out with 19 homes; build out of phases 2 and 3 anticipated within five years of Land Use Plan adoption
Natural Resources	Adjacent to conservation areas "A" (56 acres) and "B" (30 acres), which were formerly part of the Dykstra Ranch PD, and are now designated as Open Space for Conservation
Coastal Access	Not applicable
Coastal Recreation	Potentially near or part of future alignment for the Vista Trail; a loop trail for public use on adjacent area B parcel provides views of the ocean and foothills; small public parking area
Agriculture	Cattle grazing has occurred on Area A to the north
Hazards	Risk of landslide as evident by occurrence of a scarp at the base of the foothills immediately to the east
Visual Resources	Open spaces, mature stands of trees, riparian corridors, coastal and sweeping landscape views from the PD are significant

Pacific Ridge is the 29-acre developed portion of the original 114-acre Dykstra Range PD. Previously, a Planned Unit Development Plan and tentative tract map were approved for development in this area, with a total of 228 units. However, following a legal challenge to the entitlements, a settlement agreement stipulated that two portions of the PD be designated for habitat conservation and are referred to as Areas A and B. The remaining lower lying area, located directly east of the Highland Park neighborhood, was permitted to be planned and subdivided for development of 63 single-family homes, public streets, and associated infrastructure.

Maximum development has been established through the settlement agreement and subdivision map for 63 homes. The agreement specified design criteria for a farmhouse vernacular architecture and also allowed for large residences, generally limited to 5,000 square feet, but allowed to be larger for several parcels. Of the original Dykstra Ranch PD, 75 percent was retained in open space, and no development was permitted above the 160-foot contour line, with the exception of drainage improvements and repair of the scarp.

Pacific Ridge provides access to a public loop recreational trail through Area B. This area could provide future access to the Vista Trail, as identified in Chapter 5. Coastal Access and Recreation.

Matteucci

Estimated Site Area	13.5 acres gross
Allowed Uses	Residential
Estimated Maximum Development	13 residential units
Development (2020)	11 residential units, 1 unit pending
Natural Resources	Adjacent to Pilarcitos Creek; western portions of the PD area are not developed and likely useful for dispersal habitat
Coastal Access	Pilarcitos Creek Trail alignment along north end of PD
Coastal Recreation	Near State Beach
Agriculture	Agricultural use and prime soils immediately west; undeveloped western parcels serve as a buffer to agricultural use
Hazards	Small portion of the north end of the PD within tsunami inundation zone and subject to flooding due to 100-year storm events
Visual Resources	Views of the Pilarcitos Creek riparian area

This area contains about 13.5 acres of land and is generally located west of the Pilarcitos neighborhood, south of Pilarcitos Creek, north of Kelly Avenue and east of active agricultural uses. A specific plan was created for 13 single-family houses (including two existing houses), and the area has been partially developed since the 1996 Land Use Plan. The specific plan map shows an additional seven abutting parcels to the west intended to be included in the Matteucci PD area that were not addressed in the specific plan. These 7 “back lots” provide a buffer to adjacent agricultural use. The intent of the 1996 Land Use Plan policy for the Matteucci PD was for these parcels to remain permanently undeveloped (through deed restrictions or other methods) to maintain separation from the field agricultural operations. Inclusion of these parcels in the Matteucci PD area was never certified by the Coastal Commission and their land use designation had been Urban Reserve.

Prior to development of the thirteen houses included within the specific plan area, the subdivider and neighbors to the east entered into an agreement to address concerns about compatibility and transitions from the existing Pilarcitos neighborhood and the pending development of the Matteucci specific plan, especially on Jenna Lane. The “Matteucci Agreement” from 2001 addressed height limits and landscaping requirements among other provisions and has been considered as guidance with respect to development review within the PD. It is formalized by policy in the LUP update.

As of the 2020 Land Use Plan update, 11 of the parcels fronting on Jenna Lane and Kelly Avenue were developed, an additional site was entitled, and the remaining site was undeveloped. For this Land Use Plan update, the western lots are explicitly brought into the PD area. Low intensity use of these western lots is provided through policy consistent with the Rural Coastal land use designation to maintain a buffer and ensure compatibility with adjacent agricultural uses, but no new residential development is permitted there. The Matteucci Plan must be amended to prior to any permits being issued for new development on these seven western lots.

Ocean Colony (formerly Half Moon Bay Country Club)

Estimated Site Area	298 acres gross
Potentially Allowed Uses	Residential, recreational, commercial, public facilities
Maximum Development	1,050 residential units, commercial complex, 400 hotel rooms, golf course, recreational facilities, public facilities as specified
Development (2020)	Approximately 568 single-family residential units, 68 multi-family units, a commercial complex, two hotels with a total of 341 rooms, a golf course, recreational facilities
Natural Resources	Includes irrigation ponds that support habitat
Coastal Access	Coastal access provided at Ritz Carlton Hotel and golf course
Coastal Recreation	A golf course, restaurant, and hotel for public use; private parks maintained by the homeowner’s association; and a community center with gym and pool maintained by the Ritz Carlton Hotel
Agriculture	Not applicable
Hazards	The Ritz Carlton Hotel and portions of the golf course are threatened by bluff erosion
Visual Resources	Miramontes Point Road, the Coastal Trail, Ritz Carlton Hotel, and golf course facilities provide significant public coastal views

The Ocean Colony PD is located west of Highway 1 in the southern portion of the City between Redondo Beach Road and Miramontes Point Road. It was originally established in 1972 as

the Half Moon Bay Country Club, a 278-acre residential, recreational and commercial PD. The PD implementation plans were fully approved by the City in compliance with all applicable State land use and environmental statutes and local ordinances prior to adoption of the Coastal Zone Conservation Act in 1972. At the time of the 1996 Land Use Plan, the following improvements had been completed: an approximately 145-acre, 18-hole golf course; primary utilities; a motel and commercial complex along Highway 1; a pro shop and restaurant; an athletic club with tennis courts and an indoor swimming pool; and about 189 residential units. Since that time, a commercial office building, a 12-unit affordable housing development, 56 condominium units, and the Ritz-Carlton Hotel and the Ocean Colony residential community were developed. The Spyglass subdivision added an additional 20 acres in the early 2000s.

As entitled, the PD allowed up to 1,050 residential units and hotels with up to 400 rooms. The PD built out to a lower density than originally envisioned. It provides significant visitor-serving uses and coastal access. At the time of this Land Use Plan update, phases 1-3 of the Carnoustie development had been recently completed (32 units) and an additional 8 units in Carnoustie phase 4, which is anticipated to be the final subdivision for single-family development within the Ocean Colony PD area, were under construction.

While the overall development of the Ocean Colony PD is controlled by the existing Country Club PD approvals, and the density, location, and type of future development has already been determined by the existing development, the Coastal Commission and the City have required permits for specific residential and commercial developments within this area. In the process of obtaining those permits, various covenants and restrictions have been recorded or imposed establishing design review controls and public dedications acceptable to the Coastal Commission and City.

Substantial development or redevelopment is not expected in Ocean Colony over the Land Use Plan planning horizon; however, policies provide for some densification of already developed sites, especially along the Highway 1 frontage parcels. Bluff erosion threatening the Ritz-Carlton Hotel and the western edge of the golf course may necessitate focused planning efforts in these portions of the PD.

POLICIES – SUBSTANTIALLY DEVELOPED PLANNED DEVELOPMENTS

2-41. Continued Development in Substantially Developed Planned Developments.

Allow continued development within substantially developed PDs provided that additional development falls within the maximum allowed buildout as established in the Land Use Plan and certified master plan for the PD. Additional development may be allowed as follows:

- a. Remaining parcels or phases as consistent with the approved master plan;
- b. Minor modification including changes of use of and additions to existing development as consistent with allowed uses and the siting and design

requirements of the approved master plan and compatible with the existing development.

As an alternative to continued oversight through a certified master plan, redesignation of substantially developed PDs to an appropriate land use designation(s) and associated rezoning to a consistent district(s) may also be considered. Redesignation would require an LCP amendment certified by the Coastal Commission. Continued development in substantially developed PDs would be regulated by the applicable zoning district.

2-42. Substantial Redevelopment of Planned Developments. Proposed redevelopment of substantially developed PDs requires a Land Use Plan amendment and either preparation of a new master plan or redesignation to an appropriate land use designation(s) and associated rezoning to a consistent district(s).

2-43. Pacific Ridge. Require all of the following for the on-going development and maintenance of Pacific Ridge:

- a. **Settlement Agreement.** All on-going activities and development shall comply with the approved settlement agreement of 2004 as signed by Ailanto Properties, Inc., the California Coastal Commission, and the City of Half Moon Bay.
- b. **Additional Development.** Ensure that any additional development within Pacific Ridge complies with the Pacific Ridge Settlement Agreement and is compatible in character with the earlier phases of development. In addition, the following policies shall apply to new development in this PD:
 - i. *Additions and New Uses.* New development or new uses affecting the homes or their sites for any of the phases in the future shall comply with City requirements for single-family residential development including but not limited to additions, landscaping, and home occupations;
 - ii. *Accessory Dwelling Units.* Allow accessory dwelling units according to the IP.
- c. **Drainage System.** Maintain the on-site drainage system pursuant to the subdivision improvement plans.
- d. **Circulation Linkages.** Require that the cul-de-sac at the terminus of Upper Terrace Avenue be kept open for bicycles and pedestrians and provide for connections to the future Vista Trail.
- e. **Habitat Management Plan.** Implement, manage, inspect and review reports for the Pacific Ridge Open Space Habitat Management Plan for Areas A and B. Encourage conveyance of Areas A and B to a resource management agency.

2-44. Matteucci. Require all of the following for the on-going development and maintenance of the Matteucci PD:

- a. **Additional Development.** Ensure that any additional development within the Matteucci PD complies with the Matteucci Specific Plan.

- b. **Neighborhood Agreement.** All on-going activities and development shall comply with the Matteucci Agreement as entered into in September 2001 by the original subdivider with respect to height limits for residential development and landscaping.
 - c. **Undeveloped Lots.** Lots fronting on Jenna Lane may be developed pursuant to the Matteucci Specific Plan. The seven western lots may be developed with uses allowed in Rural Coastal areas with the exception of new dwelling units, which are not permitted. In the case where a Jenna Lane landowner also has ownership of a western lot, as a condition of approval, deed restrictions are required on the western lot to include right-to-farm disclosures for the agricultural use to the west and to limit future development to drought tolerant landscaping, stormwater management, habitat restoration and conservation, and other uses consistent with scenic and visual resources standards. A PUD plan amendment shall be required to develop the western lots with more intense land uses than those permitted herein.
 - d. **Additions and New Uses.** New development or new uses affecting the homes or their sites in the future shall comply with City requirements for residential development including but not limited to additions, landscaping, and home occupations.
 - e. **Accessory Dwelling Units.** Consistent with the Matteucci PUD plan, allow accessory dwelling units according to the IP.
 - f. **Buffers.** Ensure that development includes all necessary buffer improvements (including but not limited to such techniques as setbacks and fences) to confine urban impacts to the development site and avoid conflicts with permanent agricultural use of the adjacent lands to the west and ESHA.
- 2-45. Ocean Colony.** Require all of the following for the on-going development and maintenance of Ocean Colony:
- a. **PD Approvals.** Allow Ocean Colony PD to be completed in accordance with the Existing Country Club PUD Approvals and the provisions of that certain instrument entitled "Offer to Dedicate Trail Easement and Declaration of Covenants and Restrictions" recorded in the Office of the Recorder of the County of San Mateo, State of California, on August 21, 1981, as Instrument No. 80020AS.
 - b. **Additional Development.** Ensure that any additional development within Ocean Colony complies with the Country Club PUD approvals and is compatible in character with existing development. Additional development and specific considerations include the following:

- i. *Residential and Mixed-Use.*
 - 1. Multi-family and Mixed-Use Residential. Multi-family development as single-use or in mixed-use configurations is allowed on Highway 1 frontage parcels at a density for the residential development not to exceed 16 units per acre; and at an intensity for the commercial portion in mixed-use development not to exceed 0.40 FAR.
 - 2. Additions and New Uses. Additions or new uses affecting the homes, or their sites shall comply with City requirements for residential development including but not limited to additions, landscaping, and home occupations.
 - 3. Accessory Dwelling Units: Allow accessory dwelling units according to the IP.
- ii. *Non-Residential.*
 - 1. Quasi-public uses. Churches, private schools, and childcare centers are allowed in locations consistent with the Country Club PUD approvals.
 - 2. Commercial. Community-serving commercial uses including but not limited to medical office and personal services, as well as convenience retail, restaurants, and lodging are allowed at an intensity not to exceed 0.60 FAR.

SUBSTANTIALLY UNDEVELOPED PLANNED DEVELOPMENTS

There are seven substantially undeveloped PDs in Half Moon Bay brought forward from the 1996 Land Use Plan. The Podesta PD is within the Town Center. The remaining six undeveloped PDs are located outside of the Town Center, namely Nurserymen's Exchange, Surf Beach/Dunes Beach, Venice Beach, Carter Hill, West of Railroad, and North Wavecrest.

Many of the undeveloped PD areas contain valuable biological resources and are also subject to hazards such as bluff and watercourse erosion, flooding, landslide, and wildland fire. Several undeveloped PDs also contain paper subdivisions from attempts in the early 1900s to fund the proposed railroad that was intended to span from San Francisco through Half Moon Bay to Santa Cruz. These paper subdivisions include lots in both public and private ownership, substandard-sized lots, single lots that appear as multiple lots on antiquated subdivision maps, and lots located in areas with sensitive habitat and at high risk to erosion and flooding. The paper subdivisions often conflict with site conditions. These conflicts are exacerbated by the lack of infrastructure and therefore require a more conservative approach to site planning and determining sustainable land use options and appropriate densities and intensities for future development.

Planning Approach for Substantially Undeveloped PDs

The 1996 Land Use Plan included policies for each of the PD areas that identified permitted land uses and protected and enhanced natural resources, coastal access, scenic and visual resources, and cultural resources. In many cases, the 1996 Land Use Plan land uses are brought forward because they remain viable for a particular area. However, challenges to planning these areas have remained since the 1996 Land Use Plan was certified. Each PD and the overall PD planning process therefore received a fresh look with this Land Use Plan.

The approach to updating and establishing new policies for the PDs falls within the same framework as planning for the rest of the city. The over-arching strategy is to concentrate development within the Town Center, preserve ESHA and agricultural land uses, avoid hazards, facilitate coastal access and recreation, incorporate open space and infrastructure, provide appropriate locations for needed land uses at appropriate densities and intensities, and maintain consistency with the requirements of the Coastal Act.

Because of changing environmental conditions and regulatory setting, the LUP includes a comprehensive planning approach and standards for PD areas. As part of the application process for master plans, the City will require a site assessment of PD areas to establish critical site plan design principles that may be submitted prior to or concurrently with the master plan application. The intent of the preliminary assessment is to support the master planning process, including to help ensure that any proposed master plan can comply with applicable LUP policies. The LUP addresses the following PD planning needs:

Natural Resources. In addition to the comprehensive requirements for habitat protection contained in Chapter 6. Natural Resources, PD policies require site studies to identify the presence of ESHA, potential ESHA, and required buffer areas. This assessment must consider any pre-development uses or actions that may have impacted habitat and must include a formal wetland delineation if applicable. The site assessment should then be used to inform master planning components, such as how different types of development can be accommodated within or near an ecosystem so as to improve its value and functionality, in conjunction with the specific habitat protection requirements of Chapter 6. Natural Resources. Habitat restoration and conservation are established as permitted uses in all substantially undeveloped PDs, including in advance of a certified master plan.

Agriculture. Preservation of existing agricultural land uses and prime soils must be considered in PD planning, particularly for PDs located outside of the Town Center. Methods for retaining agricultural operations and prime soils include clustering development away from prime soils, encouraging small-scale farming and community gardens, supporting compatible supplemental uses on existing agricultural operations, and providing buffers to reduce land use conflicts between any agricultural use and the proposed PD land uses. Where conversion of prime soils is permissible, mitigation is required pursuant to the policies of Chapter 4. Agriculture of the Land Use Plan.

Environmental Hazards. PDs can be at risk of a range of hazards including fire, flooding, erosion, landslides, and sea level rise, depending on their location and physical characteristics. Strategies for hazard avoidance and sea level rise adaptation are primarily addressed in Chapter 7. Environmental Hazards of the Land Use Plan. Fire protection measures will include required setbacks from areas with high fuel load and designated Very High Fire Severity Zones, as well as a comprehensive fuel modification plan for the PD site. PDs located near the shoreline or natural watercourses will need to assess vulnerability to erosion, flooding, and sea level rise, and will be required to provide buffers to allow for land loss due to sea level rise and bluff erosion. Siting and grading restrictions will apply on steep slopes to avoid erosion and landslide potential.

Visual Resources. Substantially undeveloped PDs are designated as visual resource areas in Chapter 9. Scenic and Visual Resources of the Land Use Plan. Several of the City's substantially undeveloped PDs are located along major coastal accessways or the shoreline, or both, and may provide scenic views of the ocean, Pillar Point, native vegetation, habitat areas, upland slopes, and agricultural operations. Comprehensive site assessments to identify the presence of and methods for protection and enhancement of these scenic qualities are required for the master planning process. Upon substantial buildout, a PD is no longer considered a visual resource area but must maintain the visual resource protections established by the approved master plan and the LCP for any new development or redevelopment.

Open Space. All undeveloped PDs must retain at least 20 percent of their gross acreage in open space. Although private open space contributes to development quality, and may satisfy other open space requirements, it does not count toward the 20 percent requirement. Public open space is strongly preferred whenever policies allow either public or private open space. For residential development, public open space must include a public neighborhood park in conformance with the City's standard of 5 acres of parkland per one thousand residents, as discussed further in Chapter 5. Coastal Access and Recreation. The intent of this requirement is to ensure that each PD includes a park sized to serve at least the potential population of the resulting new neighborhood. Definitions of these different types of open space are as follows:

Public open space. Includes but is not limited to neighborhood and other public parks and accessory parking lots, beaches, bike paths, hiking or equestrian trails, and vista points, all of which are accessible to members of the general public. Public open space does not include areas which are unusable for recreational purposes, such as private or public streets, private parking lots, and hazardous areas such as steep slopes and bluff faces. ESHAs, green infrastructure for stormwater management, and archaeological sites may be included in public open space only if such areas are contiguous with or otherwise contribute to the open space area usable by the public for passive recreation, including walking, wildlife viewing.

Common open space. Includes but is not limited to recreational areas and facilities for the use of prospective residents of a development, such as tennis courts, golf courses, swimming pools, playgrounds, or community gardens. Common open space does not include driveways, parking lots, private patios and yards, or other developed areas.

Private open space. Includes but is not limited to patios, decks, and yards for the private use of the residents of individual units, and includes land permanently dedicated to open field agricultural use.

Infrastructure. Infrastructure is addressed for the City as a whole in Chapter 3. Public Works. Water demand and wastewater treatment capacity are evaluated as part of the assessment for the entire LUP build-out, which assumes build-out of all of the PDs. Trip generation for each PD is also considered in the high-level assessment of the circulation system in Chapter 3. For individual PDs, multi-modal circulation, coastal access connections, and access to and through each PD must be considered in its planning. This includes linkages for bicycle and pedestrian access as well as opportunities for transit service. For each PD, stormwater management must be implemented through green infrastructure. Portions of PD areas must be reserved to accommodate green infrastructure systems to address all onsite drainage needs in accordance with City performance standards, and to provide additional capacity to improve stormwater management from a systematic perspective throughout a watershed or along a watercourse. Such systems must be designed without reliance on any new outfalls to watercourses or the ocean except where an outfall would preserve or enhance habitat value. Consideration must be given to upstream and downstream impacts from new impervious surfaces, and low impact development strategies are required to reduce runoff.

Needed Uses. The community outreach process and other studies leading up to the Land Use Plan update identified that many important land uses are scarce or unavailable in Half Moon Bay. These land uses - including but not limited to assisted living, childcare, medical services, diverse housing options, light industrial, and lower-cost overnight accommodations and visitor-serving uses - were considered for each case and incorporated into the portfolio of potential land uses for each PD where compatible and appropriate. These uses are also supported by Policy 1-5. Social Equity and Environmental Justice.

Buildout Density and Intensity. The 1996 LUP assumed a base residential density for PDs of 2 residential units/acre with allowances for revisions and did not specify intensity limits for non-residential development. In the 1996 LUP, densities were established based on gross land area and, as a result, significantly overstated the carrying capacity of many of the PDs, especially those on the west side of Highway 1, which contain significant coastal resources and hazards, and Carter Hill, which is located within a very high fire severity zone.

The updated LUP considers both residential density and non-residential intensity for development in each substantially undeveloped PD. In each case, residential density and non-residential intensity is established based on net site area available for new development. This approach excludes watercourses, protected coastal resources and buffers, hazards, and lands in public or land trust ownership for all PDs. The master planning process will bring forth additional considerations for assessing appropriate build-out for each PD, such as agricultural preservation and visual resource protection.

Subdivision and Neighborhood Design. To accommodate protection of coastal resources and hazard avoidance, re-platting or retirement of development potential of existing lots will need to occur in most cases. Lot merging, purchasing development potential through lot

retirement, and transfer of development rights can be effective tools for maintaining economic value while also ensuring that development occurs in appropriate locations, densities, and intensities with neighborhood planning as the ultimate context for subdivision design. A holistic consideration of any potential new neighborhood will also address land use conflicts such as noise and lighting; establish architectural and aesthetic compatibility with natural surroundings and adjacent neighborhoods; and enhance, support, and connect to adjacent neighborhoods and portions of the community. PDs offer an opportunity to create high-quality neighborhoods and special use areas to serve Half Moon Bay's needs through and beyond the planning horizon.

POLICIES – SUBSTANTIALLY UNDEVELOPED PLANNED DEVELOPMENTS

The following PD policies apply to all of the substantially undeveloped PDs and focus on the master planning process. The policies are followed by descriptions of the eight substantially undeveloped PDs. For each individual PD, key development considerations are presented. These considerations, although preliminary, are meant to provide a starting point for master planning each area.

2-46. Comprehensive Master Planning. The entire PD area shall be comprehensively planned as a unit by the City or by an individual landowner(s) with a master plan as follows:

- a. Master plans may be established as specific plans (Government Code Section 65450) or precise plans as guided by the Land Use Plan's development vision for each individual PD.
- b. City-approved master plans shall be certified by the California Coastal Commission as an amendment to this Land Use Plan, with the policies of Chapter 3 of the Coastal Act as the legal standard of review.
- c. In the case of any PD where portions are in separate ownership, approval may be given for development of a single parcel or group of parcels, provided that the City has approved and the Coastal Commission has certified a master plan for the entire PD area as required by the provisions of this section.

2-47. Master Plan Site Assessment. Require a comprehensive site assessment of the entire PD area as an initial or concurrent submittal for master plans. The assessment shall determine the net site area as the basis for determining residential and non-residential buildout; consider the PD area in the context of the LUP's development vision for each individual PD; present preliminary concepts for replatting if applicable; and identify methods for overall protection and enhancement of coastal resources. A preliminary assessment shall evaluate and identify (including as these topics are addressed in more detail in other LUP chapters):

- a. *Natural Resources.* ESHA, required buffers, potential ESHA that may require future study, and identification of predevelopment that may have impacted or removed ESHA. If applicable, wetland delineation is a requirement for a complete application. In addition to required buffers, the assessment should consider what

the ESHA needs to function properly (e.g. wildlife corridors, species diversity, habitat resiliency) as part of the plan for protection, as well the need to accommodate inland migration due to sea level rise or erosion.

- b. *Agriculture.* Existing agricultural uses and approaches to retain such uses especially in cases of prime soils; locations for agricultural buffers from non-agricultural uses within the PD site plan design as applicable; and preliminary feasibility studies pursuant to Policy 4-9 with plans for mitigation in the case of proposed conversions of agricultural lands to new non-agricultural uses.
- c. *Environmental Hazards.* Preliminary assessment and mapping of hazards, considering on- and off-site hazard risks and impacts, including but not limited to site contamination, flood, tsunami inundation, erosion (blufftop and banks of watercourses), sedimentation, fire, seismic and geotechnical conditions such as steep slopes and areas subject to landslide. In the case of bluff erosion, it must be established that development will not be subject to risk of loss from bluff erosion for its economic life.
- d. *Open Space.* Locations for meeting the 20 percent open space requirement, and the City's Parkland Standard in the case of residential development with at least half of the provision comprised of public open space.
- e. *Infrastructure.* The provision of public services including water, sewer, and multi-modal circulation.
- f. *Access.* Existing and proposed access points along Highways 1 and 92, primary interconnectivity routes within the PD and to other neighborhoods; and conceptual level plans for all primary modes of transportation including bicycle, pedestrian, and transit.
- g. *Stormwater Management.* Potential locations for and capacities of green infrastructure systems.
- h. *Visual Resources.* Existing visual resource areas, including but not limited to scenic coastal access roads, the California Coastal Trail, broad ocean views, significant plant communities, and areas above the 160-foot contour line.
- i. *Cultural Resources.* Potential for archaeological and historic resources so that preservation can be addressed in the PD master plan.
- j. *Neighborhood Design.* Potential land use conflicts such as noise and lighting; how new development can enhance, support, and/or connect to other neighborhoods; and ways to accommodate visitor access needs without impacting existing or new residential neighborhoods.

2-48. Master Site Plan Design. Site plan design shall be prepared to comply with the findings of the Master Plan Site Assessment, shall incorporate flexible siting and

design concepts such as clustering and/or spreading out of development, and shall accommodate residential, non-residential, and/or mixed-uses to accomplish the following:

- a. Protect coastal resources, including but not limited to ESHA, coastal access, view sheds, archaeological sites, historic resources, and agricultural lands as required by the Coastal Act;
- b. Avoid siting structures in hazardous areas;
- c. Provide public open space, recreation, and/or beach access.
- d. Protect the scenic qualities of the site as a visual resource area; and
- e. Provide holistic neighborhood design.

2-49. Master Plan Standards. Master plans shall include development and performance standards including but not limited to the following:

- a. Development Standards. Maximum building height, minimum lot size, lot coverage, FAR, minimum setbacks and/or build-to lines, daylight plane, multi-modal site access and parking requirements, right-to-farm provisions, buffers from ESHA and agricultural uses, stormwater management capacity, and other appropriate criteria.
- b. Performance Standards. Thresholds to protect viewsheds, reduce vehicle miles traveled (VMT) and greenhouse gas emissions, avoid noise, vibration, and lighting impacts; and other appropriate measures including sustainable development methods.
- c. Phasing. Phasing plans that ensure timely completion of improvements and prioritize public benefits and infrastructure (i.e. parkland, roads). Updated environmental review may be required between phases.

2-50. Planned Development Uses. The following uses are permitted in PDs:

- a. Uses adopted in a master plan for the PD, as guided by the LUP's development vision for each individual PD and by Policy 1-5. Social Equity and Environmental Justice;
- b. Habitat restoration and conservation uses;
- c. Agriculture and agriculture compatible uses including farmworker housing;
- d. Educational and resource conservation and restoration projects; and
- e. Public recreational access facilities (including lateral and vertical coastal accessways) and open space.

2-51. Uses Allowed Prior to Master Planning. Existing and new uses allowed in advance of master plan certification for PD areas include:

- a. Existing conforming and non-conforming uses;

- b. Existing, new, and/or expanded agriculture and agriculture compatible uses consistent with the Rural Coastal land use designation including residential development consistent with the Workforce Housing Overlay land use designation, Chapter 4 requirements for agricultural accessory and supporting uses, and Chapter 6 requirements;
- c. Habitat restoration and conservation projects;
- d. Lateral and vertical coastal accessways;
- e. Multi-use trails including the California Coastal Trail which may be located within the 300-foot setback from the blufftop edge;
- f. Environmental hazard mitigation;
- g. Ancillary facilities to support resource dependent uses and coastal access including small parking areas, restrooms, wildlife viewing facilities, and similar amenities; and
- h. Accessory dwelling units with existing single-family homes consistent with State law.

Uses shall be sited so as to anticipate and not preclude future development of the PD pursuant to the policies herein.

2-52. Maximum Planned Development Buildout. Each master plan shall specify the maximum residential density and non-residential intensity of development permitted within the PD area based on the preliminary site assessment required by Policy 2-47.

The allowable buildout will be reduced to meet the coastal resource protection requirements of the LCP and Coastal Act or if it is determined that coastal access will be substantially impaired; and if other infrastructure and services are inadequate or otherwise cannot be provided to support the proposed development.

2-53. Planned Development Net Land Area. Net land area for the purposes of determining base residential density and non-residential intensity for the PD master plan shall include only the potentially developable portion of a given site. Net land area shall not include lands subject to the following conditions:

- a. *ESHA*: Areas designated as sensitive habitat or buffers to sensitive habitat including but not limited to terrestrial ESHA, riparian corridors, and wetlands;
- b. *Watercourses*: Any portion of a site within the bounds of any watercourse or drainage easement and its associated buffers, as well as any wetlands and buffers that are not otherwise designated ESHA;
- c. *Accessways*: Existing public and private streets including paper streets and other required public rights-of-way such as trails whether acquired in fee, easement, or otherwise;
- d. *Environmental Hazards*: Areas with steep slopes over 30 percent, within 300-feet of a coastal bluff face, within 100 feet of a very high fire severity zone and/or

habitat determined to have a high fuel load, subject to flooding from a 100-year storm event, subject to inundation from tsunami, and/or subject to geologic instability such as landslide;

- e. *Visual Resources:* Areas above the 160-foot contour; and
- f. *Permanently Conserved Areas:* Parcels or areas where development rights have been retired, where development is prohibited by deed restriction, or are in a public or open space land trust.

2-54. Planned Development Base Residential Density. For preliminary planning purposes, base densities shall be established as follows:

- a. *Town Center.* 4 units per acre net land area
- b. *Outside Town Center.* 2 units per acre net land area

Base density may be revised upward or downward dependent upon on the carrying capacity of the PD area as evaluated through the Master Plan site assessment and the availability of infrastructure. Changes may result from invocation of State density bonus provisions for affordable housing or as part of a transfer of development rights or other similar program. In all cases, all units, including density bonus units and accessory dwelling units, shall be accounted for in the master plan approved for the PD.

2-55. Planned Development Base Non-Residential Intensity. Non-residential development intensities for PD master plans shall be based on net land area. Non-residential development intensity limits may be specified as a maximum square footage or as a maximum floor-area-ratio (FAR). Generally, non-residential development intensity limits shall be the same as those established for the land use designation most consistent with the type of non-residential development specified for the PD area.

2-56. Constitutional Protections. Each master plan shall include policies and programs ensuring that implementation of the plan will not take or damage private property for public use, without the payment of just compensation, therefore.

2-57. Provisions for Housing Affordability. New residential development in substantially undeveloped PDs shall be comprised of lower-cost development types with smaller units. Lower-cost development types include medium-density small single-family homes, cottages, attached townhomes, live-work units, duplexes, triplexes, and garden apartments; and high-density multi-family and mixed-use development. Generally, if single-family homes are proposed in a PD, they should be no more than 1,500 to 1,800 square feet. For PDs with 10 or more residential units, at least 20 percent of the residential units shall be deed restricted and made affordable to lower income households in perpetuity.

2-58. Visual Resources. In accordance with Chapter 9. Scenic and Visual Resources, substantially undeveloped PDs are designated visual resource areas and shall require a comprehensive analysis of existing visual resources, including but not limited to upland slopes, significant plant communities, and broad ocean views; methods for

protecting and enhancing such resources; and assessment of any proposed impacts to such resources. Where broad ocean views are available across a substantially undeveloped PD, structures shall be sited and designed to preserve unobstructed public ocean views to the extent feasible through the following methods:

- a. Clustering or distributing structures where necessary to provide greater view protection;
- b. Limiting structures to a 15-foot height limit unless an increase in height would not obstruct public views to the ocean from the highway or would facilitate clustering of development so as to result in greater view protection;
- c. Providing setbacks from scenic corridors including Highway 1, the California Coastal Trail, and scenic coastal access routes as specified in Chapter 9. Scenic and Visual Resources to ensure; and
- d. Providing landscaping which, when mature, will not block public ocean views.

Upon substantial buildout, a PD is no longer considered a visual resource area but is required to maintain visual resource protections with any new development or redevelopment in accordance with the approved master plan and applicable policies of this LCP.

2-59. Open Space in Planned Development. Open space requirements for each PD shall be established in the master plan. At least 20 percent of the gross area of the PD must be designated open space, according to the policies set forth below. The master planning process shall determine whether more than 20 percent of the area must be open space to provide adequate coastal access and recreation and protection of public views.

- a. Public open space: Public open space is preferred to common open space and may comprise all of the required open space for a PD. If master planning determines that more than 20 percent of the gross PD area is needed to meet Coastal Act and LUP policy requirements, the additional open space shall be public open space. For each PD area with maximum build-out potential of more than 20 residential units, a portion of the public open space must be comprised of a neighborhood park sized to meet or exceed the City's parkland standard of 5 acres per 1,000 residents.
- b. Common open space: Common open space may comprise up to half (10 percent of the minimum 20 percent requirement) of the total required open space.
- c. Private open space: Private open space may be included in the master plan, but does not count toward the 20 percent open space requirement.
- d. In-lieu fees: For PDs subject to significant development constraints and/or with a buildout of fewer than 20 units, payment of an in-lieu fee may be preferable to the provision of parkland. In-lieu fees shall not otherwise be permitted to substitute for required open space.

- 2-60. Planned Development Circulation.** Provisions for multi-modal circulation, parking, and ingress/egress shall be incorporated into the master plan. New vehicular ingress and egress points to PDs from Highway 1 and Highway 92 are prohibited unless no feasible alternative exists. All existing and proposed vehicular access points shall be assessed for the need for safety or infrastructure improvements during the master planning process. Multi-modal improvements shall be provided to enhance coastal access and recreation and to reduce automobile trips.
- 2-61. Green Infrastructure.** Green infrastructure provisions shall be incorporated into the master plan with a minimum design capacity to contain pre-development runoff volume for a 10-year storm event for 2 hours or to another City standard, whichever is greater. The green infrastructure system shall further be designed without reliance on any new outfalls to watercourses or the ocean, except where such outfall would preserve or enhance habitat value. The design capacity must minimize impacts beyond the boundaries of the PD. Such provisions include but are not limited to swales, detention basins, and dechannelizing watercourses if applicable. Area utilized for green infrastructure may be part of required public open space area provided that minimum design capacity standards are met.
- 2-62. Planned Development Infrastructure Concurrency.** Infrastructure for PDs shall be fully funded by development. Infrastructure shall be incorporated in advance of unphased development or concurrently with phased development.
- 2-63. Planned Development Neighborhoods.** In the case of residential and mixed-use PDs, community design elements shall provide for safe and walkable neighborhoods accessible to the public with usable public spaces, compatibility with adjacent uses, and connectivity to other parts of town to create high-quality living environments with access to goods, services, and recreational space.
- 2-64. Rezoning after Master Planning.** A master plan may provide that regulation of future development within the master plan area would be governed by an applicable zoning district consistent with all of the policies and standards in the master plan. In such a case, a PD area would be redesignated to a consistent land use designation(s) and associated zoning district(s).
- 2-65. Rezoning in Lieu of Master Planning.** In the event that the master planning process does not proceed for a substantially undeveloped PD, the entire PD may be redesignated to an appropriate land use designation(s) and associated zoning district(s) as guided by the LUP's development vision for each individual PD.

Substantially Undeveloped PD Site Information & Development Vision

The following sections provide an overview of the site characteristics and the development vision for each of the seven substantially undeveloped PDs, listed from north to south. This information is intended to guide the master planning process.

Nurserymen's Exchange

Approximate Site Area	37 acres gross
Potentially Allowed Uses	Residential, agriculture, agricultural compatible, quasi-public, and commercial uses
Development (2020)	Vacant, formerly agriculture
Natural Resources	Roosevelt Creek traverses the southern portion of the site, riparian scrub along the Highway 1 frontage, Monterey pine forest habitat upward sloping northeast corner of the PD
Coastal Access	Eastside Parallel Trail extension planned along western side of PD
Coastal Recreation	None existing; potential for future access to upland hillsides
Agriculture	Formerly in agricultural use and adjacent to greenhouse operations; prime soils and non-prime soils
Environmental Hazards	Eastern portion of the PD is steeply sloped; adjacent uplands are in the Very High Fire Severity Zone; dams and impoundments along Roosevelt Creek pose risk of flood hazards including erosion, sedimentation, inundation, and accelerated downstream flows
Visual Resources	Visible from Highway 1 scenic corridor; significant views over the site to the upland slopes; eastern portion of site above 160-foot contour line

Site Description. This PD is located at the northern city boundary on the east side of Highway 1. There are approximately 37 acres under two separate ownerships as of 2020, with the majority landowner holding almost 36 acres. Although the site contains both prime and non-prime (class I and II) soils, it has been used in the past for only limited agriculture production. Two driveways along Highway 1 provided access to the former agricultural use. Access was also taken from Alto Avenue along the northern boundary, as well as via a shared drive along the southern boundary of the PD. Highway 1 north of Highway 92 has the heaviest peak traffic in the Planning Area and is not well served by transit. The PD area is not within walking distance of most services.

Site Constraints. Nurserymen's Exchange is visible from the Highway 1 scenic corridor and provides views across the site to the upland slopes. The easternmost portion of the site is above the 160-foot contour line, with areas above the 90-foot contour line characterized by slopes over 30 percent grade. This eastern portion of the PD is also within 100 feet of the Very High Fire Severity Zone. The potentially buildable portion of the PD is a relatively flat area at the foot of the steeply sloped lands to the east. The PD is traversed by Roosevelt Creek and several manmade drainage ditches. The northern-most ditch is the downstream end of a culvert system that channels water from a riparian stream that flows from the north under Alto Avenue, then crosses under the gravel road before daylighting. Riparian vegetation is present along the Highway 1 frontage and on both sides of the Roosevelt Creek watercourse.

Alto Avenue was constructed at a substandard width and may require improvements to effectively serve as a main access point and provide emergency vehicle access. This effort would need to be coordinated with San Mateo County as Alto Avenue is outside of the City's jurisdiction.

Development Vision. Low density residential development has been envisioned for this area for many decades. Smaller homes are strongly preferred to meet the City's identified need for more affordable housing inventory. Neighborhood serving commercial uses or services such as a convenience store or café and small-scale, community-oriented quasi-public uses such as a small childcare center are supported in so far as they can be demonstrated to reduce vehicle trips and/or vehicle miles traveled. Agricultural and agricultural-compatible land uses would also be fitting with the site's soil types and adjacent greenhouse uses.

Master planning should consider clustering residential development away from the higher intensity greenhouse uses to the south and avoiding new vehicular access points from Highway 1. Alto Avenue and the shared drive could provide access on two sides of the property below the 90-foot contour line. Development of this PD could present an opportunity to align the access drive with Roosevelt Boulevard and establish a controlled intersection as envisioned for the Town Boulevard, such as through a round-about. Circulation and coastal access and recreational provisions should consider connection to the Eastside Parallel Trail on Highway 1 and opportunities for future trail access to the upland hills. Green infrastructure improvements should consider the potential for upstream detention to avoid downstream impacts as well as potential opportunities for replacing gray infrastructure with green infrastructure improvements.

Should master planning not proceed or redesignation be preferred, the Nurserymen's Exchange PD could be appropriate for the Rural Coastal, Horticulture Business, and/or Residential – Low Density land use designation and corresponding zoning district(s).

Surf Beach/Dunes Beach

Approximate Site Area	48 acres gross
Potentially Allowed Uses	Residential, agriculture, and agricultural compatible uses
Development (2020)	Agriculture and equestrian operations, four single-family homes
Natural Resources	Adjacent to State Parks coastal lands including dunes, wetlands, snowy plover nesting habitat, and other sensitive areas; Frenchmans Creek and its riparian area along south side of the PD which includes a documented monarch butterfly overwintering site, California red-legged frog (CRLF), San Francisco garter snake (SFGS), and steelhead habitat; Pullman Watercourse on the north side with potential CRLF and SFGS dispersal habitat

Coastal Access	Young Avenue
Coastal Recreation	Adjacent to Coastal Trail and State Parks beaches
Agriculture	Agricultural operations on site, prime soils mapped south of Young Avenue and likely also occurring north of Young Avenue
Environmental Hazards	Tsunami inundation zone northwest corner of PD; potential localized flooding from Pullman Watercourse and Frenchmans Creek; fire hazard associated with eucalyptus forest habitat on the south side of the site
Visual Resources	Visible from the Highway 1 and Coastal Trail scenic corridors; broad ocean views across the site from Highway 1; contains Young Avenue scenic coastal access route; expansive views of upland slopes across the site from Coastal Trail and beach; Frenchmans Creek riparian corridor and significant tree stands; active agricultural use has scenic and visual significance

Site Description. The Surf Beach/Dunes Beach area is a partially undeveloped area totaling about 48 acres, bisected by Young Avenue and bounded by Half Moon Bay State Beach on the west and south, Highway 1 on the east, and the Stoloski/Gonzalez subdivision and Miramar neighborhood on the north. As of 2020, land north of Young Avenue has been predominately in agricultural use, with some parcels from the old unimproved Surf Beach subdivision now conserved by land trusts as open space. The area south of Young Avenue is used primarily for agriculture and stabling of horses. Frenchmans Creek riparian corridor and the Sweetwood Group Campsite are located south of the PD. Young Avenue is the primary vehicular point of access for the Surf Beach/Dunes Beach PD and is a designated scenic coastal access route. The Dunes Beach section of Half Moon Bay State Beach is accessed via Young Avenue. Because most of the PD area has been in agricultural use, very little coastal scrub or other habitat typically found in undeveloped areas west of Highway 1 are present.

Site Constraints. Site constraints for the Surf Beach/Dunes Beach PD include habitat considerations, land trust ownership, and presence of potential hazards, visual resources, and prime agricultural soils. Of note, the site is considered to have poor drainage which can be an indicator of wetland potential, although recent studies have not identified such wetlands. North of Young Avenue, land trust and public ownership account for nearly 2 acres and an additional approximately 2-acre area covering the northwest corner of the site is located in the potential tsunami inundation zone as mapped by the California Emergency Management Agency. South of Young Avenue is almost entirely mapped as containing prime agricultural soils.

Visual resource protection is a key consideration for this PD. The site is visible from the Highway 1 scenic corridor and contains a designated scenic coastal access route (Young Avenue). The site also provides broad ocean views from Highway 1, and views of the upland slopes are available over the site as seen from the Coastal Trail and beach. Policies brought forward from the 1996 Land Use Plan establish height limits for such areas at 15 feet unless

an increase in height would not obstruct public views to the ocean from the highway. Furthermore, the active agricultural operation has scenic and visual significance. A visual impact assessment will be an important factor in master planning this PD.

Lands with habitat value and environmental hazards surrounding the PD area may present additional constraints to consider for master planning. These include the Frenchmans Creek riparian corridor to the south, which is designated ESHA as presented in Chapter 6. Natural Resources, presents risk of localized flooding, and contains a eucalyptus grove with high fuel load and a monarch butterfly overwintering site; State Parks land to the west, which contains potential CRLF and SFGS dispersal and foraging habitat and snowy plover nesting habitat; and Pullman Watercourse to the north of the Stoloski/Gonzalez subdivision, which supports potential CRLF and SFGS dispersal habitat and presents risk of localized flooding. Drainage conditions, as in the Venice Beach area, are considered poor. It is anticipated that stormwater management using green infrastructure measures will require a higher design storm performance standard to be effective in the Surf Beach/Dunes Beach PD.

Development Vision. Envisioned land uses for the Surf Beach/Dunes Beach PD include residential, agriculture, and agricultural compatible uses. The bisecting Young Avenue provides an opportunity to cluster compatible land uses away from Young Avenue on either or both sides of the road while maintaining the scenic approach to the State Beach. Development setbacks from Young Avenue and from the State Parks land to the west would help preserve visual resources from the Highway 1 scenic corridor, the Young Avenue scenic coastal access route, and the Coastal Trail and State Beach scenic recreational areas.

North of Young Avenue, a new residential neighborhood could be compatible with the Miramar residential area to the north, and new public recreational area such as a neighborhood park could provide opportunities to both residents and visitors. Neighborhood design could preserve remaining agricultural operations or community garden space to take advantage of prime soils, emphasize walkability and otherwise be suitable for a multi-generational neighborhood with young families, seniors, and assorted other household groups of mixed income levels. Continued use of the area north of Young Avenue for agriculture or agriculture compatible uses is also supported.

South of Young Avenue, agricultural and agricultural compatible uses are envisioned to be well-suited with the adjacent group campsite, environmentally sensitive riparian corridor, and on-site prime agricultural soils. Ideal uses include low-impact camping, open field agriculture with ancillary uses, agritourism, ecotourism, equestrian uses, and other similar types of outdoor commercial recreation that do not require a heavy development footprint. These uses achieve Coastal Act goals of providing lower cost visitor-serving opportunities while maximizing preservation of prime agricultural soils.

The Surf Beach/Dunes Beach site presents numerous opportunities for improving multi-modal coastal access. Considerations include a separated class 1 bicycle and pedestrian route parallel to Young Avenue or along Knewing Avenue (a paper street bounding the north side of the PD), extension of the Naomi Patridge Trail on Highway 1, and an interconnected

network within the PD to link any future residential and recreational uses with the Coastal Trail. To reduce potential traffic impacts from new development, other circulation improvements could include a round-about at the intersection of Young Avenue and Highway 1. Within the PD, access to private development should be separate from Young Avenue to maintain this road as a primary coastal access route, such as with provision of a frontage road(s).

The PD's proximity to the Pullman Watercourse presents an opportunity for improving stormwater management on site and in Miramar to the north. The City could consider the benefits of reducing the risk of flooding and erosion of the Pullman Watercourse when evaluating the merits of a master plan for this area.

Should master planning not proceed or redesignation be preferred, the portion of the Surf Beach/Dunes Beach PD north of Young Avenue could be appropriate for the Residential – Low Density land use designation with the remainder being appropriately suited for the Rural Coastal land use designation.

Venice Beach

Site Area	44 acres gross
Potentially Allowed Uses	Residential, agriculture, and agricultural compatible uses
Development (2020)	4 units; non-agricultural equestrian operations
Natural Resources	Much of the PD is potential ESHA with suitable habitat for CRLF and SFGS; adjacent to State Parks coastal lands including dunes, wetlands, snowy plover nesting habitat, and other sensitive areas; Frenchmans Creek and its riparian area along north side of the PD, a documented monarch butterfly overwintering site and presence of steelhead; dusky footed woodrat nest previously sited
Coastal Access	Venice Boulevard
Coastal Recreation	Adjacent to Coastal Trail and State Parks beaches
Agriculture	Equestrian operations, mostly prime soils
Hazards	Potential localized flooding from Frenchmans Creek; fire hazard associated with eucalyptus forest habitat on both sides of the riparian corridor
Visual Resources	Visible from the Highway 1 and Coastal Trail scenic corridors; broad ocean views across the site from Highway 1; contains Venice Boulevard scenic coastal access route; expansive views of upland slopes across the site from Coastal Trail and beach; Frenchmans Creek riparian corridor and significant tree stands; active agricultural compatible use has scenic and visual significance

Site Description. The Venice Beach area is a partially developed area totaling about 44 acres. It is bordered on the north by Frenchmans Creek and on the south by the Casa del Mar subdivision. Venice Boulevard, an unimproved road to Venice Beach, bisects the area and is the primary vehicular point of access to the PD. Venice Boulevard is also a designated scenic coastal access route that provides access to the Coastal Trail and the State Beach. A 5-acre area of undeveloped land in scattered ownership on both sides of Venice Boulevard with four of these lots developed with single-family homes. North of the subdivision, there are two parcels totaling almost 9 acres; most of this area is developed for use as commercial equestrian operations, providing stables, rentals, and trails connecting to the equestrian trail adjacent to the Coastal Trail and State Beach. South of the subdivision, three parcels totaling 14 acres are undeveloped although they may have been used in the past to raise hay or barley. The PD contains central coast scrub habitat and invasive pampas grass, as well as prime agricultural soils.

Site Constraints. Site constraints for the Venice Beach PD include habitat considerations, land trust ownership, and presence of hazards, visual resources, and prime agricultural soils. Past biological resource evaluation of the western and southern portions of the PD indicate that these areas may be especially important as part of a habitat corridor and are characterized by central coast scrub which has been less disturbed than in other portions of the PD. Several sightings of CRLF have occurred in this area as indicated in Figure 6-3. Drainage conditions, as in the Surf Beach/Dunes Beach area, are considered poor. It is anticipated that stormwater management using green infrastructure measures will require a higher design storm performance standard to be effective in the Venice Beach PD.

Also similar to the Surf Beach/Dunes Beach PD, the Venice Beach PD offers a bi-directional viewshed with broad ocean views across the site from the Highway 1 scenic corridor and views of the upland slopes are available over the site as seen from the Coastal Trail and beach. In addition, Venice Boulevard is a designated scenic coastal access route. The 1996 Land Use Plan specified a 15-foot height limit for Venice Beach PD and other visual resource areas on the west side of Highway 1. This requirement is brought forward and allows for increased heights in cases where they would not obstruct public views to the ocean from the highway. Furthermore, the active agricultural compatible operation has scenic and visual significance. A visual impact assessment will be an important step in master planning this PD.

Lands with habitat value and environmental hazards surrounding the Venice Beach PD area may present additional constraints to consider for master planning. These include the Frenchmans Creek riparian corridor to the north, which is designated ESHA as presented in Chapter 6. Natural Resources, presents risk of localized flooding, and contains a eucalyptus grove with high fuel load and a monarch butterfly overwintering site; and State Parks land to the west, which contains potential CRLF and SFGS dispersal and foraging habitat and Western snowy plover nesting habitat.

Development Vision. Envisioned land uses for the Venice Beach PD include residential, agriculture, and agricultural compatible uses. Similar to Young Avenue in the Surf Beach/Dunes Beach PD, Venice Boulevard provides opportunities for clustering

development, protecting and enhancing visual resources, and improving coastal access. Residential development would preferably be clustered either towards Highway 1 or on either side of Venice Boulevard to maintain distance from potential habitat areas as well as to keep development setback from Venice State Beach. Agricultural and agricultural compatible uses are supported for the larger parcels on the northern end of the PD, such as low-impact camping, open field agriculture with ancillary uses, agritourism, ecotourism, equestrian uses, and other similar types of outdoor commercial recreation that do not require a heavy development footprint. The western and southern portions of the PD contain or abut habitat areas and would require further biological study, but would be appropriate for resource-dependent uses such as those permitted in Chapter 6. Natural Resources. These potential uses would preserve prime soils, be compatible with the on-site and surrounding habitat and recreational areas, and enhance lower-cost visitor serving opportunities.

For circulation and access improvements, continued use of Venice Boulevard as the primary access from Highway 1 is preferred. A Class 1 bicycle and pedestrian path could be established along Venice Boulevard to connect the Naomi Patridge Trail to the California Coastal Trail. Within the PD, access to private development should be separate from Venice Boulevard to maintain this road as a primary coastal access route, such as with provision of a frontage road.

Should master planning not proceed or redesignation be preferred, the portion of the Venice Beach PD comprising the unimproved Venice Beach subdivision could be appropriate for the Residential – Low Density land use designation. The larger, un-subdivided parcels on the north end adjacent to Frenchmans Creek could be appropriately suited for the Rural Coastal land use designation, with the larger, un-subdivided parcels on the south end most appropriately suited for the Regional Public Recreation and/or Open Space for Conservation land use designation.

Carter Hill

Approximate Site Area	53 acres gross
Potentially Allowed Uses	Agriculture, public facilities, open space conservation, and hazard avoidance uses
Development (2020)	3 residential units; Coastside County Water District tanks
Natural Resources	Characterized by Monterey pine and eucalyptus forest
Coastal Access	None existing
Coastal Recreation	Potential connection to Vista Trail
Agriculture	None existing
Hazards	Located within a Very High Fire Severity Zone; landslide risk
Visual Resources	Upland slopes, primarily located above 160-foot contour line

Site Description. The Carter Hill PD is bounded by the Pacific Ridge PD to the north, Half Moon Bay High School to the west, Highway 92 to the south, and the city limits to the east. This area consists of about 53 acres in seven parcels, including one owned by the Coastside County Water District containing water tanks and an access road to the Nunes Water Treatment Plant. As of 2020, two of the properties were developed with a home and outbuildings. Most of the site is very steep and is characterized by Monterey pine and eucalyptus forest.

Site Constraints. The entire property is located within the Very High Fire Severity Zone, with the exception of an approximately 1-acre parcel in the southwestern corner of the PD that is adjacent to but not accessible from Highway 92. The steep slopes present risk of landslides and erosion, as well as grading challenges for any development and road construction. Only about 15 acres of the PD are located below the 160-foot contour line, where the property is characterized by less steep slopes. Upland slopes above the 160-foot contour line are considered a visual resource area with development restrictions.

Development Vision. Envisioned uses for the Carter Hill PD include low occupancy and low trip generating uses due to the presence of extreme hazards and site constraints. This may include expansion of the existing Water District facility, hazard avoidance activities such as fuel management, hillside-appropriate agriculture such as viticulture, a potential trail connection to the future Vista Trail, and extremely limited low-density residential development as part of an agricultural use. Higher occupancy or higher intensity uses such as multiple units of farmworker housing cannot be accommodated on site. Agricultural compatible uses are not appropriate for this PD, with the exception of open space conservation and a recreational trail. Development should be clustered on the lowest portion of the hill, outside the Very High Fire Severity Zone where the site is relatively flat and also outside the scenic viewshed. Site access could be taken either from Lewis Foster Drive or from an access easement off of Highway 92. Both of these means of access are owned by the Cabrillo Unified School District.

Should master planning not proceed or redesignation be preferred, the Carter Hill PD parcels owned by Coastside County Water District could be appropriate for the Public Facilities and Institutions land use designation, with the remainder of the PD most suitable for the Rural Coastal and/or Open Space for Conservation land use designation.

Podesta *(formerly Podesta/Silvera)*

Approximate Site Area	35 acres gross
Potentially Allowed Uses	Residential, public and quasi-public, and commercial uses
Development (2020)	2 residential units and agriculture
Natural Resources	Low-lying portions of the site may have wetlands

Coastal Access	None existing; opportunity to connect to future Eastside Parallel Trail
Coastal Recreation	None existing
Agriculture	The site is characterized by prime soils and is in agricultural use
Hazards	The site has limited exposure to known hazards
Visual Resources	Visible from the Highway 1 scenic corridor, views across site to upland slopes; and the active agricultural use has scenic and visual significance

Site Description. The Podesta PD is located in the Town Center and contains about 34.5 acres of land situated between Highway 1, North Main Street, Half Moon Bay High School, Lewis Foster Drive, and the Highland Park neighborhood. The area consists of 2 parcels, one long strip of about 4.5 acres running along Lewis Foster Drive and the other, about 30 acres fronting on Highway 1. As of 2020, most of the PD was in agricultural use. The site was previously used for horticultural production. An agricultural pond is located on the southeastern side of the PD. The majority of the site is mapped as containing prime agricultural soils.

Site Constraints. Access to the Podesta PD is constrained. Its Highway 1 frontage lies within one of the most congested spans of the highway in close proximity to Highway 92 where gridlock occurs during peak traffic periods. The other frontage, Lewis Foster Drive, is the only access to Half Moon Bay High School and is heavily used during the weekday morning and afternoon peak traffic periods. Additionally, the site is visible from the Highway 1 scenic corridor and provides significant views across the site to the upland slopes. The active agricultural use also has scenic and visual significance.

Development Vision. The Podesta PD is envisioned as a walkable mixed-use neighborhood consisting of smaller scale housing units, potentially including senior housing. The City prefers that residential development in this PD be deed restricted affordable to lower income households to the extent feasible. The higher density allowance provided for this Town Center PD is intended to support that outcome. As the PD is located in the Town Center, community-oriented public and quasi-public uses and low-trip generating uses such as assisted living, neighborhood convenience commercial uses, and childcare centers are also preferred. Such uses could be incorporated in vertical or horizontal mixed-use formats. Other uses to support a complete neighborhood in this PD can include a community park. A community garden could also serve to reduce vehicular trips, preserve prime soils, and pay homage to the historical agricultural use of the site.

Traffic congestion and site access are significant constraints for this PD. Therefore, site access will need to be carefully planned with a range of improvements studied, including roundabouts, protected pedestrian crossings, and other features to maintain pedestrian and bicycle safety near the Half Moon Bay High School. As a mixed-use community, the envisioned uses are intended to have low trip-generation rates individually and to complement each other so as to further reduce overall traffic generated by any future development. Neighborhood level

transportation demand management could be supported with car-share, bike share and other facilities to reinforce the potential for lower rates of automobile ownership and daily trips taken per residential unit.

Master planning should consider siting the mix of uses to be arrayed such that a new walkable neighborhood would provide for compatible transition between Highland Park to the north and the industrial and commercial uses to the south, with the residential portion of the neighborhood buffered from North Main Street and Highway 1 by compatible commercial service and community-oriented public and quasi-public uses. Given the relatively large size of the property there is opportunity to site community-oriented uses in a central location, especially those that require more land area than other opportunity sites within the Town Center such as a large-scale park, childcare center, and indoor recreation. Master planning should also consider height limits that allow views to the upland slopes and provision for a connection to the future Eastside Parallel Trail.

Should master planning not proceed or redesignation be preferred, the Podesta PD could be appropriate for a mixed-use land use designation such as Commercial – General. However, due to the relatively large size of this PD and its location in the Town Center, the PD land use designation provides these properties with additional development opportunities and flexibility.

West of Railroad (formerly Arleta Park/Miramontes Terrace South, West of Railroad Avenue)

Approximate Site Area	37 acres gross
Potentially Allowed Uses	Open space conservation, regional public recreation, and residential uses
Development (2020)	3 homes
Natural Resources	The entire PD is potential ESHA with wetlands; found to be likely suitable foraging habitat for CRLF and SFGS; raptor and short-eared owl habitat; adjacent to Coastal Terrace Prairie ESHA
Coastal Access	Adjacent to a City-owned and maintained span of the California Coastal Trail
Coastal Recreation	Adjacent to Poplar Beach and State Parks Francis Beach
Agriculture	None existing
Environmental Hazards	Bluff erosion
Visual Resources	Broad ocean and bluff views across the site from Railroad Avenue; visible from Coastal Trail scenic corridor; expansive views of upland slopes across site from Coastal Trail; views of ESHA and significant tree stands

Site Description. The West of Railroad PD consists of a portion of the large Miramontes and Arleta Park tracts south of Kelly Avenue and west of Railroad Avenue. It contains small lots, with undeveloped street rights-of-way terminating at the public recreational area owned by the City of Half Moon Bay that comprises the Poplar Beach Blufftop Park. This area contains about 145 vacant lots and 3 developed with homes on 37 acres. The former railroad right-of-way, now owned by the City, abuts the eastern edge for the length of the PD. This strip of land is subject to a conservation easement managed by the Coastside Land Trust and designated Open Space for Conservation in this Land Use Plan update. A “rails to trails” multi-use path for this corridor is included in Chapter 5. Coastal Access and Recreation.

Site Constraints. Concurrently with the Land Use Plan update, the City completed detailed erosion studies of the City-owned and maintained Poplar Beach Blufftop Park area immediately west of the West of Railroad PD. The analysis considered existing on-going erosion conditions as well as the effects of sea level rise. The estimated location of the bluff edge in 2050 and 2100 was mapped for a “business as usual” condition as well as a mitigated approach wherein drainage and public access improvements are implemented. In the unmitigated case, the bluff face is projected to recede as much as 200 feet by 2100 which would bring it into the West of Railroad PD. The mitigated case is about half that, or 100 feet. In either case, it should be assumed that less blufftop land will remain between the West of Railroad PD and the beach below over the course of the Land Use Plan horizon to 2040; even less blufftop will remain in one hundred years (representing the anticipated life of residential development). As these blufftops support a heavily used section of the Coastal Trail and a variety of sensitive animal and plant species, this projected loss is significant.

The entire West of Railroad PD is designated potential ESHA in the Land Use Plan as it likely contributes to the overall biological productivity of the area for numerous special status and unique species including dispersal and foraging habitat. Previous studies have identified numerous wetland areas within and surrounding the PD, and an approximately 300-foot wide swath of Coastal Terrace Prairie habitat, designated as ESHA, is present along the blufftop edge immediately west of the PD. Any new development must provide buffers from these habitat types, as established in Chapter 6. Natural Resources. Additional site constraints include approximately 5.5 acres of land under public or land trust ownership as of 2020, and significant scenic views across the site facing west from the Railroad Avenue public right-of-way towards the ocean and facing east from the Coastal Trail to the upland slopes.

Development Vision. The West of Railroad PD has long been envisioned for public land acquisition with the intent of preserving the larger blufftop area for its significant habitat, coastal access and recreation, and scenic value. While the 1996 Land Use Plan included Planned Development policies for West of Railroad, it prioritized public acquisition by the State Department of Park and Recreation to assure an adequate buffer between residential and recreational use in an area where the width of current public ownership is quite limited.

The Land Use Plan update recognizes that acquisition remains a priority. Due to budget constraints and numerous competing interests, State Parks has not been able to purchase any of the remaining privately-owned lots. This situation is not likely to change. Because this area

is located immediately east of the City blufftop lands, these lots should be considered for acquisition directly by the City, through the City's lot retirement program, or by land trusts. Public land acquisition would allow this land to be used for green infrastructure to address runoff and erosion concerns along this blufftop area. It would also allow space for managed retreat of the Coastal Trail as the bluffs erode to maintain public access and recreational opportunities.

Although undesirable, residential development remains a potential use. Complete re-planning and re-platting of the area would be necessary to establish buildable lots, alter the mapped street system to minimize access conflicts and improve local circulation, avoid ESHA and conform to ESHA buffers, and preserve views along the blufftops within this significant visual resource area.

The 1996 Land Use Plan conveyed that development of this area was not an ideal outcome and assigned the Regional Public Recreation land use designation to the West of Railroad PD, which is consistent with the most appropriate use of this area. The Regional Public Recreation land use designation is thus carried forward for the 2020 Land Use Plan update.

North Wavecrest (a portion of the former Wavecrest Restoration Project)

Approximate Site Area	232 acres gross (including 134 acres accessed via Wavecrest Road, and 98 acres accessed via Redondo Beach Road)
Potentially Allowed Uses	Residential; public and quasi-public; visitor-serving commercial; open space conservation; and regional public recreational uses
Development (2020)	1 residential unit, horse pasture, informal trails and undeveloped lands
Natural Resources	An approximate 300-foot band along the western bluff frontage is designated as ESHA due to presence of Coastal Terrace Prairie habitat. The remainder of the PD is designated as Potential ESHA with wetlands; found to be likely suitable foraging habitat for CRLF and SFGS; raptor and short-eared owl habitat
Coastal Access	Wavecrest and Redondo Beach Roads are designated Coastal Access Routes, California Coastal Trail span is planned to traverse the western side of the PD between its northern and southern extents and provide connections to vertical access (Wavecrest Trail Phase 2), additional bicycle and pedestrian linkage identified for future implementation between Smith Field and the California Coastal Trail
Coastal Recreation	Passive recreational activities for pedestrians and bicyclists, birders, and other related activities

Agriculture	Open field agriculture operations to the northeast and horticultural businesses to the east
Environmental Hazards	Bluff and watercourse erosion, flooding
Visual Resources	Visible from Highway 1 scenic corridor; contains Coastal Trail scenic corridor, Wavecrest Road and Redondo Beach Road scenic coastal access routes, and scenic beach viewshed area including bluffs and ravines; broad ocean views across the site from Highway 1; expansive views across the site of upland slopes from Coastal Trail; significant views of open space conservation areas, riparian vegetation, significant tree stands, and agricultural operations.

Site Description. Formerly, the Wavecrest Restoration Project PD encompassed approximately 600 acres; including about 460 acres north of Ocean Colony (the "North Project Area"); and 140 acres south of Ocean Colony (the "South Project Area"). In 1981, the State of California and the City of Half Moon Bay designated the Wavecrest area as a California Coastal Conservancy Project referred to as the "Wavecrest Restoration Project." The Project was officially approved by the California Coastal Conservancy, California Coastal Commission, and the City of Half Moon Bay, and was intended to achieve Coastal Act goals of statewide significance and help meet local and regional housing needs.

The South Project Area moved forward with development following approval of a specific plan and Program EIR ("South Wavecrest Redevelopment Plan") in 1993, and is redesignated as Commercial – Visitor Serving land use with the 2020 Land Use Plan update. The North Project Area came forward for development with the Wavecrest Village Specific Plan, but that plan was appealed to the California Coastal Commission and ultimately withdrawn in 2000. As of 2020, much of the North Project Area had been acquired by conservation land trusts. This includes all land between Smith Field Park on the south and Seymour Street on the north, extending from Highway 1 to the blufftop, as well as substantial land holdings in the "paper subdivisions" to the west and south of Smith Field Park, and all land between Smith Field Park and Highway 1. The City of Half Moon Bay owns 16 acres of undeveloped land adjacent to the developed ballfields at Smith Field Park.

The Wavecrest Restoration Project PD is therefore redefined as the "North Wavecrest PD" for the 2020 Land Use Plan update. The large parcels in public and land trust ownership in the North Project Area, and the fully developed South Project Area, are removed from the PD boundary. This results in two distinct sections within the North Wavecrest PD: the northern 134 acres with access from Wavecrest Road; and the southern 98 acres with access from Redondo Beach Road. The redefined North Wavecrest PD is characterized by undeveloped land in scattered ownerships. A trunk sewer line runs north-south through the PD; otherwise, there are no water or sewer services and no paved streets. The Coastside Land Trust was planning the southern extension of the California Coastal Trail through North Wavecrest at the time of the LUP update.

Site Constraints. The entire North Wavecrest PD is potential ESHA. It contains a mosaic of coastal terrace prairie, wetlands, central coast scrub, Monterey cypress hedgerows, and non-native grasslands that support a variety of special status plant and wildlife species and winter foraging area for raptors. Areas closest to the bluff edge and gullies are subject to shoreline hazards, including sea level rise and bluff erosion. The Wavecrest Arroyo also presents erosion and flooding risk. Redondo Beach Road and Wavecrest Road are both designated scenic coastal access routes, and the PD as a whole provides sweeping views west from the Highway 1 scenic corridor to the ocean and east from the Coastal Trail to the upland slopes. Although the largest parcels in land trust ownership were removed from the PD boundary for the Land Use Plan update, a checkboard of land trust-owned parcels remain and present a challenge for master planning this PD. The entire PD has also been mapped as containing non-prime agricultural soils.

Development Vision. North Wavecrest PD is envisioned primarily for habitat conservation and restoration, hazard avoidance, public access and recreation, and lower-cost visitor serving uses as consistent with Coastal Act priorities. Low-impact camping, Coastal Trail connections, ecotourism, birding, small ancillary facilities, and other similar types of low-impact outdoor recreational uses would be supported. As in the case for the West of Railroad PD, public land acquisition is highly desired to achieve this vision. A transfer of development rights (TDR) program could also potentially help achieve this vision while providing for increased development potential in the Town Center.

Although not desirable, additional potential land uses in North Wavecrest include residential and visitor-serving commercial. Residential uses could be clustered near the Ocean Colony residential area for land use compatibility and accessibility from Redondo Beach Road, and should comprise smaller one-story structures to provide more affordable housing inventory and protect scenic quality. Visitor-serving commercial uses could be clustered near Wavecrest Road, which contains a Commercial – Visitor Serving land use node and compatible land uses, and could comprise uses supportive of a primary outdoor recreational use with a limited footprint such as a small café or convenience store. In any case, siting and design of potentially permitted uses should consider land use compatibility with surrounding land uses.

As the 2020 Land Use Plan revises the boundaries of North Wavecrest such that it is in two non-contiguous portions (the northern portion accessed by Wavecrest Road and the southern portion accessed by Redondo Beach Road), it may be appropriate to allow separate and/or phased master plans, provided that each master plan considers an area no smaller than the size of the existing paper subdivisions, ensures that it is feasible to plan remaining areas in a coherent manner, includes all necessary habitat buffer zones and will not adversely impact ecosystem functions, provides meaningful open space area, and addresses coastal resource values and protections of the North Wavecrest PD as a whole. Policy 2-46. Comprehensive Master Planning would apply to each phase of the PD in the case that a phased master planning approach is pursued.

Re-planning and re-platting would be essential for a master plan or plans to protect and improve coastal access, to ensure continuous lateral access and protected recreational

opportunities along the bluff edge, to reduce the potential impacts of new development, to restore damaged habitats and bluffs, and to protect watercourses. In any case, any permanent structures should be located at least 400 feet from the bluff edge to allow hazard avoidance, coastal terrace prairie conservation, and safe, natural bluff retreat. Future erosion studies may indicate that greater setbacks are necessary to fully avoid the hazard of bluff retreat and allow for inland migration of coastal terrace prairie habitat.

Should master planning not proceed or redesignation be preferred, the North Wavecrest PD could be most appropriate for the Regional Public Recreation and/or Open Space for Conservation land use designation but could support small portions of Residential – Low Density and Commercial – Visitor Serving land use designations as described above.

Residential Land Use Designations

The City's residential land use designations include Residential – Low Density, Residential – Medium Density, Residential – High Density, Mobile Home Park, and the Workforce Housing Overlay. Inside the Town Center, residential land uses are concentrated in South Downtown and the eastern portion of Heritage Downtown. Outside the Town Center, Half Moon Bay's residential areas are built out as discrete neighborhoods interspersed with mostly agricultural uses. The pattern reflects the conversion of primarily agricultural lands over several decades. Figure 2-3 presents a map of the city's established neighborhoods, including the three Town Center regions.

Residential – Low Density. The Residential – Low Density land use designation is applied to two small areas of the city: the former Stoloski/Gonzalez PD between the Miramar neighborhood and the Surf Beach/Dunes Beach PD, and a 14.5-acre parcel east of the Frenchmans Creek residential neighborhood. This designation generally supports larger single-family residences on larger lots.

Residential – Medium Density. Most of the city's established single-family residential neighborhoods are in the Residential – Medium Density land use designation and were established with traditional residential zoning. Neighborhoods in this land use designation include Miramar, Frenchmans Creek, Sea Haven, Casa del Mar, Grandview (including the undeveloped lots and the eastern portion of the adjacent City-owned Glencree parcel), Highland Park, Grand-Belleville, Alsace Loraine, and Arleta Park. These neighborhoods are primary single-family with additional uses including accessory dwelling units, childcare homes, and home occupations. This designation also supports the city's main duplex neighborhood in South Downtown, and portions of the Bernardo Station subdivision between Wavecrest Road and Redondo Beach Road on the west side of Highway 1.

Residential – High Density. The Residential – High Density land use designation is applicable to multi-family neighborhoods including Pilarcitos, located between Kelly Avenue and Pilarcitos Creek on the west side of Highway 1, and three areas of South Downtown in the Town Center including the former Main Street Park PD. These areas support higher density housing including multi-unit apartment buildings, senior housing, and condominiums. Several of the city's largest affordable housing projects are in this land use designation, including Half Moon Village and Lesley Gardens. This land use designation provides opportunities for density bonuses and TDR receiver sites.

Mobile Home Park. The Mobile Home Park land use designation applies to all mobile home park neighborhoods in the city, including the Hilltop Mobile Home Park on both sides of Highway 92 towards the eastern city limits and the Canada Cove neighborhood at the southern end of the city. Both neighborhoods contain vacant parcel(s) and have the potential to expand. Mobiles homes comprise about 10 percent of the city's housing stock and are a very important housing type on the San Mateo County Midcoast. This land use designation supports affordable housing options and expansion of existing mobile home neighborhoods is important for meeting the City's affordable housing needs.

Workforce Housing Overlay. To support recreation, service, and agricultural workers essential to Half Moon Bay's Coastal Act priority and local priority land uses, the City established the Workforce Housing Overlay land use designation with the 2020 LUP update. Occupancy of the residential development permitted through the overlay would be limited to these workers and their households, subject to conditions in a use permit, deed restriction, or other mechanism designed to ensure the housing will be affordable to the specified workforce. Because most of the intended workers are typically in the extremely low, very low and low income brackets, this housing will provide much needed affordable housing in the City. Policies include further specifications for applying the overlay with the underlying land use designation. Underlying designations include Rural Coastal, Horticulture Business, Regional Public Recreation, and Public Facilities and Institutions. Workforce Housing Overlay units are Local Priority Uses under this LUP. Workforce Housing Overlay units that specifically support agriculture are considered Coastal Act Priority Uses. Policies for each underlying designation provides additional guidance regarding permitted density, occupancy requirements, and siting and design.

POLICIES – RESIDENTIAL LAND USE DESIGNATIONS

- 2-66. Residential Land Use Permitted Uses.** Permitted uses in Residential – Low Density, Residential – Medium Density, and Residential – High Density land use designations include but are not limited to residential development, accessory dwelling units, supportive housing types, public schools and parks, family day care, accessory buildings, and home occupations. Conditionally permitted uses include but are not limited to private schools, private recreational facilities, religious assembly, and childcare and residential care homes. Single-family residential is not permitted in the Residential – High Density land use designation unless no feasible alternative exists.
- 2-67. High Density Residential - Minimum Density Requirement.** In the Residential - High Density designation, require new development to meet a minimum density of 16 residential units per acre (net area, excluding land required to protect coastal resources or avoid hazards).
- 2-68. Mobile Home Park Permitted Uses.** Permitted uses in the Mobile Home Park land use designation include but are not limited to mobile homes, home occupations, common facilities and amenities supportive to the mobile home park, and accessory structures normally associated with mobile home parks. Conditionally permitted uses include but are not limited to care facilities including assisted living, senior housing, recreational facilities, and retail sales catered to the mobile home park residents.
- 2-69. Mobile Home Park Development.** Development of vacant parcels or significant redevelopment of developed parcels in the Mobile Home Park land use designation shall require a comprehensive plan for the entire property that incorporates common facilities and amenities and addresses methods for protecting coastal resources.
- 2-70. Workforce Housing Overlay.** Occupancy of the residential development established through the Workforce Housing Overlay land use designation shall be limited to the

workers specified in these policies and their households, subject to a use permit, deed restriction, or other mechanism designed to ensure the housing will be affordable to the specified workforce. This residential development shall further comply with the requirements established by policies for each qualifying underlying land use designation including Rural Coastal (Policy 2-92), Horticultural Business (Policy 2-96), Public Facilities and Institutions (Policy 2-102), and Regional Public Recreation (Policy 2-105). Establish IP standards for implementing the Workforce Housing Overlay designation, including setbacks, height limits, and other requirements as consistent for compatibility with the underlying land use designation.

- 2-71. Residential Siting and Design Standards.** Require development of new and remodeled structures within established neighborhoods to be sited and designed to be:
- a. Compatible within each unique neighborhood area, including infrastructure and streetscape provisions such as walkways, street trees, and parking.
 - b. Scaled and appropriate for the limitations of non-conforming sites, such as smaller residences on substandard sized parcels and those that must accommodate natural resources, hazards, watercourses, coastal access, and visual resource requirements.
- 2-72. Residential Land Use Compatibility.** Ensure that development, including a change in intensity of use, in residential land use designations avoids impacts on the residential living environment and the adjacent land uses, including proximate agricultural and agricultural compatible land uses, with respect to noise, lighting, parking, loading, and aesthetics. Consider other aspects of non-residential uses permitted in residential land use designations that may be impactful on a neighborhood setting or the adjacent land uses and require strategies to avoid such impacts.
- 2-73. Small Infill Lots.** Update IP standards for substandard infill residential lots to encourage development of smaller homes that provide diverse and affordable housing options compatible with neighborhood character.
- 2-74. Accessory Dwelling Units.** Update IP standards as necessary to ensure that the Accessory Dwelling Unit ordinance complies with State law, provides for objective design standards, and allows an administrative review process provided there is no potential for impacts to coastal resources.
- 2-75. Home Occupations.** Permit home occupations within residences for business types and activities that are compatible with the residential living environment and subservient to the primary residential use of each property. Establish performance standards in the IP for traffic, parking, noise, and other considerations with respect to home occupations.
- 2-76. Short-Term Rentals.** Allow short-term rental businesses within the established neighborhoods. Short-term rental uses should be subordinate to primary residential uses such that residential units continue to be used for long-term residential occupancy. Establish land use regulations in the IP with performance standards

necessary to protect coastal resources and the residential living environment of the neighborhoods, such as standards for property management, traffic, parking, noise, and trash. Short-term rental businesses shall pay transient occupancy tax to the City. Non-permanent housing such as for seasonal farmworker housing and short-term boarding for researchers and others employed or otherwise affiliated with agricultural uses are not short-term transient lodging facilities or uses and are not subject to transient occupancy tax.

- 2-77. Neighborhood Infrastructure.** Require new residential construction, additions and remodels to provide public service infrastructure concurrently with development or to commit to participation in a benefit assessment district or deferred infrastructure agreement. Neighborhood infrastructure improvements shall be sized so as to not be growth-inducing.
- 2-78. Residential Right-of-Way Improvements.** Require new or significantly remodeled residences to provide frontage improvements including but not limited to walkway, sidewalk, curb, and gutter improvements where they do not yet exist or are in need of repair or replacement, or to provide an in lieu fee to the City to construct such improvements in the future.

Mixed-Use Land Use Designations

The City's mixed-use land use designations include Commercial – General, Commercial – Visitor-Serving, and Light Industrial. These designations allow for mixed-use development, in which case residential and non-residential land uses are allowed in a vertical or horizontal arrangement on the same property.

Commercial – General. Commercial – General is primarily located within the Town Center, and supports the city's main shopping centers and downtown commercial area. The Town Center policies at the beginning of this chapter are particularly applicable to this land use designation for residential, mixed-use, and a wide range of visitor-serving uses. This designation holds the greatest capacity for establishing professional office and small-scale research and development (R&D) uses that may provide higher-wage employment opportunities to residents. The Half Moon Bay community has expressed a critical need for local higher wage jobs on the coastside, the need for which is evidenced by the fact that 80% of residents currently commute out-of-town, the highest rate in San Mateo County. This designation is also important for residential goods and services such as grocery stores, health care and animal care, and other personal services.

Commercial – Visitor-Serving. The Commercial – Visitor-Serving land use designation is applied primarily along Highway 1 toward the north and south ends of the city limits. This designation supports Coastal Act priority land uses including accommodations, recreation, and other visitor-serving services. Chapter 5. Coastal Access and Recreation includes policies that address these uses, especially those that are lower-cost. In this Land Use Plan update, the

Visitor-Serving Commercial land use designation is expanded modestly in the south end of town where traffic congestion tends to be lower than north of Highway 92. The designation is added to the eastern corners of the Highway 1 intersection with Miramontes Point Road and expanded west along Wavecrest Road. These two locations provide for small convenient clusters of uses of interest to coastal tourists. The Miramontes Point Road location is intended to also contribute to a notable southern gateway; while the Wavecrest Road uses provide immediate access to habitat and coastal recreation.

Light Industrial. The City's Light Industrial land use designation provides for production, distribution, repair, construction, and storage and is located on both sides of Highway 92 east of Highway 1. The city has very little industrial zoning, most of which is located within the Town Center. In fact, many of the town's light industrial uses, such as small-scale fabrication and repair operations, operate in Commercial – General areas. A concrete batch plant below the Half Moon Bay High School is the largest industrial land use in Half Moon Bay. Light Industrial land uses outside of the Town Center include Spanishtown on the south side of Highway 92 at the eastern city limits. Development in these areas primarily consist of changes of use and expansions of existing uses. At the time of this Land Use Plan update, there was opportunity for new light industrial or mixed-use development to provide a live-work use on two vacant parcels on Highway 92 across from the Odd Fellows Cemetery. Similar to Commercial – General, this land use designation is important and suitable for residential goods and services such as automobile repair, hardware supplies, and animal care services.

Accommodating light industrial uses within Half Moon Bay is important. Availability of these types of industries and services on the coastside reduces a significant number of truck and automobile trips to the bayside of the peninsula and beyond. The Land Use Plan policies provide for maintaining existing industrials uses, while allowing for additional light industrial uses in specific locations subject to performance standards to ensure compatibility with adjacent land uses.

Policies for the commercial and industrial land use designations emphasize support for Coastal Act priorities while also providing for the service needs of the local population.

POLICIES – MIXED-USE LAND USE DESIGNATIONS

- 2-79. Commercial – General Permitted Uses.** Permit a variety of commercial activities in the Commercial – General land use designation that serve both residents and visitors, including but not limited to day-to-day needs, professional office and small-scale R&D uses, wholesale, retail, and live-work uses.
- 2-80. Commercial – Visitor-Serving Permitted Uses.** Permit uses that support the coastal access and recreational needs of visitors in the Commercial – Visitor-Serving land use designation including but not limited to overnight accommodations, restaurants, bars, galleries, coastal and ocean recreational facilities, and service and EV charging stations. Community serving uses that support tourists can also be accommodated in this designation.

- 2-81. Mixed-Use Development.** Permit horizontal and vertical mixed-use development to incorporate residential development in the Commercial – General, Commercial – Visitor-Serving, and in certain cases, Light Industrial land use designations.
- 2-82. Allowances for Industrial Uses.** Review and update the IP and allow low intensity light industrial land uses in general commercial land use designations subject to performance standards.
- 2-83. Industrial Land Use Protection.** Protect industrial land uses and areas designated with the Industrial land use designation from encroachment of sensitive uses so as to maintain a diverse range of employment and industry. Discourage conversion of industrial uses to other uses.
- 2-84. Industrial Use Performance Standards.** Review and update performance standards in the IP to ensure compatible operation of industrial land uses as means to maintain these uses. Encourage existing industrial operations to update performance standards when expansion or redevelopment is proposed.
- 2-85. Mixed-Use Land Use Compatibility.** Consider aspects of non-residential uses permitted in mixed-use land use designations that may be impactful on residential uses or other adjacent land uses and require strategies to avoid such impacts.

Agricultural Land Use Designations

The agricultural land use designations in Half Moon Bay include Rural Coastal and Horticulture Business. These land use designations support most of the open field agriculture, agriculture-compatible, and greenhouse operations in the city and are predominantly located in areas with prime and non-prime agricultural soils, as further described in Chapter 4. Agriculture. These land uses allow for a wide range of ancillary and supplemental uses to support the economic viability of agriculture within the city limits. In-town farms tend to be smaller and are encroached upon by urban uses. These farms are well-suited to related retail business, agritourism, and other small-scale, temporary, or seasonal uses that can support long-term economic viability.

Rural Coastal. This land use designation is introduced by the 2020 Land Use Plan update and contains lands previously designated as Urban Reserve and Open Space Reserve. This new designation is no longer intended to function as a reserve for urban development and instead is meant to support the continuation and expansion of agricultural and agricultural compatible uses, the preservation of prime and non-prime agricultural soils, and the provision of farmworker housing. As was the case with the previous Urban Reserve and Open Space Reserve designations in the prior LUP, conversion of lands in this designation to allow urban development would require a Land Use Plan amendment approved by the City and certified by the Coastal Commission.

Rural Coastal lands are primarily clustered around the Sea Haven neighborhood, between Highway 1 and Pilarcitos Creek north of the Grand-Belleville neighborhood, and between Pilarcitos Creek and Kelly Avenue west of the Matteucci PD. Other areas in Rural Coastal land

use include an area east of Heritage Downtown, the POST property between Seymour Street and North Wavecrest PD, and the southeast corner of Highway 1 and Miramontes Point Road. Primary uses are open field agriculture including row crops and horse breeding, as well as recreation. Many small, non-conforming parcels with this designate are either vacant or developed with one or two residences. Low-lying Rural Coastal lands along Pilarcitos Creek are within the tsunami and dam inundation zones and will become subject to flooding from 100-year storm events as sea levels rise.

Horticulture Business. The Horticultural Business land use designation covers nearly all of the greenhouse developments in the city. These areas serve as the city's predominate industrial use.

The Rural Coastal and Horticultural Business land use designations allow residential development as specified in the policies that follow and as consistent with the definitions and policies in Chapter 4. Agriculture. The residential housing types available in these designations include:

- Single-family homes at a density of one unit per 15 acres;
- Farmworker housing as provided for by the State Employee Housing Act including non-permanent housing, dormitory housing and other types of housing for seasonal and/or permanent agricultural workers; and
- Workforce Housing Overlay units subject to density limits and other objective standards established in policy below.

The residential development types emphasize farmworker housing and are intended to provide flexible options for permanent and seasonal farmworkers who support agricultural uses in the Rural Coastal, Horticultural Business, and in some cases, other agricultural operations along the San Mateo County Midcoast. All farmworker housing is considered to be part of the underlying agricultural use and is thereby considered to be a Coastal Act Priority Use. In addition to the housing types listed above, allowances for supplemental uses include short-term housing for researchers, interns, visiting customers, and others who are specifically associated with the primary agricultural use. Lodging, such as for farm-stay or bed and breakfast operations, are not considered residential uses.

Policies related to agriculture, agricultural compatible, and horticulture uses are primarily addressed in Chapter 4. Agriculture. All policies in Chapter 4 must be considered in combination with the specific land use designation policies below. The policies below address permitted uses, land use compatibility, and Workforce Housing Overlay allowances.

POLICIES – AGRICULTURAL LAND USE DESIGNATIONS

2-86. Consistency with Agricultural Use Policies. Policies and definitions in Chapter 4. Agriculture are specifically intended to supplement policies in Chapter 2. Development for lands in agricultural use and/or containing prime and non-prime agricultural soils, while the policies in this section address lands with Rural Coastal and Horticulture Business land use designations. As defined in this LUP, agricultural

land uses are a Coastal Act Priority Use and include the cultivation of food, fiber or flowers; the grazing, growing or pasturing of livestock; and horse breeding operations.

- 2-87. Minimum Lot Size.** Determine minimum lot sizes for lands with Rural Coastal and Horticulture Business land use designations on a case-by-case basis to ensure maximum existing or potential agricultural productivity, recognizing that subdivision of lands in agricultural use is discouraged; while lot line adjustments and other boundary adjustments may be found beneficial to the underlying use for purposes such as estate planning for the sake of maintaining a family farm or establishing agricultural conservation easements.
- 2-88. Rural Coastal Permitted Uses.** Permitted uses in the Rural Coastal land use designation include agriculture; agricultural compatible uses including recreational equestrian uses, public recreation, and habitat restoration; greenhouses; horse breeding; grazing; equestrian centers; farmworker housing as provided for by State law; ancillary uses necessary to support the primary use or operation; and supplemental uses to support the long-term viability of the primary use. Conditionally permitted uses include single-family residences at no more than one unit per 15 acres.
- 2-89. Rural Coastal Permitted Supplemental Uses.** Allow for a wide range of supplemental uses to support long-term viability of agriculture, including:
- a. Agri-tourism uses that enhance the link between the agriculture use and tourism, such as farm-to-table establishments and tasting rooms;
 - b. Small-scale lodging such as farm-stays and other overnight accommodation options;
 - c. Educational opportunities for adults and children such as tours, classes, and day camps;
 - d. Temporary events and seasonal uses, including those that support coastal recreation provided that such uses do not include significant permanent structures;
 - e. Research and development facilities and clinical uses connected to the primary use, including boarding for researchers and students and modest facilities for conducting basic laboratory functions or on-site veterinary care; and
 - f. Boarding and care of horses including training and demonstration clinics.
- 2-90. Rural Coastal Permitted Ancillary Uses.** Permit ancillary uses and facilities associated with agricultural use of lands in the Rural Coastal land use designation including but not limited to barns, feed storage facilities, farm stands/retail stands, field shelters, stables, wells, reservoirs, lot line adjustments, parking, fences, and arenas.
- 2-91. Rural Coastal Land Use Compatibility.** Maximize the amount of land in agriculture production and in agriculture-compatible use. Consider vacating streets and

establishing buffers on adjacent lands, not on the Rural Coastal land, where necessary for land use compatibility.

2-92. Workforce Housing Overlay –Rural Coastal. Apply the Workforce Housing Overlay to portions of lands in agricultural use when they are within the Rural Coastal land use designation. The overlay area shall provide farmworker housing units and shall further comply with the following requirements:

- a. The workforce housing must be located on a parcel within an agricultural operation or on a parcel contiguous with the agricultural land use it supports, and may be comprised of prefabricated or modular housing types;
- b. Subdivision of land to accommodate workforce housing is allowed only if the use of the site established for the workforce housing is permanently limited to farmworker housing and if compliant with the subdivision restrictions in Chapter 4. Agriculture;
- c. Within any parcel or group of contiguous parcels subject to the Workforce Housing Overlay, the workforce housing must be located where most protective of prime soils and with the following additional restrictions:
 - i. For agricultural operations with total site area up to 50 acres, maximum 10 percent of the agricultural operation site area or 1 acre, whichever is smaller.
 - ii. For agricultural operations with total site area 50 acres or more, maximum 2 acres.
- d. The density of the workforce housing is a maximum of 5 units per acre;
- e. At least one resident of each workforce housing unit shall be an employee of the associated agricultural operation or another agricultural operation within the San Mateo County coastside; and
- f. Non-permanent housing for seasonal farmworkers must comply with State requirements and does not count toward the maximum number of units allowed for any agricultural operation through the Workforce Housing Overlay land use designation.

2-93. Horticulture Business Permitted Uses. Permitted uses in the Horticulture Business land use designation include but are not limited to nurseries, greenhouses, field crops, research and development facilities related to horticulture or agriculture, retail sales associated with a primary use, and ancillary uses to support horticulture or research and development operation. Conditionally permitted uses include single-family residences at no more than one unit per 15 acres.

2-94. Horticultural Business Protection. Protect Horticultural Business land use designated areas from encroachment of sensitive uses so as to maintain a diverse range of employment and industry. Discourage conversion of Horticultural Business land use designation to designations allowing other non-agricultural or non-horticultural uses.

- 2-95. Horticultural Business Performance Standards.** Review and update performance standards in the IP to ensure compatible operation of horticultural businesses as means to maintain these uses. Standards shall address operational impacts of these uses including but not limited to truck traffic, air quality, noise, and lighting including dark skies provisions. Encourage existing horticulture business operations to update performance standards when expansion or redevelopment is proposed.
- 2-96. Workforce Housing Overlay – Horticultural Business.** Apply the Workforce Housing Overlay to portions of lands in horticultural/greenhouse use when they are within the Horticultural Business land use designation. The overlay area shall provide housing units to support horticultural business workers and shall further comply with the following requirements:
- a. The workforce housing must be located on a parcel within the horticultural business operation or on a parcel contiguous with the horticultural business land use it supports, and may be comprised of prefabricated or modular housing types;
 - b. Subdivision of land to accommodate workforce housing is allowed only if the use of the site established for the workforce housing is permanently limited to horticultural workforce housing and if compliant with the subdivision restrictions in Chapter 4. Agriculture;
 - c. Within any parcel or group of contiguous parcels subject to the Workforce Housing Overlay, the workforce housing must occupy no more than 5 percent of the horticultural business or 1 acre, whichever is smaller;
 - d. The density of the workforce housing is a maximum of 16 units per acre;
 - e. At least one resident of each workforce housing unit shall be an employee of the associated horticultural business or another horticultural business within the San Mateo County coastside; and
 - f. Non-permanent housing for seasonal farmworkers must comply with State requirements and does not count toward the maximum number of units allowed for any agricultural operation through the Workforce Housing Overlay land use designation.

Conservation Land Use Designations

The Greenbelt Stream Corridor Overlay and Open Space for Conservation land use designations are intended to provide protection of the most significant habitat areas in Half Moon Bay.

Greenbelt Stream Corridor Overlay. The Greenbelt Stream Corridor designation is brought forward from the 1996 Land Use Plan as an overlay. This approach allows for additional

protections of specified watercourses and the extents of their riparian vegetation. The Greenbelt Stream Corridor overlay is applied on the Land Use Map to watercourses with ESHA status including Frenchmans Creek, Kehoe Watercourse, Pilarcitos Creek, Arroyo Leon, Wavecrest Arroyo, and Arroyo Canada Verde. The boundaries of the overlay are established as of the 2020 Land Use Plan update to be coterminous with the extents of riparian vegetation as presented in Figure 6-2 Environmentally Sensitive Habitat Areas (Habitat ESHAs). If riparian vegetation expands over time, the Greenbelt Stream Corridor Overlay expands as well. Protections provided to the Greenbelt Stream Corridor overlay areas are addressed in detail through the riparian corridor policies in the Natural Resources chapter.

Open Space for Conservation. This is a new designation for the 2020 Land Use Plan update. The designation is meant to be applied to lands suitable for preservation and conservation because of natural resources, hazard avoidance, retreat for bluff erosion and sea level rise inundation. Such lands should be protected from future use for other development through deed restrictions or other means in advance of or concurrently with application of this land use designation. These areas are grouped according to watercourses and their associated drainage sub-basins because a primary function of and opportunity for each is to provide space for green infrastructure to ameliorate the impacts of flooding, improve water quality, and support sediment transport balance.

The following areas are designated Open Space for Conservation as of the 2020 LUP update:

Upland hills above Nurserymen's Exchange. This area includes three parcels that encompass approximately 680 acres and contain steep slopes, several riparian corridors, and U.S. Fish and Wildlife designated critical habitat for the California red-legged frog. This area is also entirely within the Very High Fire Severity Zone and is located outside of the Urban Boundary.

Guerrero Wetlands. The former Guerrero PD included 7 parcels for residential development and a larger area in the center of the PD, which has become known as the Guerrero Wetlands. The wetlands portion is characterized by vernal marsh habitat and is considered ESHA. It is deed restricted as a wetlands area, although it remains in private ownership. The Roosevelt Creek watercourse abuts the south side of the Guerrero wetlands.

Pacific Ridge Areas A and B. As previously described for the Pacific Ridge PD, the former Dykstra Ranch PD included two areas, known as "A" and "B" were deed restricted as natural resource conservation areas as a stipulation to a settlement agreement. The lands total about 90 acres and are currently maintained by the homeowners association for the adjacent residential development. This area contains a mosaic of central coast scrub, non-native grasslands, and freshwater marsh, and has been recognized by USFWS and California Coastal Commission as suitable aquatic and terrestrial habitat for California red-legged frog and San Francisco garter snake as well as nesting habitat for San Francisco common yellowthroat. Ideally, a land trust or other conservator would be better suited to manage these properties.

Beachwood. This 24.5-acre City-owned property is designated potential ESHA in the Land Use Plan update due to the significant density and quality of habitat throughout the site, including wetlands. The Natural Resources chapter and the City's Parks Master Plan

identified this area as appropriate for a mitigation bank. It is also strategically located at the base of the foothills where it could be utilized for a larger-scale green infrastructure project providing significant water storage capacity which would reduce the volume and rate of storm event flows through the culvert under Highway 1 leading to the Kehoe Watercourse.

Lower Glencree. Adjacent to Beachwood, this 6-acre portion of another City-owned property has also been identified as appropriate for a mitigation bank. This site is considered Potential ESHA as it contains wetlands and may support sensitive status species.

City-SAM Bev Cunha's Country Road Properties. These properties consist of 15 acres of City-owned land on two parcels on the south side Bev Cunha's Country Road and a 9.25-acre parcel owned by SAM north of Bev Cunha's Country Road. This area is suited to educational and interpretation trails, especially those that provide access for birding due to the high diversity of species found in throughout the area. These properties could also be included in a comprehensive upstream to downstream green infrastructure plan involving the Beachwood and Lower Glencree properties mentioned above.

Railroad Avenue Conservation Corridor. This City-owned 60-foot wide strip of land runs immediately parallel to and east of Railroad Avenue between Kelly Avenue and Seymour Street. A conservation easement managed by the Coastside Land Trust (CLT) has been secured over the area. With the exception of two privately owned parcels, the entire strip is brought into the Open Space for Conservation land use designation in the LUP update.

Land Trust Properties. Peninsula Open Space Trust (POST) and CLT own and manage larger properties between the Seymour and Wavecrest watercourses. Although these watercourses follow traditional drainage patterns to some extent, many years ago they were straightened and realigned as manmade ditches, which has resulted in high flow rates and extensive erosion and incising. At the time of the LUP update, POST had also recently purchased the Wavecrest Arroyo. In combination, the POST and CLT lands are operated in conservation uses including habitat restoration and agriculture. Similarly, to the Beachwood, lower Glencree and City-SAM properties, in combination there is potential for stormwater management approaches utilizing green infrastructure methods. Both POST and CLT own many other parcels throughout the North Wavecrest PD, including some that are fairly well aggregated.

Policies related to protecting and enhancing sensitive habitat areas are primarily addressed in Chapter 6. Natural Resources, including requirements for new development to avoid impacts to sensitive habitat areas. The policies below address application of and permitted uses in the Greenbelt Stream Corridor Overlay and the Open Space for Conservation designation.

POLICIES – CONSERVATION LAND USE DESIGNATIONS

- 2-97. Greenbelt Stream Corridor Overlay Designation.** Apply the Greenbelt Stream Corridor Overlay to the extents of riparian vegetation of Frenchmans Creek, Kehoe Watercourse, Pilarcitos Creek, Arroyo Leon, Wavecrest Arroyo, and Arroyo Canada

Verde. The policies in the Natural Resources chapter for riparian corridors implement this land use designation, including regulations on permitted uses.

- 2-98. Open Space for Conservation Designation.** Consider adding lots that become permanently protected for habitat purposes through conservation easements or deed restrictions (e.g. retired lots for which development potential has been extinguished) to the Open Space for Conservation land use designation based on criteria including: suitable for aggregation with other conservation lands, contributes to habitat value, reduces risks from hazards, and/or provides for other public benefits consistent with the designation, including coastal access, research, and education.
- 2-99. Open Space for Conservation Permitted Uses.** Permitted uses in the Open Space for Conservation land use designation include habitat conservation and restoration, necessary public safety activities, resource dependent uses including low-impact public access and recreation, ancillary uses such as a small ranger station, and one dwelling unit for natural resource management caretaker per legal parcel with a minimum lot size of 100 acres. Permitted uses are not intended to supersede the provisions of any open space deed restrictions or conservation easements that may be associated with properties in this land use designation.

Public Use Land Use Designations

Public use land use designations include Public Facilities and Institutions, Regional Public Recreation, and City Parks.

Public Facilities and Institutions. This land use designation covers a diverse range of uses including government, civic, cultural, health, and infrastructure uses and activities that contribute to and support community needs. In Half Moon Bay, this category is applied to City facilities, public schools, the fire and police stations, and the SAM plant. Quasi-public uses and institutions are also included in this category. These are often privately owned and operated and may include places of worship, private schools, hospitals and large medical facilities. Emergency shelters and other uses necessary for the health and safety of the community are often accounted for within the Public Facilities and Institutions land use designation. Some of these uses are considered critical facilities and/or essential services, such as the SAM plant or a corporation yard that provides emergency response services, as further defined and discussed in the context of public works infrastructure capacity needs in Chapter 3. Public Works and hazard protection considerations in Chapter 7. Environmental Hazards.

The land uses associated with this category can be vastly different, with some having characteristics of commercial office space, while others are essentially industrial uses. The associated implementing zoning, typically the Public Services Zoning District, must accommodate a variety of public uses while also imposing performance standards to ensure that such uses, as in the case of utilities, are compatible with adjacent development.

Half Moon Bay's public facilities needs are mostly met through the City's existing holdings. City Hall operations have been supplemented with leased office space nearby. The Ted Adcock community center complex is undergoing upgrades and longer-term master planning. The 21-acre site just east of the Cypress Cove condominiums houses the City's corporation yard, as well as an abandoned irrigation impoundment that has been identified as a California red-legged frog (CRLF) breeding pond. The City intends to improve the corporation yard site to better meet City needs while establishing a conservation corridor to support CRLF and protect the Pilarcitos Creek riparian corridor on the southern border of the site. Additional uses such as agriculture may be appropriate at this site, as it was formerly in agriculture use.

The Workforce Housing Overlay may be combined with the Public Facilities and Institutions land use designation. The overlay is applied to all of the public schools, two church sites and the Ted Adcock Community Center complex. The overlay creates opportunity in the future for public and quasi-public institution to develop affordable housing on-site for employees, or more broadly for qualifying low income household, as in the case of churches.

Regional Public Recreation. This land use designation is located along the City's coast and bluffs from the northern end of town to Seymour Street. It applies primarily to State Parks beach lands and the City's Poplar Beach Blufftop Park. County-owned and maintained land immediately south of the City's Poplar Beach holdings and Surfer's Beach at the northern city limits are also included. The primary planning need for these areas is funding. Maintenance and operation are critical for public enjoyment and safety along the coast, including the California Coastal Trail and other amenities including parking, restrooms, and recreation and educational offerings. The City, San Mateo County, and many other governmental agencies have been actively planning for adaptation and retreat in advance of anticipated inundation and erosion along the coast exacerbated by sea level rise. These studies and future implementation of avoidance and adaptation measures will take decades. The Environmental Hazards and Coastal Access and Recreation chapters of the Land Use Plan include policies that are especially pertinent to these coastal areas.

The Workforce Housing Overlay may be combined with the Regional Public Recreation land use designation. For this designation, the overlay is intended to provide local housing for State Parks rangers and employees who work in Half Moon Bay and the along the Midcoast. The overlay is especially important for State Parks' long-term planning for adaptation and retreat in the face of bluff erosion and future inundation. In 2017, one of their seven ranger homes had to be removed due to eminent threat of collapsing on the beach below in the Miramar neighborhood. Establishing safe and sustainable housing for State Parks employees, especially with structures that can be relocated, is a need that they have expressed to both the City and Coastal Commission staff.

City Parks. This designation updates the 1996 Land Use Plan's "Local Recreation and Open Space" designation, which was never implemented. Up until the 2020 Land Use Plan update, City Parks were primarily designated in residential categories consistent with their surrounding neighborhoods. Application of this City Parks land use designation confirms the City's long-term commitment to park maintenance and operations throughout the city. The

provision of active parkland for the local population is a Coastal Act requirement. Coastal cities may not rely upon coastal public recreational areas for their local parks and recreational needs. The Coastal Access and Recreation chapter of the Land Use Plan includes additional parks policies, and the City's Parks Master Plan is the primary implementation guide for the City's parks and recreational programs.

POLICIES – PUBLIC USE LAND USE DESIGNATIONS

2-100. Public Facilities and Institutions Permitted Uses. Permitted uses in the Public Facilities and Institutions land use designation include educational, governmental, agricultural, and institutional uses such as schools, hospitals, churches, community gardens, fire stations, cemeteries, and emergency shelters.

2-101. Future Public Facilities and Institutions Needs. Plan for the maintenance, operation, expansion and improvement to public facilities, including for the SAM plant, which is subject to future inundation by sea level rise, and for the City's corporation yard, which has ongoing, on-site habitat conservation needs. Support opportunities for public agencies and institutions to share facilities, such as corporation yards or offices, for the purpose of conserving resources and reducing development footprints.

2-102. Workforce Housing Overlay – Public Facilities and Institutions. Apply the Workforce Housing Overlay to portions of lands in the Public Facilities and Institutions land use designation. The overlay areas shall comply with the following requirements:

- a. The following locations and amount of housing may be considered for application of the Workforce Housing Overlay in the Public Facilities and Institutions land use designation:
 - i. Public Schools: Up to 40 units may be developed at the Cabrillo Unified School District campuses. Units may be distributed amongst the different campuses, such as 10 units at Hatch Elementary/Pilarcitos High School, 20 units at Cunha Middle School, and 10 units at Half Moon Bay High School. At least one resident of each workforce housing unit shall be a full-time employee of the Cabrillo Unified School District.
 - ii. Other Public and Quasi-public Uses: Up to 10 units may be developed at the City of Half Moon Bay Ted Adcock Center; up to 40 units at the 515 Kelly Avenue Catholic Church; and up to 7 units at the 900 Cabrillo Highway North Lutheran Church. The units developed for this category shall be affordable to extremely low, very low, and low-income households.
- b. Subdivision of land to accommodate workforce housing is allowed only if the use of the site established for the workforce housing is permanently limited to school district workforce housing or affordable housing.

- 2-103. Quasi-Public Uses.** Allow quasi-public uses, including places of worship, private schools, childcare centers, and others as permitted or conditional uses in residential zoning districts.
- 2-104. Regional Public Recreation Permitted Uses.** Permitted uses in the Regional Public Recreation land use designation include but are not limited to public access and recreation, public trails, campgrounds, habitat conservation and restoration, hazard avoidance, and ancillary facilities normally associated with or supportive of public access and recreation.
- 2-105. Workforce Housing Overlay – Regional Public Recreation.** Apply the Workforce Housing Overlay to portions of lands in the Regional Public Recreation land use designation. The overlay areas shall comply with the following requirements:
- a. The workforce housing must be sited east of the California Coastal Trail and designed so as to be visually compatible with the surrounding recreational area, to avoid ESHA and coastal hazards, and to otherwise comply with the development requirements of the LCP;
 - b. Each workforce housing unit shall be limited to 1,500 square feet with a 15-foot or one-story height limit, shall not include deep foundations, and shall be relocatable in the event of significant exposure to shoreline hazards, migration of ESHA, or the need to accommodate other Coastal Act priorities uses;
 - c. The following locations and amount of housing may be considered for application of the Workforce Housing Overlay in the Regional Public Recreation land use designation for State Parks: Up to one acre may be developed with a total of 7 units including employee housing present in 2020;
 - d. At least one resident of each workforce housing unit shall be a full-time employee of State Parks with primary duties assigned to parks and beaches along the San Mateo County coast; and
 - e. Subdivision of land to accommodate workforce housing is allowed only if the use of the site established for the workforce housing is permanently limited to State Parks workforce housing.
- 2-106. City Parks Designation.** Apply the City Parks land use designation to existing parks, with the exception of the Skate Park and downtown plazas. When new parks are developed, they shall be designated as City Parks.
- 2-107. City Parks Permitted Uses.** Permitted uses in the City Parks land use designation include local parks and indoor or outdoor recreational facilities.
- 2-108. Public Land Uses Land Use Compatibility.** Review and update development standards in the IP to ensure compatible operation of public land uses. Encourage existing public land use operations to address land use compatibility when expansion or redevelopment is proposed.

3. Public Works

Public works include water infrastructure and supply, sewer infrastructure and treatment capacity, the circulation system, and stormwater infrastructure and management. The purpose of this chapter is to assess the capacity and performance of public works facilities for existing and anticipated development as defined by the Land Use Plan and Land Use Plan map. Needed infrastructure improvements and capacity expansions are identified and steered toward resilient and sustainable approaches to support all land uses, including existing development. Infrastructure capacity is prioritized according to three land use categories as presented in Chapter 2. Development: 1) Coastal Act Priority Uses; 2) Local Priority Uses (affordable housing); and 3) Non-Priority Uses. The Coastal Act further identifies that agricultural and coastal dependent uses have priority over other development types on private lands, including visitor-serving commercial recreation facilities. The Land Use Plan establishes water supply and sewer treatment capacity reserves for the top tier, Coastal Act Priority Uses. Finally, given these Coastal Act priorities and existing infrastructure constraints, policies in this chapter bring forth the prospect that an ultimate limit on Half Moon Bay's potential growth must be explored during this 2040 planning horizon because current infrastructure capacity could be exhausted before full buildout of the Planning Area.

Land Use Plan Framework

The Land Use Plan (LUP) emphasizes a sustainable pattern of development and managed growth, primarily within the Town Center. Buildout of the city depends on public works systems that are resilient to changing conditions including the effects of climate change, and to the extent feasible, the increasing population and visitation from the greater Bay Area. To that end, this chapter identifies that potential growth under the LUP and in the unincorporated Midcoast can likely be supported by existing water and sewer infrastructure through the 2040 planning horizon, including full buildout of the Town Center. However, for the circulation system, with nearly 3 million annual visitors to the local area, roadway capacity had already been notably overwhelmed by severe periods of congestion from busy weekend visitor traffic for many years at the time of the LUP update. The existing and projected levels of visitor demand cannot be accommodated by any practical approach to increasing circulation system capacity. Beyond the 2040 planning horizon, water supply and sewer system capacity could become overburdened at full buildout; and the effects of climate change will further stress all infrastructure systems. Based on these findings, the need for careful monitoring and interventions are explored in this chapter.

This chapter addresses public works as critical facilities and also plans for essential services. Critical facilities and essential services include the following:

Critical Facilities. Water tanks, municipal wells, and major sewer and water service mains and pumps; communications infrastructure; the SAM Wastewater Treatment Plant; Highways 1 and 92; emergency preparedness and response facilities including the Emergency Operations Center and fire station; and schools.

Essential Services. Essential services include critical facilities, as well as public and quasi-public uses such as government buildings (e.g. Half Moon Bay Library and City Hall), public health services, and a wide range of care facilities (e.g. childcare and human service agencies).

In the context of this chapter, critical facilities and essential services are considered to ensure available and projected capacity and reliability to serve the community's health and safety needs under the projected buildout. In Chapter 7. Environmental Hazards, critical facilities are discussed in the context of locating new facilities away from hazardous areas where feasible and protecting existing facilities that are vulnerable to hazard risks.

For infrastructure planning, it is important to consider the regional context of the Planning Area as part of both the urbanized and rural San Mateo County Midcoast. The City's public works facilities overlap or interface with those of the Midcoast as highlighted below:

Water. The Coastside County Water District (CCWD) service area includes the entire city and extends north into the Midcoast serving the unincorporated communities of Princeton and El Granada (Figure 3-1). The Planning Area is fully within the Half Moon Bay Terrace groundwater basin which extends north into Montara.

Sewer. The City of Half Moon Bay's sewer system serves the southern two-thirds of the city south of Frenchmans Creek, the Granada Community Services District (GCSD) includes portions of the Planning Area north of Frenchmans Creek, and unincorporated northern portion of the Miramar neighborhood, El Granada, and Princeton (Figure 3-2). The Montara Water and Sanitary District (MWSD) serve the remainder of the Midcoast including Montara and Moss Beach. All city and Midcoast municipal sewage is treated at the Sewer Authority Mid-Coastside (SAM) facility.

Circulation. Highways 1 and 92, the primary circulation routes for the Midcoast including the Planning Area, are State Highways under the jurisdiction of the California Department of Transportation (Caltrans) (Figure 3-3).

Stormwater. The Planning Area is located entirely within the California Interagency Watershed (Calwater) San Mateo Coastal Hydrologic Area. The hydrologic area is divided into smaller sub-basins as further described in the Hydrology and Water Quality section of Chapter 6. Natural Resources. Within the Planning Area, nine local watersheds are identified including Roosevelt, Pullman, Frenchmans, Pilarcitos, Kehoe, Beachwood, Kelly/Metzgar, Seymour, and Ocean Colony (Figure 6-5 in Chapter 6. Natural Resources).

Thus, while this chapter's focus is public works capacity for Planning Area buildout, Midcoast growth and infrastructure needs are also acknowledged and presented as applicable in the following discussions and associated analyses.

COASTAL ACT POLICIES AND DEFINITIONS

The Coastal Act requires new development to be served by adequate services, including water, sewer, and circulation, and in a manner that does not adversely impact coastal resources (Section 30250). The Coastal Act also limits expansion of new public works facilities to those improvements necessary to accommodate planned development or uses permitted by the Coastal Act or Local Coastal Program (LCP). Where existing or planned public works can accommodate only a limited amount of new development, priority is given to recreation, coastal-dependent land uses, essential public services, and basic industries vital to the economic health of the region, state, or nation (Section 30254).

Coastal Act requirements for public works facilities are specifically relevant to the City's water, sewer, circulation, and stormwater systems' existing capacities and projected needs, which are discussed in this chapter. Other public works systems including communications, energy, and solid waste are addressed briefly in this chapter and more completely in the City's General Plan.

The following Coastal Act definitions and policies are relevant to public works and are incorporated into this LUP.

Chapter 2: Definitions

Section 30114. Public Works

"Public works" means the following:

- a. All production, storage, transmission, and recovery facilities for water, sewerage, telephone, and other similar utilities owned or operated by any public agency or by any utility subject to the jurisdiction of the Public Utilities Commission, except for energy facilities.
- b. All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads, and mass transit facilities and stations, bridges, trolley wires, and other related facilities. For purposes of this division, neither the Ports of Hueneme, Long Beach, Los Angeles, nor San Diego Unified Port District nor any of the developments within these ports shall be considered public works.
- c. All publicly financed recreational facilities, all projects of the State Coastal Conservancy, and any development by a special district.
- d. All community college facilities.

Section 30118. Special district

"Special district" means any public agency, other than a local government as defined in this chapter, formed pursuant to general law or special act for the local performance of governmental or proprietary functions within limited boundaries. "Special district" includes, but is not limited to, a county service area, a maintenance district or area, an improvement district or improvement zone, or any other zone or area, formed for the purpose of designating an area within which a property tax rate will be levied to pay for service or improvement benefiting that area.

Article 2: Public Access

Section 30212.5. Public facilities; distribution

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

Article 3: Recreation

Section 30222. Private lands; priority and development purposes

The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

Article 4: Marine Environment

Section 30231. Water quality protection

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

Article 6: Development

Section 30250. Location; existing developed area

- (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.
- (b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.
- (c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.

Section 30254. Public works facilities

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

Section 30254.5. Terms or conditions on sewage treatment plant development; prohibition

Notwithstanding any other provision of law, the commission may not impose any term or condition on the development of any sewage treatment plant which is applicable to any future development that the commission finds can be accommodated by that plant consistent with this division. Nothing in this section modifies the provisions and requirements of Sections 30254 and 30412.

California Coastal Commission Environmental Justice Policy

The Coastal Commission unanimously adopted an Environmental Justice Policy in March 2019 to provide guidance on how to address environmental justice in land use planning and coastal development permits. This policy supports affordable housing as a means of providing coastal access and recreation opportunities to people of all backgrounds, races, cultures, and income levels. In part, this policy states:

The Commission will use its legal authority to ensure equitable access to clean, healthy, and accessible coastal environments for communities that have been disproportionately overburdened by pollution or with natural resources that have been subjected to permanent damage for the benefit of wealthier communities. Coastal development should be inclusive for all who work, live, and recreate on California's coast and provide equitable benefits for communities that have historically been excluded, marginalized, or harmed by coastal development.

LAND USE PLAN BUILDOUT

Buildout projections are necessary to determine the extent to which the City's public works infrastructure has the capacity to serve existing and anticipated development for the planning horizon and beyond. This LUP presents two levels of buildout projections: first for the 2040 planning horizon, and second for the maximum theoretical buildout (MTB). While the 2040 buildout projections help foresee nearer term infrastructure needs using a typical 20-year plan horizon for anticipating major infrastructure upgrades, MTB projections

present an extreme scenario including all potential development sites to analyze longer-term infrastructure capacity..

The San Mateo County LCP was updated in 2013 and similarly included Midcoast growth projections for “Phase 1” and “Buildout” scenarios. For coordination purposes, the County’s LCP “Phase 1” projections are understood to be reasonably aligned to this LUP’s 2040 planning horizon; and the “Buildout” scenario represents a maximum buildout without an assumed end year as is the case for this LUP’s MTB scenario. The Half Moon Bay and San Mateo County unincorporated Midcoast buildout projections are summarized below in Table 3-1, and the assumptions and calculations for the projections are provided in Appendix B.

Table 3-1. City of Half Moon Bay and Midcoast Buildout Summary

	2018	2040 Projections	MTB
Dwelling Units¹			
Midcoast Total	9,210	11,028	14,006
Half Moon Bay	4,830	5,612	7,051
Unincorporated Midcoast	4,380	5,416	6,955
Population²			
Midcoast Total	23,909	28,532	35,347
Half Moon Bay	12,565	14,535	18,262
Unincorporated Midcoast	11,344	14,027	17,085
Employment (Jobs)³			
Midcoast Total	7,930	11,047	-----
Half Moon Bay	5,379	6,053	7,684
Unincorporated Midcoast	2,551	4,994	-----

¹ Residential Dwelling Units:

Half Moon Bay:

- Existing: 2013-2017 American Community Survey, City of Half Moon Bay GIS, and City of Half Moon Bay building permits data.
- 2040 Projections and Maximum Theoretical Buildout: Land Use Plan Appendix B.

Unincorporated Midcoast:

- Existing and 2040 Projections: Connect the Coastside (Public Working Draft), January 15, 2020, page 37, 2014 data including 80 additional dwelling units for 2014-2018 per San Mateo County Planning staff.
- Maximum Theoretical Buildout: San Mateo County LCP 2013, page 2.45.

² Population:

Half Moon Bay:

- Existing: 2013-2017 American Community Survey.
- 2040 Projections and Maximum Theoretical Buildout: Assumes 2.59 persons per residential dwelling units per 2013-2017 American Community Survey.

Unincorporated Midcoast:

- Existing and 2040 Projections: Connect the Coastside (Public Working Draft), January 15, 2020, 2014 data adjusted to account for population associated with 20 additional dwelling units per year from 2014-2018 per San Mateo County Planning staff.
- Maximum Theoretical Buildout: San Mateo County LCP 2013, page 2.45, Table 2.21.

³ Employment:

Half Moon Bay:

- Existing: Half Moon Bay Economic and Real Estate Conditions and Trends, Economic and Planning Systems, July 2014; augmented with City of Half Moon Bay planning and building permit data from 2014 – 2018.
- 2040 Projections and Maximum Theoretical Buildout: Land Use Plan Appendix B.

Unincorporated Midcoast:

- Existing and 2040 Projections: Connect the Coastside, (Public Working Draft), January 15, 2020, page 38.
- Maximum Theoretical Buildout: San Mateo County, ABAG, and other data sources do not include jobs projections for the unincorporated Midcoast for the maximum theoretical buildout condition.

Water

This section provides an overview of the Planning Area's municipal water service provider and sources; analyzes water supply adequacy for the Planning Area and its priority uses; and presents water policy issues as a basis for the LUP policies.

WATER SERVICE PROVIDER AND SOURCES

Coastside County Water District (CCWD) is the municipal water provider for the City of Half Moon Bay and the unincorporated areas of Miramar, El Granada and Princeton. As shown in Figure 3-1 below, the Planning Area, with the exception of agricultural lands outside the city limits, is served by CCWD. The remainder of the unincorporated Midcoast is served by the Montara Water and Sanitary District, a member of Sewer Authority Mid-Coastside (SAM).

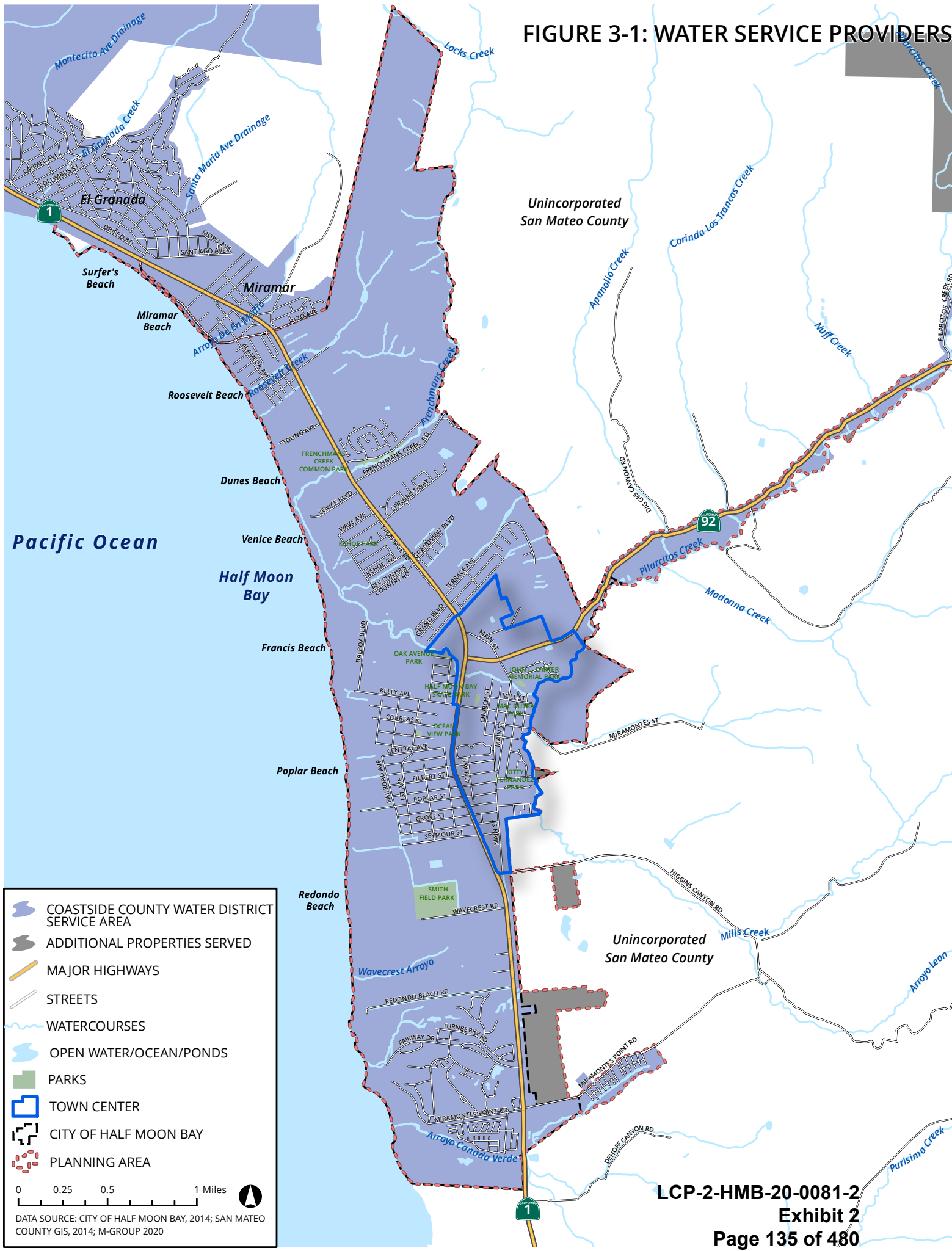
CCWD is responsible for ensuring that the service area's water supply needs are met under a range of extreme circumstances. Through their capital improvement planning, the district identifies infrastructure needs including the adequacy of storage facilities or other management methods, such as those necessary to fulfill conservation mandates.

Most of CCWD's supply is conveyed to the service area from the San Francisco Public Utilities Commission's (SFPUC's) Pilarcitos Reservoir and Upper Crystal Springs Reservoir. The SFPUC has a perpetual commitment, or supply assurance, to deliver water to its 24 permanent wholesale customers that are members of Bay Area Water Supply and Conservation Agency (BAWSCA). Each wholesale customer is allocated a supply assurance through individual supply guarantees (ISGs). CCWD is a member agency of BAWSCA and has an ISG of 2.175 million gallons per day (mgd) (about 800 million gallons per year or MGY). In 2009, wholesale customers and the SFPUC memorialized the supply assurance agreement for a 25-year term with a potential 10-year extension, and the next negotiation of the water supply agreement will be in 2034. SFPUC's commitment to supply water to BAWSCA member agencies is considered to be perpetual and survives the agreement's expiration or termination.

Local sources also contribute to CCWD's supply and include Pilarcitos Creek, Denniston Creek, and the Denniston Wells. During periods of prolonged drought, water supply from the SFPUC may be rationed, and local sources may be diminished. However, to address such conditions, SFPUC's commitment to supply water to BAWSCA member agencies including CCWD is supported by steps taken through its Water System Improvement Program to meet dry-year demands and assure that rationing does not exceed 20 percent.

Private water wells, which are particularly important for agricultural and agricultural-compatible uses, are also used throughout the city. In the past, private wells have also been allowed for residential development in areas considered not to be served by the municipal water system. However, as discussed later in this chapter, private wells for non-priority land uses are a cause for concern in protecting groundwater quality and supply.

FIGURE 3-1: WATER SERVICE PROVIDERS



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Service Area Water Supply Adequacy

Water supply for CCWD's service area is 2,725,000 gallons per day (gpd), equivalent to approximately 1,000 million gallons per year (MGY).⁴ This supply provides for the whole service area and is not specifically allocated between the City and the unincorporated areas; however, historically, the City accounts for approximately two thirds of the service area's water sales.

The service area water supply includes the following:

Table 3-2. CCWD Service Area Water Supply

Water Supply Source	Average Gallons per Day (gpd)	Million Gallons per Year (MGY) (rounded) ⁵
SFPUC	2,175,000	800
Local	550,000	200
Total	2,725,000	1,000

Source: CCWD Urban Water Management Plan, September 2016, Chapter 6. System Supplies

Service Area Water Demand. Population projections and estimated water demand for the 2040 and MTB scenarios for the CCWD service area are presented in Table 3-3.

Gross daily per capita demand (gpcd) assumptions are used to broadly estimate future water demand. Daily per capita demand is a gross measure and considers water use by both residential and non-residential land uses, including by residents and visitors. Population projections serve as a proxy to estimate growth for all types of land uses. This approach is appropriate for long-range planning purposes. Over a four-year period from 2014 - 2018, average gross demand (100-110 gpcd) was higher than average daily residential demand (52-58 gpcd).⁶ This variance is indicative of the City's numerous non-residential and visitor-serving uses with high water demand, such as hotels and restaurants, in addition to fire flow and other non-residential uses.

⁴ CCWD Urban Water Management Plan, September 2016, Chapter 6. System Supplies

⁵ The SFPUC supply is 2,175,000 which equates to 794 MGY. CCWD and BAWSCA round up to 800 MGY when presenting information in MGY. For purposes of this LUP, the more accurate 2,175,000 gpd is used for modeling purposes; and 800 MGY is used as a reference only.

⁶Bay Area Water Supply and Conservation Agency (www.BAWSCA.org) Member Agency Profiles, accessed July 2020.

Table 3-3 Per Capita Water Demand Estimates for the CCWD Service Area

	2020	2040	MTB
CCWD Service Area Population:	18,188	21,975	28,371
- Half Moon Bay ⁷	13,040	14,535	18,262
- Unincorporated CCWD Service Area ⁸	5,148	7,440	10,109
Gross Daily per Capita Demand (gpcd) ^{9,10}	110	110	100
CCWD Service Area Totals:			
Average Daily Demand (gpd)	2,000,000	2,420,000	2,840,000
Annual Demand (MGY)	730	882	1,036

Source: See footnotes.

Assuming a stable water supply and per capita use rates, the estimates indicate that water supply is likely adequate through the 2040 planning horizon. In a scenario in which growth approaches MTB, demand would surpass the 2,725,000 gpd supply. Conservation and new supplies, including recycled water, may contribute to an adequate long-term water supply to meet MTB demand. However, these sources could also be necessary to offset reduced supply in the case of drought or regulatory constraints. Water supply and system issues are further discussed later in this section.

Water Supply Reservations for Priority Uses. As addressed in Chapter 2. Development, priority uses in the Planning Area are defined as follows:

Coastal Act Priority Uses. Coastal-dependent uses, visitor-serving commercial uses, coastal access and recreational facilities, and agricultural uses. Coastal Act Priority Uses

⁷ Population - Half Moon Bay:

- 2020: ABAG Projections 2018
- 2040 Projections and MTB: Assumes 2.59 persons per residential dwelling units per 2013-2017 American Community Survey.

⁸ Population - Unincorporated San Mateo County:

- 2020 and 2040: CCWD Urban Water Management Plan, September 2016, page 3-2, Table 3-2. Retail: Population – Current and Projected based on ABAG Projections 2013. The table presents population projections for the whole service area, unincorporated County population calculated by subtracting City of Half Moon Bay 2040 and MTB Projections.
- MTB: San Mateo County Local Coastal Program Policies, June 2013, page 2.45, Table 2.21 Estimated Buildout Population of LCP Land Use Plan.

⁹ Bay Area Water Supply and Conservation Agency (www.BAWSCA.org) Member Agency Profiles, accessed July 2020.

¹⁰ Gross Daily per Capita Demand (gpcd) is based on demand rates at the time of the LUP update and does not account for anticipated reductions in per capita water demand due to continued and strengthening water conservation requirements. Leading up to the LUP update, Executive Order B-37-16 and related legislation mandating water conservation beyond 2020, collectively known as “Making Water Conservation a California Way of Life,” and the long-term effects of its associated legislation on per capita demand rates had not yet been realized.

are considered top tier priority in this LCP. Essential services are also included as a Coastal Act Priority Use in this chapter for the purposes of infrastructure reservations, consistent with Coastal Act Section 30254.

Local Priority Uses. Affordable dwelling units, including but not limited to units created through the Workforce Housing Overlay designation. Local Priority Uses are considered second tier priority behind Coastal Act Priority Uses in this LCP.

The City is obligated by the Coastal Act to ensure that supply is reserved for Coastal Act Priority Uses. Similarly, the LUP includes supply reservations to support affordable housing as a Local Priority Use.

Water supply demand for existing priority uses and reserve requirements for potential new priority uses at the 2040 plan horizon and at MTB are summarized in Table 3-4. Actual water demand for existing Coastal Act Priority Uses in the CCWD service area (including agricultural irrigation, restaurants, recreation, parks/beaches, marine, and hotel) was approximately 245,000 gpd (89 MGY) at the time of the LUP update. Thus, in addition to reserving water for future Coastal Act Priority Uses, a supply for the existing Coastal Act Priority Uses must be maintained. As noted in the table, there is no past water reservation requirement for Local Priority Uses. However, the LUP includes such requirement for new Local Priority Uses.

Table 3-4. Reserved Water Supply for New Priority Uses

	2040		MTB	
	Supply Reserved for 2040 gpd/MGY	Supply Reserved for Existing + 2040 gpd/MGY	Supply Reserved for MTB gpd/MGY	Supply Reserved for Existing + MTB gpd/MGY
New Priority Land Uses:				
Coastal Act Priority Uses	125,000/46	370,000/135	198,000/72	443,000/162
Ag. and Ag. Compatible Uses	42,500		62,000	
Coastal Recreation	6,250		12,500	
Visitor-Serving Commercial	67,200		105,700	
Essential Services	8,750		17,500	
Local Priority Uses	40,000/15	40,000/15	102,000/37	102,000/37
Workforce Housing Overlay w/ Coastal Act Priority Uses ¹¹	15,000		34,000	
Affordable Housing	25,000		68,000	
Total Annual Demand	165,000/61	410,000/150	300,000/110	545,000/199
Percent CCWD Supply	6%	15%	11%	20%

Sources: Refer to Appendix B. 2040 includes new development between 2020 and 2040; MTB includes development between 2020 and an unknown future time at full buildout.

¹¹ Most Workforce Housing Overlay housing units associated with Coastal Act Priority Uses will be farmworker housing. These units qualify as both Coastal Act Priority Uses and Local Priority Uses.

Modeling the water demand for projected development of Coastal Act Priority Uses and Local Priority Uses indicates that adequate water supply is available to be reserved for both existing and projected new Coastal Act and Local Priority Uses for the 2040 plan horizon and MTB of the Planning Area, assuming that 245,000 gpd (89 MGY) is already being provided to existing Coastal Act Priority Uses. The reserved supply for new uses at MTB is:

Coastal Act Priority Uses:	198,000 gpd (72 MGY)	7% of CCWD supply
Local Priority Uses:	102,000 gpd (37 MGY)	4% of CCWD supply

For context, the 1996 LUP established a reserve of 340,000 gpd (124 MGY) for Coastal Act Priority Uses through 2000. Actual water demand for existing priority uses in 2020 was almost 30 percent lower than the reservation established in the 1996 LUP. It is notable that the buildout projections of the updated LUP are lower than for the 1996 LUP and thus a similar projection including both existing and new uses of 370,000 mgd (135 MGY) for the 2040 buildout is reasonable; noting that the MTB projection is an extreme scenario that is not anticipated to ever occur. The 1996 LUP also assumed maximum use of reclaimed water for local recreational uses and this supply was never realized. As previously stated, water demand modeling for this LUP update incorporates numerous conservative assumptions, which are presented in Appendix B.

Service Area Water Connections

Water service is provided through a system of water connection allocations. There are three different types of water connections: priority connections that are available to Coastal Act Priority Uses, affordable housing connections that are available to Local Priority Uses, and non-priority connections that are available to Non-Priority Uses. The coastal development permit for the Crystal Springs pipeline project imposed a limit on the number of connections that can be sold by CCWD. Additional connections cannot be established without an amendment to the coastal development permit. As of 2020, about 1,230 remaining uninstalled water connections were held by CCWD or private landowners throughout the service area, including within the city limits and the unincorporated Midcoast, as summarized in Table 3-5. The City accounts for approximately two-thirds of the water connections as of 2020.

The number of water connections does not equate to a specific amount of water supply, rendering it difficult to estimate the number of water connections that will be required for any buildout scenario. For example, most single-family homes require one standard sized (5/8-inch) water connection. However, water demand for single-family homes varies significantly as a result of household size, conservation practices, and landscape irrigation. Connections are allocated based on plumbing fixture unit counts to ensure that the number and/or size of the connection will adequately serve the new development. Therefore, any approach to equating water demand to water connections can only be a rough estimate. The most current reference comes from the 2013 San Mateo County certified LCP which assumes that a single-family dwelling will use 315 gpd during high water use periods (i.e. summer months, accounting for landscape irrigation and swimming pools).

For this LUP update, similarly to San Mateo County, an estimate of water connection equivalence to water use is based on water demand assumptions for typical single-family development. It is first assumed that one connection is required per single-family home and zero connections are required per ADU. The water demand modeling for the LUP update assumes 200 gpd per single-family home and 100 gpd per ADU, which results in a 300 gpd equivalence per water connection (which is within 5 percent of the County's assumption). This is a conservative assumption for the City's portion of the CCWD service area based on actual water demand. This establishes that for non-residential and all other residential uses, an assumption of 300 gpd per water connection is used for order of magnitude planning purposes only. It is also notable that for many of the Coastal Act Priority Use categories - agricultural uses, recreational uses, and essential services - the uses are currently operating and assumed to expand in their existing locations. Incremental expansions of these uses can often be served via existing water connections, which in practice would be determined on a case-by-case basis. Furthermore, some of these uses have private wells or other water sources. Thus, for these categories of Coastal Act Priority Uses, it is assumed for modeling purposes that the total number of connections needed is reduced by 50 percent.

Water Connections by Use Type. In addition to reserving water supply for priority uses, it is also important to consider if the number of available water connections is adequate for buildout of the Planning Area. Connections are reserved by CCWD for Coastal Act Priority Uses and Local Priority Uses. The remaining "non-priority connections" may be used for priority or non-priority uses. Restriction of the use of the priority connections has been a management tool for reserving water supply for priority uses.

Table 3-5 presents the existing number of water connections for Coastal Act Priority Uses and Local Priority Uses in the CCWD service area and the estimated needed number of connections for the Planning Area at 2040 and at MTB, assuming 300 gpd per connection and the other assumptions outlined in Appendix B. The assessment indicates that there will not be enough water connections for Coastal Act Priority Uses at 2040 and MTB or for Local Priority Uses at MTB.

Table 3-5. Estimated Water Connections for Priority Uses

Connection Type	Available Service Area Connections (2020)	Estimated Connections Needed	Estimated Remaining (+) or Deficit (-)
Coastal Act Priority Uses	209.0		
- 2040		320	-111
- MTB		507	-298
Local Priority Uses ¹²	202.5		
- 2040		133	+69.5
- MTB		340	-137.5

Sources:

Connections: Coastside County Water District, July 2020

Coastal Act Priority Use: 176.5 unsold, held by CCWD; 32.5 sold, held by private parties

Local Priority Use: All unsold and held by CCWD

Connection Modeling: Refer to Appendix B.

Coastal Act Priority Uses. An estimated 320 connections are required for Coastal Act Priority uses at 2040, and 507 for MTB. In 2020, only about 209 priority connections were available for the CCWD service area. Therefore, there will not be enough connections for the Planning Area if Coastal Act Priority Uses build out as projected.

Local Priority Uses – Affordable Housing. In 2020 there were about 200 water connections available for affordable housing in the CCWD service area. The 2040 buildout scenario requires about 133 Local Priority Use connections, and MTB requires about 340 Local Priority Use connections. Therefore, there is an adequate number of connections for affordable housing through 2040. For MTB, it should be noted that the water demand model was conservative and assumed an average water demand of 200 gpd which is significantly higher than the City's 2020 average of 160 gpd for single-family homes. The modeling also did not assume use of any potable well water for Workforce Overlay Housing units. Therefore, it remains possible that the supply of Local Priority Use connections will last for some time past the 2040 planning horizon. However, San Mateo County's 2013 certified LCP includes over 300 units of affordable housing at plan buildout within the service area.¹³ In combination with the City's intentions for affordable housing, demand for affordable housing connections in the service area would exceed supply.

Non-Priority Uses. In 2020 there were about 820 water connections available for non-priority uses. There are enough non-priority water connections available for the 2040 buildout, and likely so in combination with the unincorporated portion of the service area.

¹² In Table 3-5, farmworker housing units are included with Local Priority Uses; however, these units qualify as both Coastal Act Priority Uses and Local Priority Uses.

¹³ San Mateo County Local Coastal Program Policies, June 2013, page 2.40-2.42, Table 2.17 Amount of Water Capacity to be Reserved for Priority Land Uses Coastside County Water District.

Well before MTB, there will not be enough connections for buildout of market rate housing and other non-priority uses. The limited supply of non-priority connections for the Planning Area will be exacerbated by concurrent Midcoast buildout.

WATER SUPPLY CONSIDERATIONS

Supply Assurance and Conservation. The SFPUC's obligation to deliver water to CCWD is perpetual, and survives the expiration or termination of the Water Supply Agreement between the SFPUC and the Wholesale Customers. The Supply Assurance also requires the SFPUC to supply water to the wholesale customers regardless of whether that supply comes from the Tuolumne River watershed or elsewhere. Thus, even if potential future State action reduces Hetch Hetchy supplies to the Regional Water System from the Tuolumne River watershed, the SFPUC remains legally obligated to find or develop replacement water over time to meet its supply assurance commitment.

The SFPUC's Alternative Water Supply Program was developed in 2019 and is an example of the SFPUC's effort to meet its contractual and legal obligations to wholesale customers. This program is designed to meet future water supply challenges and vulnerabilities, including regulatory changes; earthquakes, disasters, and emergencies; increases in population and employment; and climate change. The program intends to meet future water supply challenges and vulnerabilities and includes for evaluation and consideration a range of approaches including reservoir enlargement, desalination, expanded use of recycled water, and water reuse opportunities, among other projects. The SFPUC anticipates that the Alternative Water Supply Program will be an ongoing effort that will extend well into the future.

Nonetheless, the City should be prepared in the event the Planning Area's water supply is diminished over time. For example, it is possible that local sources will not be reliable year after year. To account for this uncertainty when assessing water supply adequacy for the LUP's buildout scenarios, the first line of defense is conservative modeling with safety factors embedded in the projection assumptions. The 2040 and MTB scenarios are modeled for higher than anticipated levels of development. Water demand estimates for each use were also selected to be at least 20 percent higher than actual use at the time of the LUP update. And finally, the modeling does not assume any new supply sources, such as reclaimed water, as discussed below. In order to manage the risk of inadequate water supply to and past the planning horizon, policies are specifically protective of groundwater supplies, seek development of new water supply sources, require reservation of supply for Coastal Act priority uses, and manage growth of non-priority uses.

Water Supply Reliability. At the time of the LUP update, CCWD's infrastructure included 8-million-gallons of capacity in its various storage tanks. Water storage capacity is an important factor for Planning Area resilience, for both operational demands and emergencies.

Peak Demand. CCWD is responsible under the Urban Water Management Planning Act (UWMP Act) to ensure that peak demand needs are met under a range of extreme circumstances. Meeting peak demand is supported through the distribution system and its storage capacity. Through their capital improvement planning, the District identifies

infrastructure needs such as the adequacy of storage facilities or other management methods to fulfill their obligations. Revisions to the UWMP Act over the past decade require water agencies to establish per capita water use targets to achieve statewide water savings of 20 percent by 2020. CCWD was working on its 2020 UWMP concurrently with the 2020 LUP update, which will provide an update on progress and projections.

Emergency Supply. The CCWD service area benefits from having storage capacity equivalent to approximately three days of the District's total annual water supply.¹⁴ CCWD evaluates the system over time and takes into account the effects of drought and other extreme weather conditions. The District is responsible to ensure the ability of the system to convey peak demand for a larger population in the event of emergency and/or multi-day interruption of service, such as could happen if the Crystal Springs pipeline were cut off. LUP policies are supportive of water supply reliability and storage capacity.

Reclaimed Water. Reclaimed water is water that is used more than one time before it passes into the natural water cycle. There are numerous potential sources and uses for reclaimed water in the Planning Area, especially for recycled water, which is treated reclaimed wastewater (sewage). Recycled water is defined in the California Water code (§13050) as, "Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource." In the Planning Area the most relevant uses of recycled water include irrigation for Coastal Act Priority Uses - agriculture and recreation - and possibly industrial processes. Recycled water may also be appropriate for habitat restoration and groundwater recharge.

The 1996 LUP anticipated that most of the irrigation needs for local recreation would be met through the use of locally produced recycled water. However, at the time of the 2020 LUP update, recycled water was not yet available in the Planning Area or the unincorporated Midcoast. CCWD and the Sewer Authority Mid-Coastside (SAM) have continued to demonstrate interest in reaching an agreement for SAM to produce recycled water at its treatment plant for CCWD to distribute to end users. The system would require costly infrastructure improvements at the treatment facility and for distribution pipelines. This LUP update calls for the City to support and facilitate establishment of a recycled water treatment and distribution system for the Planning Area. A joint powers agreement establishes that the City's sewer service area (south of Frenchmans Creek) would have rights to about 50 percent of this potential water source. North of Frenchmans Creek, the GCSD sewer service area would have rights to about 30 percent and the MWSD service area would have rights to about 20 percent of the total supply. Some of the GCSD share would be available to the City of Half Moon Bay because the northern portion of the City is located within GCSD.

Other types of reclaimed water include gray water and desalination of seawater. Gray water, unlike recycled water, is not treated sewage. Rather, it is a subset of wastewater which includes relatively clean waste water from baths, sinks, washing machines, and other kitchen appliances. As an example of existing gray water usage in the Planning Area, some greenhouse operations collect and reuse water within carefully contained irrigation system.

¹⁴ Bay Area Water Supply and Conservation Agency (www.BAWSCA.org) Member Agency Profiles, accessed July 2020.

Another gray water source is hotel laundry wastewater for landscape irrigation. Seawater can also be reclaimed for other uses when it is desalinated and treated. Desalinization of seawater for an additional water source is not anticipated to be feasible or necessary until beyond the 2040 plan horizon.

New Water Connections. Over the planning horizon, it may be appropriate to establish additional water connections. To do this, CCWD would need to secure a coastal development permit through the City and/or San Mateo County or an amendment to the 2003 El Granada Pipeline coastal development permit. Before doing so, the City and CCWD will need to monitor water demand of existing uses and frequently update near and long-term development forecasts to ensure that new connections will not result in over-allocation of actual water supply and will not enable development that would adversely impact other infrastructure systems. Coastal development permits allowing increased infrastructure capacity must be carefully considered in relationship to the adequacy of other public works capacity. It is anticipated that other infrastructure systems, particularly circulation, will be significantly constrained so as to not support creation of additional water connections, especially for non-priority uses.

Coastal Act Priority Uses. For Coastal Act Priority Uses, the implication of running out of connections for the 2040 and MTB scenario is multifaceted. Land use and water supply policies address this anticipated shortage in the following ways:

- **Coastal Act Priority Uses with Lower Water Demand:** The LUP update considers land use from numerous perspectives. Chapter 2. Development identifies lower-cost visitor serving uses as sustainable options for cases where prime soils are present and such uses can be established with a light development footprint. Examples include agricultural compatible uses (e.g. parks, commercial equestrian uses, and other outdoor recreation) and agriculture supplemental uses (e.g. farm stands, agritourism, small-scale farm lodging, and temporary and seasonal uses) geared to coastal visitors. With respect to Coastal Act Priority Uses, Chapter 5. Coastal Access and Recreation encourages lower-cost visitor serving uses to maximize coastal access as required by the Coastal Act. The infrastructure assessments in this Public Works chapter, especially with respect to water demand and trip generation rates, also encourage lower-cost visitor serving uses over more intense uses because they tend to have lower water demand rates and generate less traffic. This is especially noted in estimating the number of needed water connections for different types of Coastal Act Priority Uses. Restaurants and lodging have the highest water demand per square foot as compared to other Coastal Act Priority Uses and would require a significant number of the remaining Coastal Act Priority Use water connections. City records of actual water use indicate that RV camping spaces and other coastal recreational uses have about 25 percent of the water demand of more typical hotel and motel accommodations. Thus, policy throughout the LUP supports lower-cost visitor serving uses as a means for reducing development impacts and ensuring adequate water infrastructure for buildout of uses that maximize coastal access opportunities for all.
- **New Water Supply:** If reclaimed water is brought forward as a new supply source, it may be appropriate for many Coastal Act Priority Uses including recreation, some agriculture

and agricultural compatible uses, and even certain essential services. A new class of water connections for reclaimed water could potentially be established, which could increase the number of connections available for some of the highest priority Coastal Act Priority Uses (e.g. agriculture and coastal-dependent uses).

- **Unused Priority Use Connections:** In 2020, about 32 of the service area's 209 Coastal Act Priority Use connections were sold but remained uninstalled. These uninstalled connections could potentially be sold back to CCWD or transferred to other properties with qualifying priority uses. However, as of 2020 CCWD does not have a mechanism for buying back or transferring priority water connections. Allowing buy-backs, transfers, or otherwise establishing new connections to make up for these unused connections, could help maintain an adequate supply of Coastal Act Priority Use connections for many years.

Local Priority Uses. For Local Priority Uses, water demand is anticipated to be relatively low. For Workforce Housing Overlay units, the use is also a low trip generator because employees will live close to work. Establishing more connections if needed for affordable housing is supported by LUP policy, contingent on monitoring and development forecasting. In addition to their availability, the cost of water connections is also especially important for affordable housing. As purchased directly from the Water District, connections for affordable housing, as well as for Coastal Act Priority Uses, were approximately \$17,000 in 2020; while non-priority connections purchased through the secondary market, made up of multiple landowners, cost many times more. Although affordable housing could be developed with non-priority water connections, it would be cost prohibitive. Another important consideration as noted in Chapter 1. Introduction and Framework and Chapter 2. Development, is that affordable housing units developed according to the requirements of the Workforce Housing Overlay designation qualify as Coastal Act Priority Uses if they specifically support agriculture uses. These units could use Coastal Act Priority Use water connections if more are to be established, and if Local Priority Use water connections become limited.

Non-Priority Uses. Non-Priority Use water connections are expected to be expended after the 2040 Planning Horizon; and there are not enough to support MTB when considering the entire service area. LUP policy is cautiously supportive of creating additional Non-Priority Water Connections. With respect to water supply, additional connections for Non-Priority Uses should only be considered after ensuring that efficiency measures for existing development meet or exceed water conservation requirements or a reclaimed water supply is developed. It must also be demonstrated that the development enabled by additional connections would not adversely impact other infrastructure systems and would not preclude development of Coastal Act or Local Priority Uses.

Groundwater Management. In Half Moon Bay, groundwater management considerations include protecting groundwater quality and supply. Seawater intrusion and other contaminants could present a risk to groundwater quality, which may be further exacerbated by climate change and sea level rise. Recharging the aquifer is challenging due to poor percolation of the city's soils and intensified storm events which result in rapid sheet flow and limited infiltration.

In September of 2014, the state adopted the Sustainable Groundwater Management Act (SGMA). The Act requires a water operator's use of groundwater to be sustainable during its planning and implementation horizon without causing undesirable results to the basin. SGMA requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. In 2018, the State Department of Water Resources (DWR) considered reclassifying the Half Moon Bay Terrace groundwater basin from "very low" to "high" priority, which indicates that they considered the basin to be threatened. Following additional research about the status of the basin's water quality, the sustainability of on-going drawdown from existing wells, and the projected growth within the basin area, DWR concluded that the basin is healthy and a "very low" priority as of 2020.

The LUP includes policies to protect the Half Moon Bay Terrace groundwater basin. Limiting new wells is one consideration. The entire planning area within the urban boundary has access to municipal water. With few exceptions, only priority uses, especially agriculture and agriculture compatible uses, environmental restoration, and public recreation will be granted coastal development permits for new private or public wells. In the event that an existing residential well within the Planning Area fails, policy reserve 10 Coastal Act Priority Use connections for addressing these cases safely, quickly, and more affordably. The basin is also protected from overdraft, which can lead to seawater intrusion, and is supported by green infrastructure as discussed in the Stormwater section of this chapter.

Water Supply and Environmental Hazards. Drought and wildland fire are of increasing concern throughout the arid west, as discussed further in Chapter 7. Environmental Hazards. State law requires water districts to establish provisions for multi-year droughts, with which CCWD complies. However, as the effects of climate change progress, the duration of droughts is expected to become longer, making them more impactful and difficult to withstand. For fire risk abatement, fire flow requirements call for larger water mains. Increasing water main size to support fire flow, including fire sprinkler systems, is not intended to increase capacity or otherwise be growth inducing. However, because growth inducement is a Coastal Act concern, LUP policies address this topic to clarify the purpose of and allow for these infrastructure upgrades for fire flow needs while barring the consumption of fire flow capacity by new development.

Sewer

This section provides an overview of the Planning Area's sewer system providers and infrastructure; analyzes sewage treatment capacity adequacy for the Planning Area and its priority uses; and presents sewer policy issues as a basis for updated LUP policies. The terms sewage and wastewater are used interchangeably in the following discussion.

SEWER SERVICE PROVIDERS AND INFRASTRUCTURE

Planning Area sanitary sewer service is provided by the City of Half Moon Bay south of Frenchmans Creek. North of Frenchman's Creek, service for the Midcoast is provided by Granada Community Services District (GCSD) and Montara Water and Sanitary District

(MWSD). The northern portion of the City is located in GCSD. All of these entities collect and transport sewage to the Sewer Authority Mid-Coastside (SAM) wastewater treatment plant for treating and disposing of the sewage (Figure 3-2). SAM is a public agency that provides service to Half Moon Bay, GCSD, and MWSD under an exercise of joint powers agreement (JPA). Each member agency of SAM is allotted capacity rights to the plant. These allocations correspond generally to the relative proportion of sewer collection system pipes owned and managed by each of the JPA members.

In the Planning Area, private on-site wastewater disposal systems (e.g. septic systems with leach fields or serviced storage-vaults) are also used in areas not served by centralized sewage collection systems.

At the time of the LUP update, the sewer system infrastructure was comprised of the following:

City of Half Moon Bay. Includes approximately 35 miles of sewer mains and three lift stations.¹⁵ The City of Half Moon Bay's connection to the SAM Treatment Plant is through a separate siphon connection, owned and maintained by the City of Half Moon Bay.

Granada Community Service District. Includes approximately 33 miles of sewer mains, 4.7 miles of which are located within City limits and the remainder in unincorporated Miramar, El Granada, and Princeton.¹⁶

SAM. Includes an 8-mile stretch of transmission main referred to as the Intertie Pipeline System (IPS), of which approximately 1.8 miles are gravity mains, while the remaining portions are force mains. Four main lift stations connect the GCSD and MWSD member agencies' sewer distribution systems to the SAM Treatment Plant.

Generally, wastewater treatment systems and plants are designed with a capacity to convey and treat wastewater for an existing service population and its projected growth within the service area over the useful life of the primary infrastructure components. Primary infrastructure is comprised of the network of pipes, pumps, lift stations, force mains, and treatment plant facilities. Major components of sewer conveyance systems such as force mains and lift stations require on-going maintenance and planned replacement. As such, these facilities are assessed in frequently updated master plans and accounted for in capital improvement planning for each agency.

SEWER TREATMENT CAPACITY

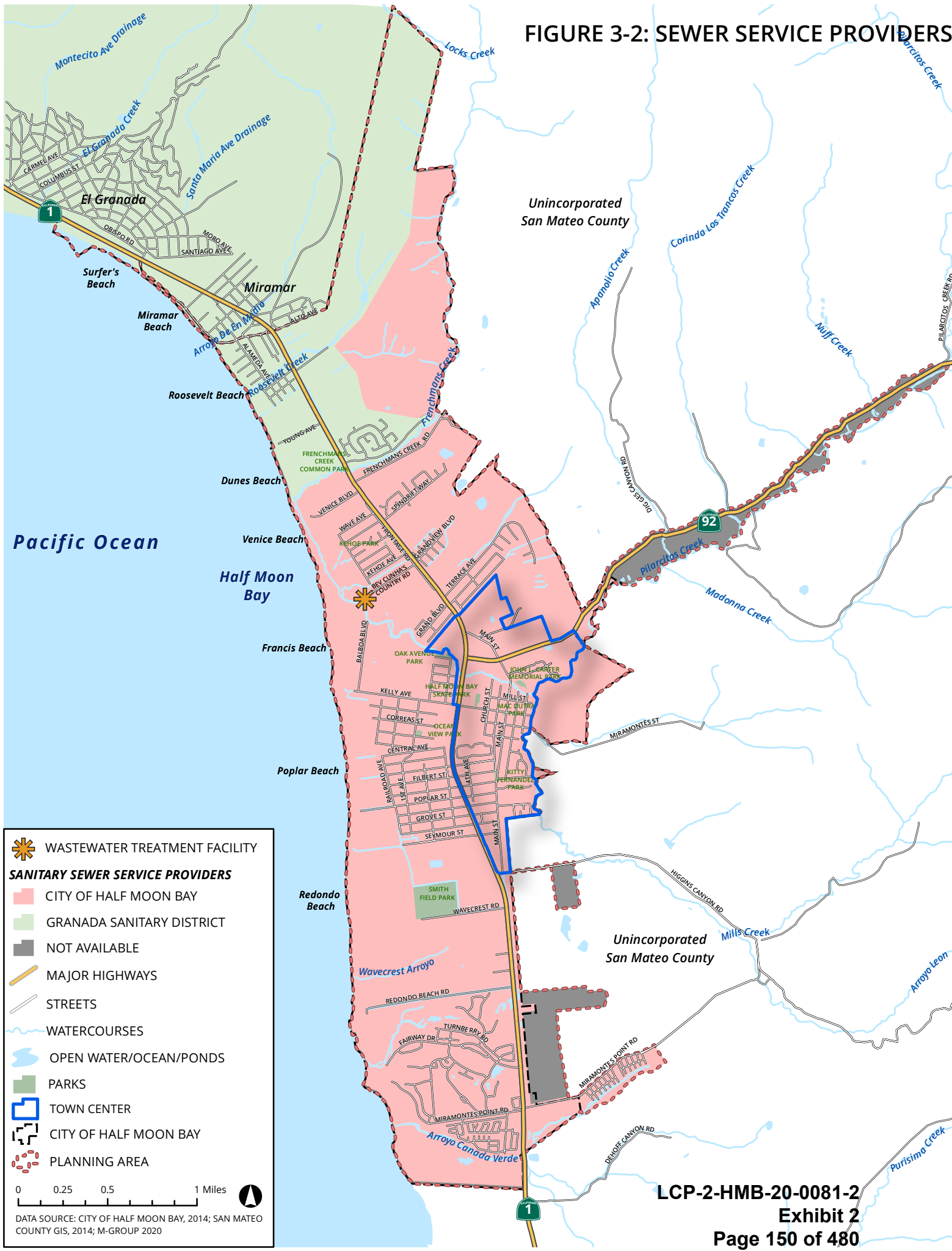
At the time of the LUP update, the SAM wastewater treatment plant had 4,000,000 gallons per day (gpd) of treatment capacity. The wastewater plant was initially built as a 2,000,000 gpd facility in the early 1980's. Starting in 1996, the SAM treatment plant was expanded after an amendment to the Joint Powers Agreement between the member agencies, increasing the


¹⁵ City of Half Moon Bay Sewer System Master Plan, 2016, Akel Engineering Group

¹⁶ BKF Associates and Dyett & Bhatia, Existing Conditions Report for Plan Princeton, May 2014.


capacity to its current levels by building and expanding treatment tanks and other infrastructure. Other features, such as improvements required by regulatory agencies, have also been completed from time to time.


FIGURE 3-2: SEWER SERVICE PROVIDERS





 WASTEWATER TREATMENT FACILITY


SANITARY SEWER SERVICE PROVIDERS


 CITY OF HALF MOON BAY


 GRANADA SANITARY DISTRICT


 NOT AVAILABLE


 MAJOR HIGHWAYS


 STREETS


 WATERCOURSES

 OPEN WATER/OCEAN/PONDS


 PARKS

 TOWN CENTER

 CITY OF HALF MOON BAY

 PLANNING AREA

00.250.51 Miles



DATA SOURCE: CITY OF HALF MOON BAY, 2014; SAN MATEO COUNTY GIS, 2014; M-GROUP 2020

Treatment Plant Capacity Adequacy

At the time of the LUP update, the SAM treatment plant was operating with an average annual flow of 1,700,000 gpd. This average volume is less than half of the plant's permitted capacity and includes all JPA treatment flows. However, sewer system and treatment plant capacity must also be designed to accommodate peak flows which are higher than average flows. Peak flow factors are determined through review of historical data and further modified following engineering analysis of specific system conditions. The average and peak flow conditions most significant to system performance include:

Average Dry Weather Flow (ADWF). The average measured hourly flow that occurs during a dry weather season. This flow rate is the operational design standard for the treatment plant.

Peak Wet Weather Flow (PWWF). The highest measured hourly flow that occurs during a wet weather season. PWWF is historically three to four times higher than PDWF and is directly affected by the severity and length of storm events.

The SAM plant's design capacity is 4,000,000 gpd ADWF and up to 15,000,000 gpd PWWF.¹⁷ The City of Half Moon Bay service area is allotted half the design capacity, with the other half split between GCSD and MWSD as shown in Table 3-6:

Table 3-6. SAM Treatment Plant Capacity for Member Agencies

SAM Member Agency	Percent Allocation	ADWF – gpd	PWWF - gpd
City of Half Moon Bay	50%	2,000,000	7,500,000
GCSD	30%	1,200,000	4,500,000
MWSD	20%	800,000	3,900,000
SAM Plant Total	100%	4,000,000	15,000,000

Source: City of Half Moon Bay Sewer System Master Plan, 2016, Akel Engineering Group

Wastewater Flows

Factors developed for the 2016 Half Moon Bay Sewer Master Plan were used to estimate the 2040 and maximum theoretical buildout (MTB) average dry weather flow (ADWF) and peak wet weather flow (PWWF) for the City of Half Moon Bay sewer service area and portion of the GCSD within the city limits. The estimates are presented in Table 3-7 using per capita factors to broadly estimate future wastewater flows, similar to the per capita water demand estimates presented in the previous section in Table 3-3.

¹⁷ City of Half Moon Bay Sewer System Master Plan, 2016, Akel Engineering Group

Table 3-7. Per Capita Wastewater Flow Estimates

	2020	2040	MTB	Available Capacity (2020)
City of Half Moon Bay Population	12,601	14,535	18,262	
- Half Moon Bay Service Area	11,469	13,216	16,521	
- Half Moon Bay Portion of GCSD	1,133	1,316	1,741	
City of Half Moon Bay ADWF (gpd)	1,200,000	1,380,000	1,730,000	
- Half Moon Bay Service Area	1,090,000	1,260,000	1,570,000	2,000,000
- Half Moon Bay Portion of GCSD	110,000	120,000	170,000	Portion of GCSD
City of Half Moon Bay PWWF (gpd)	6,130,000	7,070,000	8,880,000	
- Half Moon Bay Service Area	5,580,000	6,430,000	8,040,000	7,500,000
- Half Moon Bay Portion of GCSD	550,000	640,000	850,000	Portion of GCSD

Sources:

2018 population estimates: 2016 Half Moon Bay Sewer System Master Plan. Rounding results in summations not exactly matching totals.

2040 and MTB population estimates: Land Use Plan buildout analysis.

Flow Rates: 2016 Half Moon Bay Sewer System Master Plan, Table 5.1 Historical Flow Data and Peaking Factors. ADWF is 0.90; however to be conservative the maximum day dry weather flow (MDDWF) rate of 1.25 is used; PWWF rate is 6.40.

The per capita wastewater flow estimates indicate the following:

Half Moon Bay Service Area. Treatment plant capacity is adequate for ADWF where the service area is allotted 4,000,000 gpd capacity and the flow estimate is 1,570,000 gpd in the MTB scenario. For PWWF, capacity is adequate through the 2040 planning horizon; however, in the MTB scenario, the estimated PWWF of 8,040,000 gpd exceeds the allotted treatment plant capacity of 7,500,000 gpd by 7 percent.

GCSD Service Area: Half Moon Bay's projected contribution to the flows in the GCSD service area account for about 14 percent of the district's treatment allotment for ADWF and 19 percent for PWWF in the MTB scenario. The San Mateo County LCP assumed that the portion

of GSD within the city limits would contribute only about 12 percent to GCSD's wastewater flow volume, somewhat less than what is projected in the analysis presented in Table 3-7. For ADWF, this discrepancy is fully offset by the Half Moon Bay service area where flows are estimated to be much lower than the treatment plant capacity.

Sewer Treatment Plant Capacity Reservations for Priority Uses. Because PWWF may surpass treatment plant capacity at a future time after the 2040 planning horizon, the City is obligated by the Coastal Act to ensure that capacity is reserved for Coastal Act Priority Uses. Reservations are also provided for Local Priority Uses to support provision of affordable housing. Table 3-8 presents the estimated wastewater flows for new priority uses in the Planning Area for the 2040 and MTB scenarios.

Table 3-8. Reserved Capacity for New Priority Use Wastewater Flows

Priority Land Uses:	2040 Capacity Reserves gpd/MGY	MTB Capacity Reserves gpd/MGY
Coastal Act Priority Uses	89,300/33	145,850/53
Ag. and Ag. Compatible Uses	2,125	3,100
Coastal Recreation	3,125	6,250
Visitor-Serving Commercial	67,200	105,700
Essential Services	8,750	17,500
I&I Factor +10%	8,100	13,300
Local Priority Uses	44,000/16	112,200/41
Workforce Housing Overlay w/ Coastal Act Priority Uses ¹⁸	15,000	34,000
Affordable Housing	25,000	68,000
I&I Factor +10%	4,000	10,200
Total Annual Flows		
- gpd	133,320	321,500
- MGY	49	94

Sources: Refer to Appendix B. 2040 includes new development between 2020 and 2040; MTB includes development between 2020 and an unknown future time at full buildout.

The 1996 LUP reserved sewer treatment capacity for priority land uses totaling approximately 60,000 gpd split evenly between Commercial/Recreational and Public Recreation uses. For the portion of the city located within GCSD, approximately 10,000 gpd were reserved for public recreation uses. For this LUP, reservations required for new priority uses through MTB include:

Coastal Act Priority Uses:	145,850 gpd (53 MGY)
Local Priority Uses:	112,200 gpd (41 MGY)

¹⁸ Most Workforce Housing Overlay housing units associated with Coastal Act Priority Uses will be farmworker housing. These units qualify as both Coastal Act Priority Uses and Local Priority Uses.

The 2040 buildout scenario for all uses can be accommodated by the existing treatment plant capacity, including for Coastal Act Priority and Local Priority Uses. However, system improvements, will be necessary to serve MTB of the City as well as the unincorporated Midcoast.

SEWER SYSTEM FACILITIES AND CAPACITY CONSIDERATIONS

Sewer System Performance. The SAM wastewater treatment plant's facilities were generally performing adequately for demands at the time of the 2020 LUP update. SAM, MWSD, GCSD, and the City of Half Moon Bay each have sewer system management plans (SSMPs) to address hydraulic performance issues within their district limits, such as adequate storage and flows within each conveyance system. This is achieved through repairs of the existing conveyance systems to reduce the amount of stormwater, identification and elimination of improper connections, replacement of degraded pipe segments, and upgrades to capacity and operations at the lift stations.¹⁹ One of the main concerns related to system performance is inflow and infiltration (I&I) into the collection system pipes. With I&I, any breaks or deficiency in the network, stormwater and groundwater can flow into the sewer collection system, increasing the amount of wastewater being conveyed and ultimately treated at the SAM plant. I&I is evident in both the Half Moon Bay and El Granada sewer districts and is discussed in more detail below. Policies to support additional funding, monitoring and repair of the collection system will help preserve capacity for all uses.

Since the 1996 LUP was certified, several sanitary sewer overflows (SSOs) took place throughout the various systems in the SAM JPA. A few of the SSO's were severe, invoking litigation as well as imposed administrative fines and regulatory compliance and monitoring requirements by the State. Over the course of five years leading up to the LUP update in 2020, the City increased its efforts to monitor conditions so as to prevent or reduce the significance of SSOs by installing sensors at key sewer junctions, updating the Sanitary Sewer Response Plan, investing in the I&I capital program, and undertaking major facility upgrades such as the Ocean Colony Pump Station and Force Main Replacement project, which was nearing construction in 2020.

The City's 2016 Sewer System Management Plan (SSMP) utilized a hydraulic model to evaluate the City's service area for capacity deficiencies.²⁰ In general, the hydraulic model indicated that the sanitary sewer system exhibits acceptable performance to serve existing customers. Several areas were identified as potentially deficient for the most extreme scenarios. Following the 2016 modeling work, on-going maintenance and repair efforts were undertaken resulting in improved system performance during storm events, and the capacity issues identified in the modeling were not realized.

Infiltration and Inflow. In the Planning Area, infiltration and inflow (I&I) is one of the most significant challenges facing the wastewater treatment system. I&I are excess waters that flow into sewer pipes from groundwater and stormwater, primarily during wet weather events. Groundwater (*infiltration*) seeps into sewer pipes through holes, cracks, joint failures, and faulty connections. Stormwater rapidly flows into sewers through holes in manhole

¹⁹ City of Half Moon Bay Sewer System Management Plan, 2016, Akel Engineering Group

²⁰ City of Half Moon Bay Sewer System Management Plan, 2016, Akel Engineering Group.

covers, and illicit connections from roof drains, foundation drains, or other cross-connections from the stormwater system (*inflow*). As a result of I&I, sewage volumes have in the past exceeded pipeline capacity in several locations throughout the city, resulting in surcharge of some manholes. I&I can significantly diminish the capacity of the wastewater conveyance and treatment systems during wet weather events, and it is estimated that approximately 20 percent of PWWF is attributed to I&I. In the case of leaky pipes there is also potential for wastewater exfiltration; however, the likelihood of significant leakage is low as a result of the hydraulic pressure placed on underground pipes by soil and groundwater. System improvements that reduce I&I also address exfiltration.

At the time of the Land Use Plan update, the plant was affected by storm water infiltration into the sewage pipelines, which could be exacerbated by sea level rise and increased intensity, frequency and duration of storm events as a result of climate change. It is anticipated that without a proactive I&I management program, this problem will worsen if storm events become more frequent and more intense over time while the underground sewer system infrastructure also continues to age and become more vulnerable to I&I. The Land Use Plan supports efforts to monitor and reduce I&I over the planning horizon to operate within plant capacity and achieve policy objectives for public and environmental health.

Treatment Plant Vulnerability. The SAM plant location and condition are a long-term vulnerability for the Planning Area. The SAM treatment plant is located at a low elevation near the shoreline and is subject to both tsunami and dam failure inundation hazards. Vulnerability assessments indicate that the plant will become subject to inundation as sea level rise approaches one meter (3.3 feet), which is likely to occur by the end of the century.²¹ With annual storm events, significant flooding is expected to occur in combination with half a meter of sea level rise. The plant has displayed signs of age and requires a diligent approach to maintenance. SAM has incorporated into its Capital Improvement Program (CIP) planning process an evaluation of plant needs and risks, and included budget for plant repairs.

In time, the plant may need to be protected from flooding risks with armoring or raising sensitive facilities and may eventually require relocation. The plant facility is also limited in area and adjacent to sensitive habitat, which will make it difficult to expand if required to accommodate future changes in regulatory requirements. The LUP includes policies for identifying opportunities such as alternative sites and funding sources should relocation be required in the future to protect the plant from these vulnerabilities. In addition, Chapter 7. Environmental Hazards identifies the SAM plant as a critical facility that warrants shoreline protection or other shoreline hazard adaptation measures to continue providing essential community services.

As new information becomes available, it will be necessary to revisit the modeling inputs and scenarios to address the effects of climate change on the treatment plant's capacity. Major upgrades and/or replacements are going to be necessary during the next 20 years, and an important issue for SAM is whether the existing wastewater treatment plan should be

²¹ Ocean Protection Council, State of California Sea-Level Rise Guidance, 2018 Update.

upgraded or expanded in the existing location, or whether it should be relocated. LUP policy supports analysis of a range of potential outcomes, e.g. retrofits, improvements, and relocation.

2040 Planning Horizon.

Average Dry Weather Flow. The wastewater flows associated with 2040 buildout should meet the treatment plant design capacity for ADWF. Reuse of gray water and other reductions of sanitary sewer discharges through updates of the California Building Code, among other regulatory changes, are expected to reduce the overall volume of water requiring treatment. Introduction of a recycled water facility/expansion could also reduce ADWF, as well as PWWF, moving forward.

Peak Wet Weather Flow. The City and GCSD have both determined that deficiencies in their systems can be improved over time. As previously described, I&I likely reduces system capacity by approximately 10 percent. If this condition is improved even modestly by 2040, there will be adequate capacity for PWWF past the 2040 planning horizon which would give time to further evaluate and implement improvements to accommodate additional future development

Maximum Theoretical Buildout.

Average Dry Weather Flow. The wastewater flows associated with MTB should meet the treatment plant design capacity for ADWF and would be improved upon by the approaches noted above for the 2040 scenario.

Peak Wet Weather Flow. The wastewater flows associated with MTB could exceed treatment plant capacity for the PWWF condition. MTB is not anticipated to occur, and assumptions made regarding future development ensure a conservative evaluation of infrastructure capacity. However, despite the conservative approach to modeling, the potential for wastewater flows to exceed treatment plant capacity must be carefully monitored, particularly for wet weather conditions. This is especially important if climate change results in stronger and more frequent storm events.

At the time of the LUP update, the Half Moon Bay sewer conveyance system could deliver only 7,100,000 gpd to the treatment plant, and thus was not able to deliver up to the 7,500,000 gpd PWWF treatment plant capacity; this conveyance system limitation is in and of itself a capacity concern. Improvements to the conveyance system may need to be phased to meet treatment plant capacity over the course of the planning horizon. Despite the potential for both conveyance system and treatment plant infrastructure to exceed capacity at MTB, the risk of wastewater flows from new development exceeding plant capacity is strongly tempered, primarily because, as presented in the preceding section regarding water supply, there are not enough water connections to support the MTB of the Planning Area. Additional water connections necessary to achieve MTB will not be permitted without a robust assessment of the adequacy of sewage treatment plant capacity, as well as roadway capacity.

Treatment Plant Ocean Outfalls. State regulations on wastewater discharges and ocean outfalls have tightened in recent years, particularly in State Water Quality Protection Areas, which include state-designated Areas of Special Biological Significance and Marine Protected

Areas. The SAM plant currently discharges treated wastewater through an ocean outfall into the Greater Farallones National Marine Sanctuary boundary. The Sanctuary contains Areas of Special Biological Significance and Marine Protected Areas, but none within City limits. SAM's ocean outfall is regulated through the county-wide National Pollutant Discharge Elimination System (NPDES) permit, which is a primary mechanism for controlling pollutant loads and discharge locations. Future legislation may further regulate existing and new ocean outfalls, particularly in consideration of sea level rise and climate change adaptation needs. If future regulations require reduced outfall flows, this could potentially be addressed through a recycled water system. However, if significant reductions or elimination of the ocean outfall is mandated, there would be challenges in addressing the PWWF.

Septic Systems. Septic systems typically include a tank that stores the solid waste, and pipes that release the wastewater into a drainfield where it percolates through the soil and ultimately discharges to groundwater. Naturally occurring microbes then remove harmful bacteria, viruses, and nutrients from the wastewater. However, septic systems that are poorly designed, installed, operated or maintained, or are sited in locations or densities that exceed the treatment capacity of the local soil can cause contamination of groundwater, surface waters, and drinking water with disease-causing pathogens and nitrates. Half Moon Bay's soils are characteristically clay loam, which do not percolate well and can lead to overloading and flooding of the liquid wastewater.

With the Land Use Plan update, the entire planning area within the urban boundary is considered to have access to municipal sewer service. However, certain properties lack convenient access to municipal sewer service and instead employ leach fields or private septic systems. Septic systems are regulated by San Mateo County Environmental Health Services but require a coastal development permit for new installation in city limits. Due to the potential for adverse environmental, water quality, and health impacts from private septic systems, the LUP encourages conversion of existing septic systems to municipal sewer service as it becomes available and feasible. In most cases, new or redevelopment of non-priority uses will not be allowed to use septic systems. Any new priority use that is proposed to rely on a new or existing septic system will need to be assessed to ensure the ability of the drainfield to treat wastewater without the potential for water quality impacts. Alternately, if a private sewage treatment system is the only feasible option, vault systems that do not expose the environment to effluent are preferable.

Circulation

The circulation discussion and policies in this chapter focus on Highways 1 and 92 for vehicular traffic. Relevant policy and implementation plans include the 2013 Half Moon Bay Circulation Element (update underway as of the 2020 LUP update), the 2019 Half Moon Bay Bicycle and Pedestrian Master Plan, and the 2020 draft San Mateo County Comprehensive Transportation Management Plan (CTMP). From the perspective of multi-modal coastal access, Chapter 5. Coastal Access and Recreation addresses coastal access routes and points, bicycle and pedestrian circulation, parking and alternate modes, and needed circulation improvements to provide options for visitors and residents.

VEHICULAR CIRCULATION SYSTEM

Highway 1 (Cabrillo Highway) and Highway 92 (San Mateo Road) are the backbones of Half Moon Bay's roadway network, providing regional connections from San Francisco (north) and the Bayside of San Mateo County and beyond (east) to the coastline at Half Moon Bay and south toward Santa Cruz. Highway 1 and Highway 92 are constructed as arterial roadways and are managed by Caltrans, which has principal responsibility for any improvements. The City of Half Moon Bay can propose, fund and implement changes on the state routes, with Caltrans approval.

Highways 1 and 92 serve three primary user groups:

Visitors. The Planning Area is a popular destination for tourists. Weekend and event traffic on these roadways are consistently very heavy.

Residents. Almost 80 percent of employed residents out-commute to jobs "over the hill" via Highway 92 on the bay side of San Mateo County, Santa Clara County, and the East Bay; as well as via Highway 1 to San Francisco. Coastside grade, middle and high school commutes rely on Highway 1, with most school commutes made by private car.²² For local trips, as a result of historic subdivision patterns, many of the city's neighborhoods are not connected to each other by residential streets. Highway 1 is often the only option for reaching any other part of the city by car.

Local Industry. Trucks transport agricultural products out of the area to market. Deliveries to the Ox Mountain landfill as well as transport of sand and gravel from the Pilarcitos Quarry—both of which are located on the north side of Highway 92 east of the city limits—further contribute to a significant presence of truck traffic along this corridor.

Highway 1 traverses the Planning Area from north to south. It has interspersed sections of two-lane and four-lane roadway segments are interspersed along the route which also has several signalized intersections. Highway 92 is a curving road with increasing grade as it traverses east. Trucks that use these routes affect visibility, overall speed, and volume characteristics, especially when present in concentrations and overlapped with commute or recreational traffic including that associated with commercial entities and residences that take access from Highway 92. Local SamTrans bus services run on both of these routes.

CIRCULATION SYSTEM CAPACITY

The capacity of the circulation system in Half Moon Bay and the unincorporated Midcoast is predominately dependent upon the performance of Highways 1 and 92. As described above in the water supply discussion, in association with the Coastal Commission approval of the El Granada pipeline replacement project, increase in water supply or distribution capacity from CCWD is contingent upon achieving adequate service levels for Highways 1 and 92. Although a CTMP has been in development by San Mateo County for the unincorporated Midcoast, peak weekday and weekend traffic is often gridlocked and is expected to worsen with the

²²2013-2017 American Community Survey and Cabrillo Unified School District Safe Routes to School Surveys.

development potential and popular visitor destinations of the Midcoast and Half Moon Bay. Highway capacity and congestion are significant constraints for visitors to Half Moon Bay and residents who need to commute and make routine trips. Growth management limitations will need to be coupled with Town Boulevard improvements and alternative modes of transportation options to offset limited highway capacity.

Traffic Performance Standards

Performance standards are an important tool for analyzing circulation system capacity and adequacy. This is especially relevant from the perspective of supporting coastal access. At the time of the LUP update, the California Environmental Quality Act (CEQA) was undergoing a shift from using level of service (LOS) thresholds as a traffic performance standard to vehicle miles traveled (VMT). LOS is a quality measure that indicates the degree of congestion that occurs during peak travel periods, and it has been the principal measure of roadway and intersection performance for many years. LOS can range from “A” representing free-flow conditions, to “F” representing extremely long delays. VMT measures the total number of miles traveled that originate or terminate within a defined area over a specified period of time. VMT has a stronger connection to environmental impacts including greenhouse gas emissions, energy use, and runoff pollution. Half Moon Bay will continue to utilize LOS and other measures to ensure that localized roadway performance is understood and addressed as necessary, while using VMT to assess environmental impacts of specific development projects. To do so, the City will need to establish a method for measuring VMT, select a significance threshold, and determine approaches for mitigating impacts.

Although automobile delay will no longer be considered a significant environmental impact pursuant to CEQA, LOS assessment remains relevant. LOS analysis can indicate if traffic impacts of proposed development will diminish roadway and intersection performance and may also be applicable to maintaining emergency vehicle response times. The City’s longtime LOS standard has been LOS C on Highways 1 and 92, except during the peak commuting and recreational periods when LOS E is the minimum acceptable standard.

While VMT and LOS serve specific and important purposes, neither provides a thorough measure of the actual travel experience. They also do not take other travel modes into account. Because traffic is a top local concern, additional approaches to evaluating the transportation system are desired by the community. LUP policies call for alternative or additional performance standards to be studied. Examples include:

Delay Index. Measures the ratio of peak period travel time on a segment to the free-flow travel time.

Bicycle, Pedestrian, and Transit Environmental Quality Indices (BEQI, PEQI, and TEQI). Measures are varied, focus on safety, convenience, and comfort, and may be qualitative.

Emergency Vehicle Response Times. Public safety agencies must maintain and account for their response times. Areas with heavy congestion can affect response times which should be

taken into account when transportation system improvements or development are contemplated.

Highway 1 and 92 Performance

Traffic modeling of the roadway system was conducted for the LUP update to evaluate system performance, and was considered by three primary segments: Highway 1 between Mirada Road to the north and Highway 92 to the south (HWY 1 North); Highway 1 between Highway 92 to the north and Miramontes Point Road to the south (HWY 1 South); and Highway 92 between Highway 1 to the west and the city limits to the east (HWY 92). Performance measures evaluated in the traffic model include level of service (LOS) and delay. Vehicles miles traveled (VMT) is not used for this assessment, as VMT does not consider roadway capacity or indicate its performance as discussed in the previous section. The modeling results are presented in Appendix B, Table B-10.

In 2020, during the weekend peak hours when the number of coastal visitors is typically highest, the intersections of Main Street and Highway 92 and Highway 1 and Terrace Avenue both operated at LOS F. Two other Highway 1 intersections, at Frenchmans Creek Road and Venice Boulevard, operated at LOS E. The modeling analysis confirms that Half Moon Bay's primary roadway infrastructure will continue to be heavily impacted at buildout, especially by weekday and weekend peak period traffic. Highway 1 South delay is the least impacted under the existing condition and by buildout. Highway 92 delay increases notably, especially in the PM peak hour conditions. Highway 1 North was already experiencing a delay factor of 3 in 2020, which increases to over 4 and then 5 in the 2040 and maximum theoretical buildout conditions, respectively. This is a dramatic increase and adversely affects the experience of visitors to the coast and quality of life for residents. Increasing roadway capacity may be a consideration in this case; however, the LUP update has identified that expanding capacity will in turn induce more demand, which has the potential to overwhelm the capacity of other public works systems.

TOWN BOULEVARD

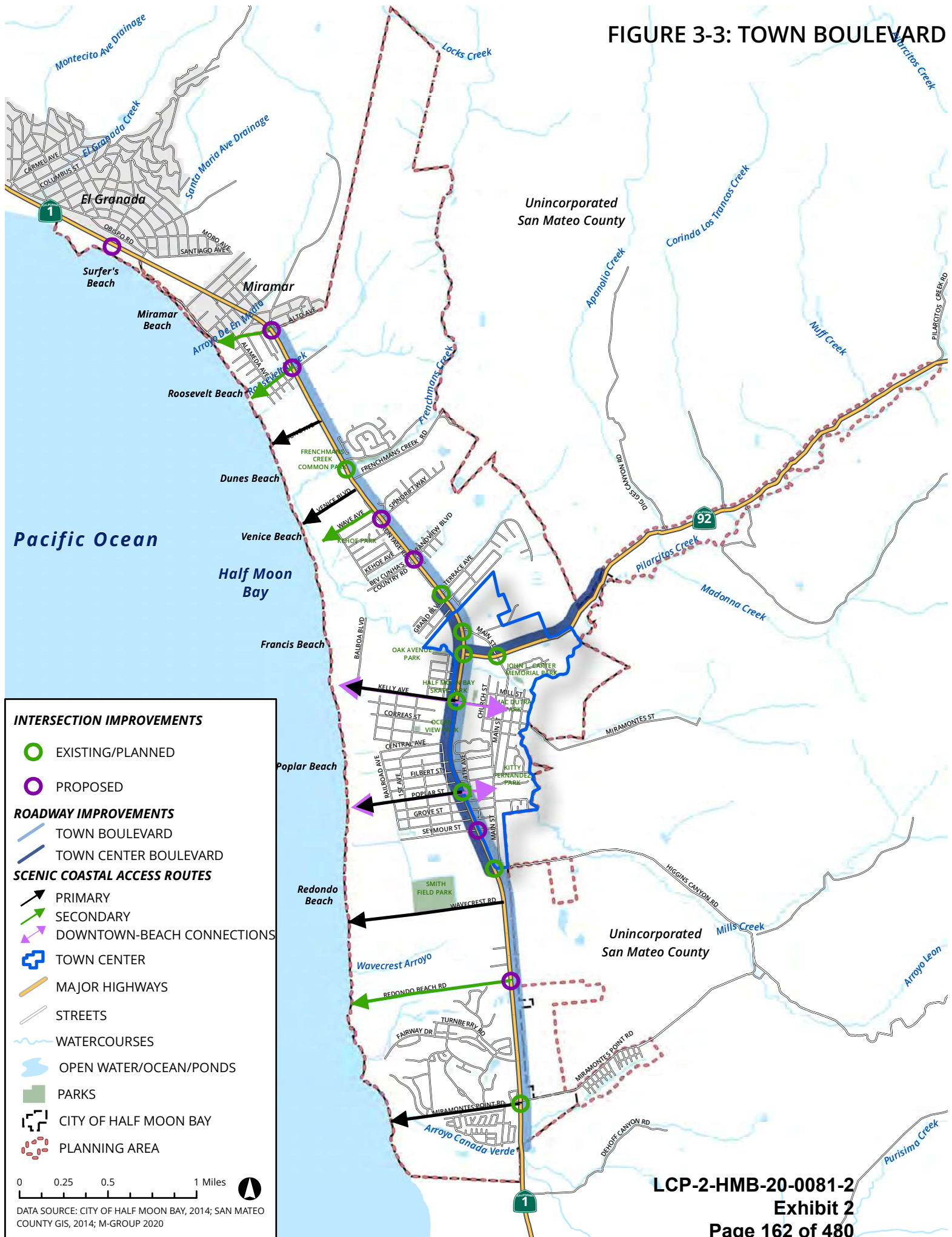
Increasing traffic congestion is a community concern, and expanding Highway 1 into a four-lane road within the Planning Area, and in the unincorporated Midcoast, has been met with strong resistance. Because regional growth in the greater Bay Area is not within the City's control, the community has realistic expectations that weekend peak traffic congestion is unavoidable and will continue to get worse. The design and speed limits of these roadways are appropriate as rural highways but are out of context with the scale and layout of the Planning Area due to high speed limits and lack of designated crossing areas for bicycles and pedestrians. Within the city limits, these roadways need to function as major arterial streets connecting neighborhoods to services.

During the LUP update process, it was determined that the character of Highways 1 and 92 needed to be reconsidered. The LUP thus includes a new vision for these highways within the Planning Area: The Town Boulevard. The Town Boulevard could potentially include lower speed limits; multi-modal improvements with safe crossings; and landscaping and other

amenities intended to enhance the image and scenic quality of the city. The Town Boulevard will be implemented in a range of ways and for varying spans of the highways. The primary focus is the North Main Street to South Main Street segment of Highway 1, and Highway 92 between Highway 1 and the eastern city limits. This core section is within the Town Center and referred to as the Town Center Boulevard on Figure 3-3. Farther north and south along Highway 1, other approaches could be incorporated including roundabouts or grade-separations with the objective being a slower, safer, and contextually appropriate roadway to better serve residents and improve coastal access for visitors. In Chapter 2. Development, policies require Planned Developments to consolidate points of access and provide multi-modal facilities and other improvements to further implement the Town Boulevard.

Figure 3-3 presents a schematic depiction of the Town Boulevard. The Town Boulevard is coordinated with other improvements included in the LUP, as discussed further below and depicted on Figure 3-3.

FIGURE 3-3: TOWN BOULEVARD



Improvements Underway

At the time of the 2020 LUP update, several circulation improvement projects along the Town Boulevard were underway. The Eastside Parallel Trail was planned as a new Class I bicycle and pedestrian facility crossing Highway 92 and running adjacent to the eastside of the full length of Highway 1 within the city limits. The City had begun the planning and design process to combine and signalize the intersections of Highway 1 at Terrace and Grand Avenues and to signalize the intersection of Highway 1 and South Main Street. In addition, the City was working to improve traffic flow through signal coordination in the Town Center.

Planned Improvements

The Circulation Element of the City's General Plan identifies roadway improvements along the Town Boulevard that will help to ease traffic congestion while also improving safe access and connectivity for people on foot and on bikes and enhancing access to the coast for visitors. These improvements are intended to accommodate the existing and future travel needs generated as the city approaches build out. Ongoing monitoring studies will evaluate future needs as the land-use patterns of the city evolve. These improvements also support other travel modes such as with signal-controlled highway crossings for bicycles and pedestrians.

In addition to planned improvements, consideration of short and long-term effects of sea level rise and coastal erosion will also necessitate adaptive improvements. Adaptive improvements are preferred pursuant to the California Coastal Commission's 2015 Sea Level Rise Policy Guidance, and strategies can include realignment of roadways away from the beach, various methods of slowing erosion, and managed retreat. For Half Moon Bay, areas of concern based on the 2016 Half Moon Bay Sea Level Rise Vulnerability Assessment include a segment of Highway 1 along the northern coast of the Planning Area bordering El Granada, which is subject to erosion and relies on existing shoreline protection, and Mirada Road in the Miramar neighborhood, which has experienced severe erosion. These vulnerabilities are discussed further in the context of shoreline hazards and sea level rise in Chapter 7. Environmental Hazards.

CIRCULATION SYSTEM AND CAPACITY CONSIDERATIONS

Circulation System Capacity Constraints. In general, the circulation system is already constrained in Half Moon Bay. The LUP includes multiple strategies to reduce capacity constraints, including the lot retirement program introduced in Chapter 2 (Development), implementation of the Town Boulevard, and the prioritization of new development in the Town Center where alternative modes of transportation and proximity to goods and services are generally available. While the Coastal Act requires that limited infrastructure systems provide services to Coastal Act Priority Uses over other types of new development, certain types of Coastal Act Priority Uses that involve high trip generation rates should be located in areas of the city that are least impacted by traffic. LUP policies thus discourage the development of new higher trip generating uses north of Highway 92, where traffic modeling confirmed the circulation system is most impacted.

Emergency Access. The Town Boulevard design must accommodate emergency vehicles and evacuation traffic. Areas with heavy congestion can degrade response times or exacerbate the potential for gridlock should a large-scale evacuation be required. This condition is worsened during weekend peak periods when the number of coastal visitors is the highest. LOS analysis can help assess roadway performance for emergency vehicle or evacuation access. Restricting the roadway's capacity while improving circulation with the Town Boulevard will help manage visitor traffic on peak weekend days, which will reduce gridlock and improve intersection performances to allow sufficient emergency access and evacuation. Realization of the approach may require wider shoulders or turn-outs in lieu of additional roadway lanes.

Multi-Jurisdiction Planning. The LUP is sensitive to San Mateo County's planning effort for Highway 1 ("Connect the Coastside") in the unincorporated Midcoast, which was in progress at the time of the LUP update. It includes similar approaches, such as roundabouts and multi-modal improvements, and does not include significant capacity expansions. Interim evaluation of the Connect the Coastside plan indicates that the existing transportation system, especially Highways 1 and 92, are inadequate for buildout of the coastside. In addition to infrastructure, the draft Connect the Coastside plan recommends implementing lot merger, lot retirement, and mitigation fee programs to reduce capacity needs and fund transportation system improvements.²³

Community Character. From the coastal access perspective, the current traffic conditions are a material constraint and are anticipated to worsen. Half Moon Bay's coastal zone attractions are numerous, and a primary component is the scale of the built environment set upon a narrow band of marine terrace between the coast and Santa Cruz Mountain foothills. The small-town character is a leading draw for coastal visitors. Upscaling infrastructure to accommodate visitors and growth will be at cross-purposes with maintaining the desirability of this area that visitors seek. The findings of Chapter 3. Public Works suggest that infrastructure capacity for some systems is at or near its limits and that the City will need to work on an ultimate buildout strategy to stay within those means for the Planning Horizon.

Future Improvement Priority Area. In North Downtown, the Highway 92 and Main Street intersection is especially congested during the weekend peak traffic period. For weekdays, school commute trips for Half Moon Bay High School exacerbate peak period congestions in this area. Development around this intersection is auto-oriented and setback behind parking areas. These parking areas in combination with the large intersection roadway area present as a vast expanse of paved area as the terminus to the arrival sequence from westbound Highway 92. This condition does not impart a sense of place consistent with the small-town character of the Town Center, nor does it provide wayfinding cues for Heritage Downtown or the beaches. Redesign of the intersection as part of the Town Boulevard, potentially with a round-about, would reduce the overall scale of this expansive area. Future redevelopment of the adjacent private properties with denser development framing the roadways would establish both a gateway and a node of walkable commercial and residential uses in this area.

²³ San Mateo County Midcoast Draft Comprehensive Transportation Management Plan, "Connection the Coastside," 2020.

Stormwater

Stormwater management is essential for containing runoff, minimizing flood and erosion risks, and reducing contamination from conveyance of urban pollutants. This section addressed the City's stormwater system in the context of system components, capacity, and vulnerabilities. Stormwater is discussed in the context of hydrology and water quality in Chapter 6. Natural Resources.

STORMWATER SYSTEM AND MANAGEMENT

Half Moon Bay's stormwater system is made up of nine watershed areas identified in the City's 2016 Storm Drain Master Plan from north to south as Roosevelt, Pullman, Frenchmans, Pilarcitos, Kehoe, Beachwood, Kelly/Metzgar, Seymour, and Ocean Colony (see Figure 6-5 in Chapter 6. Natural Resources). The Pilarcitos and Kehoe drainage areas have functional overlap. The Pilarcitos drainage area flows to Pilarcitos Creek and discharges into the ocean just north of the SAM plant, while the Kehoe drainage area flows to Kehoe Watercourse which outfalls to Pilarcitos Creek. Throughout the watershed areas, the City maintains a manmade drainage system consisting of closed pipes, open roadside ditches, and other lined or unlined channels. The Town Center discharges stormwater primarily via closed pipes to Pilarcitos Creek. Outside the Town Center, developed areas including neighborhoods drain via a combination of manmade pipes, ditches, and channels into natural and manmade watercourses located west of Highway 1, which eventually discharge directly to the ocean.

Stormwater is managed through this combination of gray and green infrastructure. Green infrastructure is the preferred alternative to gray infrastructure, as it utilizes natural ecosystem services to capture and treat stormwater runoff. Stormwater carried by gray infrastructure such as storm drains and pipes are more likely to convey polluted water directly to coastal environments, causing greater water quality impacts and affect coastal water quality. Green infrastructure such as bioswales, rain gardens, street trees, and green roofs allow stormwater to absorb and infiltrate on site, thereby reducing flooding potential, water quality impacts, erosion and associated sedimentation. Larger-scale projects such as dechannelizing watercourses, can support stormwater management throughout a basin. Green infrastructure improvements often have other cross-cutting benefits as well, such as groundwater recharge, carbon sequestration, and climate change resiliency. The City adopted a Green Infrastructure Plan in 2019 with goals to address some of the drainage requirements of existing impervious surface through public and private projects during the 2040 planning horizon. LUP policies acknowledge the City's Green Infrastructure Plan and encourage the conversion of gray to green infrastructure throughout the city. While these projects can result in significant benefits, it is important to note that implementation of green infrastructure is expected to increase the City's cost to maintain the stormwater system.

One Water is another approach to water management in developed areas that addresses the water cycle in an urbanized area as an integrated system, treating all water as a potential resource and recognizing the combined impact of these systems on flooding, water quality, wetlands, watercourses, estuaries, and coastal waters. The City can collaborate with CCWD and SAM regarding the applicability of the One Water concept in Half Moon Bay to develop a

water system in which all water—not just potable water—has a role in meeting the community’s water demand without adversely impacting natural resources.

STORMWATER SYSTEM CAPACITY

The 2016 Storm Drain Master Plan identified deficiencies in every watershed area with the exception of Ocean Colony. In the northern portion of the City (Roosevelt, Pullman, and Frenchmans Creek), Pullman Watercourse was considered a high priority for capacity improvements due to flooding depth. Roosevelt was identified as a priority for routine maintenance.

For the Pilarcitos Creek/Kehoe watershed area, localized flooding occurring on Spindrift Way in the Sea Haven neighborhood was identified as a priority, as was flooding on Highway 92 near the intersection of Main Street. The 2016 Storm Drain Master Plan generally assumed gray infrastructure solutions to prevent flooding, such as upsizing pipes. The Storm Drain Master Plan did not anticipate the Green Infrastructure Plan or the level of new development planned for the Town Center area in this LUP update. Most of the Town Center is located within the Pilarcitos drainage area and future study of the system’s capacity will be required as development comes forward. To the extent that green infrastructure can be implemented within the most densely developed portion of the city, it should be considered as a first choice. At the time of the LUP update, the City’s Storm Drain Master Plan was pending an update to incorporate green infrastructure principles.

STORMWATER SYSTEM AND MANAGEMENT CONSIDERATIONS

Watershed Restoration. In addition to requiring green infrastructure, the LUP also identifies numerous restoration opportunities. The Roosevelt watershed flows into Roosevelt Creek, which adjoins the southeastern side of the Guerrero wetlands. The Pilarcitos and Kehoe watershed areas include City-owned lands of Beachwood, Glencree, and 15 acres south of Bev Cunha’s Country Road. The Kelly/Metzgar and Seymour watersheds include City, County, and land trust-owned properties. All of these areas are identified in Chapter 2. Development for conservation and restoration.

Town Center Development. Most of the Town Center is located within the Pilarcitos watershed area. Because the Town Center is anticipated to undergo the most change with new infill development, drainage from this area must be carefully managed. Drainage flows are primarily directed to Pilarcitos Creek, which is designated as ESHA and known to support several special status species. In consideration of this sensitivity, LUP policies require low impact development, site control and other means to avoid adverse impacts from stormwater flows, including within the denser Town Center area.

Localized Flooding. Several areas of small localized flooding were identified in the City’s 2016 Storm Drain Master Plan. LUP policy supports updating the Storm Drain Master Plan to keep track of these areas and addressing them through Capital Improvement Program projects. Policy in Chapter 7. Environmental Hazards advocates for updating the FEMA FIRM maps throughout the City because they currently do not cover several of the inland watercourses, including Pilarcitos Creek downstream from Arroyo Leon. Having accurate

mapping will help the City manage localized flooding and minimize the risks caused by development.

Aging Infrastructure. As is the case with the water and sewer systems, stormwater infrastructure is aging and will require replacement during the 2040 planning horizon.

Regional Planning. At the time of the LUP update, the new established Flood and Sea Level Rise Resiliency Agency was formed with participation by all of the cities in San Mateo County and the County. This agency will assist with regional planning and be able to compete for grant funding to implement flood protection measures, including those for addressing sea level rise.

Other Public Works Facilities

The City relies upon other public works facilities and systems that are not specifically addressed in the Coastal Act except where they would meet the definition of development. Some are mentioned below to provide context. Each of these systems are covered in other City planning policy documents.

Communications. Communications facilities are an important consideration for the General Plan Safety Element. The City has a number of wireless telecommunication facilities and encourages co-location for network improvements and reduced visual impacts. An active HAM radio group is activated to support public safety efforts during emergencies. The City has also considered redundant systems and has made emergency preparedness a community priority.

Energy. Energy, especially energy conservation, is addressed in the General Plan Open Space and Conservation Element. Advances in energy transmission and storage systems will support several policy areas in the LUP, such as to support greenhouse gas emission reductions and an anticipated increase in the use of electric vehicles over time. The City supports residential and commercial energy conservation measures such as EV charging stations, solar paneled roofs, and green building methods.

Solid Waste. Solid waste is also addressed in the General Plan Open Space and Conservation Element. The City partners with a service provider for solid waste, recyclable material, and organic waste collection for residential and commercial constituents. Solid waste collection is taken to the Ox Mountain Sanitary Landfill on Highway 92 in unincorporated San Mateo County. Ox Mountain is a Class III municipal solid waste landfill and is the only active landfill in San Mateo County, with an expected remaining capacity to receive waste until 2039. Recyclables and organics are transferred at Ox Mountain and processed at Newby Island in Milpitas.

Additional Special Districts. In addition to the districts and JPAs that provide the City's water and sewer utilities services, public services are provided by the Coastside Fire Protection District, Cabrillo Unified School District, and San Mateo County Mosquito and Vector Control, among others.

Policies – Public Works

Policies – General

- 3-1. Infrastructure Capacity.** New or expanded public infrastructure, including water, sewer, and transportation facilities, shall be designed and limited to accommodate needs generated by development or uses permitted consistent with this Land Use Plan and the Chapter 3 requirements of the Coastal Act.
- 3-2. Monitor Growth and Infrastructure Capacity.** Monitor growth and infrastructure capacity annually for Coastal Act Priority Uses, Local Priority Uses, and Non-Priority Uses. Publish reports summarizing changed conditions that may affect growth, infrastructure capacity, or the regulatory requirements associated with infrastructure and development.
- 3-3. Coastal Act and Local Priority Uses.** In the event that growth and capacity monitoring indicate that water supply and the associated classifications of water connections or sewer capacity will not be adequate to maintain public works capacity reservations for Coastal Act and Local Priority Uses or to support buildout of the Town Center, the City shall establish a public works capacity allocation process. In all cases, infrastructure reservations shall be prioritized according to the following tiering:
1. Coastal Act Priority Uses: Coastal-dependent, agriculture including farmworker housing, visitor-serving uses, recreation, habitat conservation/restoration, and essential services;
 2. Local Priority Uses: Affordable housing;
 3. Non-Priority Uses: Market-rate housing, general industrial, general commercial.
- Allocations of infrastructure capacity for Non-Priority Uses will not be granted in the event that it would preclude development of Coastal Act Priority and Local Priority Uses.
- 3-4. Town Center Infrastructure.** The City shall plan for, fund through development impact fees and other sources, and implement infrastructure improvement projects or allocation systems, including for water, sewer, transportation, and stormwater, to support buildout of the Town Center.
- 3-5. Coastal Development Permit for Public Works.** Require any public utility, government agency, or special district proposing a development project in the City to obtain a coastal development permit, unless explicitly exempted by the LCP, Coastal Act, or other controlling law.
- 3-6. New Development Requirements and Findings.** Require that all new development has available municipal water and sewer services and access from a public street or over private streets to a public street where these improvements or facilities are essential to the type of development. Prior to approval of a coastal development permit, the approving authority shall determine if infrastructure, including water

connections, is available and adequate; and if so, shall make the finding that such development will be served with water, sewer, and road facilities, including such improvements as are provided with the development. Lack of available services or resources shall be grounds for denial of the project or reduction in the density otherwise indicated in the Land Use Plan. Some development types may be exempt from the requirements of this policy such as habitat restoration, trails and other coastal recreational uses, and many agricultural and agricultural supplemental and ancillary uses.

- 3-7. System Improvements.** Allow system improvements to occur to address health and safety needs such as replacing aging infrastructure; ensuring sufficient water capacity for fire flow; improving system capacity to prevent sewer overflows; using green infrastructure in public and private development projects to prevent erosion, sedimentation, or flooding; and providing passing lanes for emergency vehicles. Such improvements are intended to address health, safety, and changing design standards, shall not be growth inducing, shall be phased if they constitute a significant system update, and shall comply with Policy 3-1.
- 3-8. One Water.** Consider the potential applicability of a One Water approach to the City's water systems management for all water resources (e.g. stormwater, wastewater, surface waters, groundwater, and potable water) in collaboration with Coastside County Water District, the Sewer Authority Mid-Coastside, and the San Mateo County Flood and Sea Level Rise Resiliency District.
- 3-9. Municipal Service Provisions.** Only provide municipal services including water, sewer, and roads to areas approved for development, except where services are required for permitted restoration, agricultural, agricultural compatible, and recreational uses. In the case of Planned Developments, prior to master plan approval, provide services only for those uses allowed in advance of master plan approval.
- 3-10. Timing for New or Expanded Public Works Facilities.** The timing and amount of new or expanded City public works facilities or capacities, as well as those provided by other agencies subject to City issuance of a coastal development permit, shall be prioritized for land uses as listed in Policy 3-3 and shall be determined by:
 - a. Considering the anticipated buildout within the urban boundary of the Planning Area and public works capacities as a whole;
 - b. Providing capacity incrementally to support a phased buildout of the land use plan;
 - c. Prioritizing sustainable infrastructure and development that is protective of the environment, conserves resources, and/or supports agriculture;
 - d. Anticipating the public works capacity for buildout of the Town Center;
 - e. Considering if existing capacity has been consumed or will be consumed within the time required to construct additional capacity;

- f. Considering the availability of related public works to establish whether capacity increases would overburden the existing and probable future capacity of other public works;
 - g. Considering the availability of public funds for public works improvements that benefit existing development, with private funds required for improvements needed for new development; and
 - h. Considering San Mateo County's certified Local Coastal Program policies and subsequent buildout and infrastructure modeling prepared by the County for the Midcoast.
- 3-11. Public Works Infrastructure Vulnerability.** Support studies that evaluate the condition of critical facilities, especially public works infrastructure that has been identified as vulnerable to environmental hazard risks, including water storage facilities, the SAM treatment plant and portions of the sewer transmission system, and Highway 1 near Surfers Beach. Studies shall include alternatives analyses for potential retrofit, improvements, relocation, or other considerations.
- 3-12. Service Areas Study.** Study the structure and operations of public works service areas and consider new governance structures, including formation of a new special district or consolidation if service quality and cost can be improved.

Policies – Water System

- 3-13. Water System Capacity Monitoring.** The City shall review CCWD's annual water sales reports for each land use category; consider remaining water capacity to ensure water supply is sufficient to maintain the City's water reserves for Coastal Act and Local Priority Uses; and evaluate water supply adequacy for remaining buildout of the LUP.
- 3-14. New Water Connections.** Support establishment of new water connections for the different use categories to serve sustainable development and LUP priorities for uses as specified:
- 1. Coastal Act Priority Uses: Coastal-dependent, agriculture including farmworker housing, and other Coastal Act Priority Uses with lower water demand;
 - 2. Local Priority Uses: Affordable housing; and
 - 3. Non-Priority Uses: Only after ensuring that efficiency measures for existing development meet or exceed conservation requirements or a reclaimed water supply is developed, and if development of such uses would not adversely impact other infrastructure systems, and if allocation of Non-Priority Use water connections would not preclude development of Coastal Act or Local Priority Uses.

If CCWD obtains a coastal development permit or permit amendment approving an increase in water supply or distribution capacity to provide additional service connections in excess of limitations imposed by conditions of approval for the Crystal Springs Phase 1 coastal development permit, the City shall encourage, or if the City issues the permit, shall require CCWD to not sell connections in advance of

development proposals; and shall only approve such permit if robust assessment of the sewer, circulation, and stormwater management systems indicates that additional connections can be served by other infrastructure.

- 3-15. Reclaimed Water System and Use.** Support establishment of a sustainable reclaimed water supply system, including a wastewater treatment facility to produce recycled water from sewage. Ensure that reclaimed water supply meets or exceeds regulatory water quality standards for use by local horticulture, agriculture, agriculture compatible, and habitat restoration uses. In advance of developing a recycled water system, coastal development permits shall include conditions of approval for reclaimed water dual piping systems such as for irrigation, toilets, and other uses as appropriate in the future.
- 3-16. Phased Development of Water Supply Facilities.** For development of new water supply infrastructure within the city limits and/or subject to City issuance of a coastal development permit, support phased development of water supply facilities (e.g. water storage tanks and treatment facilities) so as to avoid growth-inducing impacts, and ensure that new development is consistent with Policy 2-26 (Fiscally Sustainable Development); so long as adequate capacity is provided to meet City needs, including emergency response, needs described in the LUP's development policies, and allocations for Coastal Act and Local Priority Uses.
- 3-17. Domestic Water Supply Quality.** Coastal development permits for new water supply sources shall only be issued on the condition that the quality of new potable water supplies after treatment meet or exceed the drinking water quality standards set by the State and federal governments.
- 3-18. Emergency Water Supply and Storage Capacity.** For development of new water supply infrastructure within the city limits and/or subject to City issuance of a coastal development permit that results in expanded water supply, system conveyance capacity, and/or storage capacity that support emergency risk management, ensure such infrastructure is adequately designed to protect public health and safety and is not used to support unanticipated development.
- 3-19. Water Connection Allocation Process for Proposed Development.** Consider working with San Mateo County and CCWD to review water connection needs for buildout of the service area.
- 3-20. Water Connections for New Development.** Other than as described in Policies 3-21 and 3-22, new development within the urban boundary shall require a connection to the Coastside County Water District system. The City shall refer coastal development permit applications for new development or redevelopment projects to CCWD for confirmation of water supply adequacy and consistency with water connection requirements.
- 3-21. New Wells for Public Water Supply.** If new or increased well production is proposed to increase public water supply within the city limits and/or subject to City issuance of a coastal development permit, require that:
- a. Water quality be adequate to meet the water standards of Policy 3-17;

- b. Wells are installed under inspection according to requirements of the State and County Departments of Public Health;
- c. The amount pumped be limited to a safe yield over time which will not impact agricultural water use or water-dependent sensitive habitats including watercourses, riparian habitats, wetlands, and marshes;
- d. The geologic and hydrologic conditions of the site are examined by a qualified professional to determine a preliminary safe yield and pumping restrictions which will not adversely affect a water-dependent sensitive habitat, including groundwater levels, potential for seawater intrusion or other potential effects of sea level rise;
- e. During at least the first three years, monitoring and reporting to the City shall be conducted to assess any impact of the well on groundwater, surface water levels, and plant and animal species of water-dependent sensitive habitats to determine if the preliminary safe yield adequately protects the sensitive habitats, and what measures should be taken if and when adverse effects occur; and
- f. If periodic monitoring shows impacts to safe yield, agricultural water use, or water-dependent sensitive habitats, the pumping rate shall be reduced until it is clear that such impacts are not occurring and will not occur in the future.

3-22. New and Replacement Private Wells. New private wells, including replacement wells, may only be permitted for new Coastal Act Priority Uses, including agriculture, and Workforce Housing Overlay units associated with Coastal Act Priority Uses. New private wells, including replacement wells, for Non-Priority Uses shall not be permitted unless municipal water service cannot feasibly be extended to the development site. New private wells shall be subject to the same requirements for safe yield and other standards of Policy 3-21. Coastal development permit conditions of approval shall require an agreement that the new private well(s) shall be made available for municipal use in the event of an emergency as necessary.

3-23. Water Connections for Failed Private Residential Wells. Reserve 10 Coastal Act Priority Use water connections to be available to existing residential uses with failed wells, in the event that repair is not feasible.

3-24. Siting of Wells. Identify opportunities to relocate wells away from hazards and/or areas where falling groundwater levels or seawater intrusion may occur. Require new wells to be sited away from areas where seawater intrusion could occur.

3-25. Water Conservation Measures. Require water conservation measures for new development and redevelopment of residential and non-residential uses, including but not limited to, the use of high-efficiency fixtures and equipment, storm water capture, gray water collection and reuse, drip or microspray irrigation systems, and native drought-tolerant landscaping. For agricultural and horticultural business uses, water conservation policies in Chapter 4 are applicable.

Policies – Sewer Facilities

3-26. Sewer System Capacity Monitoring. The City shall review the SAM and SAM JPA annual wastewater treatment plant performance reports; consider remaining sewer

treatment capacity to ensure system and treatment plant capacity is sufficient to maintain the City's reserves for Coastal Act and Local Priority Uses; and evaluate conveyance and treatment plant capacity adequacy for remaining buildout of the LUP.

3-27. Sewer Treatment Plant Capacity. Prioritize improvements to the sewer treatment system to meet sewer capacity needs for anticipated buildout of the Planning Area, as follows:

- a. I&I: Coordinate with SAM and the other member agencies to reduce infiltration and inflow (I&I) through repair and maintenance of aging and leaking pipes, joint failures, and faulty connections;
- b. Reclaimed Water Sources: Develop a municipal recycled water treatment facility; and
- c. Phased Improvements: Phased increases in capacity of the existing Half Moon Bay collection system and SAM treatment plant may proceed concurrently with or after development of a recycled water treatment facility. Phasing plans should ensure that the financial burden on existing residents is minimized; that new development is consistent with Policy 2-26 (Fiscally Sustainable Development); that capacity expansions provide for, but do not exceed, the amount required to support anticipated development capacity of the City as consistent with the Land Use Plan; and that the timing and capacity of the expansion is coordinated with the County of San Mateo. If plant expansion is a regulatory requirement, it may proceed in advance or independently of establishment of a recycled water facility.

3-28. Sewer Treatment Plant Improvements. Coastal development permit review for new development or redevelopment of wastewater treatment systems shall require that such improvements will operate so as to: minimize or eliminate marine resource pollution; incorporate facilities for reclamation of wastewater for reuse; and minimize noise, vibration, odor, and visual impacts on surrounding areas.

3-29. Sewer Connections for New Development. Other than as described in Policies 3-30 and 3-31, new development within the urban boundary shall require a connection to the municipal sewer system.

3-30. Existing Septic Systems. Allow existing septic systems to be maintained for health and safety purposes. Require existing septic systems serving a Non-Priority Use to convert to the municipal sewer system if available and feasible when the Non-Priority Use or the existing septic system is proposed for redevelopment. Ensure that new development proposed on a site with an existing septic system is sited and designed to avoid impacts to any system components, including ensuring there is sufficient capacity for wastewater percolation and treatment without impacts to groundwater or ESHA.

3-31. New, Expanded, or New Use of Private Sewer Systems. New, expanded, or new use of existing private sewer systems, including septic systems, may only be permitted for new Coastal Act Priority Uses and Workforce Housing Overlay units associated with Coastal Act Priority Uses. New private sewer systems for Non-Priority Uses shall not be permitted unless municipal sewer service cannot feasibly be extended to the development site. In such cases where private sewer systems are necessary, serviced

vaulted systems are preferred to septic systems. All new private sewer systems require review and approval by the San Mateo County Environmental Health Department.

3-32. New Septic Systems Design and Maintenance. As a condition of approval for new development that includes a new septic system, require evidence of septic system approval from the San Mateo County Environmental Health Department to ensure that new septic systems are sited, designed, installed, operated, monitored and maintained to:

- a. Avoid contributing nutrients and pathogens to groundwater and/or surface waters;
- b. Avoid areas that have poorly or excessively drained soils, nonporous paving or surface covering, shallow water tables or high seasonal water tables that are within floodplains, or where effluent cannot be adequately treated before it reaches streams or the ocean;
- c. Include adequate buffers to avoid impacts to ESHA and water quality from potential seepage, grading and site disturbance, and the introduction of increased amounts of water;
- d. Include protective separation distances between system components, building components, property lines, and groundwater;
- e. Be in full compliance with building and plumbing codes, and the requirements of the San Mateo County Environmental Health Department and the RWQCB; and
- f. Require that the system be upgraded or replaced to achieve compliance; and mitigation is required by San Mateo County Environmental Health or other agency as applicable.

Policies – Circulation

Policies for coastal access routes and points, bicycle and pedestrian circulation, parking and alternate modes are provided in Chapter 5. Coastal Access and Recreation.

3-33. Roadway System to Meet Needs. The transportation network shall be planned and designed to accommodate traffic due to the buildout of the LUP's envisioned uses and densities in scale with community character; shall support a wide range of user requirements and road types for visitors, residents, and for local industry including agriculture; and to the extent practical, growth beyond the city limits, including within the sphere of influence, and recreational, and regional through traffic.

3-34. Town Boulevard. Any Highway 1 and 92 improvements shall implement the Town Boulevard approach to improve traffic flow, multi-modal access and safety, and emergency access to best serve the circulation needs of visitors and residents in a manner consistent with Half Moon Bay's small coastal town aesthetic and to support Town Center buildout. Town Boulevard improvements may incorporate a lower speed limit, roundabouts, grade-separations and other approaches as potential options in addition to signalized traffic control systems. In addition, Town Boulevard improvements shall:

- a. Not increase highway capacity through lane widening projects or other expansions other than as specified in the General Plan Circulation Element provided that they are consistent with the Land Use Plan.
 - b. Be coordinated with Caltrans and the San Mateo County Congestion Management Plan.
 - c. Incorporate multi-modal improvements with safe crossings for bicyclists and pedestrians, as well as landscaping and other amenities intended to enhance the image and scenic quality of the city.
- 3-35. Highway 92 Intersections.** Prioritize the study and design of improvements at the intersections of Highway 92 with Highway 1 and Highway 92 with Main Street as part of Town Boulevard implementation, such as wayfinding cues, gateway elements, traffic flow and pedestrian-orientation improvements, potential for a roundabout, and aesthetic enhancements. Coastal development permits for development and redevelopment in this corridor shall be required, through conditions of approval, to implement or otherwise support funding of the improvements.
- 3-36. New High-Trip Generating Development.** To the extent feasible, limit the approval of new higher-trip generating development, especially development that would contribute significant traffic to the weekend peak period, north of Highway 92 where the roadway system is most impacted. Require new higher-trip generating development to provide multi-modal options such as bicycle and pedestrian trail connections, airport shuttles, or bicycle rentals.
- 3-37. Vehicle Miles Traveled (VMT).** Establish and use a VMT threshold of significance for purposes of CEQA impact assessment, or other standard per State law. Establish appropriate measurement methods and mitigation approaches for analyzing a proposed development's VMT impacts pursuant to CEQA Guidelines.
- 3-38. Level of Service (LOS).** For coastal development permit review of higher-trip generating development, use LOS analysis to evaluate roadway and intersection performance and determine the impacts to coastal access associated with proposed development and identify potential transportation system improvements.
- 3-39. Additional Performance Standards.** Evaluate and consider adopting additional performance standards to assess additional components of the circulation system. Such standards may include pedestrian, bicycle, or transit quality indexes and delay indexes.
- 3-40. Peak Period Traffic Control.** Coordinate with local law enforcement to provide traffic control personnel at the intersection of Highways 1 and 92 or other congested locations during peak weekend use times to facilitate safety, reduce gridlock, and maintain emergency vehicle access. Coastal development or special event permits for events with high-trip generation shall, through conditions of approval, require funding for traffic control.
- 3-41. Emergency Access and Evacuation.** Ensure adequate emergency vehicle access to all parts of the city, including during times of peak congestion and in popular destinations, such as the beaches, downtown, and California Coastal Trail segments

between pedestrian bridges. Widen shoulders and implement other strategies to improve roadways for emergency vehicle access and evacuation traffic.

Policies – Stormwater System and Management

Policies governing hydrology and water quality are provided in Chapter 6. Natural Resources. Policies governing capacity and hydrologic function are provided in the Storm Drain Master Plan and Green Infrastructure Plan.

- 3-42. Stormwater System Capacity.** Maintain and improve the City's stormwater management system to prevent or mitigate impacts during flood events and for sustainable management of seasonal run-off.
- 3-43. Green Infrastructure and Storm Drain Master Plan.** Update and implement the Green Infrastructure Plan and Storm Drain Master Plan consistent with Land Use Plan policies to improve stormwater system function and management; support watershed restoration opportunities; reduce erosion and sedimentation; and address lowered ground water tables, flooding issues, and aging stormwater infrastructure.
- 3-44. Best Management Practices for Development.** Implement best management practices for new development through conditions of approval including low impact development techniques (e.g. limited impervious surfaces), site control measures, and other means to manage stormwater flows and improve water quality throughout the City's stormwater basins. For development consisting of areas with significant impervious surfaces, such as parking lots, require design features that capture sediment and other pollutants to filter runoff prior to discharge.

4. Agriculture

Agriculture is considered a coastal resource and a priority land use under the Coastal Act. This chapter provides policies for protection of and support for Half Moon Bay's agricultural resources in coordination with the City's approach to growth management.

Land Use Plan Framework

The County's agricultural heritage is evident throughout Half Moon Bay. The City has prioritized the preservation of agriculture uses, which have not converted to urban uses as previously anticipated when the Local Coastal Land Use Plan (LUP) was first drafted in 1985. The LUP Framework reflects Coastal Act priorities of protecting prime agricultural land as well as community priorities of providing opportunities to support the long-term viability of Half Moon Bay's agricultural operations. Consistent with the overarching goals of the 2020 LUP update, the policies in this chapter are designed to maximize protection of agricultural resources outside of the Town Center while focusing urban development in the Town Center.

COASTAL ACT DEFINITIONS AND POLICIES

The following California Coastal Act definitions and policies inform the City's agricultural land use policies and are incorporated into this LUP.

The California Coastal Act provides protection for viable and prime agricultural land in the Coastal Zone. The Act defines "prime agricultural land" as consistent with subsections 1, 2, 3, or 4 of Government Code Section 51201(c), as follows:

(c) "Prime agricultural land" means any of the following:

- (1) All land that qualifies for rating as class I or class II in the Natural Resource Conservation Service land use capability classifications.
- (2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.
- (3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.
- (4) Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing

period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars (\$200) per acre.¹

In contrast, “non-prime agricultural land” consists of other coastal agricultural lands that do not qualify as prime but are in use for crops or grazing or are otherwise suitable for agriculture.

Coastal Act policies require the protection of agricultural lands by mandating that the maximum amount of prime agricultural land be maintained in production (Section 30241), supporting techniques that limit conflicts between agricultural and urban uses (Section 30241), and providing criteria for the determination of the viability and economic feasibility of agricultural uses (Section 30241.5). Under the Coastal Act, productive agricultural lands and other lands suitable for agricultural use may only be converted to other uses in limited circumstances (Section 30242). The Coastal Act also provides for the concentration of new development and land divisions in existing developed areas (Section 30250).

Article 5: Land Resources

Section 30241. Prime agricultural land; maintenance in agricultural production

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas’ agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

- (a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.
- (b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.
- (c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.
- (d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.
- (e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.
- (f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of prime agricultural lands.

Section 30241.5. Agricultural land; determination of viability of uses; economic feasibility evaluation

- (a) If the viability of existing agricultural uses is an issue pursuant to subdivision (b) of Section 30241 as to any local coastal program or amendment to any certified local coastal program submitted for review and approval under this division, the determination of “viability” shall include, but not be limited to, consideration of an economic feasibility evaluation containing at least both of the following elements:

¹ Coastal Act Section 30113; Government Code Section 51201(c)

(1) An analysis of the gross revenue from the agricultural products grown in the area for the five years immediately preceding the date of the filing of a proposed local coastal program or an amendment to any local coastal program.

(2) An analysis of the operational expenses, excluding the cost of land, associated with the production of the agricultural products grown in the area for the five years immediately preceding the date of the filing of a proposed local coastal program or an amendment to any local coastal program.

For purposes of this subdivision, “area” means a geographic area of sufficient size to provide an accurate evaluation of the economic feasibility of agricultural uses for those lands included in the local coastal program or in the proposed amendment to a certified local coastal program.

(b) The economic feasibility evaluation required by subdivision (a) shall be submitted to the commission, by the local government, as part of its submittal of a local coastal program or an amendment to any local coastal program. If the local government determines that it does not have the staff with the necessary expertise to conduct the economic feasibility evaluation, the evaluation may be conducted under agreement with the local government by a consultant selected jointly by local government and the executive director of the commission.

Section 30242. Lands suitable for agricultural use; conversion

All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (1) continued or renewed agricultural use is not feasible, or (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.

Article 6: Development

Section 30250(a). Concentration of development

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

LAND USE PLAN DEFINITIONS

Definitions pertaining to agricultural land uses in this LUP are derived from the Williamson Act, State Department of Conservation policy guidance, and the San Mateo County LCP.

Agricultural Land Use, Operation, or Production. The use of land, including but not limited to open fields and greenhouses, to produce an agricultural commodity for commercial purposes. Specific uses include the cultivation of food, fiber or flowers; the grazing, growing or pasturing of livestock; and horse breeding operations. This definition also generally applies to the term “agriculture.”

Agricultural Ancillary Use. Uses providing necessary support to the primary agricultural land use. Specific examples include barns, animal shelters, farm stands/retail stands, arenas, stables, storage facilities, wells, parking, and fences.

Agricultural Compatible Use. Uses determined to be compatible with agricultural land uses that effectively preserve prime soils, including recreational uses such as parks and commercial equestrian uses, open space, and habitat restoration.

Agricultural Supplemental Use. Uses that support the continued economic viability of agricultural land use, operation, or production while preserving suitable agricultural soil. Specific examples include agritourism, small-scale farm lodging, and temporary and seasonal uses.

Farmworker Housing. Dwelling unit(s) dedicated for use by people who earn a portion of their income through permanent or seasonal agricultural, agricultural compatible, and/or horticultural labor, and the household members who reside with such a person.

Horticulture. Cultivation of flowers, food, and similar plants, typically involving nursery or greenhouse production.

SOIL CLASSIFICATION

Under the Coastal Act's four-part definition of prime agricultural land, Half Moon Bay's prime agricultural land primarily falls within categories 1, 2, and 4: land that qualifies for rating as class I or class II in the Natural Resource Conservation Service (NRCS) land use capability classifications, land that qualifies for rating 80 through 100 in the Storie Index Rating, and land planted with fruit- or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years.

While the NRCS soil classification system includes eight total classes, only class I and class II are recognized by the Coastal Act as "prime" and are therefore afforded the most protection under the Coastal Act. The NRCS classification system is based on land capability, grouping soils based on their capability to produce common cultivated crops and pasture plants without deteriorating over a long period. Class I soils are defined as having slight limitations that would restrict their use, while Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.² Similarly, the Storie Index is a semiquantitative method of rating agricultural soils based on the degree of soil profile development, surface texture, slope, and other landscape conditions including drainage, erosion, acidity, and alkalinity. These factors are scored and multiplied together to generate an index rating from 0 to 100, within which 80 through 100 is recognized as "prime" by the Coastal Act. By contrast, other lands suitable for agricultural that fall within class III through VIII of the NRCS soil classification system or are rated less than 80 on the Storie Index are not considered prime soils, but may still be identified and protected as non-prime agricultural lands.

Land in the Planning Area that meets the definition of prime and non-prime agricultural land is described in Table 4-1 and shown in Figure 4-1.

Table 4-1: Prime and Non-Prime Agricultural Land (in acres)

<i>Agricultural Land Type</i>	<i>City Limits</i>	<i>Unincorporated County</i>	<i>Total Planning Area</i>
Prime	1,105	142	1,247
Non-Prime	2,109	225	2,334
Total Agricultural Land	3,214	367	3,581

Source: San Mateo County GIS 2014, NRCS 2018, M-Group 2020

² National Resources Inventory Glossary, United States Department of Agriculture

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Exhibit 2

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Agricultural Land Use Framework

LAND USE DESIGNATIONS

The city has open field agriculture, greenhouse related horticulture and floriculture uses, and one horse breeding operation. Open field agricultural operations primarily occur within the Rural Coastal land use designation, as well as within several of the City's Planned Developments (PDs). Greenhouses are primarily located within the Horticulture Business land use designation.

Certain areas of the city were placed under the former Urban Reserve land use category with the original adoption of the 1996 LUP in anticipation of increased population growth and decreased viability of agricultural lands in operation at that time. This land use category was intended as a placeholder for land to be developed after substantial development of infill lots and certain PDs occurred. However, contrary to original expectations, the city's population has increased at a slower rate than expected, while community interest in preservation of local agricultural operations has been increasing.

In response to these changed conditions and expectations, as discussed in Chapter 2. Development, the 2020 Land Use Plan update re-designates all Urban Reserve and Open Space Reserve land use designations to the Rural Coastal land use designation to eliminate the reserve construct and enhance protection and support of the city's agricultural land uses. This land use designation is also appropriate for any lands that become permanently protected under an agriculture easement or Williamson Act contract, or upon landowner request, as discussed later in this chapter.

Several other existing agricultural operations are located within the PD land use designation. This land use designation was established with the original LUP and is intended for well-planned development and conservation in accordance with a Master Plan such as a Specific Plan that would ensure clustering of structures, provision of public services, and protection of coastal resources, as consistent with Section 30250 of the Coastal Act. At the time of this LUP update, many of the PDs had yet to be developed, including several which remained wholly or partially in agricultural use (namely Podesta, a portion of Surf Beach/Dunes Beach, and the North Wavecrest PDs) while agricultural compatible commercial equestrians uses have been on-going in the Venice PD. Agricultural uses had been discontinued at the Nurserymen's Exchange PD and the former LC Smith Estate PD prior to the LUP update.

Table 4-2: Active Agricultural and Horticultural Operations (2020, in estimated acres)

<i>Active Operation Type</i>	<i>City Limits</i>	<i>Unincorporated County</i>	<i>Total Planning Area</i>
Agriculture/Agriculture Compatible	401	59	460
Horticulture (Nurseries and Greenhouses)	158	93	251
Total Active Operations	559	152	711

Source: San Mateo County GIS 2014, City of Half Moon Bay 2018, M-Group 2020

URBAN/RURAL BOUNDARY

As depicted in Figure 4-1: Prime and Non-Prime Agricultural Land, the Urban/Rural Boundary defines the separation between areas of concentrated development and areas of rural, protected open space in Half Moon Bay. At the countywide scale, this boundary line is intended to concentrate urban development and protect rural lands from the physical and economic impacts of adjacent urban growth, as consistent with Section 30250 of the Coastal Act. As shown, most of the city's prime and non-prime agricultural land falls within the urban boundary, with the exception of Open Space for Conservation lands north of Frenchmans Creek Road within the Very High Fire Severity Zone in the northeastern portion of the city, which were reclassified as Rural in this LUP update.

TOWN CENTER

Most of the Planning Area's open field agriculture and all of the greenhouse establishments are located outside the Town Center. As laid out in Chapter 2. Development, the Town Center was delineated to include the city's core commercial, mixed-use, and higher density residential areas along with civic and light industrial land uses.

Several properties within the Town Center are currently, or were recently, in open field agricultural use and have not developed since the LCP was effectively certified in 1996. The Podesta PD continues to be farmed, and lands on the south side of Highway 92 east of Main Street (a portion of the former Andreotti PD) is used for low density horse grazing, which is a compatible use to agriculture. Portions of property immediately east of the Hill Top Mobile Home Park known as "Goat Hill" are also in agricultural use. Areas where open field agriculture operations have ceased that remain undeveloped include the low-lying property at the southeast corner of the Highway 1 and 92 intersection and the property at the southern edge of the Town Center at Highway 1 and South Main Street (former L.C. Smith Estate PD). Of these Town Center properties, the former L.C. Smith PD and Podesta PD are mapped as fully containing prime soils. The Goat Hill property has limited prime soils. The other areas are considered non-prime.

AGRICULTURAL ECONOMY

The economic importance of agriculture in the Coastsides region exceeds its production value, which has experienced an overall decrease countywide since around the year 2000. Residents and visitors to the region enjoy the open space and locally-grown food and farm products offered by local agriculture. Some farms welcome visitors, and Half Moon Bay's annual Pumpkin Festival is one of the Coastsides region's biggest events. In addition, smaller events such as Farm Day and Farm + Fish + Flowers connect residents and visitors with local agriculture. The long-established Coastsides Farmers Market and other types of farm stands, tours and demonstrations are also significant contributors to the local agricultural economy.

Historically, Half Moon Bay's agricultural specialization has been in floriculture, and national-scale operators continue to be based in the city. While these businesses remain vital, the data regarding the industry suggest that there are challenges to growth, including contracting sales and employment trends. There are over one million square feet of agricultural greenhouse space in the City of Half Moon Bay. In an effort to revitalize agricultural production in the city, the Planning Commission passed a resolution in 2010, certified by the Coastal Commission in 2015, that increased zoning flexibility to help agricultural businesses adapt to changing market conditions and new opportunities. Specifically, new principally permitted uses and accessory uses including plant cultivation for medicinal, horticultural, or agricultural production, research and development, and

retail sales were added as allowed uses within horticultural and agricultural operations in the Agriculture (A-1) zoning district.

Like many local governments in California, Half Moon Bay is actively addressing the emerging cannabis economy, including considering what types of cultivation and ancillary uses may be appropriate and in what locations. In 2018, the City passed a voter-approved ballot measure to allow cannabis nursery starts in existing greenhouses with buffer requirements from more sensitive uses such as schools and residential areas.

While agriculture is not likely to be an economic driver or growth industry for Half Moon Bay, continued farmland conservation and local food production activities support the region through aesthetic, cultural, and economic contributions that benefit residents, local businesses, and visitors.

OTHER HERITAGE LAND USES

Recreational Equestrian

Equestrian uses have cultural ties to Half Moon Bay's rural history. Although recreational equestrian uses are not considered agricultural, they can be operated in a manner compatible with agricultural uses so as to preserve prime soils. Long-standing commercial equestrian operations in the city include Sea Horse Ranch and Maloney's Horses and Ponies. These operations offer a variety of equestrian-related services including horse boarding, training, lessons, guided horseback tours, and are located in proximity to existing agricultural lands and uses. Although horse breeding is also an equestrian use, it is considered to be an agricultural use in this LUP.

Forestry

Portions of Half Moon Bay are forested, with stands of Monterey pine forest in the north, Monterey cypress forest near the coast, and eucalyptus forest in the east. These are not considered commercial species under the California Forest Practice Act. There are currently no logging operations taking place in Half Moon Bay.

Fishing and Recreational Boating

Half Moon Bay does not currently have a marina or other facilities to support fishing or recreation boating; however, the northern portion of the city borders Pillar Point Harbor and the unincorporated community of Princeton-by-the-Sea. These areas are accessible from Half Moon Bay via Highway 1 and the California Coastal Trail. Commercial fishing and recreational boating policies for Princeton are covered in the San Mateo County Local Coastal Program, and planning efforts for Pillar Point Harbor are undertaken by its operator, the San Mateo County Harbor District.

Agricultural Preservation Strategies

This LUP places a priority on protecting agricultural lands as well as supporting existing agricultural operations. Specific strategies for achieving these goals are discussed below. Beyond meeting Coastal Act requirements, protection of agricultural lands supports community priorities of maintaining Half Moon Bay's rural character, reducing carbon emissions, and enhancing food security.

CONVERSION LIMITATIONS

Conversion of prime and non-prime agricultural land to non-agricultural uses is differentiated between areas inside or outside of the Town Center. As shown on the Land Use Map in the Development Chapter, most of the existing agricultural operations located outside of the Town Center are in Rural Coastal and Horticulture Business designations to limit conversions to non-agricultural uses. Conversion of prime and non-prime agricultural lands in areas outside of the Town Center will only be allowed subject to criteria consistent with Coastal Act requirements, including an assessment of the feasibility of new or ongoing agricultural use.

Within the Town Center, Coastal Act Policy Section 30250(a) supports conversion to other uses because these areas are fully integrated into the most developed portion of the city and are served with well-established public infrastructure. Furthermore, prioritizing development within the Town Center over other parts of town disincentivizes conversions of lands that remain viable for agricultural use outside the Town Center and that are not needed to support the City's planned growth. Thus, although the LUP policies protect prime and non-prime agricultural land from conversion, the City anticipates properties in the Town Center containing prime and non-prime soils, including the Podesta PD and the former L.C. Smith Estate PD, to be developed during the planning horizon. The LUP requires mitigation for conversion of prime and non-prime agricultural lands for both inside and outside of the Town Center, through methods such as establishing new agricultural conservation easements or in-lieu fees (see Figure 4-1 for boundaries of the Town Center in relation to prime and non-prime agricultural lands).

The LUP also includes a provision for adhering to the established urban/rural boundary to encourage the clustering of development within the city, especially within the Town Center, and preserving more of the agricultural land in the surrounding areas outside of the Town Center.

The LUP policies view horticulture as a different land use from agriculture, due to the greater intensity of development that takes place on horticulture sites. Policies require horticulture operations to take measures to preserve any prime agricultural soil on their properties and establish development standards to ensure the long-term compatibility of horticulture with the preservation of the area's other coastal resources.

SUPPLEMENTAL USES

While the Rural Coastal designation allows open field agriculture, low-density single-family housing, farmworker housing, and other ancillary and compatible uses, agricultural operators indicate that there is a need for supplemental agricultural and non-agricultural uses within Rural Coastal to support the economic viability and longevity of agricultural operations. Such uses could include farm-to-table events, agritourism, and research and development facilities. Small-scale overnight accommodations may also be considered, provided that they are related to the underlying agricultural or agricultural compatible use and are generally soil conserving.

As discussed in Chapter 2. Development, farmworker housing is a Coastal Act Priority Use. To support this, the Workforce Housing Overlay is available to the Rural Coastal and Horticulture Business land use designations to provide opportunities for affordable farmworker housing. The LUP also aims to make it easier for farmers and horticulture businesses to maintain agricultural operations by allowing for greater flexibility of supplemental land uses that can provide additional economic opportunities for farmers and operators of other related agricultural businesses in ways that complement existing operations.

WILLIAMSON ACT

The Williamson Act, also known as the California Land Conservation Act of 1965, provides a means for local governments and private landowners to preserve agricultural uses. The Williamson Act allows cities and counties to enter into 10-year contracts with landowners, restricting the use of specific parcels of land to agricultural or other related open space uses in exchange for lower property tax assessments based on farming and open space uses as opposed to potentially much higher full market values for lands where development is likely. Williamson Act contracts renew automatically each year unless the owner or local government chooses not to renew, which would allow the land to become available for development 10 years after non-renewal. As of 2020, the City of Half Moon Bay has no land under Williamson Act contracts within city limits. However, there are several parcels in the Planning Area outside of city limits that are under Williamson Act contracts, as shown in Figure 4-1.

EASEMENTS AND PRESERVES

There is potential for open field agriculture lands in the Rural Coastal land use designation to be placed in conservation or affirmative agricultural easements or agricultural preserves, which protect land for agriculture use in perpetuity and make land more affordable for farmers by decreasing the land value. A significant example of this is Peninsula Open Space Trust's Farmland Futures Initiative, under which an 18.5-acre portion of the Andreotti farm on Kelly Avenue was purchased and protected. LUP policies promote the use of farmland preservation strategies such as affirmative agricultural easements and Williamson Act contracts that incentivize farmers to maintain their lands in production. LUP policies also institute mitigation requirements that could provide a source of funding for these strategies.

RIGHT TO FARM

Open agriculture fields and horticultural businesses are often surrounded by or backing up to residential areas, in some cases without any buffer area between the two land uses. As land use conflicts can occur between agricultural and non-agricultural uses, such as with use of farm equipment and machinery, timing and methods of harvest and pest management, and noise and light pollution, it is essential to ensure concentration of urban development and implementation of buffer areas to protect both agricultural and non-agricultural land uses.

CLIMATE CHANGE & SEA LEVEL RISE

Agricultural land within the city can be impacted by several aspects of climate change and sea level rise. Sea level rise can cause flooding and inundation, increased coastal erosion, changes in sediment supply and movement, and seawater intrusion, which can in turn have significant impacts on coastal agriculture and its economy. As climate change continues to cause more severe drought cycles, irrigation needs may be impacted by water shortages and seawater intrusion into groundwater extracted from wells. Water shortages can lower the water table, which can result in further seawater intrusion. Low-lying agricultural land can be particularly susceptible to flooding, inundation, changes to surface drainage, and seawater intrusion.

The City's 2016 Sea Level Rise Vulnerability Assessment shows no direct anticipated impacts to existing agricultural land resulting from sea level rise or coastal erosion during the 2040 planning horizon. Areas of agricultural land in northern Half Moon Bay and to the north and south of Pilarcitos Creek fall within the potential tsunami inundation zone. The study recommends further analysis of

potential groundwater impacts from seawater intrusion. As sea level rise science progresses and updated projections become available, it will be imperative to reassess agricultural areas at risk and identify measures for protection, conservation, and innovative irrigation techniques. Higher levels of sea level rise have been mapped by other sources and indicate that some prime and non-prime agricultural lands may become subject to inundation in the future.³ Policies specifically addressing sea level rise adaptation and groundwater management are found in Chapter 3. Public Works and Chapter 7. Environmental Hazards.

Policies – Agriculture

The LUP contains policies to protect the city's agricultural resources, including by maximizing the amount of prime and non-prime agricultural land to be maintained in production, protecting existing agricultural land use and operations, and supporting techniques to limit threats to agricultural productivity. The LUP also contains policies intended to relieve pressure on agricultural operations from more urban land uses, including residential uses, and ensure long-term compatibility between agricultural and non-agricultural uses. Agricultural management practices are encouraged that ensure the sustainability of surrounding habitats, water quality, and other resources. These policies apply to agricultural and agricultural compatible land uses wherever they are located. At this time, these uses are primarily located in the Rural Coastal, Horticultural Business, and PD land use designations, but will also be located in the Agriculture designation, should it be applied at a future time.

- 4-1. Agricultural Preservation.** Ensure the continued viability of agriculture within Half Moon Bay and the Planning Area. This shall include the following:
 - a. Protect existing agricultural operations and lands with prime and non-prime agricultural soils located outside of the Town Center, regardless of the underlying land use designation;
 - b. Accommodate the housing needs of farmworkers within the community;
 - c. Promote economic viability within Half Moon Bay by permitting agriculture compatible, supplemental, and ancillary uses that limit direct and cumulative impacts on the long-term productivity of agricultural soils (e.g. minimize soil disturbance and protect soil structure); and
 - d. Acknowledge potential land use compatibility challenges and allow flexibility for agricultural uses with regards to noise, dust, and other aspects of customary agriculture practices.
- 4-2. Town Center Boundary.** The Town Center is the designated location for concentration of development; outside the Town Center the City shall support agricultural and horticultural operations and the preservation of prime and non-prime agricultural lands pursuant to Policy 4-9.
- 4-3. Incentives for Continued Agricultural Use.** Provide and support incentives for landowners to protect prime and non-prime agricultural lands and to maintain land in productive agricultural use at the landowner's discretion, including agricultural easements and

³ Our Coast Our Future (OCOF) website www.datat.pointblue.org for 6.6-foot sea level rise scenario combined with 100-year storm event.

Williamson Act contracts through an updated ordinance. In review of coastal development permits on lands with such easements or contracts, the City will consider the terms and agreements in their development review.

- 4-4. Farmworker Housing.** Farmworker housing is considered a Coastal Act Priority Use, as well as a Local Priority Use. Encourage a range of farmworker housing including non-permanent housing for seasonal farmworkers and permanent housing through the Workforce Housing Overlay at appropriate affordability levels, densities, and locations on agricultural lands in Rural Coastal and Horticultural Business land use designations. Encourage clustering of farmworker housing where feasible, especially to preserve prime agricultural soils such that it has the least impact on agricultural production. For agricultural and agricultural compatible uses in Planned Developments, allow for limited on-site affordable employee housing as provided for in the Planned Development designation in Chapter 2. Development.
- 4-5. Agricultural Permitting Process.** Update the Implementation Plan to improve the permitting process for agricultural development projects; potentially allow for coastal development permit exemptions or waivers for de minimis structures and activities such as temporary uses, provided that development or activities would avoid adverse impacts to ESHA; and consider permit fee reductions for agricultural uses.
- 4-6. Agriculture Compatible Uses.** Permit and support agriculture compatible uses on agricultural lands with the intent of preserving prime and non-prime agricultural soils for potential future agricultural use. Compatible uses should involve limited construction of permanent structures and may include public and commercial recreation such as parks and equestrian uses, open space, and habitat restoration.
- 4-7. Supplemental Uses.** Promote the agricultural viability and/or adaptive reuse of agriculture infrastructure within Half Moon Bay by permitting supplemental uses to complement, support, and enhance agricultural operations, as consistent with the resource protection policies of this LCP and while maintaining agriculture as the primary use of the property.
- Supplemental uses may include but are not limited to agritourism which enhances linkages between agricultural uses and tourism; activities such as farm-to-table events; small-scale lodging and other overnight accommodation options; temporary and seasonal uses; research and development facilities including boarding for scientists and students; and other compatible operations and events. Site supplemental uses to preserve prime agricultural soils unless no feasible alternative exists.
- 4-8. Maximum Allowances for Supplemental Uses.** The total area used for supplemental uses on a parcel or contiguous parcels with an existing agricultural land use, operation or production shall not exceed 20 percent of the parcel or contiguous parcel area. Unpaved roads, farmworker housing, parking for the primary agricultural or agricultural compatible uses, ancillary buildings/structures used to support the agricultural use (e.g. barns, crop storage facilities and animal shelters), and underground utilities are excluded from this 20 percent calculation of maximum allowance.
- 4-9. Conversion of Prime and Non-Prime Agricultural Land.** Conversion of prime and non-prime agricultural land within the Town Center shall be permitted for anticipated urban development. Prohibit the conversion of prime and non-prime agricultural land outside the Town Center, including as shown on Figure 4-1, to a new non-agricultural use (excluding agricultural compatible and supplemental uses as defined in this chapter) unless all of the following can be demonstrated:

- a. All agriculturally unsuitable lands on the parcel have been developed or determined to be undevelopable;
- b. Continued or renewed agricultural use of the soils is not feasible as defined by Section 30108 of the Coastal Act;
- c. Clearly defined buffer areas shall be provided on the site between the new non-agricultural use and adjacent agricultural uses to ensure the continued productivity of agricultural uses;
- d. The productivity of any agricultural lands adjacent to the new non-agricultural use is not diminished; and
- e. Public service and facility expansions associated with the new non-agricultural use will not impair agricultural viability, including by increased assessment costs or degraded air and water quality.

4-10. Mitigation for Conversion of Agricultural Lands. All conversions of prime and non-prime agricultural lands to a new non-agricultural use, excluding farmworker housing, agricultural compatible uses, and supplemental uses as defined in this chapter such as habitat restoration and recreation, shall be mitigated at a ratio to be established based on the quality of agricultural lands converted, their location, and other relevant factors as evaluated in a report prepared by a qualified professional for the City's review and approval. Methods for mitigation may include but are not limited to establishing agricultural conservation easements, soil restoration, or in lieu fees in partnership with land trust and conservation agencies. Protection or restoration of agricultural lands within city limits is preferred; followed by lands within the coastal zone of unincorporated San Mateo County and finally by other coastal zone areas.

4-11. Public Access Trails and Facilities. Notwithstanding the conversion policies herein, public access trails and related facilities (e.g. public parking lots, restrooms) shall be allowed on all agricultural lands and shall not require mitigation for conversion of prime or non-prime agricultural soils provided that any impact to prime and non-prime soils is minimized to the extent feasible.

4-12. Division of Agricultural Lands. Division of agricultural lands for conversion to new non-agricultural uses, where such conversion is permitted by Policy 4-9 and excluding farmworker housing provided through the Workforce Housing Overlay, agricultural compatible uses, and supplemental uses as defined in this chapter, shall be restricted as follows:

- a. Division of prime agricultural land within a parcel shall be prohibited unless it can be demonstrated that on-site or adjacent existing or potential agricultural productivity would not be reduced.
- b. Creation of new parcels where the only building site would be on prime agricultural land shall be prohibited.
- c. Recordation of a disclosure statement on any parcel maps, final maps, and all affected parcel deeds shall be required as a condition of approval for division of lands on or adjacent to agricultural land for new non-agricultural uses. The statement shall describe the potential for exposure to customary agricultural practices.

4-13. Biological Resources and Agricultural Operations: Continue to allow established agricultural uses and operations within ESHA, wetlands, riparian corridors, and their buffers.

New or expanded agricultural uses and operations within such areas shall be subject to all applicable biological resource protection policies in the LCP.

- 4-14. Land Use Conflicts.** Reduce the potential for land use conflicts between agricultural land and non-agricultural development by requiring:
- a. Clustering non-agricultural development in locations most protective of existing and potential agricultural uses, as well as other coastal resources;
 - b. Clearly defined buffer areas between agricultural and non-agricultural uses on non-agricultural lands that are adjacent to agricultural lands as a condition of development on the non-agricultural lands; and
 - c. Avoiding fragmentation or isolation of agricultural parcels.
- 4-15. Right-to-Farm.** Establish a right-to-farm ordinance to reduce the loss of agricultural resources by limiting the circumstances under which properly conducted agricultural operations on agricultural land may be considered a nuisance. The ordinance shall address, at minimum, agriculture management practices, buffer areas from non-agricultural uses, potential land use conflicts, disclosure requirements, and ordinance implementation.
- 4-16. Mandatory Disclosure.** Require, as a condition of approval for new development on non-agricultural properties adjacent to agricultural operations on agricultural land, the recordation of a deed restriction that ensures the notification of owners, purchasers, residents, renters, and users of such properties that customary agricultural practices may cause exposure to noise, odor, dust, insects, herbicide/pesticide application, and runoff.
- 4-17. Agricultural Management Practices.** Encourage best agricultural management practices to promote the long-term viability of agricultural operations and minimize off-site impacts related to water quality and water conservation. Best management practices may include:
- a. Effective soil conservation techniques and proper grazing methods;
 - b. Development of conservation plans;
 - c. Innovative irrigation techniques and water conservation practices.
- 4-18. Agriculture and Horticulture Runoff and By-Products.** In review of any coastal development permit, require that:
- a. Runoff containing fertilizers, pesticides, or other agricultural chemicals is captured, stored, and treated on site or properly disposed;
 - b. Compost, processing wastewater, and other by-products are properly disposed of on land or through suitable disposal systems; and
 - c. No such runoff or by-products are directly released or disposed of in any perennial or intermittent stream, or sensitive habitat area, and minimized to the extent feasible in any sheet flow or groundwater.
- 4-19. Horticulture Uses on Prime and Non-prime Agricultural Lands.** Allow new horticulture uses to locate on prime and non-prime agricultural lands provided that permanent structures are sited and designed to preserve prime soils to the extent feasible. Require a soil management plan for new horticulture operations demonstrating how the quality of prime soils will be preserved or how they will be returned to their original condition when operations cease if it is demonstrated that they will not be preserved through development design or standards.

4-20. Performance Standards for Horticulture Uses. Require new horticulture uses to adhere to the following performance standards:

- a. Maintain sufficient setbacks from public roads and buffers from non-agricultural land uses;
- b. Prohibit new and expanded greenhouse, hothouse, or accessory structures from locating closer than 50 feet from the boundary line of a lot in a residential zoning district. Commercial cannabis shall be subject to additional setback requirements;
- c. Encourage best management practices related to water quality and water conservation such as runoff capture and infiltration, treatment or disposal of polluted runoff, recycling of irrigation water, and capture and reuse of stormwater;
- d. Require greenhouse horticulture uses to undergo design review, including an assessment of the need for landscape screening between differing land uses and along the Highway 1 and Highway 92 corridor for improved land use compatibility and visual quality;
- e. Prohibit greenhouses from locating above the 160-foot contour line in order to prevent excessive grading and damage to the project area or hill silhouettes;
- f. Prohibit upward-directed light fixtures, prevent spillover with light shields, and limit and fully shield night-lighting and ambient greenhouse lighting to avoid adverse visual impacts of greenhouse glow; and
- g. Encourage new horticultural operations to use alternative energy systems and minimize reliance on oil and natural gas. Acceptable sources include, but are not limited to, solar and wind energy and heat pumps, on-grid power with 100% renewable energy sources, and energy derived from landfill methane gas recovery.

5. Coastal Access and Recreation

Maximizing coastal access and recreational opportunities is a primary objective of the California Coastal Act. This chapter of the Local Coastal Land Use Plan (LUP) documents existing coastal access conditions, and describes improvements needed to enhance access to the coast for people arriving by all modes of transportation. Recreational open space is a defining feature and an extraordinary resource for Half Moon Bay, and another high priority under the Coastal Act. This chapter also documents existing public recreational facilities, evaluates local and visitor demand for recreational facilities, identifies priority improvements, and evaluates the recreational needs of the community.

Coastal access and recreation are overlapping objectives. Providing coastal access is essential to promoting coastal recreation. Coastal access points offering support facilities such as transit and parking enable visitors to participate in coastal recreation activities. However, conflicts, such as recreation events that block beach access, must be identified and addressed in policies. Furthermore, the very nature of coastal access and recreational facilities is that they are often in direct contact with sensitive coastal habitat areas such as beaches and coastal bluffs. In that coastal resource protection is another primary objective of the California Coastal Act, the potential impacts of coastal access and recreation on habitat and other resources must be understood and policies should guide environmentally sustainable coastal access and recreational facilities and programs.

Land Use Plan Framework

Upon its admission into the United States in 1850, the State of California became the owner of all tidelands, submerged lands, and all lands lying beneath inland navigable waters. These lands are held and managed by the State for the benefit of all people of the state and are subject to the common law public trust doctrine¹. The use of these lands is limited to public trust uses, which include navigation, fishing, maritime commerce, boating, public access, water-oriented recreation, visitor-serving facilities, open space, and environmental protection and restoration. Because the mean high tide line varies due to factors such as beach width and elevation, shoreline erosion, and sea level rise, the extent of lands in public trust also varies. Notably, as sea level rise accelerates, private lands that were previously landward of the mean high tide line may become subject to the state's ownership and protections of the public trust. Protection of these public lands lies at the heart of the Coastal Act, and development of public trust lands is under the permitting authority of the Coastal Commission. To that end, it is essential for Local Coastal Programs to ensure permanent protection of public trust resources for public trust purposes.

¹ California Coastal Commission, 2015. California Coastal Commission, Sea Level Rise Policy Guidance, unanimously adopted on August 12, 2015.

The Coastal Act requires that public access to and along the coast be maximized, while embodying considerations of public safety, property rights, and natural resource protection. New development projects must provide public access, with specified and limited exceptions. Public parking and other facilities should be distributed along the coast, and lower-cost visitor-serving facilities are to be protected, encouraged, and provided (Sections 30210 through 30214). Section 30252 requires that new development maintain and enhance public access to the coast by facilitating transit and minimizing the need for local travel on coastal access roads.

The Coastal Act also seeks to protect and expand recreational opportunities, by protecting oceanfront land and upland areas for recreational uses. Water-oriented recreation, recreational boating, and visitor-serving commercial recreational uses are to be prioritized (Sections 30220 through 30224). Additionally, the Coastal Act requires that adequate parks for local residents be provided so that coastal recreation areas are not overloaded (Section 30252).

COASTAL ACT POLICIES

The following California Coastal Act policies are relevant to the provisions of coastal access and recreation and are incorporated into this LUP.

Article 2: Public Access

The public's right to access all beach areas on public trust lands (as measured by the mean high tide line) is guaranteed by the California Constitution. The California Coastal Act provides a framework for achieving these basic public rights for use and enjoyment of the coast as addressed in the following policies.

Section 30210 Access, recreational opportunities; posting

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211 Development not to interfere with access

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30212 New development projects

- (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated accessway 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 of the accessway.
- (b) For purposes of this section, "new development" does not include:

- (1.) Replacement of any structure pursuant to the provisions of subdivision (g) of Section 30610.
- (2.) The demolition and reconstruction of a single-family residence; provided, that the reconstructed residence shall not exceed either the floor area, height or bulk of the former structure by more than 10 percent, and that the reconstructed residence shall be sited in the same location on the affected property as the former structure.
- (3.) Improvements to any structure which do not change the intensity of its use, which do not increase either the floor area, height, or bulk of the structure by more than 10 percent, which do not block or impede public access, and which do not result in a seaward encroachment by the structure.
- (4.) The reconstruction or repair of any seawall; provided, however, that the reconstructed or repaired seawall is not seaward of the location of the former structure.
- (5.) Any repair or maintenance activity for which the commission has determined, pursuant to Section 30610, that a coastal development permit will be not required unless the commission determines that the activity will have an adverse impact on lateral public access along the beach.

As used in this subdivision, "bulk" means total interior cubic volume as measured from the exterior surface of the structure.

- (c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.

Section 30212.5 Public facilities; distribution

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

Section 30213 Lower cost visitor and recreational facilities; encouragement and provision; overnight room rentals

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. The commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving facility located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities.

Section 30214 Implementation of public access policies; legislative intent

- (a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:
 - (1.) Topographic and geologic site characteristics.
 - (2.) The capacity of the site to sustain use and at what level of intensity.

- (3.) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.
- (4.) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.
- (b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution.
- (c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

Article 3: Recreation

The following California Coastal Act sections provide the policy framework for assessing and prioritizing the visitor-serving and local recreation needs including commercial recreation and support facilities.

Section 30220 Protection of certain water-oriented activities

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Section 30221 Oceanfront land; protection for recreational use and development

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

Section 30222 Private lands; priority and development purposes

The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

Section 30223 Upland areas

Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Section 30224 Recreational boating use; encouragement; facilities

Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge,

and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.

Article 6: Development

The following California Coastal Act policies provide a framework for protecting public coastal access and recreation from potential negative effects of development and the growth inducing impacts of the expansion of public works facilities.

Section 30252 Maintenance and enhancement of public access

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

Section 30254 Public works facilities

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal-dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

Public Coastal Access

Half Moon Bay contains 6.2 miles of coastline, eight contiguous sections of beaches, and a nearly complete span of the California Coastal Trail along the City's oceanfront. The trail links open space and recreation areas, all highly utilized by locals and tourists alike. The City's primary road network consists of Highway 1, connecting north to San Francisco and south to Santa Cruz, and Highway 92, connecting east to San Mateo and the bay-side of the peninsula. The limited capacity of the City's circulation system, specifically the Highway 1 corridor, presents a coastal access paradox. Providing for and promoting coastal access and recreation results in severe traffic congestion during peak periods, thereby diminishing the quality of coastal access and recreation experiences. This section addresses existing coastal access points, the roadway network for primary modes of transportation, alternative modes of transportation, and needed and planned access improvement areas.

COASTAL ACCESS ROUTES AND POINTS

The Planning Area includes numerous coastal access provisions, including defined primary and secondary coastal access routes, coastal access points, signage, and identified coastal access improvement areas as discussed further below and shown on Figure 5-1.

Primary Coastal Access Routes

Primary coastal access routes provide a direct connection between Highway 1 and/or Downtown Half Moon Bay and the coastline. Public parking areas and formal vertical access to the beach are available via each of the primary coastal access routes. ADA access is also included to varying degrees in the parking lots and for linkages to the California Coastal Trail and viewing areas. Primary coastal access routes include:

Young Avenue and Venice Boulevard. These primary coastal access routes lead to beaches that are part of Half Moon Bay State Beach (Dunes Beach and Venice Beach), a unit of the State Parks system. The Sweetwood Group Camp is near the southern end of Dunes Beach.

Kelly Avenue and Poplar Street: Kelly Avenue and Poplar Street link the Town Center to the coast. To reinforce the relationship between the visitor-serving amenities in Downtown and the beach, these streets are designated as primary coastal access routes between Main Street and the beach parking lots they connect to: Kelly Avenue to Francis Beach, and Poplar Street to Poplar Beach. Francis Beach is part of the Half Moon Bay State Beach and its visitor facilities include the Half Moon Bay State Beach Visitor Center and campsites. Poplar is a neighborhood street that provides access to Poplar Beach, owned by the City and San Mateo County, and managed by the City of Half Moon Bay. Visitor facilities are also owned and managed by the City, including the parking lot, vertical access, and various bicycle and pedestrian amenities.

Wavecrest Road. This access route terminates at the City's Smith Field park ballfields. The parking lot is used by coastal visitors to access the California Coastal Trail via informal trails.

Miramontes Point Road. At the south end of town, Miramontes Point Road connects to two public parking areas with vertical beach access nearby.

Secondary Coastal Access Routes

Secondary coastal access routes are those that do not provide formalized public parking facilities; however, their connections between Highway 1 and the California Coastal Trail are direct and long-established, serving local and visiting bicyclists and pedestrians well. Some of these access routes link to beach access points, and some do not. The secondary coastal routes include Mirada Road, Roosevelt Boulevard, Wave Avenue, and Redondo Beach Road. Several of these routes have potential for parking improvements, at which point they could be designated primary access routes. Secondary coastal access routes are also discussed below as identified areas for coastal access improvements.

Additional Coastal Access Provisions

Coastal Access Points. In addition to the primary and secondary coastal access routes, access to the coastline can also be found via many rights-of-way in the Miramar, Casa del Mar, Alsace Lorraine, Arleta Park, and Ocean Colony neighborhoods. Coastal access in these neighborhoods is typically in the form of informal trail connections to the California Coastal Trail, which provide views over the bluffs to the ocean. Surfers Beach in northernmost Half Moon Bay is also a significant coastal access point.

Signage. While signage is present along Highway 1 directing visitors to beach access points, it is incomplete and does not create a unified sense of Half Moon Bay's coastal access and recreation opportunities. The LUP calls for consistent and prominent wayfinding signage to be added along Highway 1, directing visitors to each of Half Moon Bay's coastal access points. Additional wayfinding signage can help direct vehicles to designated parking areas with available capacity and can also direct pedestrians and cyclists to designated access points, helping to prevent environmental damage and erosion due to the use and creation of informal pedestrian and bicycle paths. The LUP further includes policies to expand transportation options for the benefit of coastal visitors which can serve to reduce traffic congestion and pollutant emissions.

Coastal Access Improvement Areas

During the LUP update process, several "Coastal Access Improvement Areas" were identified as needing both smaller and larger-scale access infrastructure and improvements. Coastal Access Improvement Areas are indicated on Figure 5-1: Coastal Access, and summarized below:

Surfers Beach. For this location, the primary improvements needed are a safer Highway 1 pedestrian crossing and improved parking areas to accommodate surfers and beachgoers who park on the east side of the roadway. This location involves the Caltrans Highway 1 right-of-way and straddles the City and San Mateo County boundary; thus implementing improvements in this area would require multi-jurisdictional coordination.

Mirada Road. The western terminus of Mirada Road presents several opportunities for coastal access improvements such as parking, Coastal Trail repair or retreat, and potential vertical beach access. This location also straddles the City and San Mateo County jurisdictional boundary. As of 2020, San Mateo County was planning improvements to the pedestrian bridge connecting the cul-de-sac to the northern side of Mirada Road.

Venice Beach. Vertical access to Venice Beach is provided near the mouth of the Frenchmans Creek riparian corridor. Access to the beach in this area is actively eroding and in need of restorative improvements. Improvements could be multi-beneficial for coastal access and recreation, habitat value, and site stability.

Wave Avenue. This location is identified as a site where new restorative access improvements, such as a boardwalk, would clearly define the access pathway and allow for recovery of the eroding informal trails and surrounding habitat in that area.

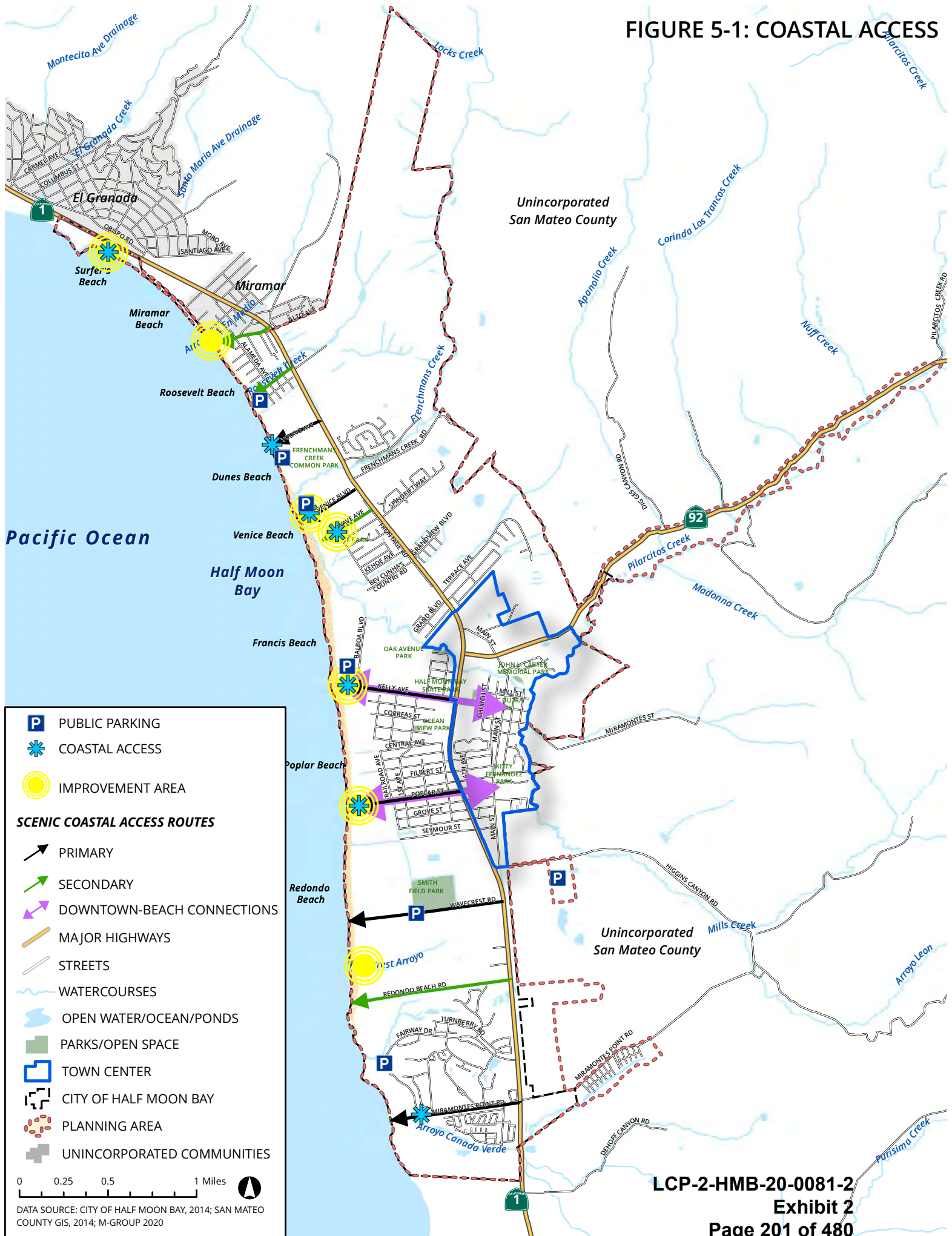
Francis Beach. At the time of the LUP update, the State Parks and Recreation Department had been planning coastal access improvements at Francis Beach with a new vertical access west of the terminus of Kelly Avenue.

Poplar Beach. The City periodically makes improvements to this heavily used blufftop park area. In 2020, new vertical access stairs and drainage improvements were completed. Future improvements were being planned for the parking lot; support facilities including trash, recycling, and restrooms; and ADA paths from the parking lot and California Coastal Trail to a viewing area.

North Wavecrest. In 2020, planning was underway for new lateral and vertical beach access in the North Wavecrest Restoration Area. The project includes extension of the California Coastal Trail, comprising the final segment to be implemented, with vertical access at the Wavecrest Arroyo. Parking and other support facilities are being considered for implementing this accessway, which will be located on land trust and/or public lands. This new vertical access will replace the informal, dangerous and environmentally unsustainable parking and access point at the terminus of Redondo Beach Road.

Neighborhood Access Points. Neighborhood coastal access is typically in the form of informal trail connections to the California Coastal Trail. Of these, several would benefit from on-going maintenance and restorative access improvements, such as the Casa del Mar informal trail connections. Restorative access can consist of boardwalks or split rail fencing to direct trail users including bicyclists and pedestrians, thereby reducing erosion and allowing revegetation.

FIGURE 5-1: COASTAL ACCESS



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Exhibit 2

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Policies – Public Coastal Access

Policies – General

- 5-1. **Maximum Coastal Access and Recreational Opportunities.** Provide maximum coastal access and recreational opportunities for all people consistent with public safety needs and the need to protect public rights, rights of property owners, and natural resource areas from overuse.
- 5-2. **Public Shoreline Access Rights.** Continue to ensure that the public retains right of access to the shoreline and sea as provided by the public trust doctrine, where acquired through historic use or legislative authorization, and where environmentally appropriate.
- 5-3. **Environmental Justice.** Minimize barriers to public coastal access to the maximum extent feasible, including ensuring that public access and recreational opportunities account for the social, physical, and economic needs of all people.
- 5-4. **Public Access and Sea Level Rise.** Require new development adjacent to public access and recreation areas vulnerable to coastal bluff erosion or sea level rise to be sited and designed to anticipate eventual loss and necessary replacement of such public access and recreation areas.
- 5-5. **Distribution of Public Facilities.** Continue to distribute public facilities, including parking areas, on both sides of Highway 1 so as to mitigate against the impacts of overcrowding or overuse by the public of any single area.
- 5-6. **Public Access Required in New Development.** Require new development proposed between the first public roadway and the shoreline and along the coast to provide public access. Exceptions to this requirement shall be granted only where public access would pose a safety risk or threat to fragile resources, or where adequate access exists nearby.
- 5-7. **Public Access Maximized in New Development.** New development shall ensure that public access opportunities are maximized by including measures to offset any temporary and potentially permanent impacts to public access caused by the project. To the extent possible, development shall provide public access improvements, including within the private development project (e.g. visitor-serving development), where appropriate.
- 5-8. **New Development Public Coastal Access Management Plan.** Development with the potential to impact public coastal access, whether during construction or after, shall develop a public coastal access management plan designed to identify and limit impacts to public coastal access. Plans shall identify peak use times and measures to avoid disruption during those times; minimize beach, road, and trail closures; identify alternative access routes; and provide for public safety.
- 5-9. **Public Coastal Access Changes.** Any reductions or limitations in access to the beach, shoreline, trails, and parks for coastal recreation, such as signs limiting public parking

or restricting use of existing lateral and/or vertical accessways, shall require a coastal development permit. Such projects shall ensure that existing overall levels of public access are maintained or enhanced, such as through the provision of bike lanes and bicycle parking, pedestrian trails, and relocated vehicular parking spaces so as to fully mitigate any potential negative impacts and maximize access opportunities.

- 5-10. Mitigation for Impacts to Public Coastal Access.** Where adverse impacts to existing public coastal access cannot be avoided by new development and no feasible alternative exists, ensure that impacts are mitigated such as through the dedication of a new access or trail easement in perpetuity or the provision of improvements to other public coastal access points in Half Moon Bay.
- 5-11. Public Beach Parking Inventory.** Maintain and enhance the existing public beach parking inventory by providing on-street public parking spaces, providing opportunities for alternative modes of transportation and beach shuttles, and, where feasible, providing new beach parking areas where there are no conflicts with adjacent land uses or environmentally sensitive habitat areas.
- 5-12. Enhance Beaches and Open Spaces.** Work with California State Parks and other agencies and organizations to enhance the quality of the city's beaches, watercourses, and open spaces by reducing the amount of litter and pollution present in these areas and providing appropriate amenities as follows:
- a. Increase public awareness of the sources of pollution in the city's waterways;
 - b. Increase public awareness of litter and its impacts on the landscape;
 - c. Provide trash receptacles in strategic locations with associated signage along the city's open space network;
 - d. Encourage volunteer events and activities to pick up litter in public open spaces; and
 - e. Provide more amenities to support high quality coastal access where appropriate, including public restrooms, benches, and bicycle facilities.

Coastal Access Points

- 5-13. Coastal Access Improvements.** Improve safety, accessibility, environmental sustainability, and aesthetics of coastal access points, including those specified as Coastal Access Improvement Areas identified on Figure 5-1.
- 5-14. Siting and Design of Parking for Coastal Access Points.** Work with the State Department of Parks and Recreation and others to ensure that coastal visitor parking is created, modified, and/or managed with the following goals and characteristics:
- a. Provide distributed public parking along the coast on primary and secondary coastal access routes, east of the Coastal Trail to the extent feasible, and throughout the City to ensure access to all coastal access points, as permitted by environmental and safety constraints (e.g. avoiding public safety hazards, adverse impacts to ESHA, visitor-residential conflicts).

- b. Ensure that any new beach parking areas located on the east side of Highway 1 are connected to coastal access points via alternative modes of transportation such as shuttles and bicycle/pedestrian trails.
 - c. Locate parking lots on property accessible directly from primary access routes and appropriately separated from adjacent residential areas by distance, landscaping, or lowered elevation.
 - d. Include green infrastructure features such as vegetated swales, permeable pavement, or bioretention areas to ensure that water runoff does not exceed that which exists prior to installation of new parking areas, and to ensure that stormwater runoff impacts are minimized to the extent feasible for improvements to existing parking areas.
 - e. Incorporate site-appropriate setbacks and reserve suitable surrounding land for expansion or retreat for existing or redeveloped public parking areas near the beach, as permitted by environmental constraints.
 - f. Locate parking facilities so that beach access does not compromise sensitive habitat areas such as dunes, sea cliffs, bluffs, wetlands, and riparian areas. Where no other accessway is feasible, use site and design measures such as boardwalks, fencing, and signage to ensure habitat protection.
 - g. Incorporate educational and interpretive signage; and accommodate temporary uses including beach clean-ups, farm and sea-to-table events, and wildlife and habitat classes within beach parking areas as a compliment to the coastal setting and subordinate to visual resource qualities.
- 5-15. Beach Fees and Time Restrictions.** Maintain no-cost and lower-cost user fees and parking fees, and minimize parking lot and beach curfews to the extent feasible in order to maximize public access and recreation opportunities. Imposing new time restrictions or fees at public parking lots, particularly where none previously existed shall require a coastal development permit and shall evaluate potential for impacts to lower income users.
- 5-16. Siting and Design of Public Accessways.** Lateral and vertical public coastal accessways shall be sited and designed to account for likely uses of the facility; topographic and site constraints; the fragility of natural resources; potential future risks of erosion and sea level rise; the need for adaptable, non-permanent designs in erosive areas; and compatibility with adjacent land uses. Where trails are permitted uses within sensitive habitat areas and their buffers, new trail segments and improvements shall be sited and designed to minimize and mitigate impacts to the habitat and buffer areas.
- 5-17. Review of Accessway Plans.** Allow any public agency holding beach lands to review all accessway plans on adjacent property to ensure they are consistent with the Local Coastal Land Use Plan.
- 5-18. Setbacks from Accessways.** No new structure shall be built within 15 feet of an existing accessway or the boundary of shoreline areas under public ownership. A greater distance may be required to minimize adverse visual impacts, to protect

residential privacy, or to protect public access. New accessways may be located within 15 feet of existing structures when it is not possible to locate them elsewhere.

- 5-19. Signage for Accessways.** All vertical and lateral public accessways shall have clearly posted and maintained signs specifying the public's right to use these areas. Signs shall also identify any limitations on the public's right of access and specific uses. Signs shall be provided in both English and Spanish.
- 5-20. Maintenance of Accessways.** Require a public or private entity to be responsible for maintaining public accessways and protecting adjacent ESHA if present when public coastal access is a condition for new development. Such accessways shall be open to the public unless access poses a danger to public safety or ESHA.
- 5-21. Restrictions on Parking.** Prohibit restrictions on public parking that would adversely affect public access to beaches, trails, or other recreational lands along the coast except where necessary to protect public safety and preserve neighborhoods for primarily residential use. Mitigation may be required for implementation of parking restrictions where adverse impacts to public access cannot be avoided, such as through provision of off-site parking or an in-lieu fee to support a public access project in the City.
- 5-22. Private Roads and Gates.** Prohibit gates and other barriers designed to regulate or restrict access on private roads where such barriers have the potential to impede access to public trails and recreational areas.
- 5-23. Abandonment of Public Rights-of-Way.** Require a coastal development permit for any proposed abandonment of a public right-of-way that may affect public access. Allow abandonment only if it is demonstrated that adequate public access to the coast will be preserved.

Vehicular Coastal Access

Highway 1 and Highway 92 are the only access routes for visitors to the Planning Area. The natural beauty of San Mateo County Pacific Ocean beaches, Half Moon Bay's charming downtown, and nearby attractions such as Pillar Point Harbor attract large numbers of visitors during warm days of spring, summer, and fall. This is particularly true on weekends when the constrained roadway network in Half Moon Bay frequently reaches capacity. Special events such as the annual Half Moon Bay Art and Pumpkin Festival in October and the Maverick's surf competition, held during the winter about 4 miles north of Half Moon Bay, also draw large crowds and high traffic volumes. Highway 1 provides the only direct access to such events and Highway 92 provides the most direct route to Highway 1 from the bay side of the San Francisco Peninsula and from much of the East Bay.

Vehicular coastal access is presented in Chapter 3. Public Works, where the focus is on Highway 1 and Highway 92 infrastructure capacity limitations. This LUP update introduces the Town Boulevard as an approach to improve access for visitors and residents in lieu of increasing roadway capacity, such as by adding lanes. The Town Boulevard complements the Town Center focus presented in Chapter 2. Development, and is presented in more detail in Chapter 3. In summary, the Town Boulevard includes lower speed limits; multi-modal improvements with safe crossings; and landscaping and other amenities intended to enhance the image and scenic quality of the Planning Area. Policies relevant to vehicular coastal access and the Town Boulevard are provided in Chapter 3.

Bicycle and Pedestrian Coastal Access

This section provides an overview of bicycle and pedestrian infrastructure in Half Moon Bay, including the California Coastal Trail. Existing and planned bicycle and pedestrian facilities are shown on Figure 5-2. Equestrian facilities are also important to the Planning Area and are identified as applicable in this section.

Trails

California Coastal Trail. Coastal Act Section 30609.5 protects any state-owned land that has been formally designated as part of the California Coastal Trail, and local jurisdictions are encouraged to identify an alignment for the California Coastal Trail in their LCPs. The California Coastal Trail is envisioned as a continuous interconnected public trail system along the California coastline. The trail can take many forms, including informal footpaths, paved sidewalks, and separated bicycle paths; it may be located on beaches, bluff edges, hillsides, and within the highway right-of-way. While primarily for pedestrians, the California Coastal Trail also accommodates pedestrians, bicyclists, wheelchair users, and others as opportunities allow. A parallel equestrian trail east of the Coastal Trail runs from Frenchmans Creek to Poplar Beach Blufftop Park, where vertical beach access is provided for riders at a location called "the slot" south of Kelly Avenue.

Existing segments of the California Coastal Trail run in a north-south direction west of Highway 1 in Half Moon Bay (reference Figure 5-2). In the 1996 LUP, the trail was referred to as the "Shoreline Trail," and some residents call it the "Coastside Trail." For this LUP

update, the trail will be consistently referred to as the California Coastal Trail. The trail is a paved path along the coastal bluffs from Mirada Road in the north to past the south end of Poplar Beach at Seymour Bridge. The California Coastal Trail is also a paved path between Redondo Beach Road and the southern boundary of the city. The Wavecrest Trail Project, described below, will replace the many informal trails between Seymour Bridge and Redondo Beach Road throughout the Wavecrest area.

The Wavecrest Trail Project consists of two phases, and when complete it will provide a defined trail from the south end of Poplar Beach southward along the bluffs to Ocean Colony, adding nearly 1,700 feet of lateral public access. The first phase, between Seymour Bridge and the cypress row at the southern end of Coastsides Land Trust's 50-acre parcel was implemented in 2015. This trail span is known as the "Bird Trail" and is frequented by birders due to the extensive variety of species throughout the Wavecrest area. At the time of this LUP update, planning for the second phase was under way. Formalization of the California Coastal Trail through the North Wavecrest PD will provide a safe and highly scenic route for visitors that directs traffic away from sensitive habitat areas.² This second phase includes new vertical beach access at the Wavecrest Arroyo, a Coastal Access Improvement Area identified in the LUP. The second phase may also incorporate a spur trail to link the City's Smith Field Park public parking lot to the Coastal Trail and thereby replace existing informal trails which are located in potential sensitive habitat areas.

Half Moon Bay's city limits also include a narrow shoreline strip north of Arroyo de en Medio. Here, the California Coastal Trail uses Mirada Road as it parallels the shoreline, and then follows a paved path along the bluffs in unincorporated El Granada, returns to City limits as a narrow-paved trail along the shoulder of Highway 1; and then follows a paved path west of the highway to Pillar Point Harbor. The California Coastal Trail - San Mateo County Midcoast: Pillar Point to Mirada Surf report (San Mateo County Parks and Recreation Department, 2010) identifies short- and long-term recommended improvements for this segment of trail.

Due to the diversity and high number of trail users, including pedestrians and recreational family cycling, trail use conflicts occur. Speeding cyclists, trash, and off-leash dog walking have been problematic and are difficult to enforce along the extents of the trail. The California Coastal Trail alignment is also proximate to numerous sensitive habitat areas including Frenchmans and Pilarcitos Creeks. Access control and signage have not been wholly effective at keeping trail users out of some of these sensitive habitat areas. To address a range of concerns and support long-term sustainable trail use, the Bicycle and Pedestrian Master Plan specifies safety improvements along the trail, including signage and improved roadway crossings. And, at the time of the LUP update, the City was exploring options for improving trail maintenance and providing patrols during times of heavy use.

As of 2020, the San Mateo County Parks Department was in the early design phase for a new Ohlone-Portola Heritage Trail intended to commemorate the expedition route taken by Spanish explorer Gaspar de Portola to discover the coastsides in 1769, and to honor the region's California native tribal history. The general trail alignment that will pass through the

² Placeworks, 2014. Wavecrest Coastal Trail Project Public Review Draft Initial Study.

City of Half Moon Bay will utilize the existing California Coastal Trail alignment and will not result in new trail construction.

Naomi Patridge Trail. This trail runs along the east side of Highway 1 from Roosevelt Boulevard to Ruisseau Francais Avenue, and on the west side of Highway 1 from Ruisseau Francais Avenue to Highway 92. A second segment parallels the west side of Highway 1 between Kelly Avenue and Wavecrest Road. See “Planned Parallel Trail (Naomi Patridge Trail)” below.

Highway 1 Underpass. The underpass facilitates a connection between a short trail segment in Oak Avenue Park on the west side of Highway 1 to a short trail segment on the east side of Highway 1 connecting to Highway 92 near Main Street. From Main Street, bicyclists and pedestrians can access John L. Carter Memorial Park and the Town Center area. The Highway 1 underpass also connects the north and south segments of the Naomi Patridge Trail, via an on-street route along Pilarcitos and Kelly avenues.

Planned Trails

Pilarcitos Creek Trail. As early as the adoption of the 1995 Parks and Recreation Element, the Pilarcitos Creek Trail has been envisioned to eventually extend from the California Coastal Trail at its western terminus to the eastern city limits where it could provide linkages to other trails in unincorporated San Mateo County. The 2001 San Mateo County Trails Master Plan also acknowledges the “Pilarcitos Trail.” West of Highway 1, the anticipated alignment is on the south side of Pilarcitos Creek. East of Highway 1, facilitated by the existing bridge at Oak Avenue Park and the highway undercrossing, the alignment is anticipated to be on the north side of the creek. Implementation of additional trail segments adjacent to or bridging Pilarcitos Creek will require careful study to ensure that the alignment does not conflict with riparian corridor and other ESHA requirements, allows natural shifting of creek alignment, does not contribute to erosion risks, and avoids land use conflicts with agricultural operations.

Eastside Parallel Trail. The San Mateo County Comprehensive Bicycle and Pedestrian Plan (CBPP), adopted in 2011 by the City/County Association of Governments (C/CAG) of San Mateo County, identifies a “Parallel Trail” along Highway 1 as a key countywide corridor. The Parallel Trail would run adjacent to Highway 1, starting at Devils Slide and extend south to and through Half Moon Bay. The Naomi Patridge Trail has been functioning as Half Moon Bay’s segment of the Parallel Trail. Today, the Naomi Patridge Trail provides a direct travel route for pedestrians and cyclists along much of the west side of the Highway 1 corridor in Half Moon Bay. Half Moon Bay’s Bicycle and Pedestrian Master Plan brings the Eastside Parallel Trail planning forward for the Planning Area. Planned future segments of this trail will facilitate continuous non-motorized travel on a separate path along the east side of Highway 1, from Half Moon Bay’s northern to southern city limits. At the time of the 2020 LUP update, a portion of the trail had received grant funding and was undergoing environmental review. Because the Eastside Parallel Trail will provide a more direct route through town than the California Coastal Trail, commuters are likely to use it more often, which could free up some capacity on the Coastal Trail. The use of motorized bikes, scooters and similar modes may be more appropriate on this facility dependent upon the trail width and other design features and should be subject of future study to ensure use of this new amenity is optimized and complimentary to other facilities.

Railroad Right-of-Way Trail. The Bicycle and Pedestrian Master Plan identified the abandoned railroad right-of-way between Kelly and Central Avenue for a new trail. Although only 0.4 miles long, this trail would provide a direct link between Francis State Beach and the Alsace Lorraine and Arleta Park neighborhoods, allowing pedestrians and bicyclists to avoid the heavily trafficked Kelly Avenue. The master plan also includes potential for a Railroad Avenue Trail extension from Grove Street in the Arleta Park neighborhood to Wavecrest Road. This 0.5-mile segment would provide access to Smith Field. Potential impacts to ESHA would need to be evaluated and avoided as consistent with Chapter 6 of the LUP.

Pacific Ridge Trail. This trail will be implemented east and uphill from the Pacific Ridge residential development. It will provide a pedestrian walking loop offering broad landscape and ocean views. Because of nearby sensitive habitat, use of this trail will be limited to pedestrians and dogs will be required to be leashed.

Vista Trail. As envisioned, the Vista Trail will be elevated to provide exceptional ocean views and connections between neighborhoods. Similar trail opportunities were identified in the 1995 Recreation Element as the “Foothills Trail” and the 2001 San Mateo County Trails Master Plan as the “Midcoast Foothill Trail.” The conceptual alignment is along the eastern extents of the city’s northeast neighborhoods (e.g. Grandview, Sea Haven, and Frenchmans Creek). The Pacific Ridge Trail could link to the Vista Trail, and also potentially provide a trailhead. The presence of ESHA and agricultural operations within at least some portions of this hillside area will require careful alignment such that certain segments may need to be located at lower elevations between neighborhoods, or farther east and upland within the County’s jurisdiction, to avoid impacts. It is possible that a future study will conclude that the Vista Trail is infeasible or undesirable because of potential impacts to ESHA, limitations associated with the deed restricted conservation area in Pacific Ridge, land use conflicts with agriculture operations, and/or hazards such as erosion.

Frenchmans Creek Trail. Similar to the Vista Trail, the Frenchmans Creek trail has been envisioned for many years. If feasible, it could provide a linkage between the Vista Trail and the Eastside Parallel Trail. However, the Frenchmans Creek riparian corridor includes ESHA and an alignment in this area will require sensitive planning. Lack of publicly owned property further restricts options for alignment. The LUP brings the concept forward for future study.

Beachwood-Glencree Trail. The City-owned Beachwood and Glencree properties are located between the Grandview and Highland Park neighborhoods. As part of this LUP update, the Beachwood property will be considered for a future mitigation bank and green infrastructure for stormwater management. This area is predominately wetlands and may be appropriate for resource dependent educational and interpretive uses including a trail with boardwalks to minimize impacts to wetlands. If feasible, it could serve as an alternate alignment for the Vista Trail, or an additional branch of the Vista Trail.

Restorative Access Trails. As previously presented, a number of coastal access points, including both lateral and vertical accessways, have been identified as appropriate locations for habitat restoration. In some cases, lateral accessways could be enhanced with boardwalks or other elements to define pathways and discourage off-trail use which causes erosion and diminishes habitat. Vertical access points also need to be addressed. Examples include

eroding access locations at Venice and Poplar Beaches, and the terminus of Redondo Beach Road where unimproved access has led to significant bluff degradation.

Bay to Sea Trail. The planned Bay to Sea Trail is a multi-jurisdictional effort to provide regional connectivity between urban and open space areas from the bayside to the coastside. For Half Moon Bay, the trail is planned to connect to the California Coastal Trail via the City's existing and planned bicycle and pedestrian network. At the time of the 2020 LUP update, exact alignments and timeline for implementation were unknown.

Planning for Erosion and Sea Level Rise Impacts on Trails

Waves acting upon the steep bluff features are a source of erosion along the Half Moon Bay coastline. Over time, sea level rise is anticipated to increase the Planning Area's exposure to coastal flooding, the rate of erosion along the shoreline and bluffs, and other potential hazards. Loss of shoreline due to rising waters may also threaten the stability of coastal habitats, recreation areas, and public access. LUP policies in this chapter require access and recreational facilities—in particular the California Coastal Trail—to be sited, designed and maintained to avoid or mitigate erosion and the impacts of sea level rise. The long-term viability of and access to the California Coastal Trail is a community priority, as it widely serves residents and visitors alike as a significant recreational, scenic, and low-cost visitor-serving experience. See Chapter 7 of this plan for more detailed discussion of these hazards. The City has studied and will continue to study and implement improvements to reduce erosion, such as those identified along the California Coastal Trail between Kelly Avenue and the Seymour Ditch.

Erosion of unstable creek banks and other watercourses will likely increase as climate change brings more extreme weather patterns. Sea level rise will also cause the estuaries and mouths of watercourses along the coast to retreat inland. Both of these likelihoods have the potential to adversely affect riparian habitat or wetlands. Riparian and wetland buffers must be established and firmly enforced in order to accommodate habitat retreat and dispersal, foraging, refugia, and nesting areas for special status species. Where trails are permitted uses within such sensitive habitat areas and/or their buffer zones, new trails contemplated for development should be carefully sited and designed to allow space for meander belts and for future retreat of the ESHA and its associated buffer.

Bicycle Facilities: Trails and Bike Lanes

Half Moon Bay has been developing an interconnected bicycle network which will be implemented with the Bicycle and Pedestrian Master Plan. Highlighted here are facilities specifically supportive of coastal access and recreation. Within the Planning Area, the California Coastal Trail, Naomi Patridge Trail, and Pilarcitos Creek Trail are multi-use trails for cyclists and pedestrians. Bicycle lanes are present on Main Street from Highway 1 south to Highway 92, Kelly Avenue from Highway 1 to the intersection of the California Coastal Trail and Balboa Boulevard, and Miramontes Point Road from Highway 1 to Pelican Point RV Park.

Facilities outside the Planning Area will also support coastal access and link to City's network. Highway 92 is identified in the CBPP as a countywide key corridor. A multi-use path is proposed starting at the intersection of Highway 92 and Highway 1, and terminating between

Apanolio Creek and Corinda Los Trancos Creek, two miles to the east. Bicycle improvements beyond this segment of Highway 92 have not yet been defined. The CBPP also proposes creating a bicycle connection between the California Coastal Trail and Higgins Canyon Road. The type of bicycle facility is not defined in the plan but would include a combination of Poplar, Seymour, and Main streets and 2nd and 3rd avenues.

Bicycle facilities along Highways 1 and 92 will further enhance recreational access to the coast for cyclists. In addition to continuous multi-use trails along both sides of the Highway 1 corridor, the LUP identifies a more comprehensive bicycle network for the Planning Area that provides connections between downtown, the Naomi Patridge Trail, the California Coastal Trail, the planned Eastside Parallel Trail, and the beaches. Signage, lane markings, and further visibility improvements will also be considered to ensure bicyclist safety. The future addition of bicycle parking at major destinations such as Dunes Beach, Venice Beach, and Poplar Beach further encourage cycling.

Pedestrian Facilities: Highway Crossings, Sidewalks, and Pathways

In the Planning Area, Highway 1 currently constrains pedestrian and bicycle mobility due to limited crossing opportunities, heavy traffic, and lack of consistent pedestrian pathways. Many intersections do not have stop controls or treatments to help pedestrians and bicyclists safely cross. Even where signalized intersections exist, green lights are calibrated for vehicles and do not allow sufficient crossing time for bicyclists or pedestrians. Pedestrians often walk along the roadway's paved shoulders due to the infrequency of safe crossings that would allow access to the Naomi Patridge Trail.

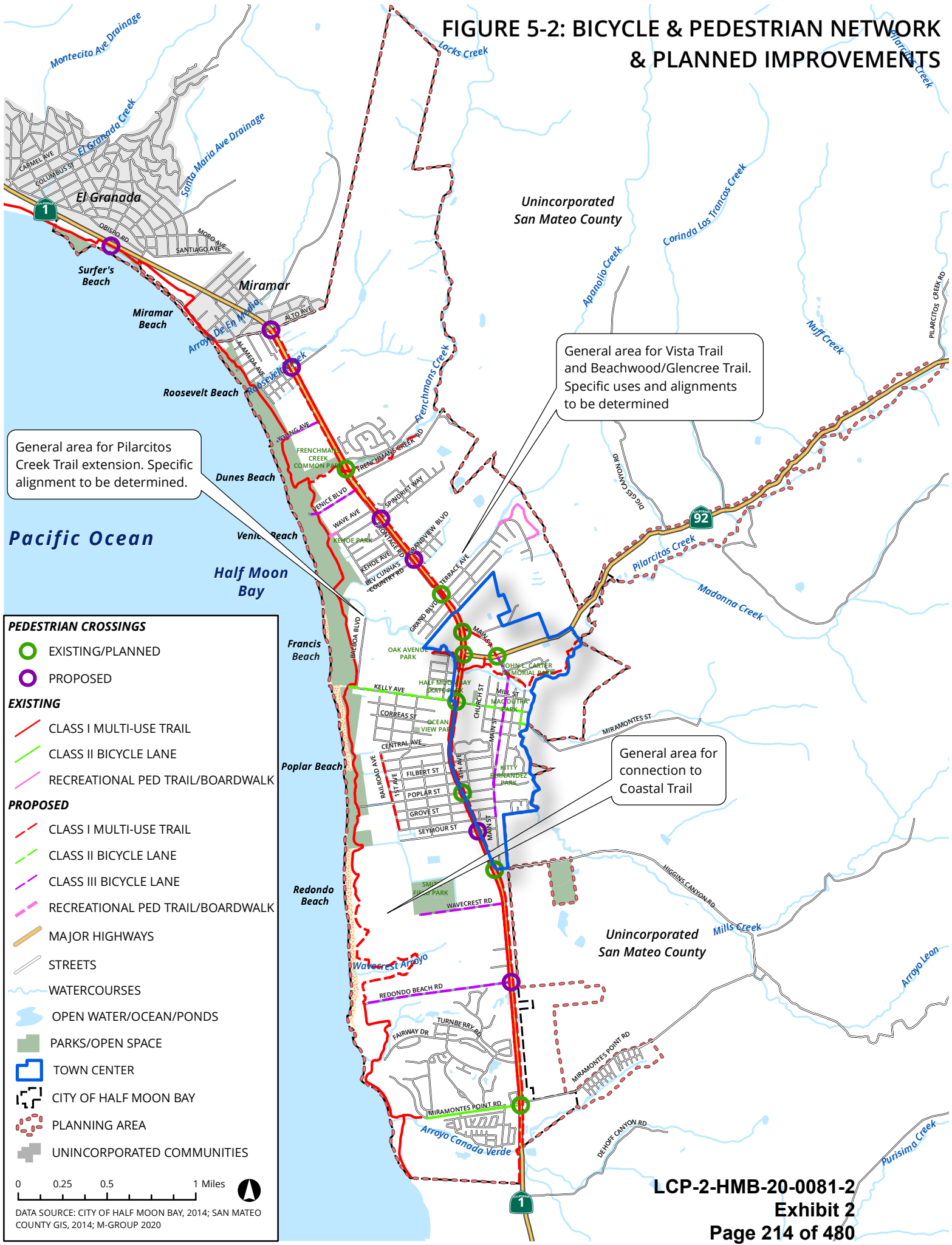
Pedestrian improvements along Highway 1 have the potential to provide greater access for low-income populations, agricultural workers, and transit riders who constitute a relatively large share of bicyclists and pedestrians in Half Moon Bay. Pedestrian improvements will also be of great benefit for coastal visitors by enhancing the connection between Downtown Half Moon Bay on the east side of Highway 1 and the beaches to the west. More frequent crossings of Highway 1 are a key element for this corridor and are supported by policies in this LUP.

Most streets in and around Downtown Half Moon Bay have sidewalks. Outside of this area, many streets do not have sidewalk or other pedestrian pathway facilities. The Bicycle and Pedestrian Master Plan further identified additional approaches to improving pedestrian circulation pertinent to coastal access. "Coastal Access Pedestrian Zones" are applied to Roosevelt Boulevard, Young Avenue, Venice Boulevard, Kelly Avenue, Poplar Street, and Miramontes Point Road. The master plan establishes that these areas should be prioritized for pedestrian comfort and safety with shared use pathways or sidewalks provided throughout.

Kelly Avenue and Poplar Street are especially important coastal access routes in the Planning Area. Both streets directly link Downtown Half Moon Bay and the coast, and while both have a highway crossing, the lack of continuous pedestrian walkways may discourage coastal visitors from walking between these primary visitor-serving and coastal recreation areas. Kelly Avenue and Poplar Street are also distinct from one another, and street design improvements must be context-sensitive, accounting for neighborhood character, surrounding land use, and traffic volumes and speeds for each case. Care must be taken to

protect natural features (such as the significant stands of Monterey cypress trees along portions of Poplar Street) as well as to relate to the agricultural uses creating a scenic streetscape along the north side of Kelly Avenue. 'Green street' practices can contribute to streetscape design while improving drainage patterns by incorporating landscaping and other natural, low-impact features into the stormwater management system. Incorporation of green infrastructure with the preferred pedestrian pathway approach – sidewalks, no-curb pathways, or other configurations – will need to conform to long-established and valued elements of the natural and built environment.

FIGURE 5-2: BICYCLE & PEDESTRIAN NETWORK & PLANNED IMPROVEMENTS



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Policies – Bicycle and Pedestrian Coastal Access

- 5-24. Bicycle and Pedestrian Master Plan.** Periodically update and implement the Bicycle and Pedestrian Master Plan to identify needs and prioritize improvements to bicycle and pedestrian facilities and programs.
- 5-25. Highway Crossings.** Work with Caltrans to ensure that improvements to Highway 1 and Highway 92 incorporate safe access for bicycles and pedestrians from all neighborhoods to the beach, downtown, and schools.
- 5-26. Downtown-Beach Pedestrian Connections.** Require improvements of pedestrian east-west connections between downtown and the Francis State Park Beach and Poplar Beach where applicable to new public and private development projects. Kelly Avenue and Poplar Street should be high priorities for walkway enhancements suitable to the adjacent neighborhood environment, and pedestrian amenities as well as directional signage.
- 5-27. Complete Trail System.** Complete the trail system within the Planning Area to allow safe and environmentally compatible access to parks, beaches, and recreational open space areas, integrating with the regional trail system and minimizing hazard risks and adverse impacts to environmentally sensitive habitat areas or their buffers. The complete trail system should include:
- a. Continuous pedestrian and bicycle trails along the coastline;
 - b. Trails along Pilarcitos and Frenchmans Creeks in accordance with Policy 6-52. Standards in Riparian Corridor Buffer Zones, connecting neighborhoods to the beaches and coastline, parks, and foothills;
 - c. Completion of pedestrian and bicycle trails west of Highway 1, and the new Eastside Parallel Trail east of and adjacent to Highway 1 along its entire length; and
 - d. Connectivity between off-road trails and major on-road pedestrian and bicycle routes, including the Town Boulevard, such that future improvements in the trail system also contribute to linkages between important sites (such as beaches, schools, and commercial centers).
- 5-28. Trails Accessible for All User Groups.** Trails designed and designated as multi-use shall be accessible for all user groups, including walkers, bicyclists, and equestrians (as land use policy allows). Ensure that the network provides appropriate trail amenities for each trail type or user group such as lighting, benches, and signage, as appropriate with respect to sensitive habitat area and visual resource protection. Encourage improvements that will reduce conflicts between all types of users, such as speed-graded trails.
- 5-29. Resource-Dependent and Coastal-Dependent Uses.** Public trails and beach accessways are considered resource-dependent uses, unless there is a habitat-specific limitation that precludes development or aggravates hazards. The California

Coastal Trail is considered a coastal-dependent use and its implementation, maintenance, and improvement along the coastline shall be a priority.

- 5-30. Minimize Potential Impacts of Trails.** Multi-use trails, associated amenities, and passive recreational features shall be located to minimize impacts to sensitive habitats and other sensitive surrounding land uses, such as residences and agriculture.
- 5-31. Improve Existing Trails.** Improve existing trails and trail amenities to address erosion, environmental concerns, and public safety. Consider options to retrofit or relocate existing trails and amenities to reduce impacts from sea level rise.
- 5-32. Trail Easements.** As part of the development approval process, obtain an irrevocable offer to dedicate or a permanent easement for multi-use trails on privately owned property where trails are proposed as part of the Half Moon Bay trail system. At a minimum, the dedicated easement shall have a width sufficient to allow an adequate multi-use trail, to protect the privacy of any residential structures built near the accessway, and to accommodate landward realignment needed for erosion and sea level rise impacts. For all new private development along the California Coastal Trail alignment, granting of lateral easements to allow for continuous public access along the shoreline shall be mandatory unless publicly owned blufftop land suitable for trail development and long-term maintenance intervenes between the development and the bluff edge.
- 5-33. Trail Setbacks.** New lateral trails along the bluff edge shall be set back a sufficient distance from the bluff edge to avoid impacts from erosion and sea level rise, generally 50 feet, and native vegetation shall be established and maintained between the trail and the edge to stabilize the blufftop. Outlooks and other trail amenities shall be incorporated to discourage damage from informal trails.
- 5-34. Trail Design and Maintenance.** Trails shall be designed and maintained for good drainage, using natural grades and surrounding vegetation; lasting ADA compliance; and sustainable implementation and maintenance with respect to ESHA and City resources (e.g. staffing, budget, capacity).
- 5-35. Restorative Access.** Identify public coastal access points, whether formal or informal, where public access is causing erosion or other impacts to sensitive habitat due to maintenance challenges or poor design. Provide alternate access, either in the same or a nearby location, designed to protect the surrounding habitat and allow for eventual restoration of the originally impacted access area. Options include raised boardwalks or seasonal bridges. Prioritize locations identified in the Bicycle and Pedestrian Master Plan including Wave Avenue and other streets in the Casa del Mar and Miramar neighborhoods that link directly to the California Coastal Trail.
- 5-36. Long-term California Coastal Trail Alignment.** Study, identify and implement future alignments of the California Coastal Trail that would be sufficiently protected from the highest projection of erosion and sea level rise scenarios and would preserve or establish native vegetation between the trail and the bluff edge.

- 5-37. California Coastal Trail Improvements.** Work with local land trusts and others to develop a formal segment of the California Coastal Trail between the Wavecrest open space and Redondo Beach Road. The trail should generally parallel the bluff edge, be designed to minimize erosion and potential adverse impacts to biological resources, and be aligned adequately inland to accommodate future sea level rise and bluff erosion projections. Connect the lateral trail with one or more vertical trails connecting to the beach, located and designed to minimize negative impacts. Encourage restoration of any areas damaged by existing formal or informal trails that will not be part of this formalized alignment. Phased restoration may be appropriate where there is a significant amount of informal trails and/or where land ownership allows such access.
- 5-38. Equestrian Trails.** Separate trails shall be maintained for equestrian use along the California Coastal Trail corridor. Use landscaping and signs to separate horse and pedestrian trails and to reduce erosion or other adverse impacts along bluff tops and watercourses. Trail crossings of watercourses shall be sustainable and minimize impacts to ESHA.
- 5-39. Trail Improvements at Surfers Beach.** Work with Caltrans and other agencies on a long-term solution to reduce erosion, enhance coastal access and recreation, and protect Highway 1 from future instabilities at Surfers Beach. This solution shall include enhancements of the segment of the California Coastal Trail between Coronado Street and the Pillar Point RV Park.
- 5-40. Naomi Patridge Trail Extension.** Extend the multi-use trail along the west side of Highway 1, connecting to a continuous parallel trail planned for the unincorporated Midcoast.
- 5-41. Downtown Multi-Use Trail.** Study opportunities for a Town Center trail that can link to other downtown bicycle and pedestrian improvements. Site and design trails and trail connections to protect priority uses such as sensitive habitat areas and agriculture.
- 5-42. Creekside Trails.** Use Half Moon Bay's creek system as part of a network of pedestrian and bicycle trails linking the City's parks and open space recreation areas and providing coastal access. Ensure that all new development along creeks is set back to accommodate planned trails. Consider the need for adaptable, non-permanent designs in erosive areas and along meandering creeks with the intention to be re-aligned over time to accommodate natural processes. Site trails to avoid adverse environmental impacts to riparian corridors and other environmentally sensitive habitat areas; to prevent erosion, sedimentation, and flooding along the creek beds and banks upstream and downstream from trails; and to protect other priority uses including agriculture.
- 5-43. Vista Trail.** Prepare a feasibility study of potential trail alignments east of the city's northwest neighborhoods for pedestrian use. To facilitate inland and upland relocation of equestrian use over time, the feasibility assessment shall consider alignment and design requirements to potentially accommodate equestrian use. The

presence of environmentally sensitive habitat and private agriculture operations will dictate trail alignment, design, and management. Until such feasibility study is prepared, trail easement requirements pursuant to Policy 5-32 will not apply. Future implementation shall include a funded plan for active oversight by a resource management agency to ensure protection of sensitive habitat areas, compatibility with adjacent land uses, and compliance with open space deed restricted areas.

Parking, Transit and Alternate Modes

Parking at Coastal Access Points

Public parking is provided at most vehicular access points to the coast including at the end of Mirada Road for Miramar Beach, Young Avenue for Dunes Beach, Venice Boulevard for Venice Beach, Kelly Avenue for Francis Beach, Poplar Street for Poplar Beach, and Miramontes Point Road for the Ocean Colony beaches. To the north, there is an informal parking lot on the east side of Highway 1 providing access to Surfers Beach that is just outside the City limits. A small lot with a restroom was also planned as part of upgrades to the Pillar Point RV Park. The parking area would be free for those with valid accessibility placards. To the south, Redondo Beach Road terminates in an informal parking area that the City intends to relocate due to its hazardous setting, and a parking structure adjacent to the Ritz Carlton provides public parking for beach access in the Ocean Colony area. Public parking and informal connections to the California Coastal Trail are also available at Smith Field Park at the end of Wavecrest Road. Public coastal access parking locations are shown on Figure 5-1.

The lots at Dunes, Francis, and Venice beaches are part of Half Moon Bay State Beach and are managed by the State. The lot at Poplar Beach is owned and managed by the City of Half Moon Bay. The State Beach and Poplar Beach parking lots charge for parking. Parking is free at Smith Field Park and Miramontes Point Road.

Particularly on the weekends and during special events, these public lots fill up and often result in spillover parking on residential streets. Currently, the provision of special event parking is the responsibility of the event promoter. Parking management for events is addressed as part of the City's special events permitting process. Provisions intended to help address increases in parking demand include allowing drivers to park along the shoulder of Highway 1 and Highway 92 and in certain private parking facilities. To further address the high parking demand during peak times, the LUP calls for the City to explore the feasibility of additional parking options.

On-Street Parking

Neighborhoods. With the exception of Ocean Colony, on-street parking is available in all of the city's established neighborhoods. Street frontage improvements (i.e. sidewalks, curbs, and gutters) and on-street parking configurations vary within each neighborhood. Neighborhoods in close proximity to coastal access points often experience parking spillover, particularly during the weekends and summer months. Nighttime neighborhood parking permit programs have been implemented in the past to reduce impacts on residents.

Downtown. Within downtown, the majority of parking is provided on-street with both parallel and angled on-street spaces. Several downtown parking surveys have been conducted, most recently in 2019, to determine the location and times of the highest parking occupancy rate. May and June represent months of peak demand in Half Moon Bay, particularly during weekends. The survey showed that during this time, the average parking occupancy level downtown was 50 percent. The highest occupancy rate (close to 100 percent) was observed during the afternoon hours in certain blocks. The peak weekend occupancy rate lasted from late morning to early evening on Saturdays and Sundays. Streets parallel to Main Street had much lower parking occupancy rates in comparison to Main Street. The LUP calls for expanding time-limited parking in the Town Center area to encourage employees and business owners to park farther away from their stores, opening up more convenient parking for customers and coastal visitors. As parking demand changes over time, the City could consider a range of options to manage parking supply such as time limits, differentiation in cost, and/or development in-lieu fees to support provision of additional parking areas.

Transit and Shuttles

Existing transit service to Half Moon Bay is provided by the San Mateo County Transit District, which operates SamTrans, the regional bus service; and RediCoast, a paratransit service. Two fixed-route SamTrans bus lines currently serve Half Moon Bay:

- Route 17 provides weekday service connecting Pacifica, Moss Beach, El Granada, Half Moon Bay, and Pescadero. The route travels along Highway 1 and uses Main Street and Kelly Avenue in Downtown Half Moon Bay.
- Route 294 connects Half Moon Bay with San Mateo Medical Center, Hillsdale Caltrain Station, Hillsdale Shopping Center, and the College of San Mateo, via Highway 92, with a loop in Downtown Half Moon Bay.

These two bus routes run very infrequently, making it difficult for both residents and visitors to use public transportation as a primary mode of travel. In addition, routes are limited and not well-matched to the travel needs of coastal visitors. Recreational visitors seeking access to coastal attractions and Half Moon Bay festivals lack convenient transit information and options and would benefit from more frequent and connected transit routes. Limited transit service puts additional strain on Highway 1 and Highway 92 during weekends and festivals and impedes mobility of both local residents and coastal visitors. Increasing transit service on the weekend or providing additional types of service during major events such as the Half Moon Bay Art and Pumpkin Festival would make public transit a more viable option. Transit stops lack amenities such as benches, shelters, and trash cans. Adding amenities will help create a more comfortable and pleasant waiting environment for transit riders. Shuttle services that could operate on weekends and during special events, allowing people to move between destinations such as Downtown Half Moon Bay, Pillar Point Harbor, the Ritz-Carlton and Half Moon Bay Golf Links, and the beaches, may also be a viable option.

Half Moon Bay's park-and-ride lot is located behind a grocery store in the Strawflower commercial center. The lot predominately serves residents who commute on SamTrans buses out of town for employment. It also serves some community college students. Visitors are not likely to use existing transit services and would not benefit from this commuter-

oriented park-and-ride lot. Addition of a multi-modal transit hub would have the potential to support visitor transit use. Such a hub would include bicycle sharing and parking facilities and be within walking distance of downtown and beaches. In the ideal case, a Half Moon Bay transit hub could be linked with direct service to a transit hub on the bay side of the peninsula. Locations for a bay-side visitor-serving transit hub, which would be active on weekends, could include parking lots at community college campuses or office parks, or the Millbrae Transit Center.

Emerging Alternate Modes and Technologies

Emerging alternative transportation modes and technologies could be implemented to improve coastal access. Visitors who need support with mobility may find it difficult to access the coastside. Jitneys and pedicabs, although not new concepts, could become an essential option for such visitors, as well as for Half Moon Bay's aging population. The expanded and interlinked multi-use trail network envisioned in the LUP presents an alternative transportation network that is not dependent upon the often severely congested Highway 1. Use of alternative transportation modes on the City's trail system should be context-sensitive, making appropriate use of smaller scale recreation-focused vehicles on recreation-focused trails such as the California Coastal Trail. Small and slow-moving motorized vehicles are used in a similar manner on multi-use trails in Europe. Modes that can utilize the multi-use trail system for assisted mobility should be evaluated and encouraged if they can improve coastal access overall, and especially so if they help the disabled.

Alternative fuel vehicles, particularly plug-in electric cars, have become common-place. Although use of these vehicles does not reduce traffic, they have lower environmental impacts than traditional gas-powered cars and trucks. They produce low or zero emissions and also tend to be very quiet. Standard motor vehicles idling in start and stop traffic along Highway 1 and Highway 92 during peak periods produce localized and concentrated emissions, thereby reducing air quality and increasing greenhouse gases emitted to the atmosphere. Broader availability of charging stations, especially where there is an existing electricity source, could encourage the use of electric vehicles for visitor trips to Half Moon Bay. The City has continued to install EV charging stations for public use through the downtown area. Other well-visited areas, such as the beach parking lots should be considered for EV charging stations if utilities are convenient and installation would not impact ESHA.

It is expected that autonomous vehicles will be a more widely introduced mode of transportation during the planning horizon of the LUP. The impacts of this emerging mode are being studied and the results have been mixed. In urban settings use of this mode increases both vehicle trips and miles traveled. Half Moon Bay's unique setting and circulation use patterns may have a different outcome depending on how autonomous vehicles are regulated.

Internet and smart-phone capabilities can also be used to the advantage of improving coastal access opportunities. Providing up-to-date, real time information about accessibility of coastal access points, capacity and pricing of public parking lots, public transit locations and options, and more could significantly improve visitor experiences and meet local needs. A Half Moon Bay-specific website and/or smart-phone application could be a viable option for providing such access and transit information to residents and visitors in real time.

Policies – Parking, Transit and Alternate Modes

Policies – Parking and Signage

- 5-44. Peak Period Parking Provisions.** In the downtown area and for beaches and other attractions, encourage improvements to parking systems such that they are sufficient to accommodate visitor surges during peak periods, including special events and weekends.
- 5-45. Parking Management.** Parking management strategies shall continue to be developed and implemented during peak periods and may include encouraging non-motorized transportation, expanding time-limited parking, and providing spillover parking lots, online parking capacity information, shuttle services, or establishing a demand-based parking program.
- 5-46. On-Street Public Parking.** Protect and enhance the City's on-street public parking supply, including by requiring new development to provide sufficient off-street parking and frontage improvements or payment of in-lieu fees to support such improvements.
- 5-47. Comprehensive Signage Program.** Implement a comprehensive program to provide wayfinding and informational signage to direct visitors to destinations such as the beaches and downtown, as well as public parking areas, and provide other necessary public information, ensuring that any signage is visually consistent and appropriate in the coastal setting.
- 5-48. Directional Signage.** Design signage to be visible from Highway 1 and Highway 92 and maintain visual harmony with the coastal setting.

Policies – Transit Access and Shuttle

- 5-49. Effective Transit Services.** Support efforts to maintain and operate local and regional transit services that meet the needs of Half Moon Bay residents, workers, and visitors.
- 5-50. Local and Regional Transit.** Work with SamTrans to increase bus frequencies and ensure that routes connect to regional transit options for coastal access and expanded commute options. Encourage SamTrans to provide frequent, especially peak weekend transit service to Half Moon Bay State Beach.
- 5-51. Bus Shelters.** Work with SamTrans to provide safe, comfortable, and weather-protective bus shelters throughout Half Moon Bay, including amenities such as electronic time schedules and countdowns, benches, and pedestrian-scale lighting, set back a safe distance from the roadway. Ensure that shelters are easily accessible for all users of the pedestrian and bicycle network.
- 5-52. Community Shuttle Service.** Establish a shuttle service to meet a variety of local needs. Options include a local circulator for seniors and youth throughout the week,

as well as weekend and event shuttles that can transport visitors between downtown, the beaches, and parking.

- 5-53. Visitor-Serving Transit Hub.** Collaborate with SamTrans to model potential ridership and identify potential locations for a Half Moon Bay and bay-side linked transit hubs.

Policies – Alternate Modes and Emerging Technologies

- 5-54. Promote Alternate Modes.** Explore the integration of alternative modes of transportation to enhance access to Half Moon Bay’s destinations while reducing vehicle trips, greenhouse gas emissions, and parking impacts. Support efforts to manage travel demand during periods of congestion through the distribution of information (e.g. through signage, online) about in-advance and real-time travel options and parking capacities, pricing of City-owned parking facilities, subsidy of transit options and the provision of facilities for walking and bicycling.
- 5-55. EV Vehicle Facilities.** Support installation of EV charging stations in all public parking areas and require EV charging stations in new non-residential and multi-family development.
- 5-56. Emerging Modes.** Allow smaller, slower moving and context-appropriate motorized vehicles to utilize streets and trails that can be easily shared to enable nonautomotive transportation. Study the use of emerging technologies including autonomous vehicles to ensure future implementation improves coastal access and does not contribute to congestion or other unintended consequences.
- 5-57. Transportation Demand Management.** Explore and support TDM programs that reduce the reliance of Half Moon Bay residents and, especially, visitors on use of the private automobile.
- 5-58. Scenic and Unique Facilities.** Support special transportation and recreational facilities in Half Moon Bay and surrounding areas, including the airport, marina, and equestrian facilities.

Coastal Recreation

The California Coastal Act seeks to ensure that the recreational needs of new residents will not overload nearby coastal recreation areas, by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to service new development. This section summarizes Half Moon Bay’s existing coastal recreational land, as shown in Figure 5-3, and the City’s approach to ensuring that local recreation needs are met. Parks and recreation are covered in more detail in the Conservation and Open Space Element of the City’s General Plan.

PUBLIC COASTAL RECREATION AREAS

Half Moon Bay extends over six miles along the Pacific Ocean. The coast is generally characterized by bluff-backed sandy beaches, with bluffs rising from about two to 80 feet in

height, with the higher bluffs in the south. About three-quarters (4.5 miles) of the coastline is in public ownership, including nearly the entire coastline from El Granada (Surfer's Beach) to the south end of Poplar Beach. A total of approximately 283 acres along the Half Moon Bay coastline are in public ownership and available for public recreation.

California State Parks owns and manages most of this land at Half Moon Bay State Beach, with smaller amounts managed by the City and County at Poplar Beach and Surfer's Beach. Half Moon Bay's beaches and bluffs support a variety of recreational uses including swimming, surfing, walking, jogging, fishing, crabbing, and horseback riding, as well as passive enjoyment. The California Coastal Trail currently extends along most of the coastline, with a gap in the North Wavecrest Restoration area between Wavecrest Road and Redondo Beach Road.

The Coastal Act provides for protection of these coastal recreation areas and uses, as well as the upland areas necessary to support them. For example, the blufftop area above Poplar Beach is needed to access the California Coastal Trail and the beach accessway, and thus must be protected in order to provide continued access to the trail and beach.

BEACHES

Surfer's Beach is estimated to draw some tens of thousands of visitors per year, mainly surfers. Because this beach is narrow and directly adjacent to Highway 1, with no easily accessible parking and no facilities, visitors who do not surf tend to visit other beaches. The beaches of Half Moon Bay State Beach (Roosevelt, Dunes, Venice, and Francis beaches) are all served by parking lots with restrooms and are accessible from the California Coastal Trail. Camping is available at Francis Beach. An estimated 684,000 visitors went to Half Moon Bay State Beach in 2013, according to the San Mateo County Department of Parks and Recreation.³ Poplar Beach is also served by public parking and is accessible from the California Coastal Trail as well as Half Moon Bay's central neighborhoods. Visitor use estimates are not available for Poplar Beach, or for the coastal beaches and bluffs to the south outside of the public recreation area.

Recreational beach use is a hallmark of Half Moon Bay's visitor-serving recreational attractions. Temporary events are encouraged in the coastal recreational areas of Half Moon Bay where they are low impact, do not block public access, and do not privatize an otherwise public area. Such events could include charity and outreach, organized beach clean-ups and surf classes, and small weddings or other special events. The LUP policies allow temporary events with a coastal development permit if they meet certain criteria.

Especially due to climate change, there are significant threats to the city's coastline. All beaches in Half Moon Bay are subject to potential loss from erosion and rising sea levels. Additionally, access points including the parking lot and pathways at Half Moon Bay State Beach and Dunes Beach, and Venice Beach may be affected. Some segments of the California Coastal Trail, including bridges at Pilarcitos Creek and Wavecrest, as well as informal trails along the coast at Wavecrest, are also subject to erosion and potential loss. Following preparation of a Sea Level Rise Vulnerability Assessment in 2016, the City has been studying

³ California Coastal Sediment Management Workgroup. Coastal Regional Sediment Management Plan for the Santa Cruz Littoral Cell, Pillar Point to Moss Landing, 2015.

localized erosion conditions along the bluff top between Kelly Avenue and the Seymour Ditch. These evaluations are indicating that the City needs to begin addressing the effects of drainage from the uplands in the near-term because this condition is causing accelerated erosion in advance of future predicted higher sea levels, which will undermine the bluffs from below.

OPEN SPACE

In addition to the public coastal recreation described above, there are approximately 631 acres of preserved open space in City limits. This open space includes land on beaches and adjacent to public recreation areas and greatly contributes to Half Moon Bay's coastal recreational environment.

Pursuant to Public Resources Code 65560, open space land is defined as follows:

"Open space land" is any parcel or area of land or water that is essentially unimproved and devoted to an open-space use as defined in this section, and that is designated on a local, regional, or state open-space plan as any of the following:

- (1) Open space for the preservation of natural resources, including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays, and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
- (2) Open space used for the managed production of resources, including, but not limited to, forest lands, rangeland, agricultural lands, and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers, and streams that are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
- (3) Open space for outdoor recreation, including, but not limited to, areas of outstanding scenic, historic, and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas that serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
- (4) Open space for public health and safety, including, but not limited to, areas that require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs, and areas required for the protection and enhancement of air quality.
- (5) Open space in support of the mission of military installations that comprises areas adjacent to military installations, military training routes, and underlying restricted airspace that can provide additional buffer zones to military activities and complement the resource values of the military lands.
- (6) Open space for the protection of places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

This definition acknowledges the many purposes and benefits of open space, including for recreation, resource production, and hazard avoidance. Of particular significance to Half Moon Bay, open space provides buffers and habitat for threatened, endangered, and unique

species. Adequate and linked open space accommodates dispersal and corridor movements for these species. Coastal access and recreation activities, although accommodated by open space, can adversely affect open space. Off-trail use in open space areas can harm habitat and exacerbate erosion. Non-compatible uses include flying drones, model airplanes, and motor-paragliders which disturb raptors and other species. Trash left by visitors in open space areas on the bluffs and at beaches pollutes these habitats and the ocean, attracts unwanted scavengers, and can be hazardous to public safety. Development, pollution, erosion and sea level rise also pose threats to open space, and, as such, coastal access and recreation. Although the Coastal Act calls for protection of such ocean-front land suitable for recreational uses, the means of protection should not include hard shoreline armoring that would adversely impact other open space areas and beach access and recreation opportunities.

Public recreation opportunities in open space areas must be compatible and protective of the open space resource. The Coastal Act allows for passive recreation uses in open spaces outside of ESHAs, as well as within ESHAs and buffer areas. Such uses, which are resource-dependent, include research, education, restoration and wildlife viewing as well as trails. Multi-use and restorative access trails were discussed above in the context of coastal access.

CITY PARKS

As of 2020, there are eight existing and two planned city parks in Half Moon Bay, totaling approximately 19.5 acres of developed parkland, or 38 acres of total parkland.

In addition to these park facilities, the City owns and/or manages a number of other parks or facilities that provide recreational amenities to residents and visitors alike. These include portions of Poplar Beach, Surfers Beach, and Redondo Beach; the Johnston House property east of Highway 1 (outside City limits); and segments of the Coastal, Naomi Patridge, and Pilarcitos Creek trails. The developed portions of these properties are also counted toward the City's park acreage standard. As part of the LUP update, a land use designation specific to City parks is included in the Land Use Diagram for all existing and planned parks. The General Plan update associated with this LUP will include a Healthy Community Element. This optional element addresses City park and recreation facilities as well as recreation programs specifically from the community's perspective. It is also consistent with LUP Coastal Recreation policies. In addition to the General Plan, the City also has a Parks Master Plan that identifies local parks needs and determines priorities for implementation.

The 1995 General Plan Parks and Recreation Element and original LUP's parkland standard has been 8 acres per 1,000 residents. This standard was not met and was not supported by implementation requirements in the Subdivision Ordinance, which secured only 4 acres per 1,000 residents for parkland dedication with new development. Recognizing that the beaches and bluffs provide a valuable and plentiful recreational resource for both residents and visitors, a revised standard of 5 acres per 1,000 residents is introduced in the draft Conservation and Open Space Element and Healthy Community Element of the General Plan. This is the maximum allowable parkland dedication requirement pursuant to the Quimby Act and is a standard that can be met and maintained. Maintaining this standard in the future would require the development of 9.8 acres of parkland to serve the community's anticipated population in 2040.

VISITOR-SERVING RECREATION AND ACCOMMODATIONS

Half Moon Bay offers a wide range of visitor-serving uses. Those most specifically associated with recreation are discussed in this section and include marine-based recreation, eco- and agritourism, equestrian use, and golfing. Lodging, including camping, hotels, motels, and short-term rentals are also discussed in this section because these facilities support the Coastal Act's policy for the provision of access, including low-cost accommodations. Other hospitality visitor-serving commercial uses are addressed in Chapter 2. Development.

Marine-Oriented Recreation

Half Moon Bay is especially suited to marine-oriented visitor-serving recreation. Active water sports include surfing and kayaking. Motorized recreation sports such as jet skis, although less common in Half Moon Bay, may be disruptive to surrounding passive and active recreation. Fishing and marine-oriented ecotourism, as noted below are also readily available. Local maritime history, marine habitats, and current research could all be features of marine-oriented visitor-serving uses.

Ecotourism

Half Moon Bay's environmental setting supports numerous ecotourism options. Birding tours are popular, and the range of avian species present is considered exceptional. Blufftops and nearby Princeton Harbor and Fitzgerald Marine Reserve offer whale watching and opportunities to explore local marine life. Many visitors simply come to enjoy a hike through the highly varied coastal habitat areas where trail access is provided.

Agritourism

Half Moon Bay is part of a well-established Midcoast agricultural community. The Pumpkin Festival is the city's long-standing and iconic attraction which brings thousands of visitors to pumpkin patches in and around the city. Produce stands, flower markets, Christmas tree farms, and farm-to-table events have further promoted the local agricultural industry for agritourism. Tasting rooms, farm-stays, and education opportunities for adults and children (e.g. tours, classes, and day camps) appeal to both visitors and the local population. Policies supportive to agritourism are included in the Agriculture chapter of the LUP.

Equestrian Uses

Horseback riding tours and lessons and horse stabling and boarding are offered at Sea Horse Ranch and Mahoney's Horses and Ponies, both located on Highway 1 just south of Frenchmans Creek. Historically, equestrian facilities have also existed on the north side of the creek. These equestrian operations make use of the Coastal Equestrian Trail, which runs generally parallel to the California Coastal Trail from Young Avenue south to Poplar Street. While in the State park, horses are restricted to the designated horse trail and are not permitted on the beach.

Equestrian access to and along the beaches and streams has been observed to accelerate bluff and stream-bank erosion. The use can also adversely affect water quality of creeks and beaches. Although some demand may exist for expansion of existing equestrian uses, expansion must be limited in accordance with protection of the beach, dune, and stream environment and any impacts must be mitigated. There are additional opportunities for

equestrian recreational use in the hillsides east of Highway 1, where equestrian uses include a horse breeding operation.

Golf Courses

The private Half Moon Bay Golf Links spreads across the southern end of the city west of Highway 1, with two 18-hole courses offering some of the most scenic and well-known golf facilities in the country. The Golf Links also includes a 4-acre practice facility, bocce ball court, rental and sales shops, and restaurant. Although they provide for a highly desired recreational experience for many visitors, golf courses often utilize significant amounts of water as well as fertilizers, pesticides and other chemicals to stay consistently maintained to a very high standard for turf. They are also typically not a lower-cost recreation option. Thus, in considering potential new golf courses, these characteristics must be taken into account in order to fulfill obligations under the California Coastal Act for protecting, encouraging or providing lower-cost visitor and recreational facilities; as well as for protecting water quality.

Campgrounds

Half Moon Bay is home to several campgrounds primarily accommodating campers and recreational vehicles (RVs), with a total of 232 campsites as of 2016. Half Moon Bay State Beach provides 46 sites that accommodate trailers or RVs and seven tent-only sites at Francis Beach. The Sweetwood Group Camp is located at the northern end of the State Beach near Frenchmans Creek and provides one large group tent site. Outside of the State Beach, Pillar Point RV Park has 48 RV sites at Pillar Point Harbor at the far north end of Half Moon Bay. The privately-owned Half Moon Bay RV Park and Campground, on Wavecrest Road, and Pelican Point RV Park, on Miramontes Point Road, provide 65 and 72 sites, respectively.

In practice, it is known that sometimes RV facilities become occupied by long-term tenants and are no longer available to visitors. This situation may serve to supplement the community's need for affordable housing; however, the actual inventory of lower-cost accommodations, which is supported by California Coastal Act policy, may be limited and not adequate to meet future needs. At the time of the LUP update, the City was in receipt of a preliminary application for a new RV park on Wavecrest Road. The site is immediately west of the Half Moon Bay RV Park and Campground and a 46-room hotel which opened in 2018.

Lodging

There are over 900 rooms in hotel and motel establishments in the Coastsides region, including 587 in Half Moon Bay. A hotel data sample analyzed for the General Plan and Local Coastal Plan Update in 2014 reveals that Coastsides rooms are well distributed across the price scale. The Half Moon Bay hotel market skews more towards the upscale and luxury market, with only about 5 percent of rooms considered economy class while nearly 60 percent are luxury class. Table 5-1 presents a summary of the major lodging establishments in the city, from north to south. As shown in the table, there is a lack of lower-cost lodging options. Lower-cost options can encourage visitors to have longer stays, further supporting the City's tourist industry and economic development.

Half Moon Bay hospitality establishments include the Beach House Hotel, America's Best Value Inn & Suites, Comfort Inn, Coastsides Inn, Half Moon Bay Inn, Best Western Plus, Ritz-

Carlton, and Half Moon Bay Lodge. Smaller establishments, including the Mill Rose and Old Thyme Inns, along with other inns and bed and breakfasts, provide additional room inventory primarily within the downtown area.

There is also an actively expanding short-term rental market in Half Moon Bay, on the order of 100 short-term rentals operating within the city limits for at least a portion of each calendar year as of 2020. Short-term rentals also operate in the unincorporated Midcoast. Smaller short-term rentals, especially those that are “hosted” by the property owner, provide a lower-cost accommodation option for visitors to the coast. The City has been generally supportive of this use, and as of the 2020 Land Use Plan update, has begun to consider approaches for short-term rental regulations that will ensure neighborhood compatibility and protect against loss of housing stock. Policy in Chapter 2. Development addresses short-term rentals as a residential land use.

Based on historic hotel performance trends and generally consistent with forecasts for state and national travel spending, analysis done for the General Plan and Local Coastal Program Update estimated that the Coastsides could add nearly 73,000 room nights by 2017, or roughly 200 rooms.⁴ The study assumed a stabilized occupancy rate of just over 70 percent in 2012, which is considered strong by hospitality professionals. The Coastsides Chamber of Commerce reported similar occupancy rates through 2018. The economic study considered the hotel market area to include Half Moon Bay and the unincorporated Midcoast and noted that projected hotel room growth could occur anywhere within the Coastsides. Half Moon Bay was also considered to be particularly well positioned because of its established downtown shopping district, restaurants, access to the beach and other local, regional and state parks. The study was completed before the Best Western Plus’s 46 rooms became available in 2018, and prior to recent growth and better monitoring of the local short-term rental supply, both within the city and the unincorporated Midcoast.

At the time of this LUP update, the City was in the process of reviewing a prospective hotel project at the former L.C. Smith Estate PD for about 130 rooms; and had also received a preliminary application for a hotel and RV park at the Surf Beach/Dunes Beach PD which included a 200-room hotel with a spa and conference facilities and 170 RV spaces. Pending further economic and other studies, it is unclear if this much additional lodging will be needed over the course of the planning horizon or if the city’s infrastructure can support this level of intensification of new visitor-serving uses.

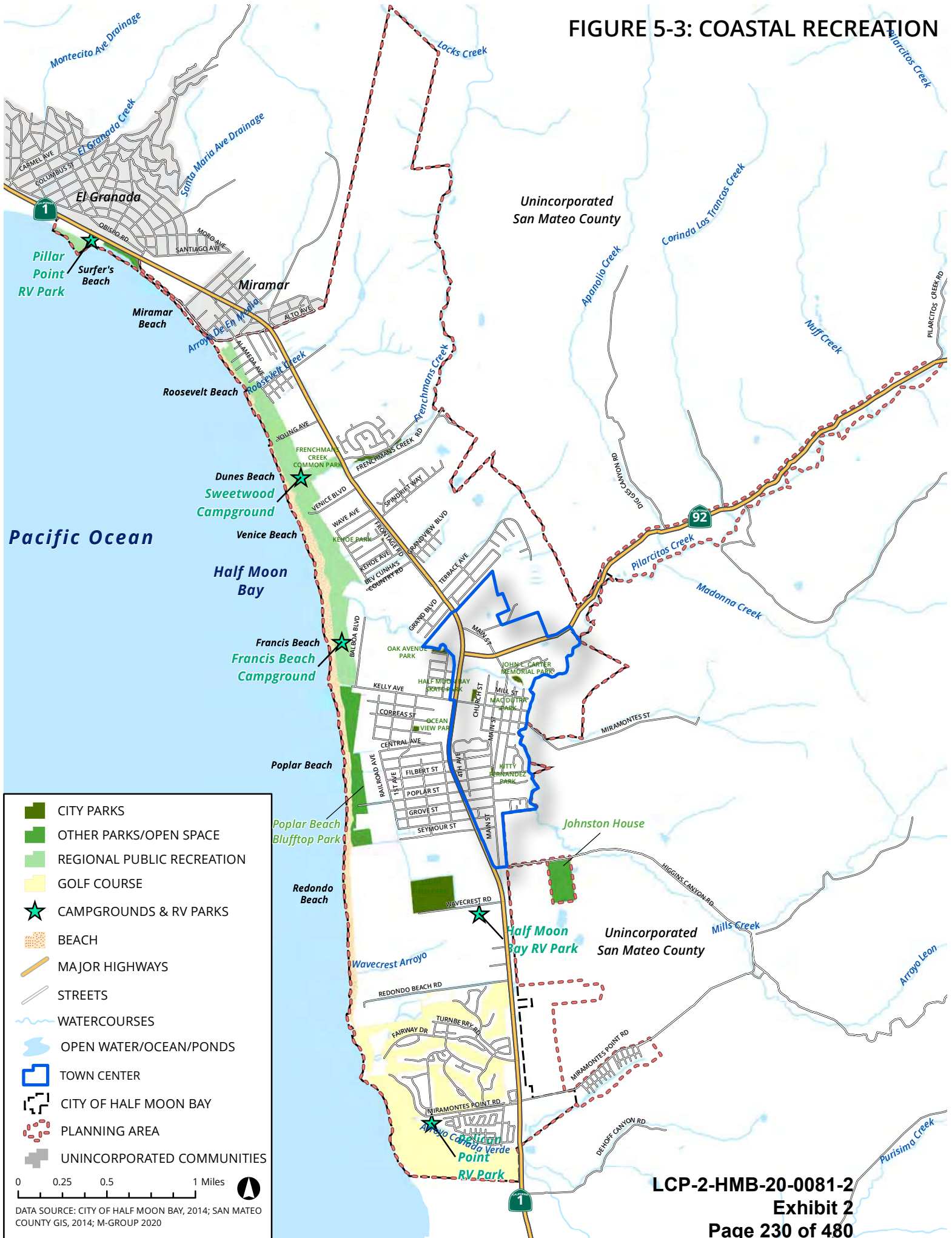
⁴ Economics & Planning Systems, Inc. Plan Half Moon Bay Economic and Real Estate Conditions and Trends, 2014.

Table 5-1: Half Moon Bay Major Lodging Establishments (2020)

<i>Hotel Name</i>	<i>Year Built</i>	<i>No. of Rooms</i>	<i>Hotel Class</i>
Beach House Hotel	1996	54	Luxury Class
America's Best Value Inn	1991	27	Economy
Quality Inn	1999	54	Upper Midscale
Coastside Inn	1991	52	Midscale
Half Moon Bay Inn	1934	13	Upper Midscale
Best Western Plus	2018	46	Upper Midscale
Ritz-Carlton	2001	261	Luxury Class
Half Moon Bay Lodge	1976	80	Upper Midscale
Total		587	

Sources: Smith Travel Research, 2014; EPS, 2014; City of Half Moon Bay, 2020.

FIGURE 5-3: COASTAL RECREATION



Policies – Coastal Recreation

Policies – General

- 5-59. Development Adjacent to Parks and Recreation.** Require new development adjacent to parks and recreation areas to be sited and designed to prevent impacts to and be compatible with the continuance of those recreation areas.
- 5-60. Parks Master Plan.** Require implementation of the Parks Master Plan in association with public and private development projects as applicable. Implement and update a strategic parks master plan that identifies needs and prioritizes improvements to park facilities and programs.
- 5-61. Parkland Standard.** Provide a minimum of 5 acres of City parkland including neighborhood and community park area for each 1,000 city residents, with additional parkland for specialized and low use park acreage. The parkland standard shall ensure that new development accommodates the recreational needs of future residents in pace with population increase.
- 5-62. Acquisition for Coastal Access and Recreation.** Facilitate dedications of lands as required by this LUP in order to reduce land purchases, expand opportunities for coastal access and recreation, and ensure proper management of such lands by a public agency or local land trust.
- 5-63. Open Space Dedications.** Any offers of dedication or easement required by this Plan shall be reserved until accepted by the State Department of Parks and Recreation, other State agencies, San Mateo County, or a special district.

Policies – Coastal Recreation

- 5-64. Coastal-dependent and Recreational Uses.** Define coastal-dependent development and uses to mean any development or use which requires a site on or adjacent to the sea to be able to function at all. Upland areas necessary to support coastal-dependent and recreational uses shall be reserved for such uses, where feasible. In a zone extending approximately 300 feet inland from the mean high tide line, priority shall be given to coastal-dependent and related recreational activities and support facilities. New or redeveloped camping facilities shall be set back from the beach, bluffs, and near-shore areas reserved for day use activities at least 100 feet or more as necessary to be safe from shoreline hazards.
- 5-65. Recreational Uses on Oceanfront Lands.** Recreational uses on ocean front lands that do not require extensive alteration of natural environment shall have priority over recreational uses requiring substantial alterations. This shall apply to both public and private development. Off-road vehicle use shall be prohibited in regional recreation areas, as designated on the Land Use Map.
- 5-66. Recreational Uses in Public Park Lands.** Development unrelated to on-site recreational activities shall not be permitted in publicly owned recreational areas, with the exception of habitat restoration, the State Park administrative and

maintenance operations located at Half Moon Bay State Beach, and limited housing for State Parks staff.

- 5-67. Temporary Events.** Ensure that temporary events minimize impacts to public access, recreation, and coastal resources through the special events permitting process. Require a coastal development permit for temporary events that have the potential to result in significant adverse impacts to public access or coastal resources during the peak summer months.

Policies – Commercial Recreation and Visitor-Serving Commercial Uses

- 5-68. No-Cost and Lower-Cost Visitor and Recreational Facilities.** Protect no-cost and lower-cost public access, visitor-serving, and recreational facilities including overnight accommodations from removal, redevelopment, and/or environmental hazards including erosion. These include major, free recreational attractions such as the California Coastal Trail and numerous beaches; and low-cost facilities such as Half Moon Bay State Park and other camping and RV facilities.
- 5-69. Development Priority for Visitor-Serving and Recreational Uses.** Prioritize visitor-oriented and recreational uses in all areas designated for Commercial Visitor-Serving on the Land Use Map. Encourage the addition of visitor-serving uses and overnight accommodations in these areas, particularly those that are lower-cost.
- 5-70. New Overnight Accommodations.** Consider the carrying capacity of the coast, visitor demand over a range of affordability levels for various accommodation types, and consistency with all applicable LCP and General Plan policies before approving any new overnight accommodation development proposals. Prioritize lower-cost visitor-serving accommodations over higher-cost lodging.
- 5-71. Inclusion of Lower-Cost Accommodations.** Require new development of higher-cost accommodations and/or new development that would fail to provide lower cost accommodations on land where that use is allowed and suitable to provide lower-cost accommodations (e.g. a lower-cost bank of rooms in a hotel, a hostel, campground, cabins, etc.). The lower-cost accommodations may be provided as listed in order of priority as follows: on-site, off-site, or through payment of an in-lieu fee fund to support establishment of new lower-cost accommodations in the coastal zone. The provision of lower-cost accommodations shall equate to 15 to 25 percent of the number of approved high-cost accommodations in consideration of the price range of the proposed lodging options and provision by the development of other low-cost public access and recreation benefits such as airport shuttles, bicycle rentals, or trail connections. Require full replacement of any existing low-cost rooms proposed for conversion to high-cost rooms.
- 5-72. Use Requirements for Overnight Accommodations.** All overnight accommodations, including campgrounds and RV spaces, shall be for transient use only (i.e., occupancy of such units shall be for a period not to exceed 30 days).
- 5-73. Location of Visitor-Serving Commercial Development.** Generally locate new visitor-serving commercial development including facilities that provide lodging,

food and automobile services within the Town Center area, within and near Ocean Colony/Half Moon Bay Golf Links, near Pillar Point Harbor, within Planned Developments where such uses are deemed appropriate, and in locations along Highway 1 designated for Commercial Visitor-Serving on the Land Use Map.

- 5-74. Marine-oriented Visitor-Serving Uses.** Support any required permitting or licensing for marine-oriented visitor-serving land uses, such as education, surf schools, and low-cost water-oriented recreation. Continue to protect coastal areas suited for such uses and ensure equal opportunity for such uses to operate.
- 5-75. Ecotourism and Agritourism.** Encourage and permit sustainable and economically viable visitor-serving ecotourism and agritourism activities as consistent with the policies of the City's Local Coastal Program.
- 5-76. Location of Commercial Recreation.** Locate new or expanded commercial recreational facilities in areas already established for such uses, with priority to locations in the Town Center area of the City, except where use characteristics are incompatible with densely developed commercial areas (e.g. stables and golf courses). Commercial facilities which are strongly connected with and support recreational uses shall be encouraged to locate in close proximity to the recreational activity.
- 5-77. Equestrian Facilities.** Where equestrian facilities are a permitted use, ensure that new facilities will not conflict with other public recreation uses and require that existing equestrian facilities and activities improve practices to prevent and remediate adverse environmental impacts to creeks and other ESHAs as necessary. New facilities east of Highway 1 should be sited in consideration of potential linkages to future City or San Mateo County trail systems, and especially in locations where other equestrian-oriented events and programs can be accommodated.
- 5-78. Commercial Recreation Water Quality Impacts.** Evaluate the potential water quality impacts of commercial recreation uses, including equestrian facilities and golf courses, to inform future decisions regarding the types of commercial recreation uses that can be accommodated in the city.

6. Natural Resources

A chief objective of the California Coastal Act is the preservation, protection, and enhancement of coastal resources, including land and marine habitats, and water quality. This chapter identifies and maps the sensitive habitat areas and special status species found in the Planning Area while requiring site-specific studies in association with development proposals to make up-to-date determinations of present and potential natural resources. Policies provide for protection and enhancement of Half Moon Bay's natural resources, including biological resources, hydrology, and coastal water quality.

Land Use Plan Framework

Half Moon Bay is rich in a variety of natural resources due to its setting between the Pacific Ocean and Santa Cruz Mountains, its expanses of open space and undeveloped areas, and its biodiversity. The city's diverse habitats, watercourses, beaches and bluffs serve important biological, hydrological, scientific, and educational roles in the community. While over a quarter of the Planning Area is undeveloped or in open space use, these lands are often vulnerable to disturbance from invasive species, development, and other anthropogenic pressures. In addition to land use controls, habitat restoration and active stewardship play a significant role in achieving Coastal Act objectives for natural resource protection and enhancement. The rarest and most ecologically important habitats are protected from non-resource dependent development. On this point, the Coastal Act includes special protections for Environmentally Sensitive Habitat Areas (ESHAs).

Per Coastal Act Section 30240, no development, except uses dependent on the resource (i.e., restoration, nature study, and low-intensity public access), is allowed within any ESHA, and such allowable development must be undertaken in a manner that protects against any significant disruption of its habitat values. This policy further requires that development adjacent to ESHA be sited and designed to prevent impacts that would significantly degrade ESHA and to be compatible with the continuance of the biological integrity of the habitat areas. Finally, development adjacent to parks and recreation areas must be sited and designed to prevent impacts.

Streams (also referred to as watercourses) and associated riparian habitat are protected in order to maintain biological productivity and coastal water quality. Section 30231 requires that natural vegetation buffer areas that protect riparian habitats be maintained, and that the alteration of natural streams be minimized. Section 30236 limits channelization, dams, or other substantial alterations of rivers and streams to only three purposes: necessary water supply; protection of existing structures where there is no feasible alternative; or

improvement of fish and wildlife habitat. Such projects must also incorporate the best management practices feasible.

Marine resources are protected to sustain the biological productivity of coastal waters and to maintain healthy populations of all species of marine organisms under Section 30230 requires that marine resources be maintained, enhanced, and where feasible restored. Section 30233 provides that the diking, filling, or dredging of open coastal waters, wetlands, or estuaries may only be permitted where there is no less environmentally damaging alternative, where feasible mitigation measures have been provided to minimize adverse environmental effects and where restricted to a limited number of allowable uses.

The Coastal Act also recognizes the potential adverse effects of alterations to the natural shoreline, including impacts on natural processes such as erosion and sedimentation. Coastal Act policy limits the construction of shoreline-altering devices to those needed to protect coastal-dependent uses, existing structures, and public beaches, and requires such development to mitigate any adverse impacts (Section 30235).

Finally, the Coastal Act requires that the biological productivity and quality of coastal waters be protected. Section 30231 requires managing wastewater discharges, controlling runoff, protecting groundwater and surface water, encouraging wastewater reclamation, and protecting streams, to maintain and enhance water quality.

COASTAL ACT DEFINITIONS AND POLICIES

The following California Coastal Act definitions and policies are relevant to the protection, preservation, and enhancement of natural resources and are incorporated into this LUP.

“Environmentally Sensitive Habitat Areas (ESHAs)” are defined as any area in which plant or animal life or their habitats are either rare or especially valuable because of their nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. (Coastal Act Section 30107.5)

“Wetland” is defined as lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. (Coastal Act Section 30121)

Article 4: Marine Environment

Section 30230 Marine resources; maintenance and uses

Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 Biological productivity; water quality

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the

protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30232 Oil and hazardous substance spills

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

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

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- (4) Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- (6) Restoration purposes.
- (7) Nature study, aquaculture, or similar resource-dependent activities.

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

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities

in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

(d) Erosion control and flood control facilities constructed on watercourses can impede the movement of sediment and nutrients that would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for these purposes are the method of placement, time of year of placement, and sensitivity of the placement area.

Section 30235 Construction altering natural shoreline

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.

Section 30236 Water supply and flood control

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Article 5: Land Resources

Section 30240 Environmentally sensitive habitat areas; adjacent developments

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

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

Biological Resources

The Planning Area contains a diverse mixture of plant communities and habitat types adapted to the coastal zone, local topography and soils, and historic uses of the region. These habitats may provide foraging, nesting, breeding, dispersal, and shelter opportunities for numerous species, including special status species such as species listed as rare, threatened or endangered under federal or state Endangered Species Acts or considered as species of special concern. Numerous habitat types are present in the region that are unique to coastal areas along the Pacific Ocean, including some that are considered sensitive by the California Department of Fish and Wildlife (CDFW) and California Coastal Commission (CCC), or that have been designated by the U.S. Fish and Wildlife Service (USFWS) as critical habitat for threatened or endangered species under the federal Endangered Species Act.

HABITAT TYPES IN THE PLANNING AREA

Habitat types in the Planning Area are depicted in Figure 6-1 and include the following:

- **Marine Environment.** The marine environment was mapped as defined by the USFWS Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al 1979) as follows: “The marine system consists of the open ocean overlying the continental shelf and its associated high energy coastline.” Thus, the marine environment was mapped to include areas of ocean, sandy beach, and small estuaries at the mouths of major creeks. Wildlife found in the marine environment includes shorebirds, seabirds, and marine mammals such as harbor seals, sea otters, whales, and dolphins. Sandy beaches in the Planning Area have the potential to support foraging, nesting, and wintering activities of the Western Snowy Plover (*Charadrius alexandrinus nivosus*).
- **Sea Cliffs.** Where present, sea cliffs were mapped as areas of steep slope in the interface between the marine environment and land-based habitats. Sea cliffs are exposed to wind and waves and are largely devoid of vegetation in steep areas due to erosion but may support species found in Central Coast Scrub. These areas may provide refuge or nesting habitat for migratory and resident water-associated birds.
- **Central Coast Riparian Scrub.** Central Coast Riparian Scrub communities typically occur within or adjacent to stream channels, along seasonally flooded arroyos, or in depressional areas located close to ground water. Canopy vegetation within riparian corridors are typically dominated by willow (*Salix* sp.) but may include other riparian trees such as red alder (*Alnus rubra*), understory shrubs such as California blackberry (*Rubus ursinus*), and poison oak (*Toxicodendron deversilobum*), and non-native invasive species such as stinging nettle and Cape ivy. Riparian scrub can support a wide diversity of wildlife due to the availability of important features such as nesting sites, close proximity to water, escape and thermal cover, food, and dispersal corridors. Special-status species known to utilize Central Coast Riparian Scrub within the Planning Area and surrounding vicinity include California red-legged frog (*Rana draytonii*), Central California Coast steelhead (*Oncorhynchus mykiss*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), San Francisco dusky-footed woodrat

(*Neotoma fuscipes annectens*), and San Francisco Common Yellowthroat (*Geothlypis trichas sinuosa*).

- **Central Coast Scrub.** Central Coast Scrub consists of dense low evergreen shrubs and herbs with scattered grassy openings. Central Coast Scrub in Half Moon Bay is generally dominated by coyote brush (*Baccharis pilularis*) and includes other scrub species such as yellow bush lupine (*Lupinus arboreus*), seaside golden yarrow (*Eriophyllum staechadifolium*) and coast buckwheat (*Eriogonum latifolium*). This habitat occurs on windy, exposed sites with typically shallow, rocky soils and may provide habitat for Choris' popcorn flower (*Plagiobothrys chorisianus* var. *chorisianus*) or perennial goldfields (*Lasthenia californica* ssp. *macrantha*), suitable foraging and nesting habitat for numerous avian species, upland habitat for California red-legged frog, and upland habitat for the San Francisco garter snake.
- **Central Dune Scrub.** Central Dune Scrub occurs in areas of sand accumulation, generally forming a dense coastal scrub community of shrubs, subshrubs, and herbs. Typical species in this habitat include Coastal sagewort (*Artemisia pycnocephala*), Yellow Bush lupine (*Lupinus arboreus*), lizard tail (*Eriophyllum staechadifolium*), coyote brush (*Baccharis pilularis* ssp. *pilularis*), and California goldenbrush (*Ericameria ericoides*). Dune habitat, including degraded dunes, are mapped in Figure 6-1 to include the Central Dune Scrub vegetative community and foredunes free of vegetation to the base of the slope based on topographic information. This dune system in Half Moon Bay supports the federally listed Western Snowy Plover.
- **Coastal Freshwater Marsh.** Freshwater marsh is typically associated with natural and man-made ponds, intermittent and perennial creeks, wetlands, and roadside swales within or surrounded by other plant communities. Mapped areas include artificial impoundments, permanently flooded marshes, and seasonal marsh, including those with characteristics of vernal pools. Vegetation within permanently flooded marshes may include tules (*Scirpus* sp.) and cattails (*Typha* sp.). Seasonal wetlands, mostly found within depressions in grasslands, are composed of mostly low-growing annual herbs and taller perennials such as rushes (*Juncus* sp.), sedges (*Carex* sp.), California goldfields (*Lasthenia californica* ssp. *californica*), common spikerush (*Eleocharis macrostachya*), tall flat-sedge (*Cyperus eragrostis*) and pennyroyal (*Mentha pulegium*). These wetland habitats support a variety of wildlife species, especially birds and amphibians, which utilize the emergent vegetation for cover. Special status species such as California red-legged frog and San Francisco garter snake may utilize this habitat for foraging and cover and in some cases breeding.
- **Non-Native Grassland.** Non-native grasslands are composed of annual grasses with annual and perennial forbs, especially in years of favorable rainfall. This community provides foraging habitat for a variety of wildlife species, including raptors and small mammals, and provides nesting sites for birds. Grassland may provide upland habitat for California red-legged frog.
- **Coastal Terrace Prairie.** Coastal Terrace Prairie is a rare, species-rich habitat type occurring along the California Coast comprised of a combination of grasslands, wetlands and scrub habitat. Within the Planning Area, Coastal Terrace Prairie occurs

on bluffs in the vacant fields west of Railroad Avenue and within Wavecrest and contains a highly variable mixture of native perennial grasses and forbs, native and non-native annual forbs, and non-native grasses. This habitat type is also supportive of raptor foraging. Native species found in this habitat type include maritime brome (*Bromus maritimus*), California oat grass (*Danthonia californica*), meadow barley (*Hordeum brachyantherum*), and perennial goldfields (*Lasthenia californica* ssp. *macrantha*), a special status species. The areas mapped as coastal terrace prairie in Figures 6-1 and 6-2 are well-developed with a presence of distinctive coastal terrace prairie flora and composition of at least 75 percent native species. It is likely that there are additional areas that could be delineated as coastal terrace prairie, based on the Coastal Commission's guidance to define coastal terrace prairie as areas with at least 10 percent cover of native grasses and less than 25 percent cover of shrubs.

- **Agriculture.** Agricultural areas in the Planning Area are regularly disturbed by disking or plowing of soil and other agricultural operations. The edges of cultivated fields tend to support ruderal vegetation along disturbed margins of farm roads and in fallow areas. Wildlife observed in agricultural habitat in the Planning Area includes species protected by the MBTA or California Fish and Game Code.
- **Eucalyptus Forest.** Eucalyptus forests consist of dense stands of non-native, invasive eucalyptus trees (*Eucalyptus globulus*), and are usually devoid of an understory due to their invasive nature. Stands are frequently found in cooler coastal areas and along stream courses and may provide roosting or nesting habitat for avian species protected under the MBTA or California Fish and Game Code, roosting and overwintering opportunities for monarch butterfly, and habitat for San Francisco dusky-footed woodrat. However, the habitat quality for these species is typically low in comparison to native tree stands and vegetation. In general, eucalyptus is considered an invasive species with negative effect on biological diversity and healthy ecosystem functions, and removal is supported for invasive species eradication, fuel modification, and other restoration needs where it can be timed and phased with native replantings to avoid impacts to any sensitive species.
- **Monterey Cypress Forest.** Monterey cypress forest is dominated by Monterey cypress (*Hesperocyparis macrocarpa*), with a relatively open understory of scattered dwarf shrubs and perennial herbs. Monterey cypress stands often contain a component of Monterey Pine. This species has been widely planted and naturalized throughout coastal California, including San Mateo County and Half Moon Bay. This community provides nesting and roosting opportunities for various avian species (including raptors) and bat species and can also support monarch butterfly overwintering sites.
- **Monterey Pine Forest.** Monterey pine forest is dominated by Monterey pine (*Pinus radiata*), with some coast live oak (*Quercus agrifolia*) contributing to the canopy structure. Monterey pine stands often contain a component of Monterey cypress. All Monterey pines in the Planning Area are non-native stands that were originally planted during urbanization of the area and are now mostly in declining conditions from bark beetle infestation, disease, and old age.

- **Man-made Impoundments and Ponds.** The Planning Area contains a number of man-made impoundments and ponds, typically used or formerly used for agriculture, irrigation, and stormwater detention or treatment. Man-made impoundments and ponds can contain vegetation characteristic of Coastal Freshwater Marsh and can also provide habitat for waterfowl, waterbirds, and in some cases listed species such as California red-legged frog or San Francisco garter snake.
- **Ruderal.** Ruderal habitats are characterized by a lack of vegetation or are dominated by non-native and invasive weedy plant species. Ruderal habitats often occur along roadsides and fence lines, near developments, and in other areas experiencing severe surface disturbance. The wildlife habitat values provided by this community generally include species adapted to urban environments.
- **Landscaped.** Landscaped habitats occur in association with developed land uses and are planted vegetative communities primarily consisting of ornamental plantings and lawns. Mapped landscaped habitats include parks, cemeteries, and golf courses. Wildlife species adapted for life urban environments can be found in these habitats.
- **Developed/Urban.** Developed/urban habitat is found in regularly and highly disturbed areas, including areas that have been developed. These areas are not likely to support special status species due to the high level of disturbance and human activity; however, they may support nesting birds.

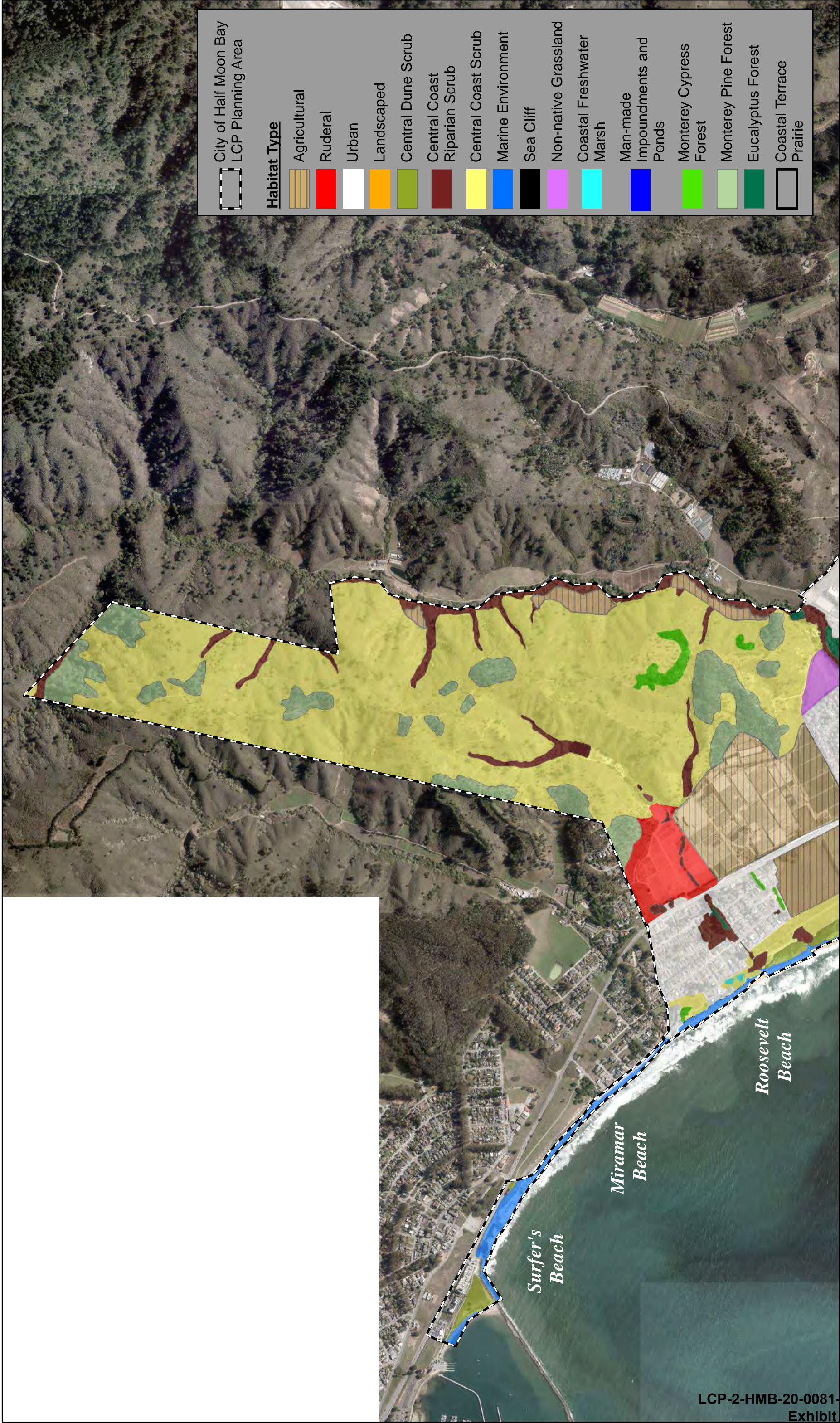


Figure 6-1: Habitat Types in the LCP Planning Area, Sheet 1 of 3

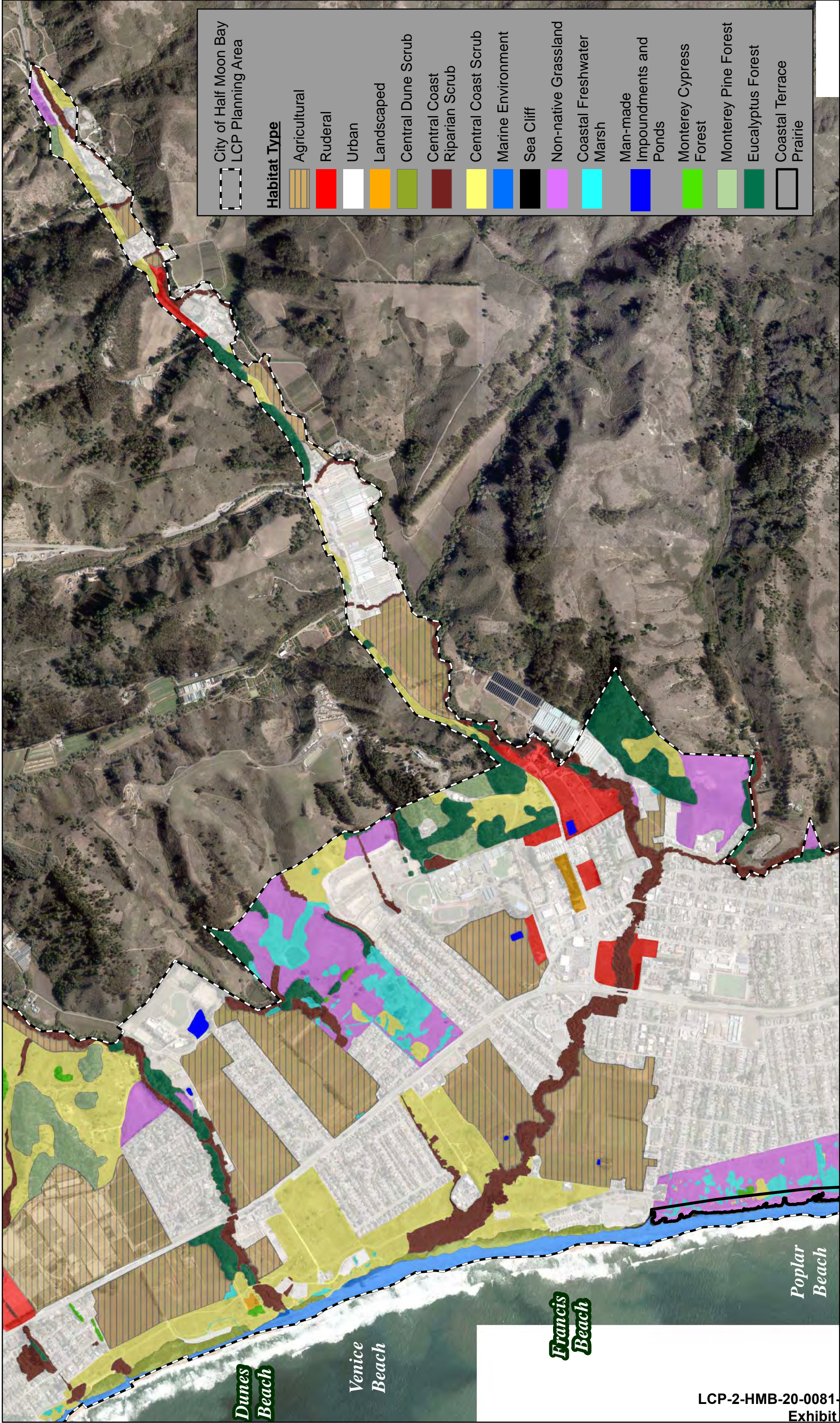
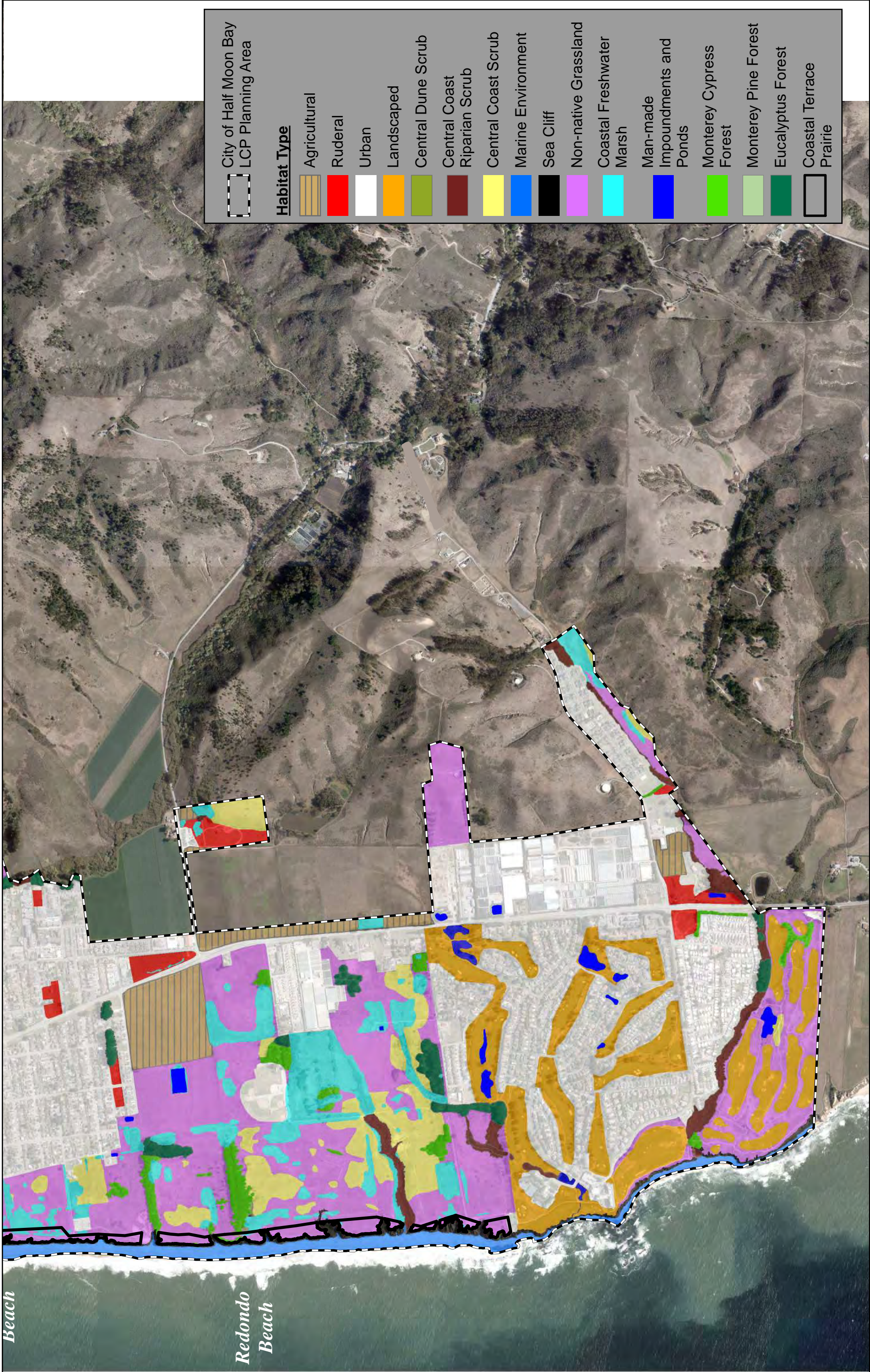


Figure 6-1: Habitat Types in the LCP Planning Area, Sheet 2 of 3



Beach

Redondo Beach

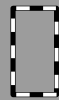












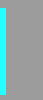



	City of Half Moon Bay LCP Planning Area
Habitat Type	
	Agricultural
	Ruderal
	Urban
	Landscaped
	Central Dune Scrub
	Central Coast Riparian Scrub
	Central Coast Scrub
	Marine Environment
	Sea Cliff
	Non-native Grassland
	Coastal Freshwater Marsh
	Man-made Impoundments and Ponds
	Monterey Cypress Forest
	Monterey Pine Forest
	Eucalyptus Forest
	Coastal Terrace Prairie



Figure 6-1: Habitat Types in the LCP Planning Area, Sheet 3 of 3

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SPECIAL STATUS SPECIES IN THE PLANNING AREA

Special status species are identified through the lists of rare, threatened, or endangered species prepared under the California and Federal Endangered Species acts; the lists of California Fully Protected Species and Species of Special Concern administered by CDFW and list of Bird Species of Conservation Concern administered by USFWS; and the rare, threatened, or endangered plant rankings administered by the California Native Plant Society (CNPS).

A brief summary of the listing status, relevant biology, and status within Half Moon Bay Planning Area of the key special status species most likely to be present in the Planning Area follows (see Appendix C for a comprehensive summary table). This information was gathered through the California Natural Diversity Data Base (CNDDB) and through consultation with local experts. Animal species include (1) federally listed species; (2) state-designated species of special concern and/or USFWS Bird Species of Conservation Concern; and (3) California Fully Protected species. Monarch butterfly (*Danaus plexippus*) overwintering sites are also protected by CDFW and are discussed in the following section. Two special status plant species occur within the Planning Area: Choris's popcorn flower and perennial goldfields. These species are also discussed in greater detail below.

Unique species are also discussed below. Included in this discussion is the importance of the ocean bluffs in the area of the North Wavecrest Planned Development (PD) and the area west of Railroad Avenue to wintering populations of birds of prey.

Special Status Animal Species

Central California Coast Steelhead. Central California populations of steelhead trout (*Oncorhynchus mykiss*) were federally-listed as threatened under the Federal Endangered Species Act in August 1997. Steelhead require well-oxygenated streams with riffles and loose, silt-free gravel substrate for spawning. The USFWS designated Critical Habitat for steelhead within the Planning Area in Pilarcitos Creek, Frenchmans Creek, Arroyo Leon and Apanolio Creek. Pilarcitos Creek and Frenchmans Creek are also historic spawning sites for steelhead.

California Red-legged Frog. The California red-legged frog (CRLF, *Rana draytonii*) is a federally-listed threatened species and California species of special concern. CRLF are observed in aquatic and terrestrial habitats, including marshes, streams, lakes, reservoirs, ponds and other permanent, or near permanent, sources of water. CRLF are expected to breed in permanent deep-water pools with dense stands of overhanging willows and emergent vegetation. However, they have been observed in a variety of aquatic environments, including stock ponds and artificial pools with little to no vegetation. CRLF are usually observed near water but can move long distances over land between water sources during the rainy season. With the onset of winter rains, CRLF move from dry-season refuges to ponds and streams that can support breeding and successful tadpole development. During the dry season, CRLF seek suitable refuge sites that may include deep water holes in drying streams, springs and spring boxes, seeps, and ground squirrel burrows. To find these refuges, frogs will travel up to three miles in moist coastal areas. CRLF occur in the Planning Area at several known breeding sites and in suitable upland foraging and dispersal habitat.

San Francisco Garter Snake. The San Francisco garter snake (SFGS, *Thamnophis sirtalis tetrataenia*) is one of eleven recognized subspecies of the common garter snake (*Thamnophis sirtalis*) and is federally listed as endangered and state-listed as endangered and Fully Protected. The SFGS is endemic to the San Francisco Peninsula and is known only in San Mateo County. SFGS are observed most often near standing water, such as ponds, lakes, marshes and sloughs. However, temporary ponds and other seasonal water bodies are also utilized. Emergent and bankside vegetation such as cattail, bulrush, and rush are preferred cover. Breeding habitat for the species also includes open grassy uplands and shallow marshland with adequate emergent vegetation and the presence of both Pacific tree frog (*Pseudacris regilla*) and CRLF. The species also uses the dens of burrowing mammals as winter hibernacula and as cover much of the year.

There have been only two known sightings of SFGS in Half Moon Bay, both along Pilarcitos Creek. The species occurs in the Pilarcitos Creek watershed near Crystal Springs Reservoir, and many herpetologists suspect the species may occur along Pilarcitos Creek between Half Moon Bay and Crystal Springs within areas that have not been surveyed. Other areas within the Planning Area have been recognized by the USFWS and other regulatory agencies as suitable dispersal habitat for SFGS including the Pullman Watercourse, areas of Wavecrest, the Venice Beach PD area, Beachwood, and Pacific Ridge.

California Brown Pelican. California Brown Pelican (*Pelecanus occidentalis californicus*) is considered a Fully Protected Species in California. California Brown Pelicans are found in estuarine, marine subtidal, and marine pelagic waters throughout coastal California. Important habitat for pelicans during the nonbreeding season includes offshore rocks, islands, sandbars, breakwaters, and pilings. California Brown Pelican is fairly common in near-shore ocean waters near the Planning Area and forms large roosts during the summer months on the Pillar Point Harbor breakwaters.

Western Snowy Plover. Western Snowy Plover (*Charadrius alexandrinus nivosus*) is a federally listed threatened species and a species of special concern in California. Western Snowy Plover is a small shorebird that lives in sandy coastal beaches, salt pans, coastal dredged spoils sites, dry salt ponds, salt pond levees and gravel bars. The plover is present in California in fall and winter where it nests from April through August. Nests typically occur in flat, open areas with sandy or saline substrates and sparse vegetation. Western Snowy Plovers nest at Half Moon Bay State Beach, which has been designated as Critical Habitat for the species by the USFWS under the federal Endangered Species Act. A flock of approximately 40 to 60 birds also winters in the area of Half Moon Bay State Beach each year.

White-tailed Kite. The White-tailed Kite (*Elanus leucurus*) is a medium-sized raptor that is considered a Fully Protected Species in California and is a USFWS Bird Species of Conservation Concern. The species occurs in grasslands, agricultural fields, wetlands, oak woodland and oak savannah habitats in coastal foothills and valleys and nest in a variety of trees and shrubs. White-tailed Kites are a common winter foraging species in the mix of grassland, wetlands, and scrub habitats on the ocean bluffs of Wavecrest and the area west of Railroad Avenue. In 2007, a communal roost of over 100 individuals was seen in this area. White-tailed Kites have also nested in recent years at Wavecrest in trees south of Smith Field

park. The San Mateo County Breeding Bird Atlas (Sequoia Audubon Society 2001) also indicates possible past nesting near Miramontes Point.

Short-eared Owl. Short-eared Owl (*Asio flammeus*) is considered a California species of special concern for its nesting habitat due to threats related to habitat loss, grazing, invasive plants, water management projects and disease. Short-eared Owls are found in the open country of grasslands and marshes, inhabiting areas where small mammals, especially voles, are plentiful. The ocean bluffs of the North Wavecrest area between Redondo Beach Road and Seymour Street and the area west of Railroad Avenue support annual wintering populations of Short-eared Owl. Wavecrest is considered the most important wintering site for the species in San Mateo County.

Olive-sided Flycatcher. Olive-sided Flycatcher (*Contopus cooperi*) is a USFWS Bird Species of Conservation Concern and is a designated species of special concern in California with respect to nesting habitat. Olive-sided Flycatcher is a summer resident and migrant mainly from mid-April through early October with the breeding season in California extending from early May to late August. Nesting birds require large, tall trees, usually conifers, for nesting and roosting sites. Suitable breeding sites for Olive-sided Flycatcher within the Planning Area are mainly inland where taller Monterey pines and Monterey cypress occur.

Loggerhead Shrike. Loggerhead Shrike (*Lanius ludovicianus*) is a California-designated species of special concern and a USFWS Bird Species of Conservation Concern. Loggerhead Shrikes are resident and winter visitors in lowlands and foothills throughout California. Preferred habitat includes open areas such as desert, grasslands, and savannah. Loggerhead Shrikes nest in thickly foliated trees or tall shrubs and forage in open habitats which contain trees, fence posts, utility poles, and other perches. Suitable habitat for Loggerhead Shrike in the Planning Area includes the grassland and scrub habitats of the coastal bluffs. During some winters, Loggerhead Shrikes can be found on the coastal bluffs between Redondo Beach Road and Kelly Avenue and in the area around the Johnston House.

Yellow Warbler. The Yellow Warbler (*Setophaga petechia*) is a USFWS Bird Species of Conservation Concern and is a California species of special concern with respect to nesting habitat. Yellow Warblers occur in Coastal California as a migrant and summer resident between March and October with breeding in riparian habitats from April to July. The species has been known to nest in riparian habitats along Pilarcitos Creek, but suitable nesting habitat for the species occurs anywhere with significant riparian canopy along watercourses in the Planning Area.

San Francisco Common Yellowthroat. The San Francisco Common Yellowthroat (*Geothlypis trichas sinuosa*), a type of warbler, is designated as a California species of special concern. This year-round resident of San Mateo County is found in freshwater marshes, coastal swales, riparian thickets, brackish marshes, and saltwater marshes. The species requires thick, continuous cover such as tall grasses, tule patches, or riparian vegetation for foraging and prefers willows for nesting. Nesting has been documented within the Planning Area along Frenchmans Creek, Pilarcitos Creek, near the sewer treatment plant, within the riparian corridors at Wavecrest, and in a marsh within a man-made detention pond on the Half Moon Bay Golf Links (Old Course).

Grasshopper Sparrow. Grasshopper Sparrow (*Ammodramus savannarum*) has been designated as a species of special concern in California. Grasshopper Sparrows are common only in the Great Plains, but numbers are in decline due to loss of habitat, conversion of pasture to row crops, and fire suppression. Grasshopper Sparrows prefer moderately open grassland habitats with scattered shrubs. In California, agricultural and urban development has fragmented habitats within the range of the species. Suitable habitat for Grasshopper Sparrow can be found throughout the mosaic of grassland, wetland and coastal scrub habitats on the ocean bluffs between Kelly Avenue and Redondo Beach Road. Grasshopper Sparrow is documented as a nesting species at Wavecrest and the coastal terrace prairie habitat between Poplar Avenue and Kelly Avenue, as well as the grasslands near the Johnston House¹.

Bryant's Savannah Sparrow. Bryant's Savannah Sparrow (*Passerculus sandwichensis alaudinus*) is designated as a species of special concern in California primarily due to its limited range. Bryant's Savannah Sparrow is restricted to a narrow coastal strip between Humboldt Bay and Morro Bay, with a population center around the San Francisco Bay. This sparrow occupies low tidally-influenced habitats, adjacent ruderal areas, moist grasslands within and just above the fog belt, and sometimes drier grasslands. A sizeable and important breeding and wintering population in Half Moon Bay has been documented in Wavecrest and the area west of Railroad Avenue. Lower densities exist south of Redondo Beach Road adjacent to the golf course and some also occur to the north of Kelly Avenue².

San Francisco Dusky-footed Woodrat. The San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), is a California species of special concern. The species is most abundant in riparian, oak woodland and scrub habitats. It typically constructs houses out of sticks and other debris that are used for rearing young, protection from predators, resting, food storage, thermal protection and social interaction. Houses are constructed on the ground, in rocky outcrops or in trees and are often found in concentrations along riparian corridors. In the Planning Area, San Francisco dusky-footed woodrat is fairly common in riparian vegetation and Central Coast Scrub, and in wooded habitats (including eucalyptus) in the eastern portion of the Planning Area. This species is not mapped on Figure 6-3 due to the prominence of habitats supporting this species but is afforded protection as a state-designated species of special concern and as a biological resource in the LUP policies below. Standard mitigation practice for this species in suitable habitats is for a qualified biologist to conduct a preconstruction survey for woodrat houses and, if outside the woodrat nesting and rearing season, accomplish relocation of houses from proposed construction areas to open space areas in the project vicinity prior to initiation of construction activities.

Monarch Butterfly. The monarch butterfly (*Danuas plexippus*) is considered California Rare and is a CDFW ranked S3 (state vulnerable) species. The species is well-known for its north-south migrations from Canada to Mexico which span the lives of several generations. Monarch butterfly winter roost sites, typically used between October and February, consist of hundreds or thousands of monarchs in wind-protected tree groves close to sources of

¹ Alvaro Jaramillo, Local Expert Ornithologist and Senior Biologist, San Francisco Bay Bird Observatory, 2018

² Alvaro Jaramillo, Local Expert Ornithologist and Senior Biologist, San Francisco Bay Bird Observatory, 2018

nectar and water. On the California coast, these roosts usually form in eucalyptus, but Monterey pine and Monterey cypress groves are also used. However, native tree species are typically preferred for their higher habitat value.

Within the Planning Area, winter roost sites for monarchs noted in the CNDDDB include the eucalyptus grove area of Frenchmans Creek (specifically the area around the Sweetwood Group Camp) and a eucalyptus grove southwest of Seymour Street in the North Wavecrest area. This latter roost formed in a protected area within the eucalyptus grove that resulted from a fire and was used by monarchs as an overwintering site in the late 1980s and early 1990s. Information in the CNDDDB suggests that monarchs ceased using the site after an arson fire in 1992.

Special Status Plant Species

Choris's popcornflower. Choris's popcornflower (*Plagiobothrys chorisianus* var. *chorisianus*) is an annual dicot native and endemic to California. The species is known from coastal terrace prairie, chaparral, northern coastal scrub and wetland/riparian habitats, but almost always occurs under natural conditions in wetlands. Choris's popcornflower is known from populations in Alameda, Santa Cruz, San Mateo, and San Francisco Counties. The species is listed by the California Native Plant Society (CNPS) on list 1B.2 (species considered to be rare, threatened or endangered in California and elsewhere). Reports in the CNDDDB show that Choris's popcornflower occurs within wetlands scattered throughout various locations at Wavecrest and the open fields west of Railroad Avenue.

Perennial goldfields. Perennial goldfields (*Lasthenia californica* ssp. *macrantha*) is an annual dicot that is native and near endemic to California (found only slightly beyond California borders). The species is known primarily from Coastal scrub habitats but occasionally occurs in wetlands. The species has been recorded in San Luis Obispo, San Mateo, Marin, Sonoma, and Mendocino Counties. The species is listed by the California Native Plant Society (CNPS) on list 1B.2. Perennial goldfields are known from Central Coast Scrub and pockets of wetlands scattered throughout various locations within the open fields west of Railroad Avenue and at Wavecrest, primarily within the Coastal Terrace Prairie habitat along the coastal bluff edge.

Unique Species – Winter Raptor Foraging Habitat

Unique species are defined as an organism or group of organisms that has scientific or historic value, few indigenous habitats, some characteristic(s) that draw attention or are locally uncommon, or that are common only locally or are of limited range. In the Planning Area, unique species include winter raptor populations found on the ocean bluffs and open fields of the North Wavecrest area between Redondo Beach Road and Seymour Street and the area west of Railroad Avenue. The local Audubon chapter (Sequoia Audubon Society) considers Wavecrest to be the most important habitat for wintering raptors in San Mateo County, as it supports a greater diversity of raptors and number of individuals than any other site. Factors contributing to the value of this area as a wintering area for raptors are the habitat that includes grasslands, coastal terrace prairie, and wetlands for foraging; shrubs for cover; trees for roosting; and a large population of California voles that provide ample prey. Together,

these factors combine to create a large, contiguous mosaic of suitable conditions for wintering raptors. Both CDFW and the Coastal Commission have recognized the importance of these populations and the need to conserve this area.

Observations by residents of the neighborhood, area birders, and ornithologists demonstrate extensive winter use of these ocean bluffs by Red-tailed Hawk (*Buteo jamaicensis*), Red-shouldered Hawk (*Buteo lineatus*), White-tailed Kite (*Elanus leucurus*), Northern Harrier (*Circus cyaneus*), and American Kestrel (*Falco sparverius*). Other species such as Sharp-shinned Hawk (*Accipiter striatus*), Cooper's Hawk (*Accipiter cooperii*), Great Horned Owl (*Bubo virginianus*) and Barn Owl (*Tyto alba*) are also present but are less common. Peregrine Falcon (*Falco peregrinus*), Merlin (*Falco columbarius*) and Osprey (*Pandion haliaetus*) are observed annually. A population of between one and five Short-eared Owls (*Asio flammeus*) winters at Wavecrest and the surrounding area each year, and these birds are sometimes seen foraging over the fields on winter mornings or evenings. Rare bird of prey species that have been sighted in this area include Golden Eagle (*Aquila chrysaetos*), Prairie Falcon (*Falco mexicanus*), Swainson's Hawk (*Buteo swainsoni*), Ferruginous Hawk (*Buteo regalis*), Rough-legged Hawk (*Buteo lagopus*) and Burrowing Owl (*Athene cunicularia*).

Many of these raptor species are species with special status. Raptor species that are designated as species of concern in California for nesting habitat, are on the California Watch List, or are designated as USFWS Bird Species of Conservation Concern include regularly-occurring species in the area such as Northern Harrier, Sharp-shinned Hawk, Cooper's Hawk and Short-eared Owl, and the rare Prairie Falcon and Osprey, all of which occur in the area in winter and are not breeding species at this location. Several of the raptor species are state-designated species of concern or USFWS Bird Species of Conservation Concern for both nesting and wintering habitat, including Golden Eagle, Ferruginous Hawk and Merlin. Merlin are seen on the bluffs every year, and the fields of Wavecrest and the area west of Railroad Avenue are an important wintering habitat for this species. Ferruginous Hawk is seen occasionally in winter and Golden Eagles have been observed but are rare. Peregrine Falcon is a species of concern in California and a USFWS Bird Species of Conservation Concern and has been documented nesting at Devil's Slide north of the city.

Table 6-1 below presents the Planning Area's habitat types with their corresponding regulatory context and associations with special status species.

Table 6-1: Habitats and Special Status Species Summary

<i>Habitat Type</i>	<i>Potential Special Status Species Associations</i>	<i>Regulatory Considerations</i>
Marine Environment/Sandy Beach	<ul style="list-style-type: none"> • Western Snowy Plover • Marine mammals (e.g., seals, whales) • California Brown Pelican • Migratory sea birds including Marbled Murrelet • Central California coast steelhead 	<ul style="list-style-type: none"> • Regulated by USFWS, NMFS, CDFW, RWQCB, and CCC • Contains critical habitat for Western Snowy Plover • Seasonal passage of anadromous fish • Marine Environment including sandy beach is considered ESHA
Sea Cliff	<ul style="list-style-type: none"> • Migratory birds/raptors 	<ul style="list-style-type: none"> • Regulated by CCC • Sea cliff is considered ESHA
Central Coast Riparian Scrub	<ul style="list-style-type: none"> • Central California coast steelhead • California red-legged frog • San Francisco garter snake • San Francisco Common Yellowthroat • Yellow Warbler • San Francisco dusky-footed woodrat • Migratory birds/raptors 	<ul style="list-style-type: none"> • Regulated by USACE, RWQCB, USFWS, NMFS, CDFW, and CCC • May be considered Wetlands/Waters of the U.S. and State • May contain critical habitat for central California coast steelhead • Central Coast Riparian Scrub could be considered ESHA
Central Coast Scrub	<ul style="list-style-type: none"> • California red-legged frog • San Francisco garter snake • Winter raptor foraging for Short-eared Owl, and other raptor species • Loggerhead Shrike foraging • Migratory birds/raptors • Choris's popcorn flower • Perennial goldfields 	<ul style="list-style-type: none"> • May be regulated by CCC • Potential for sensitive plant species • Central Coast Scrub could be considered ESHA
Central Dune Scrub	<ul style="list-style-type: none"> • Western Snowy Plover • Migratory birds/raptors 	<ul style="list-style-type: none"> • Regulated by CCC • Central Dune Scrub is considered ESHA

<i>Habitat Type</i>	<i>Potential Special Status Species Associations</i>	<i>Regulatory Considerations</i>
Coastal Freshwater Marsh	<ul style="list-style-type: none"> • California red-legged frog • San Francisco garter snake • San Francisco Common Yellowthroat • Western pond turtle • Winter raptor foraging for Short-eared Owl, and other raptor species • Migratory birds/raptors 	<ul style="list-style-type: none"> • Regulated by USACE, USFWS, RWQCB, CDFW, and CCC • Considered Wetlands/Waters of the U.S. and State • Coastal Freshwater Marsh is protected wetland and could be considered ESHA
Non-native Annual Grassland	<ul style="list-style-type: none"> • Winter raptor foraging for Short-eared Owl, and other raptor species • Migratory birds/raptors • California red-legged frog • San Francisco garter snake • Bryant's Savannah Sparrow and Grasshopper Sparrow nesting • Loggerhead Shrike foraging • Choris's popcorn flower • Perennial goldfields 	<ul style="list-style-type: none"> • May be regulated by CCC • Potential for sensitive plant species • Non-native Annual Grassland could be considered ESHA
Coastal Terrace Prairie	<ul style="list-style-type: none"> • Winter raptor foraging for Short-eared Owl, and other raptor species • Migratory birds/raptors • Upland habitat for California red-legged frog • Upland habitat for San Francisco garter snake • Bryant's Savannah Sparrow and Grasshopper Sparrow nesting • Loggerhead shrike foraging • Choris's popcorn flower • Perennial goldfields 	<ul style="list-style-type: none"> • Regulated by CCC • Potential for sensitive plant species • Coastal Terrace Prairie is considered ESHA

<i>Habitat Type</i>	<i>Potential Special Status Species Associations</i>	<i>Regulatory Considerations</i>
Agriculture	<ul style="list-style-type: none"> • Winter raptor foraging for Short-eared Owl, and other raptor species • Migratory birds/raptors 	<ul style="list-style-type: none"> • May be regulated by RWQCB, CCC
Forest (Includes eucalyptus, Monterey cypress, and Monterey pine)	<ul style="list-style-type: none"> • Migratory birds/raptors • Monarch butterfly overwintering sites • San Francisco dusky-footed woodrat • Olive-sided Flycatcher • Bats 	<ul style="list-style-type: none"> • May be regulated by CCC • Non-invasive forest habitats could be considered ESHA
Man-Made Impoundments/Ponds	<ul style="list-style-type: none"> • California red-legged frog • San Francisco garter snake • Migratory birds 	<ul style="list-style-type: none"> • May be regulated by USACE, USFWS, RWQCB, CDFW and CCC • May provide foraging and aquatic habitat for special status species • Man-made impoundments and ponds could be considered ESHA
Ruderal / Landscaped	<ul style="list-style-type: none"> • Migratory birds/raptors • Bats 	<ul style="list-style-type: none"> • In the case of high-fidelity nesting, ruderal/landscaped habitats could be considered ESHA
Developed/ Urban	<ul style="list-style-type: none"> • Migratory birds/raptors • Bats 	<ul style="list-style-type: none"> • In the case of high-fidelity nesting, developed areas could contain ESHA

ENVIRONMENTALLY SENSITIVE HABITAT AREAS

The LCP defines environmentally sensitive habitat areas (ESHAs) as any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. ESHAs can be categorized into three types: terrestrial, wetlands, and watercourses. Terrestrial ESHA may include the marine environment, sea cliffs, dunes, coastal terrace prairie, and non-aquatic habitat for special status and unique species, such as those described in the previous section; wetlands may include perennial and seasonal freshwater marsh; and watercourses may include perennial, intermittent, and ephemeral streams and channels with or without riparian vegetation. As wetlands and watercourses have significantly different biological functions and protections under the Coastal Act, the LCP treats these habitat types distinctly from terrestrial ESHA.

The following figures are maps of lands where ESHA may occur based on previous biological studies, known conservation areas, and citywide biological mapping efforts conducted for the 2020 Land Use Plan update. Areas mapped as “ESHA” are either previously well-studied with known natural resource value or are likely to contain ESHA and occur on land that has been permanently conserved (e.g., by conservation easement). Areas mapped as “Potential ESHA” may support sensitive habitat or special status species but require further site-specific study to make this determination. Potential ESHA is meant to serve as a flag for further studies to be undertaken when development is proposed. In both cases, however, the maps are illustrative and for information purposes only; site-specific biological studies are required as part of proposed development review to determine the presence and extent of ESHA and its required buffer zone.

The following figures include:

- Figure 6-2, Habitat ESHAs: A map based on the presence of wetlands, watercourses, marine environment, sea cliffs, dunes, and coastal terrace prairie.
- Figure 6-3, Special Status Species ESHAs: A map based on the known and potential ranges and documented observations of special status and unique species.
- Figure 6-4, ESHA Summary Map: A map presenting all ESHAs and Potential ESHAs as depicted in Figures 6-2 and 6-3 on a single map for easier interpretation.

ESHA could also occur on any vacant or undeveloped parcel or portions of developed properties throughout the Planning Area, but may not have been mapped because it has not been subject to previous biological study by qualified professionals. It is important, therefore, that all vacant parcels with potential to support sensitive plant or animal species be subject to a biological resource evaluation early in any project review process and prior to any ground disturbance, in order to determine if sensitive habitats or special status species or their habitats are present and require protection as mandated by the policies of the Coastal Act and this LCP.



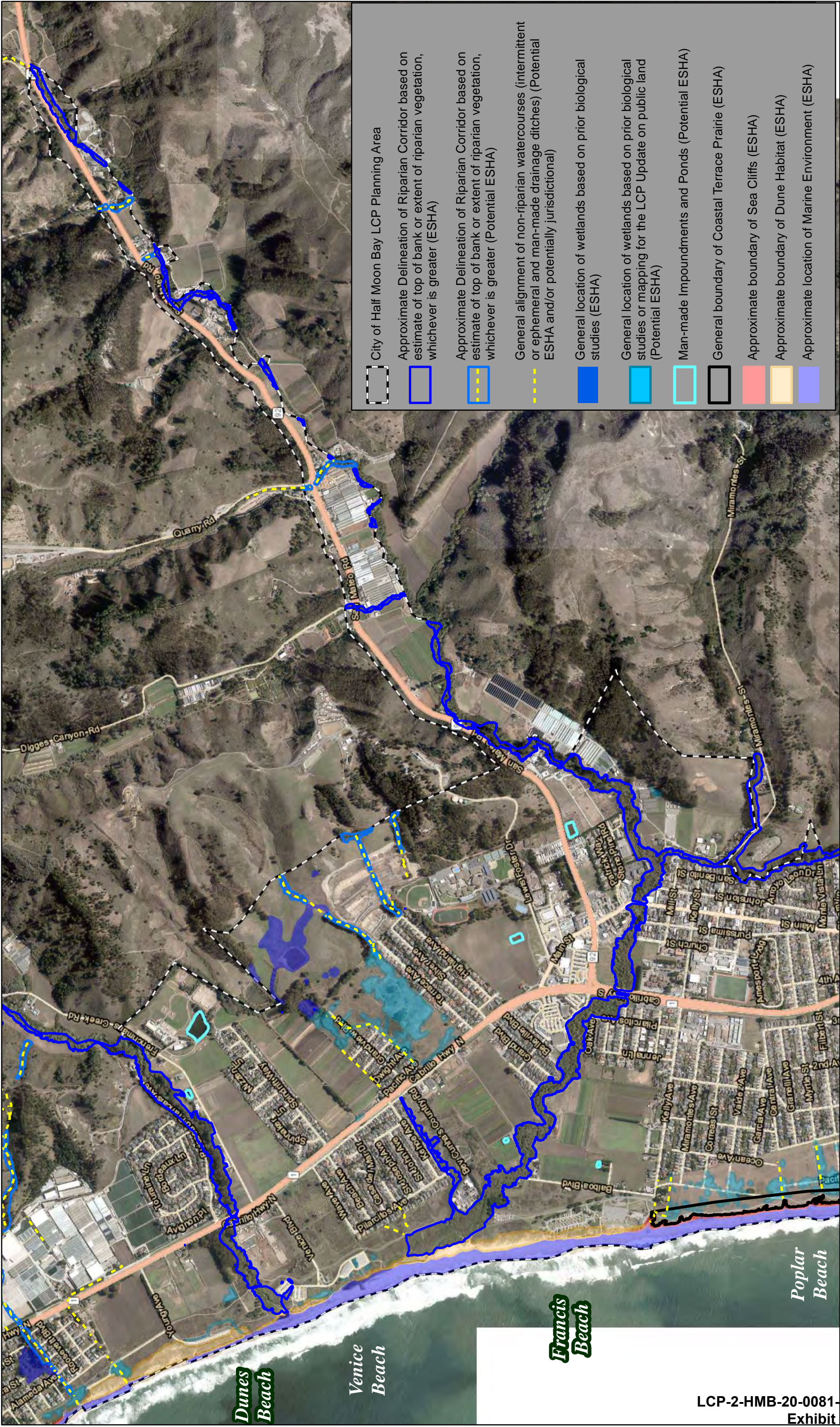
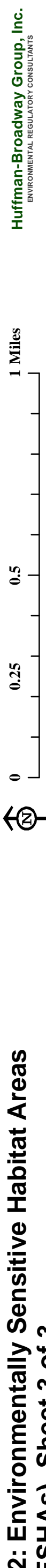
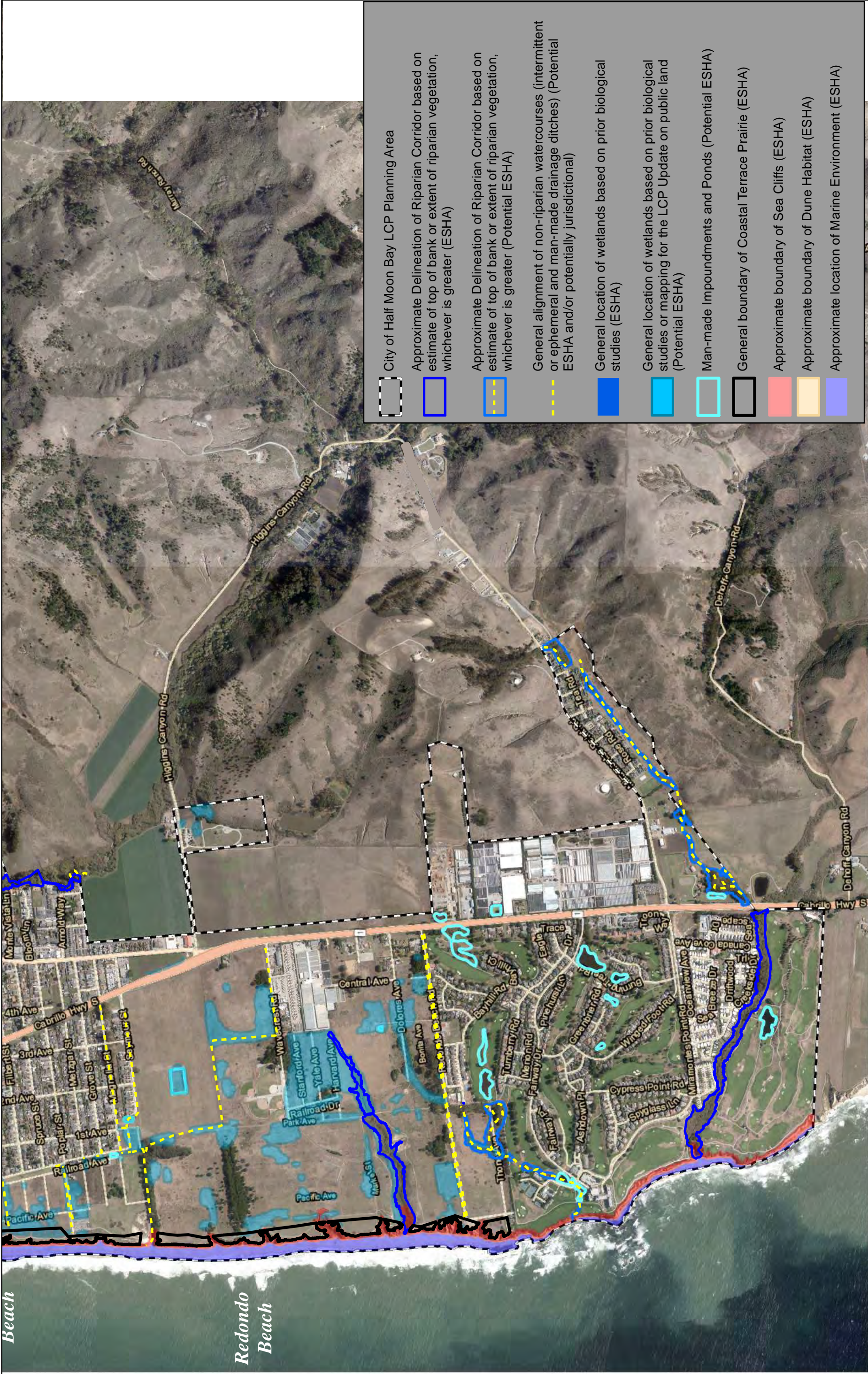


Figure 6-2: Environmentally Sensitive Habitat Areas

(Habitat ESHAs), Sheet 2 of 3

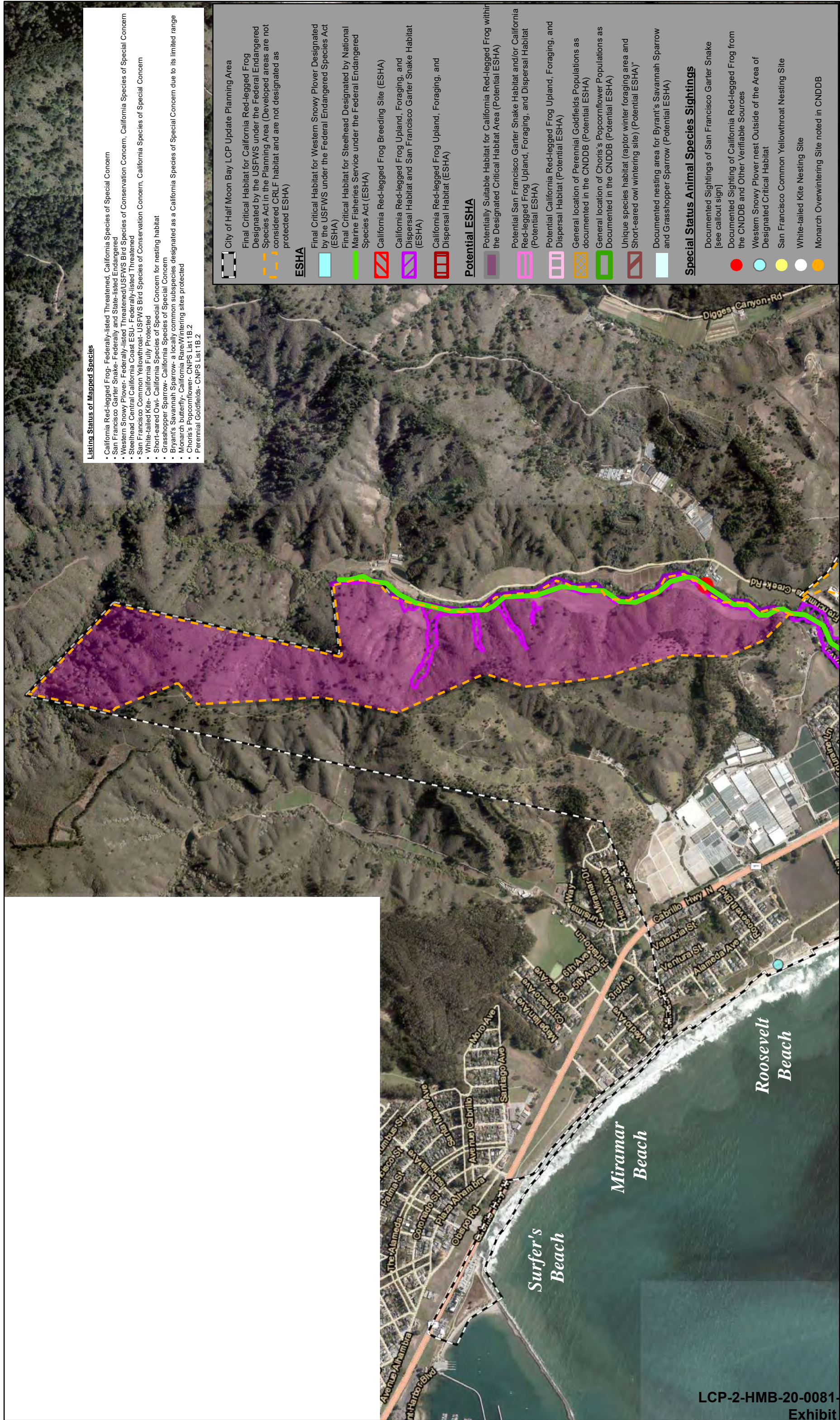


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**Figure 6-2: Environmentally Sensitive Habitat Areas
(Habitat ESHAs), Sheet 3 of 3**

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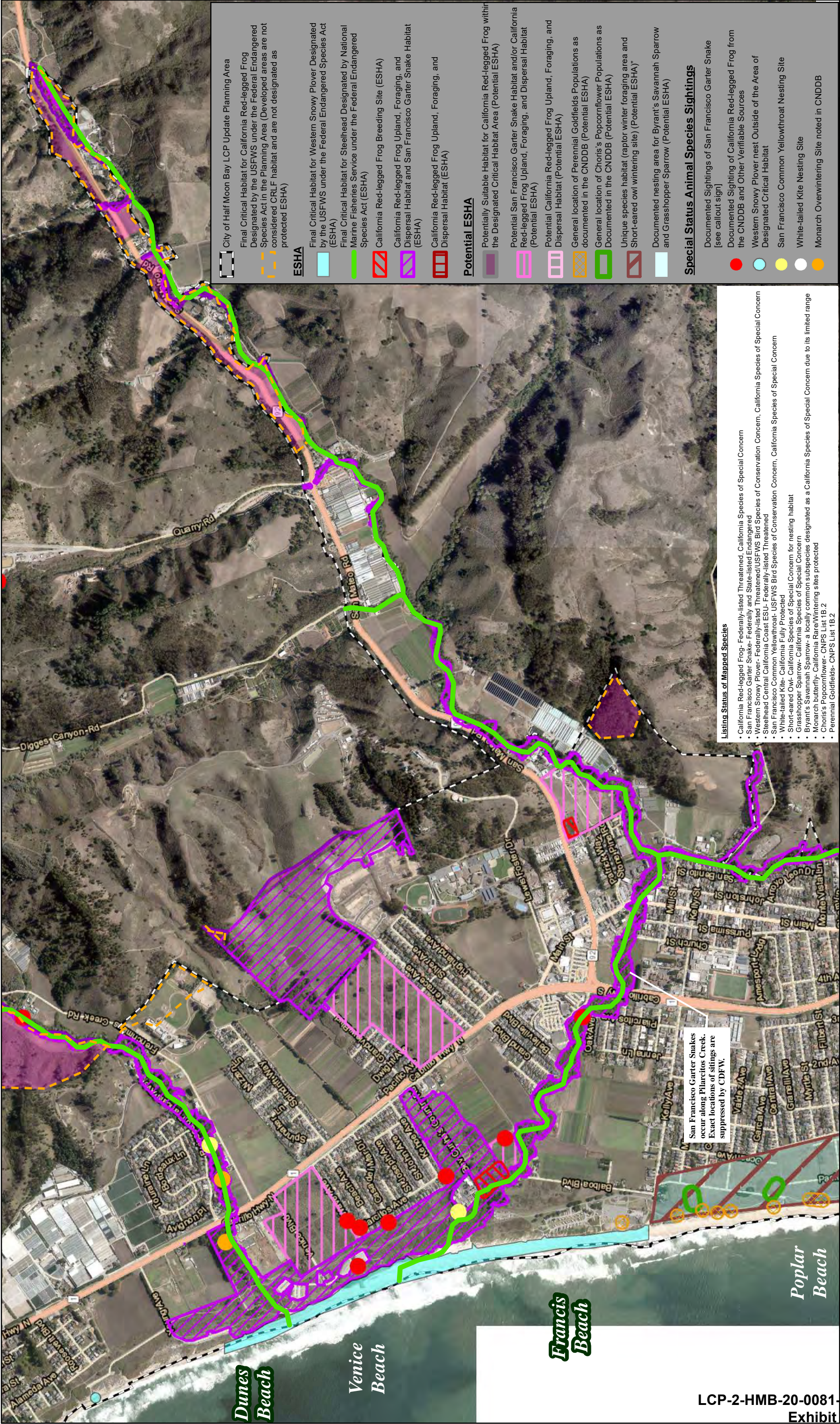


Figure 6-3: Environmentally Sensitive Habitat Areas (Special Status Species ESHAs), Sheet 2 of 3

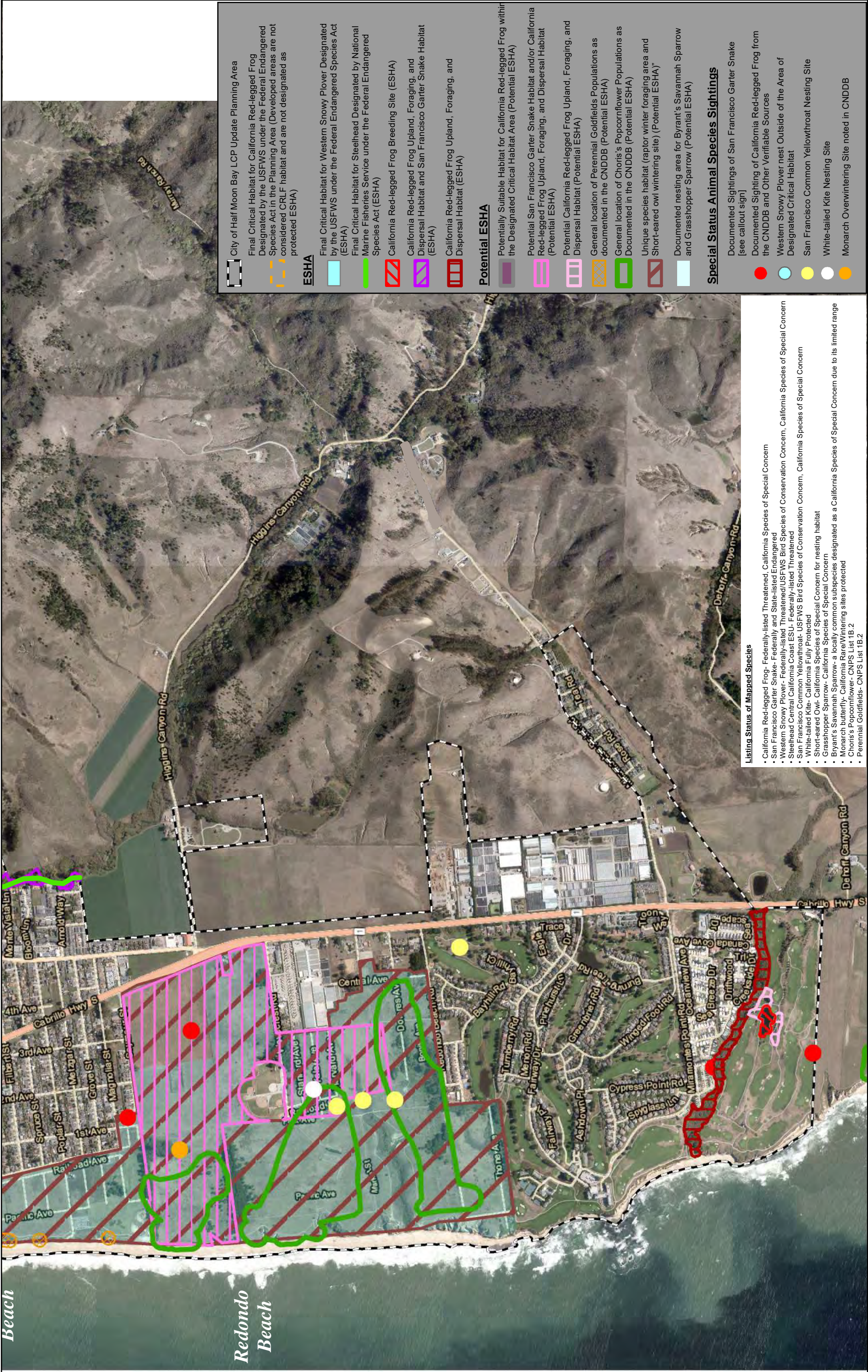
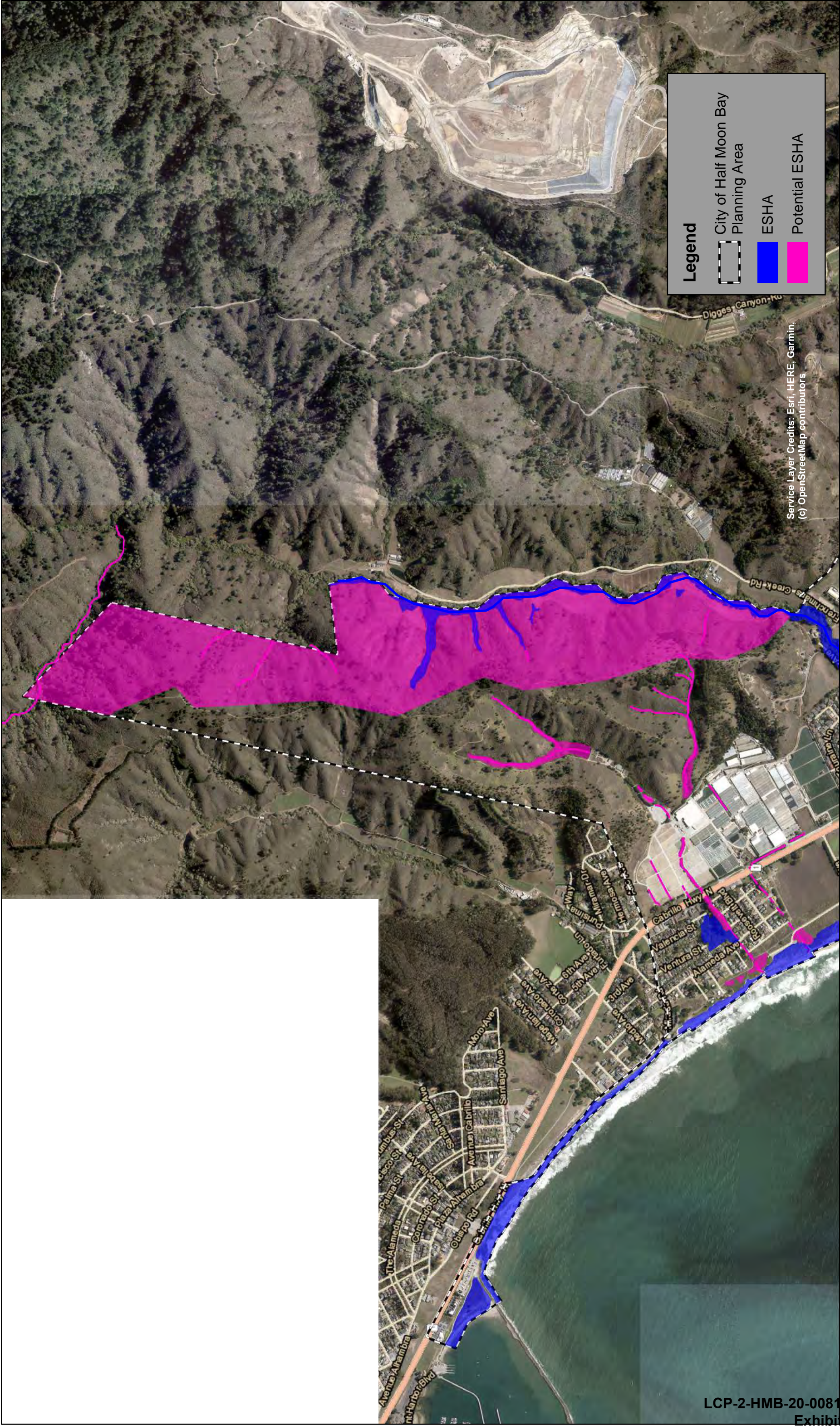


Figure 6-3: Environmentally Sensitive Habitat Areas (Special Status Species ESHAs), Sheet 3 of 3

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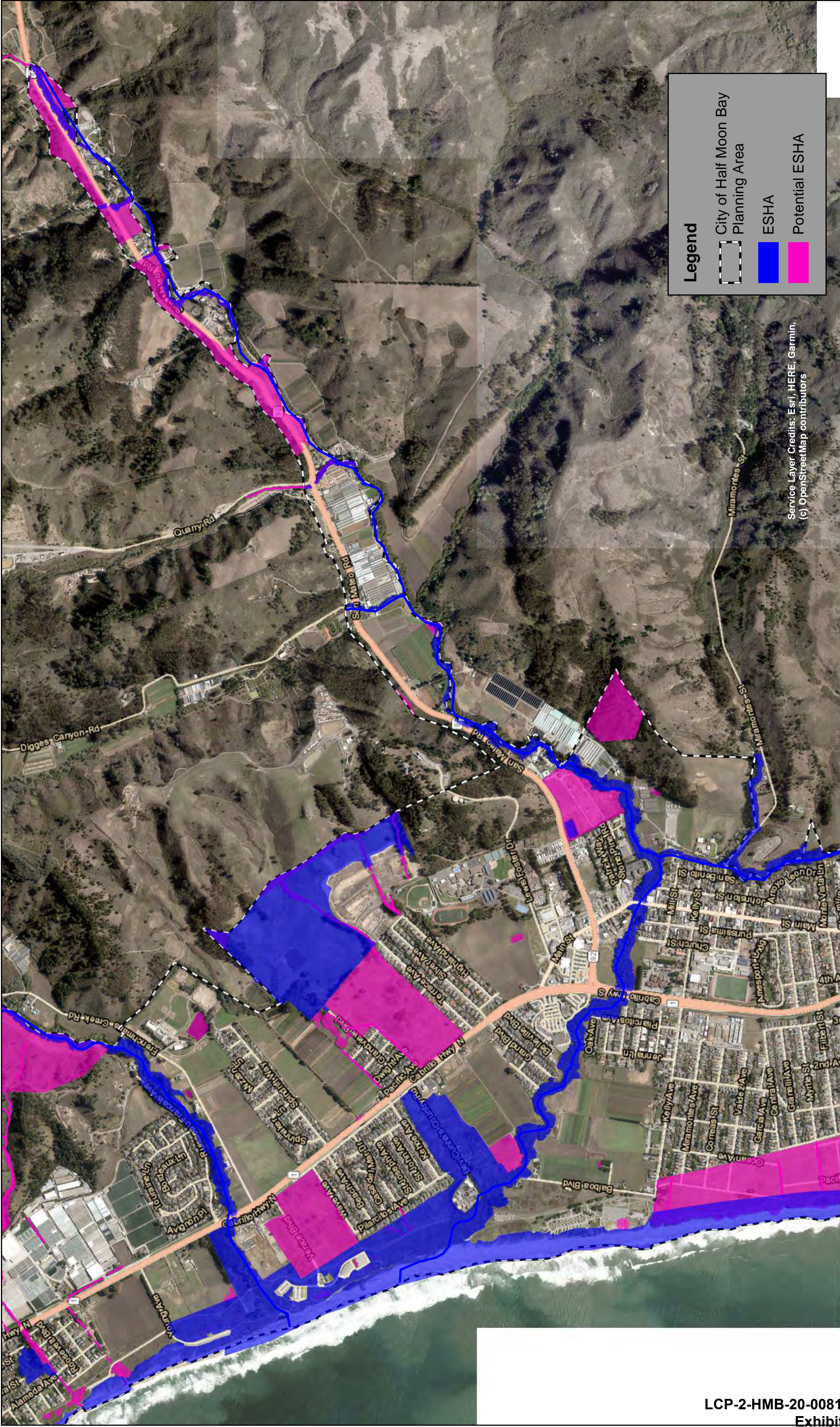


Figure 6-4: Summary of ESHAs and Potential ESHAs, Sheet 2 of 3

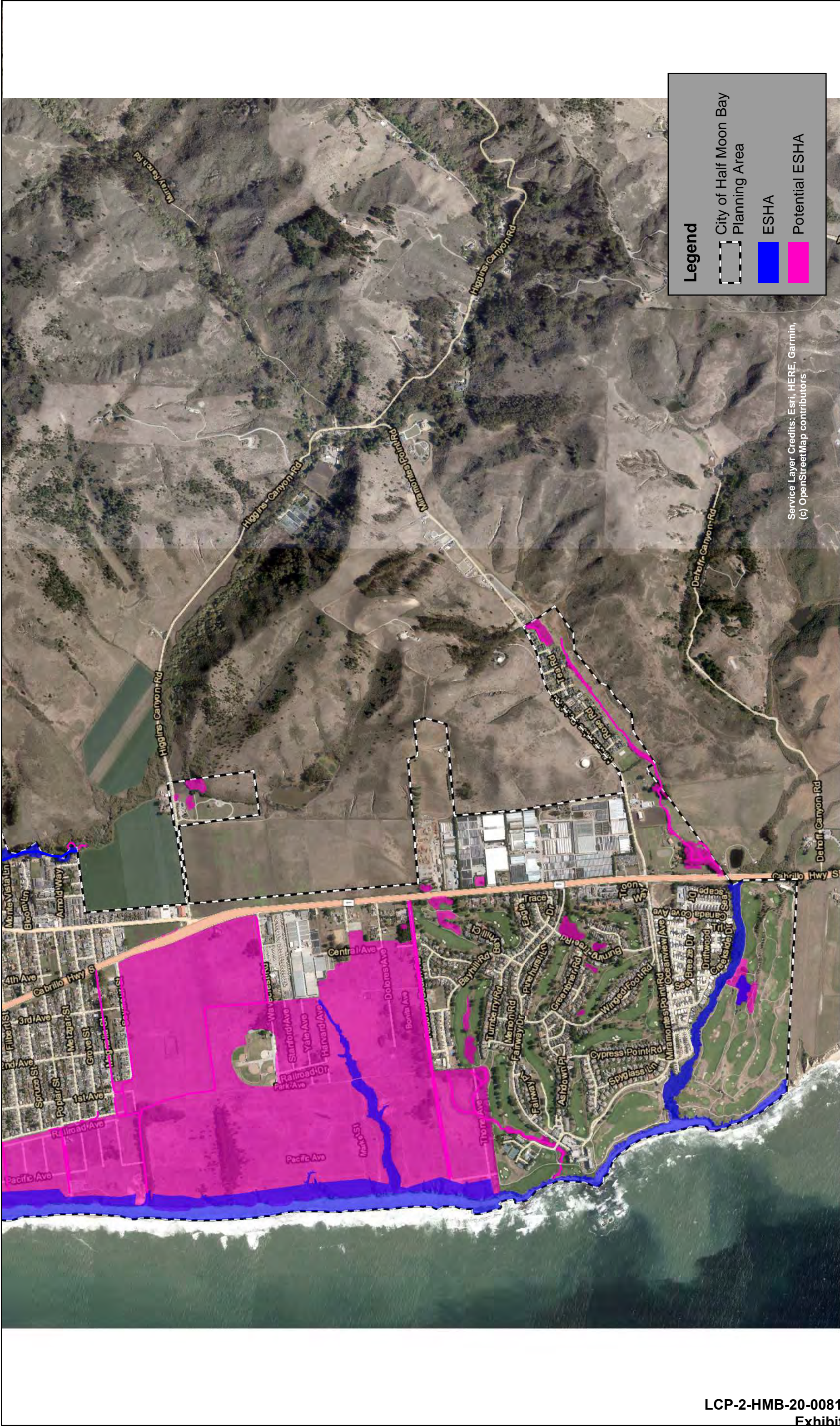


Figure 6-4: Summary of ESHAs and Potential ESHAs, Sheet 3 of 3

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Terrestrial ESHAs

Terrestrial ESHAs play a significant role in supporting rare, endangered, and especially valuable species and habitat types. Areas that may qualify as terrestrial ESHA are described below.

Marine Environment. The marine environment is defined by the USFWS Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al 1979) as follows: “The marine system consists of the open ocean overlying the continental shelf and its associated high energy coastline.” The marine environment thus includes areas of ocean, sandy beach and small estuaries at the mouths of major creeks. All areas that meet this definition of Marine Environment are considered ESHA.

Sea Cliffs. Sea cliffs are areas of steep slopes at the interface between the marine environment and land-based habitats including blufftop terraces. Sea cliffs are generally present along bluff/marine environment interface in areas where dune habitat is lacking, primarily south of Half Moon Bay State Beach. All areas that meet this definition of Sea Cliffs are considered ESHA.

Dunes. Dune habitat includes the Central Dune Scrub vegetative community and foredunes free of vegetation to the base of the slope. Dunes are the interface between the marine environment and land-based habitats generally present in areas where sea cliffs are lacking. All areas that meet this definition of Dunes are considered ESHA.

Coastal Terrace Prairie. Coastal Terrace Prairie is a combination of coastal grasslands, wetlands and scrub habitat containing a highly variable mixture of native perennial grasses and forbs (including perennial goldfields and Choris’s popcornflower), native and non-native annual forbs, and non-native grasses. This species-rich habitat generally occurs immediately adjacent to the top of the bluff in the vacant fields between Kelly Avenue to the north and Thone Avenue to the south. Coastal terrace prairie can generally be identified through plant surveys of representative sample sizes, preferably during late spring, as areas with at least 10 percent cover of native grasses and less than 25 percent cover of shrubs. Percent cover may vary due to seasonal and climatic changes, species composition, and restoration needs. All areas that meet this description of Coastal Terrace Prairie are considered ESHA.

Non-Aquatic Habitat for Special Status and Unique Species. Several different types of special status and unique species rely on non-aquatic habitat areas in Half Moon Bay, including those listed below. These non-aquatic habitat areas may qualify as terrestrial ESHA where they are considered rare or especially valuable for their role in an ecosystem as noted below.

- **Western Snowy Plover:** Nesting and breeding habitat for the Western snowy plover, generally including the sandy beach and dune area designated by the USFWS as Critical Habitat between Young Avenue and Kelly Avenue, are considered ESHA.
- **California red-legged frog (CRLF):** Upland foraging and dispersal habitat for CRLF are considered ESHA. Such areas may be within the areas designated by the USFWS as Critical Habitat (e.g. northeast portion of city jurisdiction), may be in proximity to

breeding sites (e.g. publicly owned lands near the sewer plant and Kehoe Watercourse), may provide a linkage between watercourses and breeding sites (e.g. undeveloped State Park lands between Pilarcitos Creek and Frenchmans Creek), or may be protected by deed restriction or conservation easement with the intent to preserve suitable upland CRLF habitat (e.g. Pacific Ridge Areas A and B).

- **San Francisco garter snake (SFGS):** Upland dispersal habitat is considered ESHA. Such areas may be in proximity to Pilarcitos Creek, may coincide with CRLF upland habitat areas, or may be protected by deed restriction or conservation easement with the intent to preserve suitable upland SFGS habitat (e.g. Pacific Ridge Areas A and B).
- **Special status plant species:** Populations of Choris's popcornflower and perennial goldfields, both special status plants on CNPS List 1B.2, are considered ESHA. The general locations of these rare plant populations include some areas of North Wavecrest and the area west of Railroad Avenue. Population sizes vary from year to year and would require more precise delineation to determine the extent of ESHA.
- **Unique species:** Foraging habitat for a diverse range of wintering raptor species is considered ESHA. Such areas generally include the coastal bluffs and open fields of the North Wavecrest area between Redondo Beach Road and Seymour Street and the area west of Railroad Avenue. The precise location and extent of this type of ESHA may consider availability of nearby comparable habitat, and ability for species to relocate.

Wetlands

Wetlands are considered valuable features, as they support diverse plant and animal species, including some found only in wetlands, and provide many functions such as protecting the quality of coastal waters by filtering or fixing contaminants; protecting the shoreline by acting as a buffer against waves and storms; detaining storm or flood waters; allowing for groundwater recharge; providing recreation areas; and contributing to an area's visual quality.³ In the Coastal Act, wetlands are referred to as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens" (Section 30121). More specifically, the Coastal Commission's regulations in the California Code of Regulations §13577(b) provides the following definition of wetlands and criteria for identification:

"Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence

³ California Coastal Commission, 2011. Definition and Delineation of Wetlands in the Coastal Zone. California Coastal Commission October 5, 2011 Briefing Background Information Handout.

of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats.”

The Coastal Commission’s definition of wetlands is a single-parameter definition that requires evidence of only one of three wetland indicators (hydrophytic vegetation, hydric soils, or saturated substrate). In contrast, the US Army Corps of Engineers uses a three-parameter definition that requires evidence of all three wetland indicators in order to classify an area as wetland. As a result, more areas qualify as wetlands under the Coastal Act than under the federal Clean Water Act. The LCP is consistent with the Coastal Act, and therefore uses the single-parameter definition.

Areas that meet this definition generally include but are not limited to perennial and seasonal freshwater marsh and man-made impoundments and ponds as further described below. These areas may also qualify as ESHA where they are found to be rare or especially valuable for their role in an ecosystem, such as contributing to the viability of special status species, and could be easily disturbed or degraded by human activities and development. Such areas may include CRLF breeding sites (e.g. the Caltrans wetland mitigation site adjacent to Pilarcitos Creek and the man-made pond near the City’s corporation yard east of Stone Pine Center), or may be protected by deed restriction or conservation easement (e.g. the Guerrero wetlands in the Miramar neighborhood and the wetlands and man-made pond in Pacific Ridge Areas A and B). In any case, as the Coastal Act provides separate and additional requirements for wetlands, LUP policies provide separate and additional wetland protections independent of an ESHA determination. These more habitat-specific policies apply in review of development projects that involve wetlands.

Perennial and Seasonal Freshwater Marsh. Wetlands are generally present within the Coastal Freshwater Marsh habitat type in the Planning Area, which includes both perennial marsh and seasonal marsh (also referred to as “vernal marsh,” which include vernal pools). The general locations of these wetlands mapped in Figure 6-2 do not represent precise wetland boundaries; rather, they represent areas where wetlands have been or are known to occur. Wetlands are dynamic systems and boundaries may change over time; thus, the precise extent of wetlands must be determined based on site-specific biological resource evaluations and/or wetland delineations. Such evaluations must include the precise boundaries, a consideration of wetland functions and values both on and off-site, and the identification of any rare or endangered species for the purposes of the LUP protection policies.

Man-Made Impoundments and Ponds. Other water features found in the Planning Area and mapped in Figure 6-2 include man-made impoundments and ponds. These features are often constructed as part of previously permitted development and are actively used for irrigation or stormwater detention. However, there is potential for these features to support biological value. Similar to marsh wetlands, man-made impoundments and ponds require further study of precise boundaries, biological functions and values, and status as actively managed or abandoned. LUP policies allow for continued use, repair, and maintenance of both the previously permitted adjacent development, as well as active ponds themselves, so that they can continue to serve and be maintained for their intended function.

Watercourses

Watercourses play a significant role in supporting aquatic and non-aquatic species, providing riparian habitat, capturing stormwater runoff and filtering its contaminants, and transporting sediments. A watercourse is defined as “the course over which water currently flows or has flowed.” Areas that meet this definition include perennial, intermittent and ephemeral streams with or without riparian vegetation, as well as man-made drainage features redirecting flows from a traditional watercourse or redirecting stormwater runoff as further described below. These areas may also qualify as ESHA as further described below. In any case, as the Coastal Act provides separate and additional requirements for rivers and streams, LUP policies provide separate and additional watercourse protections independent of an ESHA determination. These more habitat-specific policies apply in review of development projects that involve watercourses.

Riparian Corridors. Riparian corridors are defined on the ground by an association of primarily native riparian plant and animal species within or adjacent to a watercourse. The boundary of a riparian corridor is defined by the limit of riparian vegetation or top of bank, or other confining topography, whichever is greater. The limit of riparian vegetation is determined by the drip line of canopy trees or the limit of riparian shrubs or herbaceous vegetation. This vegetation is generally interconnected by surface or subsurface flow within the watercourse. Within these boundaries, the intent of the LCP is to protect the ecosystem and any wildlife species it supports as whole, including the understory and emergent vegetation, the soil microbiology, and the water itself.

Riparian corridors are considered ESHA where they are found to be rare or especially valuable for their role in an ecosystem, such as contributing to the viability of special status species and could be easily disturbed or degraded by human activities and development. Such areas, with the accompanying rationale, include but may not be limited to:

- Pilarcitos Creek. Perennial stream, well-developed riparian canopy, Critical Habitat for Central California Coast steelhead, Critical Habitat for CRLF in eastern portion of the Planning Area (outside city limits), known occupied habitat for CRLF and SFGS, past nesting for San Francisco Common Yellowthroat.
- Frenchmans Creek. Perennial stream, well-developed riparian canopy, Critical Habitat for Central California Coast steelhead, Critical Habitat for CRLF in northeastern portion of the Planning Area, known occupied habitat for CRLF, past nesting for San Francisco Common Yellowthroat, has harbored monarch overwintering sites.
- Arroyo Leon. Perennial stream, well-developed riparian canopy, Critical Habitat for Central California Coast steelhead, suitable habitat for CRLF and possibly SFGS.
- Apanolio Creek. Perennial stream, well-developed riparian canopy, Critical Habitat for Central California Coast steelhead, suitable habitat for CRLF and possibly SFGS.
- Arroyo Cañada Verde (west of Highway 1). Perennial stream, well-developed riparian canopy, known occupied habitat for CRLF.
- Kehoe Watercourse. Intermittent stream, well-developed riparian canopy, known occupied habitat for CRLF, potential habitat for SFGS, past nesting for San Francisco Common Yellowthroat.

- Wavecrest Arroyo. Intermittent stream, well developed riparian canopy, suitable habitat for CRLF, past nesting for San Francisco Common Yellowthroat.

Other riparian habitats along intermittent and ephemeral watercourses with lesser known habitat value include Roosevelt Creek, a riparian corridor in the northwestern area of Ocean Colony, and Arroyo Cañada Verde east of Highway 1.

Non-Riparian Watercourses. Many non-riparian watercourses, including man-made drainage ditches, are found throughout the city. These features primarily capture and carry stormwater runoff and typically do not support sensitive habitat. Non-riparian watercourses may be considered ESHA where they are found to be rare or especially valuable for their role in an ecosystem, and may be potentially jurisdictional where there is a defined bed and bank or navigable waters. Many drainage features noted on Figure 6-2 are under a maintenance agreement with CDFW. Buffers from new structures should be provided to allow space for potential meander belts and to reduce risk of natural erosion or flooding hazards.

ESHA BUFFER ZONES

Buffer zones are areas which separate development from environmentally sensitive habitat areas and lessen the adverse impacts of human disturbance. Buffer zones are important in order to protect natural ecosystem functions of the respective habitat and organisms supported by the habitat. Buffer zones serve as transitional habitat and provide distance and physical barriers from human degradation and disturbance. Buffer zones adjacent to wetlands and riparian corridors, for instance, can be effective in lessening the adverse impacts of stormwater runoff such as soil erosion and filtering pollutants including suspended solids, nutrients, and toxic substances, and in moderating water level fluctuations. Buffer zones may also provide space for habitat to migrate or expand. Required buffer zone widths are dependent on many factors, including the habitat type and value, the proposed development, the existing development patterns, and site-specific biological resource evaluations. Minimum buffer zone requirements are established in LCP policies. Permitted uses within buffer zones are also established to ensure that the types of development permitted in these areas are consistent with the on-going biological productivity of the habitat area. As agricultural operations are historically sited adjacent to water sources for access to irrigation for crops and other agricultural purposes, allowances are made for agricultural uses in the applicable policies.

CONSERVATION & RESTORATION STRATEGIES

Half Moon Bay's biological resources face numerous threats from anthropogenic impacts such as urban development, habitat fragmentation and degradation, climate change and sea level rise. The policies contained in the Coastal Act and this LUP are intended to prevent and avoid such impacts by regulating land use and development and providing opportunities for habitat conservation and restoration.

Conservation and restoration can come in many forms and should always be tailored to specific site conditions. Conservation can be achieved through buffer areas, protective easements and deed restrictions, open space land use designations, and development restrictions. Restoring habitat areas can have cross-cutting benefits such as increasing

biological value, improving coastal water quality, sequestering greenhouse gases, reducing coastal hazard impacts such as flooding and erosion, providing new educational opportunities, and enhancing aesthetics and recreational experiences.

Lot Retirement and Permanent Conservation

As discussed in more detail in Chapter 2. Development, lot retirement and permanent land conservation is a priority in areas such as the North Wavecrest PD and West of Railroad PD where there is undeveloped land in scattered ownerships in ESHA and Potential ESHA. These methods can be very effective for providing additional protections to habitat by presenting opportunity for open space conservation easements, affording additional area for habitat buffers and corridors, preventing impacts from future development, and providing additional area for habitat restoration projects.

Mitigation

Mitigation is required under the Coastal Act for allowable impacts to habitat areas, and can also provide the chance for restoration. For permitted development projects within the Planning Area that will cause unavoidable impacts to habitat areas, on-site mitigation is preferred. There is also opportunity within the city for sites with known habitat value and/or open space conservation easements to act as mitigation banks for off-site development impacts. However, off-site mitigation cannot be used as a basis to approve impacts to ESHA.

Priority Conservation Areas

Priority Conservation Areas (PCAs) are another method for conserving natural resources in the city. The Association of Bay Area Governments (ABAG) established their PCA program in 2007 to identify areas that provide regionally significant natural, scenic, and recreational resources and are in need of protection. In city limits, the California Coastal Trail has been adopted as a PCA. Other areas with highly sensitive biological resources could be afforded additional protection if established as a PCA.

Areas of Conservation Concern

Identifying areas of particular conservation concern can be another effective tool for habitat conservation and restoration projects. Figure 6-4 helps to illustrate areas where a considerable amount of ESHA may occur. Specifically, the coastal bluffs and open fields of North Wavecrest and the area west of Railroad Avenue have a number of biological constraints occurring in the same general area. This contiguous region consists of similar habitat areas, and the two areas taken together can be considered an area of conservation concern.

Other areas of conservation concern may include portions of the Venice Beach PD, Beachwood, and the ESHA surrounding the SAM plant. These areas either contain or are contiguous with sensitive habitat areas with potential to support special status species. Any development or restoration projects in these areas should consider the biological productivity of the site as a whole, as well as off-site benefits or impacts.

CLIMATE CHANGE & SEA LEVEL RISE

Climate-driven changes in precipitation and sea levels may lead to impacts to Half Moon Bay's sensitive habitat areas, including but not limited to accelerated stream bank and bluff erosion, upstream or inland flooding, seawater intrusion, and overall loss of habitat area. Such potential impacts should be factored into buffer zone requirements, permitted development within habitat areas and their buffer zones, and habitat restoration and creation projects in coordination with the best available science and highest projections of sea level rise and bluff erosion. Creation or preservation of habitat and wildlife corridors, expanded buffer zones to provide room for retreat, and restrictions on non-resource dependent development adjacent to sensitive habitat areas at risk of sea level rise impacts can help assure the continued viability of the City's natural resources. The LUP policies in this chapter address such strategies for protecting the City's sensitive habitat areas and waterways. Chapter 7. Environmental Hazards also addresses climate change and sea level rise impacts in greater detail.

Policies – Biological Resources

The LUP establishes a method for identifying and designating Environmentally Sensitive Habitat Areas (ESHAs) and provides policies to preserve and protect the resources in these areas as consistent with the Coastal Act. ESHAs are categorized into three types: terrestrial, wetlands, and watercourses. As detailed in the policies, only resource-dependent uses and development are permitted in terrestrial ESHA and in areas adjacent to terrestrial ESHA, and such uses must follow performance standards and development restrictions intended to protect the area's environmental quality. As wetlands and watercourses have significantly different biological functions and protections under the Coastal Act, LUP policies address these habitat types distinctly from terrestrial ESHA and include different requirements for permitted uses, performance standards, and buffer requirements as consistent with the Coastal Act and Coastal Commission guidance. Any such allowable development in or adjacent to terrestrial ESHA, wetlands, or watercourses would require detailed biological study to identify resources, confirm buffer zones, and address mitigation, monitoring, and reporting for potential impacts.

For this LUP the ESHA maps are Figures 6-2 and 6-3, which are summarized by Figure 6-4. The ESHA maps are illustrative and for information purposes only; the determination of the presence and precise extent of ESHA and its required buffer zone shall be made via a site-specific biological study as part of proposed development review.

Areas designated as ESHA and adjacent to ESHA after site-specific review are subject to LUP requirements for buffering, mitigation, and development standards intended to protect the ESHA from development impacts such as runoff, sedimentation, erosion, and other disturbances, as well as from sea level rise impacts that may threaten some coastal habitats. The LUP also includes policies specific to certain types of ESHA and establishes requirements and strategies for conservation, mitigation, and restoration.

Policies - ESHA Designation and Mapping

6-1. ESHA Definition. An Environmentally Sensitive Habitat Area (ESHA) is any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments, including the following:

- a. Any habitat area that is rare or especially valuable from a local, regional, or statewide basis.
- b. Areas that contribute to the viability of plant or animal species designated as rare, threatened, or endangered under State or Federal law.
- c. Areas that contribute to the viability of species designated as Fully Protected or Species of Special Concern under State law or regulations.
- d. Areas that contribute to the viability of plant species for which there is compelling evidence of rarity, for example, those designated 1b (Rare or endangered in California and elsewhere) or 2 (rare, threatened or endangered in California but more common elsewhere) by the California Native Plant Society.

In Half Moon Bay, these areas include, but are not limited to terrestrial ESHAs (marine environment, sea cliffs, dunes, coastal terrace prairie, and non-aquatic habitat for special status or unique species), wetlands, and watercourses.

6-2. ESHA Policy Applicability. The ESHA policies of this chapter apply to all categories of ESHA, except where modified by the more habitat-specific policies of the LCP (i.e. Policies 6-19 through 6-21 for the marine environment; Policies 6-22 and 6-23 for sea cliffs; Policies 6-24 through 6-28 for dunes; Policies 6-29 through 6-31 for coastal terrace prairie; Policies 6-32 through 6-35 for non-aquatic habitat for special status or unique species; Policies 6-36 through 6-45 for wetlands, and Policies 6-46 through 6-55 for watercourses).

6-3. ESHA Mapping. Review and update the ESHA maps to incorporate significant new information from completed biological studies. Areas meeting the criteria in Policy 6-1 shall be designated as ESHA on the ESHA habitat map (Figure 6-2), the ESHA special status species map (Figure 6-3), and a summary map (Figure 6-4).

The ESHA maps are not intended to be a static resource, as the resources on the ground are the determining factor. Revisions to the ESHA maps shall be treated as LCP amendments and shall be submitted for certification by the Coastal Commission as warranted by significant changes. Areas qualifying for ESHA designation shall be afforded ESHA protections upon determination, rather than upon map amendment certification.

6-4. Unmapped ESHA. Recognize that the ESHA maps are not an exhaustive compilation of all habitat areas within the Planning Area that meet the definition of ESHA. Any area not designated on the ESHA maps that meets the ESHA criteria stated in Policy 6-1 is ESHA and shall be accorded all the protection provided for ESHA in the LCP.

- 6-5. Protection of Illegally Degraded ESHA.** Any area mapped as ESHA or otherwise determined to have previously been ESHA shall not be deprived of the LCP's ESHA protections on the basis that, illegally and/or without a permit, habitat has been removed, filled, or degraded, or species that are rare or especially valuable because of their nature or role in an ecosystem have been eliminated.
- 6-6. Reporting Biological Sightings.** Require the reporting and verification of any special status species sightings in the Planning Area identified in biological inventories or studies submitted to the City with the California Natural Diversity Database and with a qualified biologist.

Policies - Biological Evaluations

- 6-7. Preliminary Biological Inventory.** Require that proposals for development within or adjacent to areas with potential to support or contain sensitive plant or animal species, including mapped Potential ESHA and unmapped areas where determined necessary, include a preliminary inventory conducted by a qualified biologist of habitat types and plant and animal species present and likely to be present (e.g. seasonally) on the project site for the development review process. If the preliminary inventory indicates the presence or potential for sensitive species or habitat on the project site, a detailed biological study shall be required pursuant to Policy 6-8.
- 6-8. Biological Study.** For development proposed in and adjacent to ESHA and projects for which the preliminary biological inventory indicates the presence or potential for sensitive species or habitat, require the preparation of a detailed biological study by a City-approved, qualified professional to be submitted prior to development review and prior to any ground disturbance. The report shall assess site conditions typically within 200 feet of the proposed development; identify if site conditions meet the LCP's definition of ESHA; determine if significant direct or cumulative impacts to the ESHA, to the special status species supported by the ESHA, or to on- or off-site biological productivity and ecosystem functionality may occur from the proposed development; and recommend the most feasible avoidance and/or mitigation measures if impacts may occur. At minimum, the study shall also provide and discuss the following if ESHA is present and if applicable to site conditions:
- a. For animals and avian species: Requirements for food, water, nesting or denning sites and requirements for reproduction, predation, dispersal, refugia, and migration;
 - b. For plants: Life histories, and requirements for soils, climate, and geography;
 - c. A map depicting the locations of plants or animals and/or their habitats;
 - d. Recorded observations of special status species from reputable databases such as the California Natural Diversity Database;
 - e. Site topography, drainage patterns, soil permeability, and depth to water table;

- f. Unique site conditions, such as vegetation, natural topography, or built features (e.g. roads, structures) that provide a physical barrier between the proposed development and the ESHA;
- g. The likelihood of increased human activity and disturbance resulting from the project relative to existing development;
- h. An evaluation by a qualified professional of the ESHA's vulnerability to sea level rise impacts (e.g. sensitivity to inundation and seawater intrusion) and ability for adaptation (e.g. inland migration) for projects located within 300 feet of the beach or bluff edge, or where otherwise appropriate based on based available science for inundation projections;
- i. A recommendation of the need to conduct a wetland delineation if site conditions indicate the presence or potential for wetland species or indicators;
- j. Recommended avoidance and/or mitigation measures if the proposed development has potential to impact any on- or off-site sensitive habitat areas or special status species during or post-construction; and
- k. Recommended buffer widths based on the applicable buffer policies in this chapter, site-specific conditions, and sensitivity and resilience of the ESHA to disturbance from the proposed development and from anticipated sea level rise impacts, where applicable. Where a reduced buffer zone is proposed, a recommendation of whether the reduced buffer zone would provide equivalent protection of the biological integrity of the site's sensitive habitats and special status species given the site-specific characteristics of the resource(s) and of the type and intensity of proposed development.

Studies shall be made public and subject to review and comments by jurisdictional agencies and the public concurrently.

- 6-9. Citywide Inventory.** Establish a comprehensive archive of biological studies, biological mapping, and other relevant biological information for sites throughout the city to support biological resource protection and to inform future ESHA map amendments.

Policies – General ESHA Protection

- 6-10. Protection and Enhancement of ESHA.** Protect and, where possible, enhance or restore environmentally sensitive habitat areas (ESHAs).
- 6-11. Continued Viability.** Provide for the continued viability of coastal habitats by planning for inland migration and replacement as habitats are lost to sea level rise.
- 6-12. Development Alternatives.** Development shall be sited and designed to avoid impacts to terrestrial ESHA, wetlands, and watercourses. If there is no feasible alternative (e.g. with respect to siting, size, or design) that can eliminate all impacts, the City shall consider whether there are any alternatives to the proposed development that achieve most of the same goals but would have fewer and less significant impacts. If such an alternative exists, the City shall either deny the

proposed development or approve the alternative. Impacts that cannot be avoided shall be fully mitigated.

- 6-13. Pre-Existing Development and ESHA.** Where an area within or adjacent to any pre-existing permitted development or land use is confirmed to meet the definition of ESHA, the pre-existing use may continue provided that the use has not lapsed for more than one year at any point in time and that any changes to the site that constitute new development are sited and designed to avoid new impacts to ESHA and to avoid any increases to existing non-conformities. Implementation of best management practices and avoidance measures is encouraged for qualifying continuing uses.
- 6-14. Resource Management Agencies.** Uses and activities permitted in ESHA may be subject to review and approval by the U.S. Army Corps of Engineers, San Francisco Bay Regional Water Quality Control Board, California Coastal Commission, California Department of Fish and Wildlife, U. S. Fish and Wildlife Service, National Marine Fisheries Service, and other resource management agencies, as applicable. Compliance with any applicable state or federal regulations is required.
- 6-15. Wildlife Corridors.** Preserve, protect, and enhance wildlife corridors, including watercourses, connecting ESHA and open space areas to allow for seasonal migration as well as daily movements for foraging and dispersal.

Policies - Terrestrial ESHA

- 6-16. Permitted Uses in Terrestrial ESHA and Terrestrial ESHA Buffers.** Terrestrial ESHAs (including the marine environment, sea cliffs, dunes, coastal terrace prairie, and non-aquatic habitat for special status or unique species) shall be protected against significant disruption of habitat values. Only uses dependent on the resources within these areas and their buffer zones (i.e. habitat management and restoration, scientific research and educational activities, and low-intensity public access and recreation) shall be allowed there. Development in areas adjacent to terrestrial ESHAs shall be sited and designed to prevent impacts that would significantly degrade the habitat or recreation value of those areas, and shall be compatible with the continuance of those habitat areas. Temporary disruption (e.g. less than six months) for the construction, alteration, repair, and maintenance of existing or newly permitted facilities or structures is allowed if there are no feasible alternatives and the disruption is repaired and restored to at least an equivalent condition within one year.
- 6-17. Terrestrial ESHA Buffer Zones.** Require buffer zones (i.e., areas between terrestrial ESHA and proposed development) of sufficient size to ensure the biological integrity and preservation of the habitat they are designed to protect. Maintain buffers with native vegetation to serve as transitional habitat and provide distance and physical barriers to human intrusion. Terrestrial ESHA (including the marine environment, sea cliffs, dunes, coastal terrace prairie, and non-aquatic habitat for special status or unique species) shall have a minimum buffer width of 100 feet from proposed

development. Larger buffers may be required if site-specific evidence indicates that a larger buffer is necessary to maintain biological integrity and to protect the ESHA against impacts of proposed development. Terrestrial ESHA buffers may be reduced only where the following can be demonstrated through evidence provided by site-specific evaluation pursuant to Policy 6-8, and only as specified below:

- a. Where the only building site is located entirely within the required buffer; no alternative development site, size, or design is feasible; and the proposed development is compatible with the continued viability of the adjacent ESHA: the buffer may be reduced to no less than 20 feet provided that design alternatives that maximize the buffer width are utilized; or
- b. Where the only building site is not located entirely within the required buffer; no alternative building site, size, or design is feasible to accommodate the development entirely outside of the required buffer; no new adverse impacts to the ESHA will occur; and the reduced buffer would provide equivalent protection of the biological integrity of the ESHA given the site-specific characteristics of the resource and of the type and intensity of disturbance, as conclusively demonstrated by a qualified biologist to the satisfaction of the City and all jurisdictional regulatory agencies: the buffer may be reduced to no less than 50 feet.

6-18. Standards in Terrestrial ESHA and Terrestrial ESHA Buffers. Site and design new development permitted in or adjacent to terrestrial ESHA to avoid adverse impacts to ESHA. Methods for avoiding impacts include, but are not limited to utilizing raised boardwalks, installing informative signage and exclusion fencing, and implementing construction best management practices.

Policies - Marine Environment

(Note: Areas in the marine environment may be located below the mean high tide line and subject to Coastal Commission permitting jurisdiction. In such case, the policies below are intended for guidance.)

6-19. Permitted Uses in Marine Environment. The following uses may be permitted in the marine environment:

- a. Resource-dependent uses permitted by Policy 6-16;
- b. Restoration projects, including sand nourishment;
- c. Public beach accessways;
- d. Temporary lifeguard towers/stations;
- e. Coastal dependent recreation activities; and
- f. Shoreline protective devices as permitted by the policies contained in Chapter 7. Environmental Hazards.

6-20. Standards in the Marine Environment. Require any development or structure permitted within the marine environment to adhere to the following standards:

- a. Comply with the terrestrial ESHA standards required by Policy 6-18;
- b. Minimize impacts on coastal access and recreation;
- c. Avoid Western snowy plover nesting and breeding habitat area;
- d. Design so as not to involve any permanent structures and be the minimum size necessary; and
- e. Provide any necessary mitigation.

6-21. Nearshore Habitats. Preserve and, where appropriate and feasible, enhance nearshore shallow fish habitats and shore fishing areas.

Policies - Sea Cliffs/Bluffs

6-22. Permitted Uses in Sea Cliff/Bluff Areas. The following uses may be permitted in sea cliff/bluff habitat areas where nesting and roosting do not exist:

- a. Resource-dependent uses permitted by Policy 6-16;
- b. Public beach accessways;
- c. Shoreline protective devices as permitted by the policies contained in Chapter 7. Environmental Hazards;
- d. Temporary disruption for underground utilities where no feasible alternative exists and where ESHA is fully restored and impacts are mitigated; and
- e. Public intake or outfall lines provided that they would not disturb or degrade adjacent habitat areas and are designed or redeveloped to not need any shoreline protection.

6-23. Standards in Sea Cliff/Bluff Areas. Require development permitted in sea cliff/bluff areas to adhere to the following standards:

- a. Comply with the terrestrial ESHA standards required by Policy 6-18;
- b. Restrict pedestrian traffic to a limited number of well-defined trails to discourage human-caused erosion and avoid seabird nesting and roosting sites;
- c. Avoid removal of stabilizing native vegetation, including *Dudleya* succulents;
- d. Avoid contribution to erosion and instability of the bluff face and improve instability where feasible, such as with revegetation of disturbed areas;
- e. Direct sheet flow from trails away from bluff edges to distribute and percolate inland; and
- f. Post signs informing recreational users not to disturb natural vegetation or nesting and roosting sites.

Policies - Sand Dunes

6-24. Permitted Uses in Dune Habitats. The following uses may be permitted in dune areas:

- a. Resource-dependent uses permitted by Policy 6-16; and
 - b. Temporary disruption for underground utilities where no feasible alternative exists and where ESHA is fully restored and impacts are mitigated.
- 6-25. Prohibited Activities in Dune Habitats.** Prohibit any activity which alters the profile of a dune, which results in the disturbance or removal of dune vegetation, or which involves any direct removal or excavation of sand from dunes.
- 6-26. Access in Dune Habitats.** Ensure that access to or across coastal dune habitats does not result in damage or degradation to the habitat by directing pedestrian traffic to well-defined formal pathways and controlling pedestrian access to sensitive areas, posting signs informing recreational users not to disturb the dunes or their natural vegetation, and prohibiting all non-authorized motor vehicles.
- 6-27. Nesting and Roosting Sites.** Protect nesting and roosting areas in sand dune habitats for sensitive birds such as Western snowy plovers by means which may include, but are not limited to, fencing, signage, or seasonal access restrictions.
- 6-28. Standards in Dune Habitats.** Require development permitted in coastal dune habitats to adhere to the following standards:
- a. Comply with the terrestrial ESHA standards required by Policy 6-18;
 - b. Revegetate disturbed areas with appropriate stabilizing native species as a condition of permit approval, and
 - c. Locate development landward of the most seaward stabilized dune.

Policies - Coastal Terrace Prairie

- 6-29. Permitted Uses in Coastal Terrace Prairie.** Permit only the resource-dependent uses permitted by Policy 6-16 in coastal terrace prairie habitat areas.
- 6-30. Standards in Coastal Terrace Prairie.** Require development permitted in coastal terrace prairie habitats to adhere to the following standards:
- a. Comply with the terrestrial ESHA standards required by Policy 6-18;
 - b. Site and design development to minimize impacts to and allow landward expansion of the coastal prairie habitat;
 - c. Protect habitat for special status and unique species (e.g. nesting and roosting areas) by means which may include but are not limited to fencing, signage, or seasonal access restrictions; and
 - d. Restore and revegetate on-site or adjacent coastal terrace prairie habitat with an optimized plant species composition to mitigate for any development impacts.
- 6-31. Coastal Terrace Prairie Management and Restoration.** Where management plans and restoration projects are proposed for areas containing coastal terrace prairie, require analysis and implementation of methods to improve the coastal prairie

habitat system for special status and unique species and to account for migration due to rising sea level or erosion.

Policies - Non-Aquatic Habitat for Special Status and Unique Species

6-32. Special Status Species. Define special status species as species that are listed or are proposed for listing as rare, threatened, endangered, or of special concern by the federal and/or state government. Maintain a list of special status species with potential to be found in the Planning Area and develop guidelines for their protection and management. In the event that a special status species with potential to occur in the Planning Area is delisted, consider designation of the species as a unique species.

6-33. Unique Species. Define unique species as an organism or group of organisms that has scientific or historic value, few indigenous habitats, some characteristic(s) that draw attention or are locally uncommon, or that are common only locally or are of limited range. Locally designate unique species and create guidelines for the protection and management of unique species.

Unique species identified in the LCP include winter raptor populations on the Half Moon Bay bluffs. Guidelines for the protection and management of unique species may include specifications for buffers, habitat mitigation ratios, and others.

6-34. Permitted Uses in Non-Aquatic Habitat for Special Status and Unique Species. Where a non-aquatic habitat area may support special status or unique species, determine if the habitat is considered ESHA based on site-specific information provided by the biological study required by Policy 6-8. Where an ESHA determination is made, permitted uses shall be limited to the resource-dependent uses allowed in terrestrial ESHA in Policy 6-16.

6-35. Standards in Non-Aquatic Habitat for Special Status and Unique Species. Regardless of an ESHA determination, require proposed development to avoid impacts to special status and unique species through methods such as pre-construction surveys, construction and/or tree removal timing restrictions, and exclusionary fencing.

Policies - Wetlands

6-36. Wetlands Definition. Wetlands shall be defined according to the single-parameter definition in Section 30121 of the Coastal Act and Section 13577(b) of the Coastal Commission's Regulations. Wetlands shall include land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes. Wetlands may also include land where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be

recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats.

- 6-37. Wetland Delineation.** Require a survey, data forms, and analysis with the delineation of all wetland areas when a preliminary biological inventory or biological study indicates the presence or potential for wetland species or indicators. Wetland delineations should typically be conducted during the rainy season and must be conducted in accordance with Policy 6-36. Wetlands Definition, the definitions of wetland boundaries contained in section 13577(b) of the California Code of Regulations, and applicable guidance from the California Coastal Commission.
- 6-38. Wetland Condition.** The condition of a wetland does not affect its regulatory status as a defined wetland pursuant to the Coastal Act. Thus, poorly functioning or degraded areas that meet the definition of wetlands are subject to the LCP's wetland protection policies, including if illegally removed per Policy 6-5.
- 6-39. Wetland Protection.** Protect and, where feasible, restore the biological productivity and the quality of wetlands for both on- and off-site benefits.
- 6-40. Permitted Uses in Wetlands.** Permit the diking, filling, or dredging of wetlands only where there is no feasible, less environmentally damaging alternative and where feasible mitigation measures will be implemented to minimize adverse environmental effects, and only for the following uses:
- a. Education and research activities;
 - b. Public trails;
 - c. Habitat restoration and fish and wildlife management activities; and
 - d. Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers, maintenance of existing intake and outfall lines, and emergency repairs.

Other uses specified in Section 30233 of the Coastal Act may only be allowed pursuant to an LCP amendment.

- 6-41. Wetland Buffer Zones.** Wetland buffer zones for proposed development shall extend a minimum of 100 feet landward from the edge of the delineated wetland. A larger buffer may be required based on site-specific evidence that a larger buffer is necessary to protect the functional capacity of the wetland ecosystem or to protect any sensitive species from the impacts of proposed development. A wetland buffer may be reduced to less than 100 feet only where the following can be demonstrated through evidence provided by site-specific evaluation pursuant to Policy 6-8, and only as specified below:
- a. Where the only building site is located entirely within the required buffer; no alternative development site, size, or design is feasible; and the proposed

development is compatible with the continued viability of the adjacent wetland, including protection of any sensitive species: the buffer may be reduced to no less than 20 feet provided that design alternatives that maximize the buffer width are utilized; or

- b. Where the only building site is not located entirely within the required buffer; no alternative development site, size, or design is feasible to accommodate the development entirely outside the required buffer; no new adverse impacts to the wetland will occur; and the reduced buffer would provide equivalent protection of wetland resources, as conclusively demonstrated by a professional biologist to the satisfaction of the City and all jurisdictional regulatory agencies: the buffer may be reduced to no less than 50 feet.

6-42. Permitted Uses within Wetland Buffer Zones. Within wetland buffer zones, permit only the following uses:

- a. Uses allowed within wetlands pursuant to Policy 6-40;
- b. Public scenic overlooks;
- c. Existing agricultural uses;
- d. New agricultural uses, provided that they prevent impacts on the adjacent wetlands and protect the function of the buffer;
- e. Temporary disruption (e.g. less than six months) for the construction, alteration, repair and maintenance of existing or newly permitted facilities or structures if there are no feasible alternatives and the disruption is repaired and restored to at least an equivalent condition; and
- f. Native landscaping.

6-43. Standards in Wetlands and Wetland Buffer Zones. Require that development permitted in wetlands and wetland buffer zones minimizes adverse impacts during and after construction. Specifically, require that:

- a. All construction which alters wetland vegetation is required to replace the vegetation including “no action” in order to allow for natural reestablishment and pursuant to applicable mitigation requirements;
- b. All construction takes place during daylight hours;
- c. All paths are elevated (e.g. boardwalks) so as not to impede movement of water, not to compact soil, and otherwise not to disturb wetland plants and animals;
- d. All outdoor lighting is prohibited within wetlands, minimized in the wetland buffer zone, and down-cast and directed away from any wetland so as to not affect wildlife;
- e. Noise from motorized machinery is kept to less than 45-dBA at the wetland boundary, except for farm machinery;

- f. No herbicides are used in wetlands and wetland buffer zones unless there are no feasible alternatives and as specifically approved by the County Agricultural Commissioner and all jurisdictional regulatory agencies; and
 - g. Any permit for development includes necessary mitigation, monitoring, reporting and maintenance programs.
- 6-44. Sediment Restoration.** Require that any restoration projects facilitate the delivery of clean, dredged sediment for areas where existing wetlands are or may become sediment-limited due to sea level rise.
- 6-45. Man-Made Ponds and Impoundments.** No buffer is required for man-made agricultural ponds and impoundments actively used within the last five years or for man-made non-agricultural ponds and impoundments actively used within the last one year where such features are part of allowed development or operation or were constructed prior to enactment of the Coastal Act. Implementation of best management practices and avoidance measures for any biological resources are encouraged for the continued use, repair, and maintenance of active ponds and impoundments. Development proposed within or adjacent to non-active ponds and impoundments may require a preliminary biological inventory per Policy 6-7 or a biological study per Policy 6-8 and be subject to ESHA protection and buffer requirements as applicable.

Policies - Watercourses

- 6-46. Riparian Corridors Definition.** Riparian corridors are defined on the ground by an association of native, and in some cases non-native, plant and animal species within or adjacent to a watercourse that contribute to the function or distinction of the riparian habitat. Boundaries of riparian corridors are determined by the limit of riparian vegetation or top of bank, or other confining topography, whichever is greater. The limit of riparian vegetation is determined by the drip line of riparian canopy trees or the limit of riparian shrubs or herbaceous vegetation.
- 6-47. Permitted Uses in Riparian Corridors.** Permit only the following uses within riparian corridors:
- a. Education and research activities;
 - b. Consumptive uses as provided for in the Fish and Game Code and Title 14 of the California Administrative Code;
 - c. Habitat restoration and fish and wildlife management activities; and
 - d. Necessary water supply projects.

Where no feasible alternative exists, permit the following uses:

- a. Stream-dependent aquaculture, provided that any non-stream-dependent facilities are located outside of the corridor;

- b. Flood, sedimentation, or erosion control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development;
- c. Bridges providing an important public transportation or resource-dependent function where supports do not significantly impact the riparian corridor or its resources, such as free-span designs;
- d. Pipelines and stormwater runoff facilities;
- e. Repair, maintenance, or incidental improvement of roadways or road crossings that do not increase the capacity of the roadway; and
- f. Existing agricultural uses; and
- g. New agricultural uses, including agricultural irrigation conveyance systems, provided no riparian vegetation is removed and no soil, nutrients, waste, or other material is allowed to enter stream channels.

6-48. Standards in Riparian Corridors. Require new development permitted in riparian corridors to adhere to the following standards:

- a. Minimize removal of native vegetation;
- b. Minimize land exposure during construction and use temporary vegetation or mulching to protect critical areas;
- c. Minimize erosion, sedimentation, and runoff by appropriately grading and replanting modified areas with native species;
- d. Use only native plant species when replanting, and monitor replanted species and replace as necessary to ensure establishment;
- e. Provide sufficient passage upstream and downstream for native and anadromous fish as specified by the California Department of Fish and Wildlife and the National Marine Fisheries Service;
- f. Minimize adverse effects of waste water discharges and entrainment;
- g. Prevent depletion of groundwater supplies and substantial interference with surface and subsurface water flows;
- h. Encourage wastewater reclamation;
- i. Maintain natural vegetation buffer areas that protect riparian habitats;
- j. Minimize alteration of natural streams;
- k. Conform with Chapter 7. Environmental Hazards policies for minimizing risks and avoiding contribution to flood and erosion hazards;
- l. Maintain hydrologic function and sediment transport function of drainages; and
- m. Provide mitigation and long-term monitoring and reporting for any adverse impacts incurred upstream or downstream as a result of permitted development.

6-49. Riparian Corridor Buffers. Buffer zones shall be required for development proposed along both sides of riparian corridors to provide habitat protection and space for meander belts and vegetation growth. Riparian buffer zones shall apply as follows:

- a. For all perennial watercourses (i.e. Pilarcitos Creek, Frenchmans Creek, Arroyo Leon, and Arroyo Cañada Verde west of Highway 1) and certain intermittent watercourses (i.e. Kehoe Watercourse and Wavecrest Arroyo): buffer zones shall extend a minimum of 50 feet from the outer limit of the riparian vegetation or 100 feet from the top of bank, whichever is greater.
- b. For all other intermittent and ephemeral watercourses with riparian vegetation (e.g. Roosevelt Creek, the riparian corridor in the northwestern area of Ocean Colony, and Arroyo Cañada Verde east of Highway 1): buffer zones shall extend a minimum of 35 feet from the outer limit of riparian vegetation or the top of bank, whichever is greater.

6-50. Riparian Corridor Buffer Adjustments. A larger riparian corridor buffer may be required based on site-specific evidence that a larger buffer is necessary to maintain and protect the biological integrity of the riparian habitat and functional capacity of the watercourse from the impacts of proposed development. A riparian buffer may be reduced below what is required by Policy 6-49 only where the following can be demonstrated through evidence provided by site-specific evaluation pursuant to Policy 6-8, and only as specified below:

- a. Where the only building site is located entirely within the required buffer; no alternative development site, size, or design is feasible; and the proposed development is compatible with the continued viability of the riparian corridor: the buffer may be reduced for all riparian corridors to no less than 20 feet from the outer limit of riparian vegetation or from top of bank, whichever is greater, provided that design alternatives that maximize the buffer width are utilized; or
- b. Where the only building site is not located entirely within the required buffer; no alternative development site, size, or design is feasible to accommodate the development entirely outside of the required buffer; no new adverse impacts to the riparian corridor will occur; and the reduced buffer would provide equivalent protection of the biological integrity of the riparian corridor given the site-specific characteristics of the resource and of the type and intensity of disturbance, as conclusively demonstrated by a qualified biologist to the satisfaction of the City and all jurisdictional regulatory agencies:
 - i. The buffer may be reduced to no less than 35 feet from the outer limit of riparian vegetation or 50 feet from the top of bank, whichever is greater, for development proposed adjacent to perennial and intermittent watercourses pursuant to Policy 6-49(a); or

- ii. The buffer may be reduced to no less than 25 feet from the outer limits of riparian vegetation or from the top of bank, whichever is greater, for development proposed adjacent to all other intermittent and ephemeral watercourses pursuant to Policy 6-49(b).

6-51. Permitted Uses within Riparian Corridor Buffer Zones. Permit only the following uses in riparian corridor buffer zones:

- a. Uses permitted in riparian corridors pursuant to Policy 6-47;
- b. Public scenic overlooks;
- c. Existing agriculture, providing no existing riparian vegetation is removed and no soil is allowed to enter stream channels;
- d. Infrastructure improvements that protect public safety and property and that also restore the hydrological function of the watercourse;
- e. Temporary disruption (e.g. less than six months) for the construction, alteration, repair and maintenance of existing or newly permitted facilities or structures if there are no feasible alternatives and the disruption is repaired and restored to at least an equivalent condition; and
- f. Native landscaping.

6-52. Standards in Riparian Corridor Buffer Zones. Require development permitted in riparian corridor buffer zones to adhere to the following standards:

- a. Observe the standards required by Policy 6-48 for development permitted in riparian corridors where applicable;
- b. Minimize the removal of vegetation;
- c. Conform to natural topography to minimize erosion potential;
- d. Prevent runoff and sedimentation from exceeding pre-development levels;
- e. Replant where appropriate with native and non-invasive vegetation;
- f. Prevent discharge of toxic substances, such as fertilizers and pesticides, into the riparian corridor;
- g. Maintain or restore the hydrologic function of the watercourse; and
- h. Anticipate space for potential meander belts and minimize development in these areas.

6-53. Non-Riparian Watercourse Buffers. Where a watercourse lacks riparian vegetation, the boundary of the watercourse is defined by the top of bank or similar confining topography. Proposed development along a non-riparian watercourse lacking riparian vegetation or other sensitive habitat value as determined by a site-specific study, including man-made drainage ditches (e.g. non-riparian portions of Pullman Watercourse) but excluding active agriculture irrigation ditches, shall

provide a minimum 20-foot buffer from the top of bank to provide space for potential meander belts and natural erosion and flooding hazards. The buffer requirements in Policies 6-49 and 6-50 shall apply to proposed development along a watercourse where a site-specific study identifies riparian vegetation or other sensitive habitat value.

- 6-54. Permitted Uses in Non-Riparian Watercourses and Buffers.** Permit only the uses allowed within riparian corridors in non-riparian watercourses. Permit only the following uses in non-riparian watercourse buffer zones:
- a. Uses allowed within riparian corridor buffer zones pursuant to Policy 6-51;
 - b. Green infrastructure improvements; and
 - c. Site access if no feasible alternative exists.
- 6-55. Standards in Non-Riparian Watercourses.** Permitted development in non-riparian watercourses and non-riparian watercourse buffer zones shall adhere to the performance standards required for permitted uses in riparian corridors and riparian corridor buffer zones, respectively.

Policies - Development Standards

- 6-56. Open Space Requirements.** Require a conservation easement, deed restriction, or other comparable mechanism through a condition of approval for proposed development to protect ESHAs, wetlands, watercourses, and their buffer zones.
- 6-57. Land Divisions.** Design land divisions, including lot line adjustments, to preclude new development within and minimize impacts to ESHAs and their buffer areas. Land divisions shall only be permitted if each new parcel being created could be developed (including construction of any necessary access road), without building in ESHA or ESHA buffers, or removing ESHA for fuel modification. Require any new land divisions containing areas of ESHA or ESHA buffer zones to record a deed restriction that protects such areas from non-resource dependent development. Require any new land divisions near ESHA to accommodate migration of ESHA as a result of the impacts of sea level rise.
- 6-58. Public and Recreational Access.** Ensure that public accessways and trails located within or adjacent to ESHA are sited and designed to minimize impacts to ESHA. Measures including, but not limited to, signage, placement of boardwalks, and limited fencing shall be implemented and maintained as necessary to protect ESHA.
- 6-59. Interpretive Signage.** Permit interpretive signage in ESHA that is accessible to the public to provide information about the habitat value and need to protect sensitive resources.
- 6-60. Equestrian Operations.** Require equestrian operations located adjacent to ESHA to implement BMPs as a condition of approval for a coastal development permit or

license agreement for such uses to ensure protection of sensitive habitat areas, biological productivity, and coastal water quality.

- 6-61. Animal Crossings.** Require that new structures such as highways, medians, bridges, culverts, and other development are designed to facilitate movement of animals.
- 6-62. Exterior Lighting and ESHA.** Ensure that exterior night lighting is minimized, restricted to low intensity fixtures, shielded, and directed away from ESHA in order to minimize impacts on wildlife. Prohibit high intensity lighting for recreational facilities in ESHA, ESHA buffers, or where night lighting would increase illumination in ESHA. Prohibit the use of lighting directed over marine waters.
- 6-63. Construction and ESHA.** Ensure that construction does not adversely impact sensitive bird or other animal species in on-site or nearby ESHA, wetlands, or watercourses by requiring construction projects to implement best management practices (e.g. pre-construction surveys, construction and/or tree removal timing restrictions, exclusionary fencing), and, as appropriate based on project scope and site conditions, noise and vibration reduction measures and monitoring by a qualified biologist during construction.
- 6-64. Active Nest Monitoring.** Ensure construction and tree removal during nesting seasons (generally from February 1 to August 15) complies with the Migratory Bird Treaty Act, California Fish and Game Code, and other applicable regulations by surveying the project vicinity for active nests, avoiding disturbance if active nests are found by employing exclusion buffers or other methods recommended by a qualified biologist, and monitoring active nests until all young have fledged.
- 6-65. Bird-Safe Building Design.** Require new or renovated buildings to provide bird-safe building design features such as façade treatments, limited use of reflective building surfaces, appropriate locations for landscaping and water treatments, restricted use of guy wires, means to reduce light pollution, and other treatments to reduce bird strikes as accepted by the City.
- 6-66. Invasive Species.** Prohibit the use of invasive plant species for ornamental landscaping in ESHA and ESHA buffers. Develop and maintain an updated list of invasive species.
- 6-67. Invasive Species Removal.** Encourage private landowners and public agencies to remove invasive species, including eucalyptus trees, from their lands and replace them with native, non-invasive species. Allow such work to occur with an expedited review process where there is de minimis risk to ESHA and public safety.
- 6-68. Chemical Substances.** Prohibit the use of insecticides, herbicides, or any toxic chemical substance within ESHA and ESHA buffer areas where application of such substances would impact the ESHA, except where necessary to protect or enhance the habitat itself, such as eradication of invasive plant species, or habitat restoration. When restoring habitat, ensure that organic material does not adversely alter natural bank and water chemistry.

Policies - Mitigation and Restoration

6-69. Mitigation. Require mitigation in the form of habitat creation or substantial restoration for permitted impacts to ESHA and other sensitive resources that cannot be avoided through the implementation of siting and design alternatives. Priority shall be given to on-site mitigation. Off-site mitigation shall only be approved when it is not feasible to fully mitigate impacts on-site. In such case, off-site mitigation within city limits is preferred; followed by mitigation within the coastal zone of unincorporated San Mateo County and finally by other coastal zone areas. Mitigation shall not substitute for implementation of the project alternative that would avoid impacts to ESHA.

6-70. Mitigation Ratios. Assess allowable resource impacts to determine required mitigation ratios on a case-by-case basis. At a minimum, apply the following mitigation ratios:

- a. 10:1 for native tree replacement;
- b. 4:1 for wetlands;
- c. 3:1 for riparian habitats;
- d. 3:1 for other habitats that support state or federal rare, threatened, or endangered species, species of special concern (designated by the CDFW), or CNPS 1b or 2 listed plants;
- e. 2:1 for Central Dune Scrub not occupied by listed species;
- f. 1:1 for heritage tree replacement (e.g. Monterey cypress, Monterey pine); and
- g. 1:1 for temporary impacts to any of the above habitat types.

The ratios represent the acreage of the area to be restored/created to the acreage impacted.

6-71. Mitigation, Monitoring, and Reporting Plans. For projects requiring habitat mitigation, a mitigation, monitoring and reporting plan shall be required as a condition of approval. The mitigation plan shall include information on the proposed location, methods, success criteria, and monitoring for the mitigation. Monitoring and reporting shall generally occur for a period of no less than five years following completion and shall take into account the recommendations of the project biologist. Specific mitigation objectives and performance standards shall be designed to measure the success of the restoration and/or enhancement. Mid-course corrections shall be implemented if necessary. Monitoring reports shall be provided to the City annually and at the conclusion of the five-year monitoring period that document the success or failure of the mitigation. If performance standards are not met by the end of five years, the monitoring period shall be extended until the standards are met. However, if after ten years, performance standards have still not been met, the

applicant shall submit an amendment proposing alternative mitigation measures to meet the same required mitigation ratio(s).

- 6-72. Habitat Restoration, Creation, or Enhancement.** Where a habitat restoration, creation, or enhancement project constitutes development and/or is proposed within ESHA, allow for temporary impacts during restoration in order to reach defined project goals. Ensure that habitat restoration, creation, or enhancement projects are designed to anticipate impacts of sea level rise and adapt to future conditions. Encourage such projects for the purpose of continued viability of biological value, and as a method of sequestering greenhouse gases.
- 6-73. Habitat Restoration Project Permitting.** Streamline permitting processes whenever possible to facilitate the successful completion of restoration projects. Allow for an expedited permit review or establish a waiver process for any habitat improvement projects that constitute development are proposed and no significant adverse impacts to coastal resources (including ESHA, Potential ESHA, and hydrology) will occur, such as the removal of debris, litter, or invasive exotic species and limited fuel modification with non-mechanized and/or non-motorized equipment.
- 6-74. Wetland Sediment Restoration.** Restore natural hydrodynamic systems to help ensure the ability of wetlands to persist, including with accommodations for climate change, such as by ensuring that sediment is available for wetland accretion.

Hydrology and Water Quality

The following section discusses the hydrology and water quality of Half Moon Bay, including as it relates to the larger watershed areas, surface waters (i.e. watercourses), and groundwater. The Planning Area is bound on the east by the Santa Cruz Mountains and on the west by the Pacific Ocean. These major features mediate hydrologic processes within the Planning Area as all surface and subsurface flow is toward the west. Pillar Point, located just north of the Planning Area, extends into the Pacific and establishes the northern boundary of a partially enclosed bay, Half Moon Bay, which forms the Planning Area's western boundary.

WATERSHEDS

The Planning Area is located entirely within the California Interagency Watershed (Calwater) mapped San Mateo Coastal Hydrologic Area (HA). The HA is divided into smaller sub-basins or hydrologic units and the Planning Area overlays portions of three Hydrologic Sub-Areas (HSA) and four Planning Watersheds (PWS), respectively. The four PWS within the Planning Area are Denniston Creek, Pilarcitos Creek, Mills Creek, and Purisima Creek. Fifteen sub-basins have been identified for the Planning Area, as shown in Figure 6-5. Land uses in the sub-basins are characterized by open space in the eastern uplands vegetated with forests, scrubland, and grasses; Highway 1 and Highway 92, the two major regional transportation

routes; pockets of residential neighborhoods; agricultural and floricultural development with some larger greenhouse operations; central commercial uses in downtown Half Moon Bay; and vacant land and open space, including recreational areas, along the coast.

SURFACE WATER RESOURCES

The Planning Area is crossed by a number of surface waters (also referred to as watercourses, creeks, streams, and drainages) that discharge directly or indirectly to the ocean. Surface water features are highly seasonal, especially in the lesser drainages. Surface waters in the region provide a variety of beneficial uses ranging from drinking and irrigation and supply for agricultural uses and livestock grazing to supporting avian, terrestrial, and aquatic wildlife resources, providing recreational opportunities, transporting sediment, mitigating flood disasters by storing water.

Major Watercourses and Drainages

There are five major perennial or near perennial surface waters within the Planning Area; Frenchmans Creek, Pilarcitos Creek, Arroyo Leon Creek, Apanolio Creek, and Arroyo Cañada Verde. Arroyo de en Medio is an intermittent stream outside the Planning Area that typically has consistent flow during the wet season (Figure 6-5). These surface water features are characterized by narrow high gradient erosive headwaters and tributaries originating in the Santa Cruz Mountains transitioning to wider, lower gradient, depositional waters as they approach the ocean. Flows are primarily driven by precipitation and typically follow an annual pattern consistent with winter rains and summer drought. In dry years, summer flows may be limited to shallow subsurface flow with the features appearing to be dry.

Minor Watercourses and Drainages

Several minor natural watercourses and man-made drainages are located throughout the Planning Area (Figure 6-5). These watercourses are typically characterized by intermittent flows resulting primarily from storm events with little or no base flow present for much of the year. Most of these watercourses have limited flow lengths and small localized watershed areas. These watercourses typically drain either directly or through various conveyances (pipes, ditches, culverts) to the larger drainage features described above, are isolated and lack additional surficial connection, or are located in close proximity to the ocean and discharge directly to beach areas.

The minor watercourses and drainages include but are not limited to Roosevelt Creek, Pullman Watercourse, Kehoe Watercourse, Wavecrest Watercourse, Seymour Watercourse, and the Wavecrest Arroyo at the south end of Wavecrest. These features generally may not support as diverse resources and uses as the larger drainages but contribute to flora and fauna habitat, wetlands, groundwater recharge, stormwater conveyance, and local flood management. However, Kehoe Watercourse and the Wavecrest Arroyo are considered ESHAs due to their suitable habitat for and known presence of several special status animal species (Figure 6-2). All of these features are subject to potential erosion and flood hazards, particularly the man-made drainages such as Seymour.

GROUNDWATER RESOURCES

Groundwater is an important element of the hydrology of the region. Groundwater can supply water for drinking, irrigation, and industrial processing and service, and may influence surface water hydrology through inflow or discharge. The Planning Area is almost entirely underlain by the Half Moon Bay Terrace groundwater basin. The basin occupies a total area of approximately 9,150 acres along the California coast from Martins Beach north to Montara, approximately 3,546 acres of which is located within the Planning Area, and supplies limited water for domestic and municipal uses with the most significant withdrawal from the Ocean Colony Partners Balboa well field used to irrigate two golf courses in the area.

The basin is made up of several smaller sub-basins, and four are identified in the Planning Area: El Granada sub-basin, Arroyo de en Medio sub-basin, Frenchmans Creek sub-basin, and Lower Pilarcitos Creek sub-basin. The aquifers of these sub-basins are generally composed of shallow, unconfined and semi-confined, marine terrace and alluvial deposits, underlain by the Purisima formation with overlying fine-grained alluvial deposits. The overlying alluvial deposits can create an impermeable cap over the marine terrace aquifers resulting in confined groundwater conditions. The aquifers are generally bound on the east by bedrock and on the west by the Pacific Ocean. Groundwater flows are from east to west, toward the Pacific Ocean, and can be significant. This outflow to the ocean results in large seasonal changes in groundwater levels as well as a dynamic fresh-salt water interface. Greater withdrawal, less recharge, and/or drought will move this interface inland. Seawater intrusion has not been well investigated in the Planning Area; although the County of San Mateo's Sea Level Rise Vulnerability Assessment (2017) found the SAM Plant to be already subject to seawater intrusion.

Rainfall recharge and subsurface inflow from drainages are the primary contributors to inflow in the Planning Area. Stream recharge has been indicated as the primary contributor to recharge especially in the El Granada, Arroyo de en Medio, and Frenchmans Creek sub-basins. Overall, aquifers in the Planning Area have groundwater surplus during wet years but may have a deficit in dry or prolonged drought periods.

WATER QUALITY

Water quality is a key factor in maintaining the beneficial uses of hydrologic resources. Water quality degradation not only endangers public health and welfare but can have substantial negative effects on flora and fauna including threatened or endangered species. Sources contributing to water quality degradation include erosion from construction or hydromodification (alteration of the natural flow of water through a landscape), pollutants and nutrients present in stormwater runoff, wastewater discharge, sedimentation from excess erosion, thermal modification, and pollutant spills or contamination from historic or active facilities.

Surface Water Quality

Surface waters in the Planning Area are substantially influenced by runoff and the materials transported therein. Urban runoff has been found to contribute significant quantities of total suspended solids, heavy metals, petroleum hydrocarbons, and other pollutants to the waters

of the region.⁴ The impact of these pollutants is variable. Nutrients from fertilizer, agricultural operations, sewerage, and sediments can result in toxic algal blooms and anoxic conditions. Suspended sediments and other solids bind to and transport harmful or toxic pollutants and nutrients, are harmful to freshwater fish, and can cause sedimentation, facilitating further habitat degradation and hydromodification. Metals (cadmium, copper, lead, and zinc), petroleum hydrocarbons, and other toxic contaminants (pesticides, herbicides) washed off from impervious surfaces and developed areas may produce toxic responses in aquatic life or human health risks. Pathogens (total coliform and *Escherichia coli* [*E. coli*]) from fecal waste, wastewater, and septic systems can cause disease and other health concerns.⁵

Sampling has indicated high fecal coliform counts for Pilarcitos Creek and several beaches in the northern portion of the Planning Area, which has led to the San Mateo County Department of Environmental Health posting warnings for potential health hazards.⁶ Venice Beach and Pillar Point Harbor are both listed on the SWRCB 303(d) list as impaired by coliform bacteria. Total Maximum Daily Loads (TMDL) are being prepared for these beaches in accordance with the federal Clean Water Act. To date, though much speculation has been made, the primary sources for fecal pollution in the area are unclear and additional study is needed.

In addition to fecal pollution, high levels of zinc and copper (2003-2005) and nutrients (2005) have been recorded in the lower watershed area of Pilarcitos Creek. It is speculated that the elevated trace metals may be attributed to the BFI Ox Mountain Sanitary Landfill located just east of the Planning Area, though additional study is required to confirm sources.⁷

Surface water quality monitoring and pollutant reduction will continue to be addressed through local, state, and federal programs such as the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP). Surface water contamination from anthropogenic sources will continue to be regulated through federal, state, and local authorities with clean-up typically enacted by the party responsible or liable for the source.

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the Clean Water Act in 1972 and addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. The City of Half Moon Bay operates under the County of San Mateo's NPDES permit. In order to more closely regulate larger-scale projects for their stormwater runoff impacts and treatment, municipalities regulated by NPDES permits must adhere to Provision C.3, the goal of which is to include appropriate source control, site design, and stormwater treatment measures primarily

⁴ California Regional Water Quality Control Board (RWQCB), 2013, San Francisco Bay Region, Water Quality Control Plan (Basin Plan), July 2013.

⁵ Phillip William and Associates (PWA), 2008, Pilarcitos Integrated Watershed Management Plan, October 24, 2008.

⁶ San Mateo Resource Conservation District (SMRCD), 2007. Identification of Sources of Fecal Pollution Impacting Pillar Point Harbor, Pillar Point Harbor Project Description, October 29, 2007.

⁷ Phillip William and Associates (PWA), 2008, Pilarcitos Integrated Watershed Management Plan, October 24, 2008.

through low impact development (LID) techniques for C.3 regulated projects. C.3 regulated projects fall into three categories:

1. New or redeveloped special land use categories (auto service facilities, retail gasoline outlets, restaurants, or uncovered parking lots) that create and/or replace 10,000 square feet or more of impervious surface;
2. New development or redevelopment projects that create or replace 5,000 square feet or more of impervious surface for commercial, industrial, residential, mixed-use, and public projects; and
3. Road and trail projects that create 10,000 square feet or more of newly constructed contiguous impervious surface.

As supported in policy below, the City uses these categories to identify projects of particular water quality concern and require implementation of on-site LID source control, site design, and stormwater treatment. The City's Green Infrastructure Plan addresses preferred methods and priority locations for green infrastructure improvements to take place. Similar to low impact development techniques, green infrastructure is designed to mimic natural processes to reduce and treat stormwater in order to prevent water quality impacts from urban runoff pollution. Examples include rain gardens, bioswales, permeable pavements, de-channelization, and street landscaping. These types of improvements may be incorporated into C.3 regulated projects to address runoff treatment or may be used to replace existing traditional hard infrastructure (e.g. pipes, culverts).

Groundwater Quality

Groundwater quality in the region is variable depending on well location, depth, and development (age and use of well). Typically, groundwater in the region is considered to be of good quality with mineral, chemical, and physical constituents meeting domestic water quality standards.⁸ However, groundwater along the coast and within the Planning Area is consistently hard and studies have shown the potential for elevated levels of total dissolved solids, iron, and manganese.⁹ Due to the proximity to the ocean, seawater intrusion is a potential concern especially if groundwater withdrawals increase or recharging sources are diminished; rising sea levels may also contribute to this risk.

Groundwater can be impacted by a variety of historical or ongoing anthropogenic activities including industrial and agricultural chemical spills, underground and above ground tank and sump leaks, landfill leachate, septic tank failures, and chemical seepage via shallow drainage wells and abandoned wells. Toxic pollutants commonly found in groundwater range from solvents (including volatile organic compounds [VOCs] and semi-volatile organic compounds

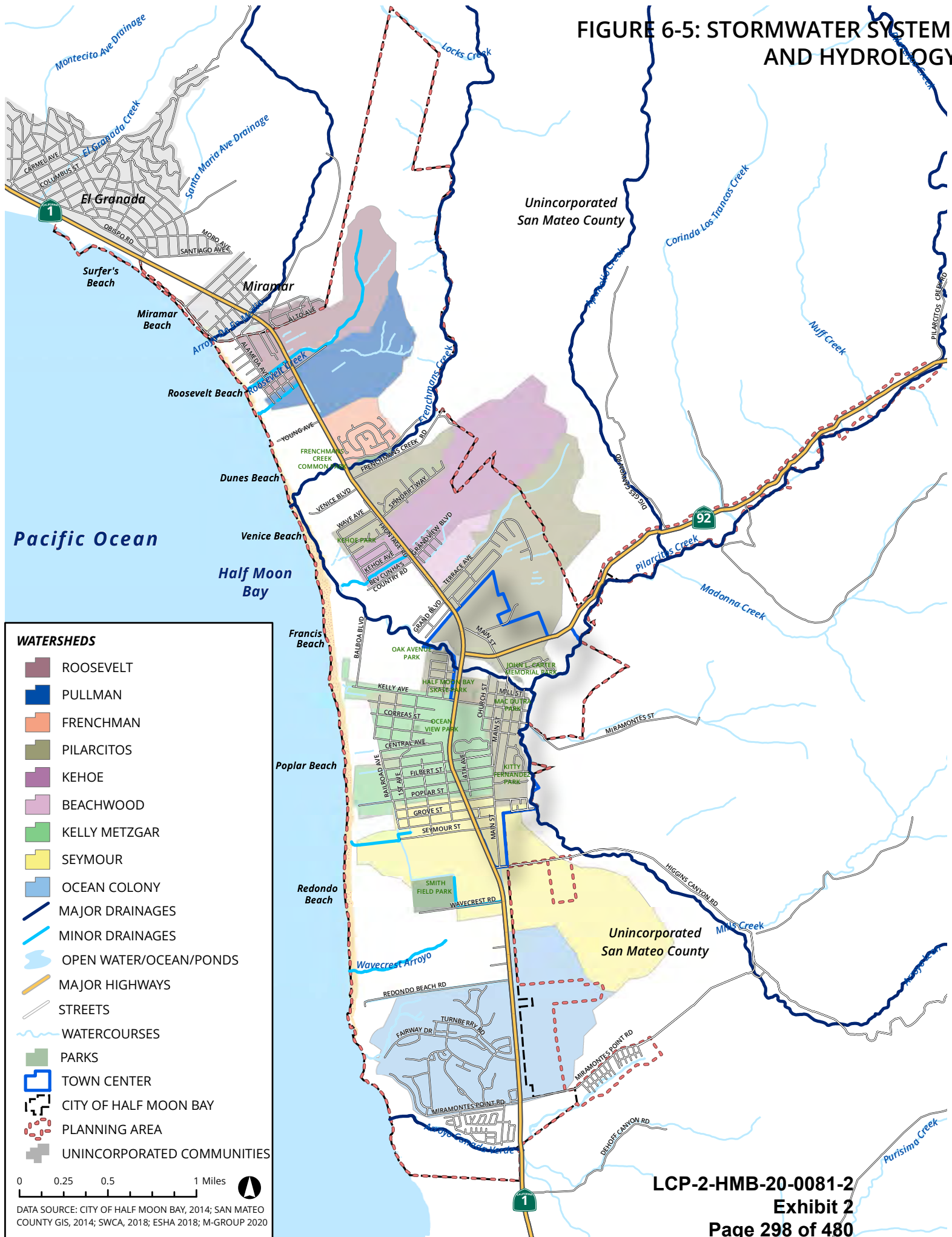
⁸ San Mateo County General Plan, Chapter 1–Vegetative, Water, Fish, and Wildlife Resources and Chapter 15–Natural Hazards, 1985.

⁹ Todd Engineers. 2003. Lower Pilarcitos Creek Groundwater Basin Study. Coastside County Water District, Half Moon Bay, California. June 2003.

[SVOCs]), petroleum hydrocarbons, heavy metals, or a combination of these pollutants.¹⁰ Contaminant sources that may impact the Planning Area include Ox Mountain Landfill, Half Moon Bay Landfill (closed), and Leaking Underground Storage Tank (LUST) sites. Such hazardous materials sites are addressed further in Chapter 7. Environmental Hazards.

¹⁰ California Regional Water Quality Control Board (RWQCB), 2013, San Francisco Bay Region, Water Quality Control Plan (Basin Plan), July 2013.

FIGURE 6-5: STORMWATER SYSTEMS AND HYDROLOGY



HYDROMODIFICATION

Hydromodification is defined as development-induced changes to the natural hydrological processes and runoff characteristics. Increased volumes or rates of stormwater runoff from development can lead to creek channel erosion and sedimentation, flooding, and habitat loss.

Watersheds within the Planning Area have generally been found to contain a low percentage of imperviousness and a high percentage of unmodified creek channels (e.g. not channelized, culverted, concrete lined, or otherwise modified) compared to the Bay Area region.¹¹ Despite these positive metrics, development in the greater Bay Area and Planning Area has resulted in numerous instances of stream incising. Stream channel incising, typically observed as the lowering or widening of the stream channel, is generally the result of excessive erosion, often due to higher flow rates that occur as the result of development encroaching in a stream corridor, straightening of channels, loss of riparian buffers, or increases in area of impervious surface in the watershed. When the streambed is lowered through incising, the ability of high flows to overtop the banks and move into the floodplain decreases, and thus higher volumes and velocities of water within the channel increase the amount of erosion and continue the problem of degradation within the channel. This is a self-sustaining problem, whereby increased incision leads to further streambed degradation. As the bank becomes deeper and steeper, erosion may wear away the sides of the streambed, eventually leading to bank instability and failure. Photo 6-1, which shows the stream channel under Seymour Bridge, illustrates the effects of incising and related streambank erosion.

Although erosion is a natural stream process, this process can become problematic when the hydrogeomorphic balance (e.g. discharge and sediment load) of a system is out of equilibrium, posing serious structural or ecological issues as well as the potential for damaging or endangering infrastructure or human life. Most commonly, excessive stream incising is found to be attributed to alteration in the upstream watershed through landscape change, modification of hydrologic patterns, stream channelization or straightening, and the introduction of greater discharges in relation to sediment loads. The degree and type of erosion/incising that may occur will depend on numerous factors including but not limited to the soils, sediment, and geology present; stream gradient and morphology characteristics; watershed land use and hydrology characteristics; and other anthropogenic stressors or modifications present. Stream incising once initiated is a difficult process to combat and often results in further degradation of the stream channel through further erosion, increased bank undercutting facilitating bank failure and collapse, or other morphological changes.¹² Restoration of an incised stream is possible through means such as channel reconstruction or meander construction along the channel to recreate more natural hydrologic conditions.

¹¹ SMCWPPP, 2002, Characterization of Imperviousness and Creek Channel Modification for Seventeen Watersheds in San Mateo County, January 1, 2002.

¹² California Regional Water Quality Control Board (CRWQCB), 2003, A primer on Stream and River Protection For the Regulator and Program Manager, Technical Reference Circular W.D. 02-#1, San Francisco Bay Region, California Regional Water Quality Control Board, April 2003.



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California Coastal Records Project, www.californiacoastline.org.

Photo 6-1: Severe incising and stream bank erosion is evident at Seymour Bridge, where the stream channel has lowered and widened.

It is likely that land use changes within the Planning Area, such as the conversion of undeveloped lands for urban development, agriculture, or other anthropogenic uses, have resulted in the modification of natural hydrologic processes of several of the surface waters present, through increased runoff from impervious surfaces, greater stormwater discharge, or modification of channel geomorphology. Instances of stream channel incision and associated stream bank erosion have been observed within Kehoe Watercourse as evidenced by the undermining and eventual collapse of stream bank vegetation as well as within Seymour Watercourse near Seymour Bridge as evidenced by substantial stream incision,

stream bank erosion, and the undermining of the bridge infrastructure. Observations in the Pilarcitos watershed also found evidence of channel incision in many of the surface waters.¹³

RESTORATION STRATEGIES

In addition to protection of the City's hydrology and water quality, restoration can provide opportunities for watercourse and water quality improvement. Restoration methods can include green infrastructure improvements, groundwater recharge, and habitat restoration, all of which provide cross-cutting benefits to Half Moon Bay's natural resources. Many of the City's watercourses are in need of restoration and green infrastructure improvements, including Roosevelt Creek, Pullman Watercourse, Kehoe Watercourse, Seymour Watercourse, and the multiple small drainages running through the West of Railroad PD.

Groundwater recharge allows aquifers to refresh their storage levels, providing a water source for irrigation and other supply during periods of drought. Groundwater recharge can also act as a barrier to seawater intrusion and can restore groundwater-dependent ecosystems, including river flows. Recharge can occur naturally or artificially; naturally through rainfall and surface water percolating into the ground to an underlying aquifer, and artificially through methods such as recharge ponds and injection wells. As of 2020, Pilarcitos Quarry (Vulcan) had plans for a deep excavation project to create a large water body for storage and release into Pilarcitos Creek in summer months for groundwater recharge.

Habitat restoration, particularly wetland restoration, is another effective method of natural groundwater recharge. Wetlands act as storage areas for stormwater runoff and allow for groundwater recharge. Wetlands would be improved with any restoration projects that provides expanded wetland area. Methods and policies for habitat restoration are discussed in more detail in the Biological Resources section of this chapter and are also supported in the LUP policies below.

Policies – Hydrology and Water Quality

LUP policies seek to protect the quality and hydrological function of Half Moon Bay's coastal waters through development requirements, grading and hydromodification restrictions, stormwater and wastewater management, and restoration support including accommodations for habitat retreat.

The LUP requires development to avoid impacts to coastal waters through siting and design measures. Development must not result in degradation of water quality from non-point source pollutants or increase stormwater runoff discharge rates from the site. Policies call for proposed development to utilize best management practices (BMPs) during construction and post-construction phases to prevent erosion and contaminated runoff, and to decrease stormwater flow rates. Proposed development must also provide drainage plans to manage

¹³ Phillip William and Associates (PWA), 2008, Pilarcitos Integrated Watershed Management Plan, October 24, 2008.

runoff while maintaining or improving existing drainage patterns, and limit land disturbance and grading activities that can lead to sedimentation.

The LUP provides for stormwater infrastructure improvements, incorporating LID strategies and pervious surfaces to ensure stormwater is filtered and flow rates are decreased. The LUP also requires the City to cooperate with the San Mateo County Water Pollution Prevention Program (SMCWPPP) and reduce litter, debris, and contaminants in public places in order to improve water quality. Policies address the need to plan for sea level rise impacts through methods such as retrofitting existing infrastructure and developing strategies for relocation or removal of at-risk infrastructure.

The LUP also prioritizes the preservation of natural hydrological patterns and provides for restoration of wetlands and riparian habitats for ecosystem services such as flood retention, water filtration, and groundwater recharge. Policies discourage alterations to natural watercourses that would adversely impact hydrology.

Policies - General

- 6-75. Protect and Conserve Water Resources.** Protect, conserve, and, where feasible, restore the quality of the City's watersheds and water resources, including fresh water, marine habitats, and groundwater.
- 6-76. Green Infrastructure.** Promote and prioritize the use of Low Impact Development (LID) strategies, Best Management Practices (BMPs), and on-site infiltration to create green infrastructure for treating and reducing stormwater runoff. In and adjacent to ESHA, use resource-dependent green infrastructure projects for natural restoration purposes and provision of buffer areas to allow for natural erosion, evolution of natural drainage flows, and sediment transport balance.
- 6-77. Hydrology and Water Quality Restoration.** Encourage and implement opportunities to restore wetlands, riparian corridors, and other habitats that provide stormwater retention and storage, carbon sequestration, remediation for degraded water quality, and groundwater recharge. Support and prioritize such restoration projects that provide multiple benefits to coastal resources and improve ecosystem functionality and resiliency.
- 6-78. ESHA Protection from Runoff.** In areas in or adjacent to an ESHA, plan, site, and design development to protect the ESHA from any significant disruption of habitat values resulting from the discharge of stormwater or dry-weather runoff flows.
- 6-79. Stormwater Management.** Reduce impacts from erosion and water quality degradation by managing development project runoff stormwater discharge rates and implementing hydromodification management measures. Update storm event standards and precipitation models with best available science on climate change as necessary.
- 6-80. Groundwater Extraction.** Regulate development to limit or prevent extraction and avoid overdraft from aquifers that are potentially vulnerable to seawater intrusion,

including as consistent with the private and public well policies of Chapter 3. Public Works. Encourage measures to recharge shallow aquifers that are depleted.

Policies – Development Standards

6-81. Siting and Design. Site and design development to avoid adverse impacts to coastal waters by incorporating measures designed to achieve the following:

- a. Protect, restore, and enhance areas that provide important water quality benefits, areas necessary to maintain riparian and aquatic biota and/or that are susceptible to erosion and sediment loss;
- b. Limit increases of impervious surfaces, especially impervious surfaces directly connected to the storm drain system;
- c. Minimize the transport of pollutants from development into runoff and coastal waters;
- d. Limit land disturbance activities such as clearing and grading, and cut-and-fill to reduce erosion and sediment loss; and
- e. Preserve, restore, and enhance natural watercourses and vegetation.

6-82. Land Division Design. All land divisions shall be designed such that the location of and grading required for building pads and access roads minimizes erosion and sedimentation. Ensure that new subdivisions are sized and designed to provide adequate space for necessary runoff and drainage controls. Prohibit land divisions that would result in building pads, access roads, or driveways located on slopes over 30 percent, or result in grading on slopes over 30 percent.

6-83. Construction Best Management Practices (BMPs). Require new development proposals to include construction phase erosion control and polluted runoff control plans. These plans shall specify BMPs that will be implemented to minimize erosion and sedimentation, provide adequate sanitary and waste disposal facilities and prevent contamination of runoff by construction chemicals and materials.

6-84. Drainage and Runoff Control Plans. Require new development proposals to include post-construction phase drainage and polluted runoff control plans. Such plans shall:

- a. Specify site design, source control and treatment control BMPs that will be implemented to minimize post-construction polluted runoff, and shall include the monitoring and maintenance plans for these BMPs;
- b. Ensure that post-construction structural BMPs (or suites of BMPs) are designed to treat, infiltrate, or filter the amount of stormwater runoff produced by all storms up to and including the 10-year 2-hour storm event;
- c. Ensure dry weather runoff does not exceed the pre-development baseline flow rate to receiving waterbodies;

- d. Complement and utilize existing drainage patterns and systems where they are in proper functioning condition, conveying drainage from the developed area of the site in a non-erosive manner that avoids downstream cumulative impacts; and
 - e. Restore disturbed or degraded natural drainage systems where feasible, except where there are geologic or public safety concerns.
- 6-85. Developments of Particular Water Quality Concern.** In association with any coastal development permit application, any development with a relatively greater potential for adverse impacts to water quality (e.g. NPDES C.3 Regulated Projects) shall:
- a. Conduct a site characterization and document the expected effectiveness of the proposed BMPs;
 - b. Provide drainage and runoff control plans pursuant to Policy 6-84;
 - c. Use a green infrastructure approach to retain the design storm runoff on-site; and
 - d. Use Treatment Control and Runoff Control BMPs to remove pollutants of concern and minimize adverse post-development changes in the runoff flow regime if any portion of the runoff produced by the design storm cannot be retained on-site.
- 6-86. BMP Maintenance.** Require structural BMPs to be inspected, cleaned, and repaired as necessary to ensure proper functioning for the life of the development. As a condition of permit approval, require ongoing application, maintenance and monitoring as is necessary for effective operation of all BMPs (including site design, source control, and treatment control).
- 6-87. Erosion from Infrastructure.** Ensure that new infrastructure such as roads, bridges, and culverts shall not cause or contribute to watercourse or hillside erosion, or watercourse or wetland siltation and shall include BMPs to minimize impacts to water quality, including construction phase erosion and pollution runoff control plans, and soil stabilization practices. Where space is available, dispersal of sheet flow from roads into vegetated areas or other on-site infiltration practices shall be incorporated into road and bridge design.

Policies - Grading Standards

- 6-88. Grading and Site Plan.** Require all development to be sited and designed so as to minimize grading, alteration of natural landforms, and vegetation clearance in order to prevent soil erosion, stream siltation, reduced water percolation, increased runoff, and adverse impacts on plant and animal life and prevent net increases in baseline flows for any receiving waterbody, except where necessary for habitat restoration projects.
- 6-89. Grading Permit.** Require grading or earthmoving exceeding 50 cubic yards (total including cut and fill) and/or on any portion of a site with a slope greater than 20 percent to apply for a grading permit as a condition of approval for a coastal

development permit, with the exception of tilling or other earthmoving customarily related to existing agricultural operations. The City shall have discretion to require a grading permit based on site-specific conditions and unusual circumstances for grading or earthmoving of less than 50 cubic yards. Grading plans shall meet the requirements of the local implementation plan with respect to maximum quantities, maximum cuts and fills, remedial grading, grading for safety purposes, and maximum heights of cut or fill. Any grading proposed in or adjacent to an ESHA shall be minimized and any disruption shall be repaired and restored to at least an equivalent condition.

- 6-90. Seasonal Grading.** Prohibit earthmoving during the rainy season (extending generally from October 15 to April 15) for development that is located within or adjacent to ESHA or that includes grading on slopes greater than 25 percent. In such cases, approved grading shall not be undertaken unless there is sufficient time to complete grading operations before the rainy season. If grading operations are not completed before the rainy season begins, grading shall be halted and temporary erosion control measures shall be put into place to minimize erosion and sedimentation until grading resumes after April 15, unless the City determines that completion of grading would be more protective of resources. Grading during the rainy season may be permitted to remediate hazardous geologic conditions that endanger public health and safety.
- 6-91. Erosion Control Measures.** Ensure that where grading is permitted during the rainy season (extending generally from October 15 to April 15), erosion control measures shall be implemented prior to and concurrent with grading operations. Such measures shall be maintained through final grading and until landscaping and permanent drainage is installed and established.
- 6-92. Landscaping and Revegetation.** Require cut and fill slopes and other areas disturbed by construction activities (including areas disturbed by fuel modification or brush clearance) to be landscaped or revegetated according to site-specific conditions at the completion of grading. Landscape plans shall provide that:
- a. Plantings shall be native, drought-tolerant plant species, and blend with the existing natural vegetation and natural habitats on the site, except as noted below.
 - b. Invasive plant species that tend to supplant native species and natural habitats shall be prohibited.
 - c. Non-invasive ornamental plants and lawn may be permitted in combination with native, drought-tolerant species within the irrigated zone(s) required for fuel modification nearest approved residential structures.
 - d. Any landscaping or revegetation shall be monitored and reported for a period of at least five years following the completion of planting. Performance criteria shall be designed to measure the success of the plantings, including a desired percent coverage of native species within a specified timeframe. Mid-course corrections shall be implemented if necessary. If performance standards are not met by the

end of the designated monitoring period, the monitoring period shall be extended until the standards are met.

Policies - Stormwater Management

- 6-93. Stormwater Infrastructure.** Prioritize and support green infrastructure strategies for new and replacement stormwater infrastructure improvements, including restoring natural drainage patterns and upstream retention, reducing flood potential and downstream impacts from higher water levels, and supporting groundwater recharge. Where green infrastructure strategies are not feasible to implement, improve existing hard infrastructure based on site-specific conditions through measures such as widening drainage ditches, improving carrying and storage capacity of tidally-influenced streams, installing larger pipes and culverts, adding pumps, converting culverts to bridges, creating retention and detention basins, and developing contingency plans for extreme events. Avoid hard infrastructure improvements in natural areas, including bluffs and cliffs, where feasible.
- 6-94. New Stormwater Outfalls.** Prioritize the use of green infrastructure instead of new stormwater outfalls when feasible. Otherwise ensure that new stormwater outfalls are sited and designed to minimize impacts from sea level rise and to coastal resources. Consolidate new and existing outfalls where appropriate.
- 6-95. Stormwater Pollutants.** Continue implementing National Pollutant Discharge Elimination System (NPDES) provisions for long-term reduction of stormwater pollutants, and the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP). Continue implementing the SMCWPPP requirements for water quality design, source control, stormwater treatment, low impact development, hydromodification management, and construction site controls.
- 6-96. Pervious Surface.** Maximize the amount of pervious surfaces in public spaces to allow urban runoff infiltration and groundwater recharge.
- 6-97. Litter, Debris, and Contaminants.** Ensure that public areas, including streets and recreational areas, are routinely cleaned of litter, debris, and contaminant residue. Coordinate with and support efforts by other organizations or volunteer groups to promote clean-ups of beaches and public open spaces. Require the City, property owners, or homeowners associations, as applicable, to sweep parking lots and public and private streets frequently to remove debris and contaminated residue in coordination with garbage collection schedules.

Policies - Wastewater

- 6-98. Wastewater Discharges.** Ensure that any wastewater discharges minimize impacts to the biological productivity and quality of coastal streams, wetlands, and the ocean.
- 6-99. Wastewater Infrastructure Retrofit, Relocation, and Removal.** Retrofit, relocate, or eliminate existing wastewater ocean outfalls and other wastewater infrastructure, including private septic systems, deemed at risk of sea level rise or other impacts

where feasible. Alternatives include repair, maintenance, and modifications to outfall lines and redesign of wastewater systems. No new wastewater ocean outfalls are allowed on bluffs, beaches, or in the ocean.

Policies – Hydromodification

6-100. Natural Hydrology. Preserve, or where feasible, restore natural hydrologic conditions such that downstream erosion, natural sedimentation rates, surface flow, and groundwater recharge function near natural equilibrium states.

6-101. Alteration of Natural Watercourses. Prohibit alterations or disturbance of natural watercourses, or human-made or altered drainage courses that have replaced natural watercourses and serve the same function, with the following exceptions:

- a. Necessary water supply projects;
- b. Flood, sedimentation, or erosion control projects to protect public safety and existing structures where there is no other feasible alternative; or
- c. The improvement of fish and wildlife habitat.

Any alterations permitted for one of these three purposes shall: adhere to the performance standards listed for permitted uses within riparian corridors in Policy 6-47; minimize adverse impacts to coastal resources, including the depletion of groundwater and changes in water flow speed and volume; and include maximum feasible mitigation measures to mitigate unavoidable impacts. Green infrastructure shall be preferred for flood protection, erosion, and sedimentation control over “hard” solutions such as concrete or riprap channels. Any permitted watercourse alterations shall include BMPs for hydromodification activities.

6-102. Hydromodification Impacts. Evaluate potential hydromodification impacts of development proposals including but not limited to grading, dredging, fill, channelization, and dams permitted pursuant to Policy 6-101 in the context of watershed planning, considering potential benefits and/or adverse impacts to the watershed as a whole. Potential adverse impacts of such projects include effects on habitat, downstream erosion and sedimentation, dam maintenance (to remove silt and trash), and interruption of sand supplies to beaches.

6-103. Erosion Protection for Watercourses. Protect watercourses from erosion impacts. Examples include but are not limited to maintaining riparian vegetation where present to slow water flow; avoiding hardening banks and channels which exacerbates erosion up or downstream; restoring the floodplain and establishing a meander belt; and providing green infrastructure drainage facilities to reduce run-off into the City’s various watercourses.

6-104. Watercourse Monitoring. Monitor and assess the condition of watercourses with respect to changes in erosion and sedimentation. In cases where undesirable changes are identified (e.g. the beginning of incising or head cutting conditions, bank retreat,

or subsidence), implement restoration measures prior to such conditions becoming irreparable through low impact green infrastructure intervention measures.

7. Environmental Hazards

For both the natural and built environment, understanding the risks and avoidance measures associated with environmental hazards is a key component of coastal planning. This chapter addresses four types of hazards: shoreline, geologic/seismic, fluvial flooding, and fire. As a fundamental update of the 1996 Local Coastal Land Use Plan (LUP), this chapter also considers the effects of climate change on each of these types of hazards and on the Planning Area as a whole, in addition to the effects of hazards that have long been known to be present in Half Moon Bay. Each hazard type includes a description of existing conditions and a broad analysis of how such hazard affects Half Moon Bay, a description of the overarching land use planning framework to address or respond to such hazard, and a series of policies that new development must meet.

The purpose of this chapter is to ensure the safety of community members and property, as well as protection of the coastal environment and coastal resources, and to avoid, or mitigate if unavoidable, potential impacts from known natural and man-made environmental hazards. This includes hazards expected to be exacerbated by climate change, especially sea level rise. It is recognized that a particular site may be subject to one or more of these hazard types, and that such hazards interact with each other (for example, creek flooding, ocean waves, and bluff erosion interact at the mouths of creeks). Therefore, it is this LUP's intent to ensure that all hazards are evaluated through required studies and analysis, and that such analysis recognize and consider how such hazards interact and relate to development.

This chapter supports the General Plan's Safety Element, which incorporates this chapter by reference in whole, including its policies. In addition to the hazards addressed here, the Safety Element considers public safety and emergency preparedness as City-specific planning matters. Together, this Environmental Hazards chapter of the LUP and the General Plan Safety Element provide comprehensive policy for this broad subject area meeting and harmonizing California Coastal Act and State General Plan law requirements.

Land Use Plan Framework

The Coastal Act seeks to ensure that development in the coastal zone minimizes risks to life and property and avoids substantial changes to natural landforms. The California Coastal Commission also acknowledges that climate change is expected to continue shifting and intensifying weather patterns around the globe. Extreme weather conditions can increase the magnitude and frequency of coastal hazards, such as erosion, flooding, and vulnerability to wildland fires. The Coastal Act provides that new development shall minimize risk to life and property in areas of high geologic, flood, and fire hazard (Section 30253), and requires that public accessways be consistent with public safety (Section 30212). The Coastal Act also

requires that the implementation of public access policies consider topographic and geologic site characteristics (Section 30214).

New development in the coastal zone must assure stability and structural integrity and not cumulatively create or contribute significantly to erosion, geologic instability, or destruction of the site or other affected areas. Thus, the Coastal Act does not permit new development that would require shoreline protective devices that would substantially alter natural landforms along bluffs and cliffs (Section 30253). Hard shoreline protection is permitted when required to serve coastal-dependent uses or to protect existing structures and public beaches from erosion. However, such allowable hard protection must be designed to eliminate or mitigate impacts on the local shoreline sand supply (Section 30235).

The Coastal Act permits channelization, dams, and other substantial alterations of rivers and streams when necessary for water supply projects, flood control projects, or development primarily intended to improve fish and wildlife habitat. To be permitted, the flood control project must be necessary for public safety or to protect existing development where it has been determined that no other method is feasible, and any impacts to coastal resources such as sedimentation or erosion must be avoided or mitigated (Section 30236).

COASTAL ACT DEFINITIONS AND POLICIES

In the context of Coastal Act hazard policies, the definitions of several terms are essential for coastal resource protection and hazard avoidance. The Coastal Act, the California Code of Regulations, and the Coastal Commission's most recent guidance documents¹ provide definitions and context for these terms. These terms are included and adopted here for consistent application within the City of Half Moon Bay, including this Environmental Hazards chapter, as follows:

“Coastal-dependent development or use” means any development or use which requires a site on, or adjacent to, the sea to be able to function at all. (Coastal Act Section 30101)

“Development” is synonymous with “new development” and means on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511). As used in this section, “structure” includes, but is not

¹ Including the 2015 Sea Level Rise Policy Guidance and 2018 Science Update, as may be amended from time to time.

limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line. (Coastal Act Section 30106)

“Redevelopment” means alteration, demolition, or replacement of 50 percent or more of the major structural components of any structure, or an addition of 50 percent or more to the floor area of such structure. Incremental changes that cumulatively amount to replacement of 50 percent or more over time shall also be considered redevelopment. In all cases, policies that apply to “new development” shall also apply to “redevelopment.” (California Code of Regulations Section 13252(b)² and California Coastal Commission 2015 Sea Level Rise Policy Guidance)

The following California Coastal Act policies are relevant to the avoidance of hazards and the preservation of public safety and are incorporated into this LUP. The Coastal Act also contains several policies addressing the need to protect public safety and consider topographic and geologic site characteristics with respect to providing public access and recreation opportunities (Sections 30212 and 30214), which are incorporated and further discussed in the Coastal Access and Recreation Chapter of this LUP.

Article 4: Marine Environment

Section 30235 Construction altering natural shoreline

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.

Section 30236 Water supply and flood control

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Article 6: Development

Section 30253 Minimization of adverse impacts

New development shall do all of the following:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any

² Section § 13252(b) of the California Code of Regulations states that “unless destroyed by natural disaster, the replacement of 50 percent or more of a single-family residence, seawall, revetment, bluff retaining wall, breakwater, groin or any other structure is not repair and maintenance under Coastal Act Section 30610(d) but instead constitutes a replacement structure requiring a Coastal Development Permit.”

way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

- (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.
- (d) Minimize energy consumption and vehicle miles traveled.
- (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

HALF MOON BAY GENERAL PLAN

This chapter is incorporated into the General Plan Safety Element by reference to address hazards pursuant to State General Plan requirements. Government Code Section 65302(g) requires the Safety Element to consider the protection of the community from any unreasonable risks associated with the effects of seismic and other geologically-induced hazards, flooding, and fires. The Safety Element is required to include mapping of known seismic and other geologic hazards. Where applicable, it must also address evacuation routes, peak load water supply requirements, minimum road widths and clearances around structures. As of 2014, the Safety Element must consider requirements for planning within and near very high fire hazard severity zones, when they are present. The passage of Senate Bill 379 in 2015 further requires the Safety Element to address climate adaptation and resiliency strategies applicable to the Planning Area. These topics, maps, and other requirements are included in this Environmental Hazards chapter of the LUP and are intended to function as a significant portion of the Safety Element.

Hazards and Climate Change

The Planning Area is subject to environmental hazards such as flooding, fire, and geologic instability. These hazards can occur due to shoreline processes (such as wave action, sea level rise, and tsunamis) or inland processes (such as dam or impoundment failure, landslides, and sediment transport). Comprehensive understanding of and consideration for upstream and downstream effects of these hazards, particularly as impacted by new development, is essential for holistic land use planning and hazard avoidance.

Consideration of the effects of climate change is also crucial for present-day hazard planning. Extreme weather conditions are expected to intensify worldwide as global temperatures rise, disrupting past climate patterns. For coastal communities, it is foreseeable that the effects will be especially severe because extreme weather conditions – such as severe storms – exacerbate hazards already present in coastal settings, including shoreline hazards (e.g. coastal flooding, coastal bluff erosion) and inland hazards (e.g. fluvial flooding, stream erosion, and landslides). Extreme weather conditions also include more frequent and prolonged periods of drought, which, along with temperature increases raise the risk of wildland fires.

GREENHOUSE GASES

Certain gases in the atmosphere block heat that radiates from Earth toward space from escaping, creating a greenhouse effect. The primary contributors to this greenhouse effect, known as greenhouse gases, are water vapor, carbon dioxide, methane, nitrous oxide, and

chlorofluorocarbons. Human activities, such as vehicle emissions, burning of fossil fuels, and industrial and agricultural operations, are directly contributing to increases in atmospheric greenhouse gas concentrations, causing accelerated warming of Earth's atmosphere. Consequently, major effects such as global temperature rise, land and sea ice melt, sea level rise, and ocean acidification have been well-documented.

The California Global Warming Solutions Act of 2006, also known as AB 32, established state-wide targets for reducing greenhouse gas emissions to 2000 levels by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050. SB 32 was passed by the Legislature in 2016 to facilitate this effort, requiring the California Air Resources Board (ARB) to ensure that statewide greenhouse gas emissions are reduced to 40% below 1990 levels by 2030. In coordination with AB 32 and SB 32, the ARB has developed regulations and market mechanisms to guide efforts and local governments have been developing and adopting Climate Action Plans to work towards meeting these targets. Emission reduction methods include use of renewable energies, combined-trip and non-motorized transportation, methane capture, and carbon sequestration.

STORMS AND FLOODING

State agencies indicate that with the emergence of climate change, storm events may be more frequent and of higher intensity. For example, the "100-year storm" event is occurring more frequently than once per century.³ The trend is expected to continue. Storm impacts can have serious cumulative impacts on erosion and sedimentation and can compound both geologic and hydrologic hazards, which are discussed in the following sections of this chapter.

Storm events have direct and immediate impacts on the city's natural and manmade storm drain system (creeks, streams, swales, channels, culverts, ditches, and relevant roadways and parklands). The separate sanitary sewer system can also be overwhelmed in the event of extreme precipitation. This can cause infiltration and inflow (I and I) whereby run-off and excess water in highly-saturated soils enter the sewer system through manholes and leaky pipes. Sewer overflows have wide-ranging detrimental impacts on water quality and biological resources and can result in service interruptions and violations of Regional Water Quality Control Board (RWQCB) regulations.

Localized flooding and wind damage commonly occur during extreme storm events. City, county and other public safety agencies and utilities are called upon to maintain services which are threatened by downed trees and flooded roadways. Severe storm events can impair access to transportation routes, communications, and emergency services. The Safety Element addresses emergency preparedness and public safety, which includes ensuring the City's readiness to proactively prepare for and respond to the effects of severe storm events.

DROUGHT AND FIRES

In California's Mediterranean climate, summers are typically dry and the wet season occurs from October to April. In addition to this precipitation pattern, coastal climate tends to be

³ Safeguarding California Plan: 2018 Update, California's Climate Adaptation Strategy, January 2018, Natural Resources Agency.

temperate with summer fogs moderating summer heat. Climate change is already affecting this weather pattern with earlier spring blooms, more variable dry and rainy seasons, and generally higher temperatures.

Drought conditions throughout the western States are expected to be more frequent and long-lasting. Water conservation mandates are often enforced during periods of drought, including the five-year drought event that ended with the unusually wet 2017 winter. Even absent such acute drought conditions, local water supplies—including municipal water and private wells—must be conserved for the community, visitors, and priority coastal resources including agricultural and biological resources.

Wildland fires in the west have become prevalent and much more difficult to contain with prolonged drought periods and increasing temperatures. Fire hazard is typically more prevalent in inland areas which do not benefit from moist marine climatic conditions; however, with climate change, even coastal settings may become extremely dry during extended periods of drought.

SEA LEVEL RISE

Higher sea levels will directly affect coastal resources and development by exacerbating existing hazards such as erosion, flooding, and seawater intrusion. Sea levels are already rising. In concert with storm events and high tides, more frequent and dramatic damage has been occurring along the Planning Area coastline. Sea level rise is considered in more detail in the following section of this chapter.

Policies – Hazards and Climate Change

The LUP requires new development to be sited and designed to minimize risks of and contribution to environmental hazards. The LUP also requires the City to take a holistic planning approach and consider upstream and downstream hazard potential from new development. Policies acknowledge that the risk potential of these hazards should be expected to increase with the compounding effects of climate change over time and that more resilience planning, mitigation and adaptation measures will be needed to reduce the impacts of such hazards. The LUP also requires that disclosures should be made about the presence of hazards on a site. Specific policies addressing shoreline hazards, erosion, flooding, fire hazards and sea level rise are discussed later in this chapter.

- 7-1. Hazard Avoidance.** All new development shall be sited, sized, and designed to minimize risks to life and property and protect coastal resources from geologic, flood, and fire hazard over the life of the development. Coastal resources to be protected may occur on- or off-site, upstream or downstream. Development standards shall anticipate that hazards may be compounded by climate change.
- 7-2. Subdivisions.** Limit subdivisions in areas vulnerable to environmental hazards, including as may be exacerbated by climate change, by prohibiting any new land divisions, including subdivisions, lot splits, and lot line adjustments that create new building sites unless specific criteria is met that ensure that when the subject lots are

developed, the development will not be exposed to hazards, pose any risks to protection of coastal resources, or create or contribute to geologic instability.

- 7-3. Emergency Warning System.** Update, maintain, and improve the City's emergency warning system as consistent with local, state, and federal standards.
- 7-4. Disclosure of Hazard Presence.** Require, as a condition of approval for a coastal development permit on property containing any shoreline, geologic, flood, or fire hazards, the recordation of a deed restriction to ensure the current and any future owners of the property understand the presence and assume the risks of such hazards and any property defects or vulnerabilities related to such hazards, including information about known current and potential future vulnerabilities to hazards as may be exacerbated by climate change and sea level rise.
- 7-5. Long-Term Adaptation.** Consider long-term climate change and sea-level rise for hazard mitigation and incorporate adaptive strategies in planning for future private development, public facilities and infrastructure, and coastal resources.
- 7-6. Replacement Following Disaster.** Allow the replacement of structures destroyed by disasters provided that the replacement conforms to all current LCP development standards, is the same use and general size of the destroyed structure pursuant to Coastal Act Section 30610(g), and avoids or sufficiently mitigates any coastal resource impacts and future hazard risks.
- 7-7. Building Codes and Standards.** Establish and implement building codes and standards for development siting and construction that avoid or minimize risks from environmental hazards and increase the development's ability to respond and adapt to climate change impacts. Provide additional development controls in areas that are identified in the LCP as hazard areas.

Shoreline Hazards

This section describes hazards associated with the interface of shoreline and ocean, including coastal flooding, coastal bluff erosion, tsunami events, and seawater intrusion. These shoreline hazards are all anticipated to be exacerbated by sea level rise and will necessitate adaptive management strategies.

SEA LEVEL RISE

Concurrently with preparation of the LUP update and in cooperation with the California Coastal Commission and the Ocean Protection Council, the City of Half Moon Bay has conducted detailed analysis of sea level rise scenarios and their impacts on existing development, assets, sensitive resources, and hazards/safety. The Sea Level Rise Vulnerability Assessment (2016) may be referenced for further information on anticipated sea level rise impacts in the Planning Area. San Mateo County's Sea Level Rise Vulnerability

Assessment (2018) and Sea Change efforts serve as an additional resource for understanding sea level rise impacts along the coast, and complement the City's own adaptation planning.

Over time, the potential impacts of sea level rise are anticipated to increase the Planning Area's exposure to shoreline hazards. Rising sea levels are likely to affect the amount of area in the city at risk of coastal flooding, the rate of erosion along the shoreline and bluffs, the area of the City's tsunami inundation zone, and potential seawater intrusion into riparian systems and groundwater supplies. Loss of shoreline due to rising waters may also threaten the stability of coastal habitats, recreation areas, public access, and infrastructure. Thus, planning for sea level rise impacts is an essential responsibility for coastal communities to ensure that adaptation occurs in a way that protects both coastal resources and public safety.

Projections

Sea level rise science is an evolving field and understanding of the various processes involved will continue to change as new information comes to light. Decision-making related to sea level rise thus relies on the best available science and planning for uncertainties by examining the potential impacts of different scenarios. The best available science on sea level rise in California at the time of the 2020 LUP update was the Ocean Protection Council's State of California Sea-Level Rise Guidance (2018 update) and the California Coastal Commission's Sea Level Rise Policy Guidance (2018 update), which present scenario-based sea level rise projections for the California coast. These projections consider the probability of sea level rise occurring under several scenarios,⁴ with the year 2000 as the established baseline:

1. **Likely Range:** There is a 66% probability that sea level rise will be in this range. This range may be used for projects that would have limited consequences or a higher ability to adapt, such as public trails and other non-structural development.
2. **The 1-in-200 chance:** There is a 0.5% probability that sea level rise will meet or exceed this scenario. This scenario should be used for projects with greater consequences and/or a lower ability to adapt, such as habitable development.
3. **The Extreme Ice Loss Scenario:** There is no associated probability for this scenario at this time due to its high level of uncertainty. This scenario should be used for projects with little to no adaptive capacity that would be irreversibly destroyed or significantly costly to repair, and/or would have considerable public health, public safety, or environmental impacts should that level of sea level rise occur, such as major public infrastructure and critical facilities.

Table 7-1 below presents the sea level rise projections for the San Francisco tide gauge. Given the uncertainty in the magnitude and timing of future sea level rise, it is important to use scenario-based analysis to examine a range of possible shoreline changes and sea level rise risks. It is also important to note that the level of uncertainty in sea level rise modeling increases as the projected time period increases, especially beyond the year 2100.

⁴ California Coastal Commission, 2018. Sea Level Rise Policy Guidance Final Adopted Science Update, November 7, 2018.

Table 7-1: Sea Level Rise (SLR) Projections for San Francisco

	<u>Likely Range</u>		<u>1-in-200 Chance</u>	<u>Extreme Ice Loss Scenario</u>
Year	<i>66% probability SLR is between...</i>		<i>0.5% probability SLR meets or exceeds...</i>	<i>Probability unknown</i>
2030	0.3 feet (0.1 meters)	0.5 feet (0.15 meters)	0.8 feet (0.25 meters)	1.0 foot (0.3 meters)
2040	0.5 feet (0.15 meters)	0.8 feet (0.25 meters)	1.3 feet (0.4 meters)	1.8 feet (0.5 meters)
2050	0.6 feet (0.2 meters)	1.1 feet (0.33 meters)	1.9 feet (0.6 meters)	2.7 feet (0.8 meters)
2060	0.8 feet (0.25 meters)	1.5 feet (0.5 meters)	2.6 feet (0.8 meters)	3.9 feet (1.2 meters)
2070	1.0 foot (0.3 meters)	1.9 feet (0.6 meters)	3.5 feet (1.1 meters)	5.2 feet (1.6 meters)
2080	1.2 feet (0.4 meters)	2.4 feet (0.7 meters)	4.5 feet (1.4 meters)	6.6 feet (2.0 meters)
2090	1.4 feet (0.4 meters)	2.9 feet (0.9 meters)	5.6 feet (1.7 meters)	8.3 feet (2.5 meters)
2100	1.6 feet (0.5 meters)	3.4 feet (1.0 meter)	6.9 feet (2.1 meters)	10.2 feet (3.1 meters)
2110	1.9 feet (0.6 meters)	3.5 feet (1.1 meters)	7.3 feet (2.2 meters)	11.9 feet (3.6 meters)
2120	2.2 feet (0.7 meters)	4.1 feet (1.2 meters)	8.6 feet (2.6 meters)	11.9 feet (3.6 meters)
2130	2.4 feet (0.7 meters)	4.6 feet (1.4 meters)	10.0 feet (3.0 meters)	16.6 feet (5.1 meters)
2140	2.6 feet (0.8 meters)	5.2 feet (1.6 meters)	11.4 feet (3.5 meters)	19.1 feet (5.8 meters)
2150	2.8 feet (0.8 meters)	5.8 feet (1.8 meters)	13.0 feet (4.0 meters)	21.9 feet (6.7 meters)

Sources: Ocean Protection Council, 2018; California Coastal Commission, 2018.

COASTAL FLOODING

Flood hazards in the Planning Area are typically associated with storms or other events resulting in coastal flooding from waves or tsunamis. Sea level rise can also result in flood impacts in low-lying coastal areas and cause the inland extents of 100-year floods to increase. Higher water levels at the coast may cause water to back up along waterways and drainages

and cause upstream or inland flooding.⁵ Inland flooding is discussed further in the Fluvial Flood Hazards section of this chapter.

Figure 7-1 maps a 100-year storm event under five sea level rise scenarios: 0 feet, 0.8 feet (0.25 meters), 1.6 feet (0.5 meters), 3.3 feet (1.0 meters), and 6.6 feet (2.0 meters). Mapping was conducted using data from the Our Coast Our Future (OCOF) sea level rise mapping tool.⁶ According to the Ocean Protection Council's sea level rise projections shown in Table 7-1, the low-end 0.8 feet scenario could occur as early as 2030 and the high-end 6.6 feet scenario could occur by 2080.

Flooding under these sea level rise scenarios would mainly impact the Planning Area's beaches with some inundation at the outlets of waterways and drainages that will likely be more pronounced with higher sea levels, particularly the outlet of Pilarcitos Creek. Flooding along the waterways under the sea level rise scenarios was not mapped, because OCOF does not provide inundation conditions along inland creeks. However, data from FEMA regarding current conditions shows flood potential along waterways such as Frenchmans Creek that could be exacerbated with higher sea levels. Sea level rise is also anticipated to cause downcutting of creeks, which will impact bank stability and sediment transport balance, as well as cause the mouths of creeks to retreat inland, which will affect habitat. This eventuality will result in loss of riparian corridor area, which is a coastal and community resource. The protection of these coastal resources is mandated by the Coastal Act, and this LUP incorporates policies to facilitate habitat retreat planning.

San Mateo County's 2018 sea level rise vulnerability assessment ("SeaChange") considered longer term and more severe projections for 2100, assuming 66-inches with a 100-year storm. The City's and County's assessment indicate that 91 cm (3 ft.) of sea level rise is enough to cause most of the significant impacts and that near-term planning is critical.

SHORELINE EROSION

Along the shoreline, sources of erosion are related to waves acting upon the steep bluff features, surface flow across the bluff face, and exposure and weakening of soil through use of informal trails near blufftop edges. While bluffs naturally retreat incrementally dependent on a variety of factors, erosion can also occur episodically during a significant storm event or an extreme winter. It is anticipated that higher sea levels will result in an increase in wave heights, producing greater wave energy to erode the coastline at a higher rate.⁷ Such erosion in turn could destabilize the landforms and threaten development on and near blufftops and man-made structures along the coast.⁸ Higher sea levels could also cause the landward

⁵ Heberger, Matthew et. al., 2009. The Impacts of Sea-Level Rise on the California Coast. California Climate Change Center.

⁶ Ballard, G., Barnard, P.L., Erikson, L., Fitzgibbon, M., Higgason, K., Psaros, M., Veloz, S., Wood, J. 2014. Our Coast Our Future (OCOF). [web application]. Petaluma, California. www.pointblue.org/ocof. (Accessed: Date [e.g., August, 2014]).

⁷ National Research Council (NRC), 2012. Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future (2012). http://www.nap.edu/catalog.php?record_id=13389.

⁸ California Coastal Commission, 2015. California Coastal Commission, Sea Level Rise Policy Guidance, unanimously adopted on August 12, 2015.

migration of beaches over time.⁹ In cases where development or other hardened shorelines are present, landward migration is halted, resulting in a process known as coastal squeeze where sandy beaches, intertidal habitat, and other habitat areas are lost due to a fixed shoreline and rising sea levels.

Although the Coastal Act permits shoreline protective devices for structures built prior to the Coastal Act, “soft engineered” approaches (e.g. living shorelines, dune restoration) that allow natural beach migration should be first considered and used where feasible. If these devices are “hard engineered” (e.g. seawalls, rock revetments), they should be removed as soon as possible. If open space for recreation, habitat, and agriculture is to be maintained, there may be a need to allow for relocation of infrastructure for habitat retreat.

Erosion impacts were also mapped for the City’s vulnerability assessment; however, the available data did not take the effects of sea level rise into account. Thus, mapping for these impacts showed erosion projections based on historical rates of erosion (up to two feet of bluff retreat per year) based on the shoreline and cliff retreat data from OCOF and the U.S. Geological Survey (USGS). Table 7-2 below contains coastal bluff retreat projections based on OCOF modeling for three areas of the city, as included in the City’s vulnerability assessment: Miramar, the northern point of West of Railroad, and the southern point of West of Railroad. These projections have implications for impacts to Highway 1, the Coastal Trail, and sensitive habitat areas as early as 2030. It is important to note that as with sea level rise projections, erosion rate projections contain many uncertainties and assumptions based on wave energy, geologic stability, and tide levels.

Table 7-2: Coastal Bluff Retreat Projections

<u>Location</u>	<u>2030</u>	<u>2050</u>	<u>2100</u>
Miramar	35.7 feet (11.4 meters)	70.3 feet (21.4 meters)	157.0 feet (47.9 meters)
West of Railroad (northern point)	35.2 feet (10.7 meters)	70.3 feet (21.4 meters)	158.3 feet (48.2 meters)
West of Railroad (southern point)	35.2 feet (10.7 meters)	71.1 feet (21.7 meters)	161.0 feet (49.1 meters)

Source: USGS, 2015; NCI, 2015.

Within the city, the following areas are especially vulnerable to shoreline erosion:

Miramar Neighborhood and Mirada Road. In January 2016, a section of the cliffs along Mirada Road eroded to the beach below. This led to a road closure pending efforts by the City and San Mateo County to implement an interim shoreline protective project and more long-term solutions. In that same time frame, at the terminus of Mirada Road, the Coastal Commission permitted emergency shoreline hardening with rip rap to protect a residential structure known as Casa Mira; however, within a year this approach was already being undermined by tidal action. Additional dramatic events, including the loss of approximately 27 inland feet of coastal bluff face further south at the terminus of Alcatraz Avenue between

⁹ National Research Council (NRC), 2012. Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future (2012). http://www.nap.edu/catalog.php?record_id=13389.

November 2016 and February 2017, fully exposed the foundation of a State Parks ranger residence. The residence was demolished, and the remaining foundation stabilized. Future consideration of shoreline hardening in this area should consider the effects of reflected wave energy up and down coast from shoreline armoring and riprap installations.

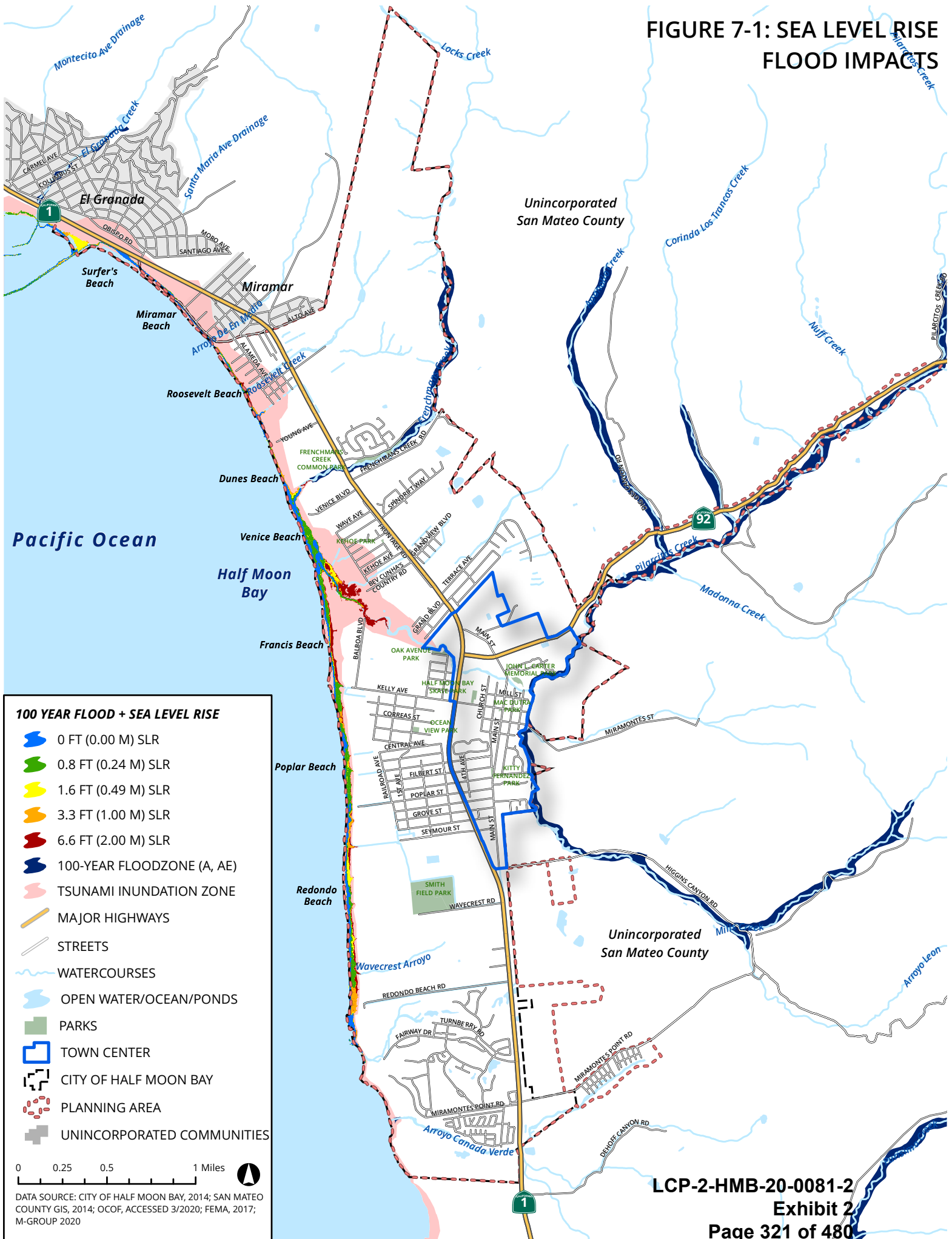
California Coastal Trail. The Coastal Trail is a significant public access and recreation resource in Half Moon Bay. The State Parks Department is anticipating realigning a span of the Coastal Trail between Mirada Road and Alcatraz Avenue farther away from the eroding bluff top edge. Unimproved areas of the trail in North Wavecrest are also at risk of bluff erosion. The Coastal Trail and parallel equestrian trail may also be at risk of erosion caused by undercut culverts, such as at the Pullman watercourse, and by channel outflows, such as at the end of Kelly Avenue.

Poplar Beach Blufftop Park. Following preparation of the Sea Level Rise Vulnerability Assessment in 2016, the City conducted an erosion study of the Poplar Beach Blufftop Park area between Kelly Avenue and the Seymour Ditch. The study indicated that in addition to the future effects of sea level rise, human activities along the Coastal Trail and blufftops cause patterns of impactation that affect drainage patterns¹⁰. New drainage channels created through this inadvertent process are causing bluff erosion at rates higher than anticipated based solely on sea level rise. It is the City's assumption that the combined effects of erosion resulting from drainage issues at the top of the bluffs will be compounded by forthcoming effects of sea level rise eroding the base of the bluffs and result in more severe bluff loss than predicted in studies available at the time of the LUP update. Based on this newly acquired information, the City will be working to address the effects that are within its control in order to reduce the overall loss of blufftop lands and protect the highly significant Coastal Trail.

Potentially relevant to sediment planning in Half Moon Bay is the Pillar Point breakwater just north of the Planning Area at Pillar Point Harbor in Princeton. The breakwater was constructed by the U.S. Army Corps of Engineers between 1956 and 1960. Since then, erosion and sedimentation impacts have been associated with the breakwater and are the subject of studies and planning efforts at the county level. The presence of the breakwater has been linked to erosion along the Princeton shoreline and at Surfer's Beach, as well as excessive sediment deposition within the harbor. Any future alterations in the dynamics at Pillar Point could have implications for sediment movement along the coast of Half Moon Bay.

¹⁰ Half Moon Bay Coastal Trail Existing Conditions and Trail Planning Recommendations, Nichols Consulting Engineers for City of Half Moon Bay, March 2, 2017

**FIGURE 7-1: SEA LEVEL RISE
FLOOD IMPACTS**



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TSUNAMI EVENTS

Tsunamis are large waves caused by seismic or landslide events in the ocean floor. Tsunamis can result from off-shore earthquakes near the Planning Area coastline or from far distant events. Although tsunamis are more typically generated by subduction faults (e.g. the Cascadia subduction zone in the Pacific Northwest), local tsunamis may result from strike-slip faults along the San Andreas fault running along the coast of the San Francisco Peninsula.¹¹ In general, tsunamis along the west coast of the United States and the Planning Area, in particular, are considered to be rare. Most of the recorded tsunami events in the vicinity of the Planning Area have been small with many possibly misinterpreted from other wave-related phenomena such as storm-generated waves or seiches.¹²

Despite their relative rarity, even small tsunami events have the potential to result in coastal flooding. In 1859, a tsunami resulted in 15-foot wave heights near the Planning Area. Teletsunamis (tsunamis originating from sources more than 620 miles away) in 1946, 1960, and 1964 resulted in minor damage along the coastline. Recent tsunami events in Japan and Thailand have increased awareness of the potential for damage associated with such events. The Pacific Tsunami Warning System based in Hawaii monitors wave activity and generates tsunami warnings when seismic events of sufficient magnitude occur. The USGS, National Oceanic and Atmospheric Administration (NOAA), California Geological Survey, and others, are currently working to develop a Pacific Basin Tsunami Scenario. This effort would model inundation patterns, currents and shoreline damage patterns to determine impacts of a Pacific Tsunami event.

The Association of Bay Area Governments (ABAG) in partnership with the City of Half Moon Bay has adopted a Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) that includes hazard mapping and a tsunami evacuation planning map identifying a potential extreme scenario, aggregated from all potential sources of tsunamis, measuring the highest potential wave height from any tsunami event along the coast. This mapping, produced by the California Emergency Management Agency, included ground truth surveys to incorporate features that may impede inundation, and is shown on Figure 7-1.

Tsunami risk within the Planning Area is mapped along the entirety of the Half Moon Bay shoreline, typically ranging inland only as far as the large bluffs (over 30 feet in elevation in most areas) along the coastline. Areas subject to greater risk are located along Pilarcitos Creek where inundation ranges approximately 3,000 linear feet inland from the coast, adjacent to Naples Beach ranging inland approximately 1,300 linear feet, and adjacent to Miramar Beach, Vallejo Beach, Half Moon Bay State Beach, and El Granada Beach. These areas include residential, commercial, and recreational developed land uses, as well as public facilities (e.g., California Coastal Trail) and critical facilities (e.g., Highway 1 and the Sewer

¹¹ Association of Bay Area Governments (ABAG), 2010, Taming Natural Disasters, Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area, Publication Number: P09001EQK.

¹² Lander, J.F., Lockridge, P.A., and Kozuch, M.J., 1993, Tsunamis Affecting the West Coast of the United States 1806-1992: National Geophysical Data Center Key to Geophysical Record Documentation No. 29, NOAA, NESDIS, NGDC, 242 p.

Authority Mid-Coastside (SAM) wastewater treatment facility).¹³ Though data was not available for tsunami impacts under sea level rise scenarios for the City's vulnerability assessment, it would be expected that a tsunami would impact areas farther inland at higher sea levels.¹⁴

Mitigation of tsunami risk consists mainly of improved early warning systems and evacuation routes and information, rather than restrictions on development for infill development sites. However, other planning considerations may apply for PDs or new subdivisions. In 2005 the City installed two emergency warning sirens within the city limits and updated its evacuation plan. The City has also obtained its TsunamiReady certification from NOAA.

SEAWATER INTRUSION

Several creeks—including Roosevelt Creek, Frenchman Creek, Pilarcitos Creek, and Canada Verde Creek—flow through Half Moon Bay into the ocean. These creeks are separated from the ocean by berms and beaches and have little water flow during most days. As a result, seawater intrusion for these freshwater resources would be considered negligible. Over time and under certain conditions, it is possible that seawater may enter habitats at the mouths or channel beds of waterways. This could occur as a result of failure of the protection provided by the berms and beaches due to erosion, damage from shoreline hazards, channel incision and downcutting of creeks, or extreme tides or flooding combined with higher sea levels. To fully understand the potential for seawater intrusion and any impacts on the habitats in those areas, further study would be required of the strength and elevation of the berms and the channels, potential frequency of occurrence given tides and storm strengths, and whether seawater would subsequently flow out of the waterways or remain in them. Additionally, further study would be required to understand the sensitivity of coastal habitats exposed to potential seawater intrusion to that impact. Thus, while seawater intrusion impacts are expected to be negligible over the planning period, further study is required to understand the potential for seawater intrusion in the long-term.

As discussed in Chapter 6. Natural Resources, seawater intrusion has not been well documented in the Planning Area except at the SAM Plant, which was found to be already subject to seawater intrusion by the County of San Mateo's Sea Level Rise Vulnerability Assessment (2018). Seawater intrusion is a potential concern in Half Moon Bay due to proximity to the ocean, especially if groundwater withdrawals increase, if groundwater recharge rates fall, and if groundwater levels were to drop below sea level for a prolonged period of time. Sea level rise could lead to seawater intrusion into groundwater aquifers, potentially rendering existing wells unusable and decreasing the total groundwater supply. Agricultural wells located close to shoreline or in lower lying areas may be vulnerable to seawater intrusion when wells are drawn down during periods of drought. The full impacts of sea level rise on seawater intrusion into groundwater in the Planning Area are not currently known.

¹³ City of Half Moon Bay (HMB), 2011, Annex to 2010 Association of Bay Area Governments Local Hazard Mitigation Plan, Taming Natural Disasters, April 15, 2011.

¹⁴ California Coastal Commission, 2015. California Coastal Commission, Sea Level Rise Policy Guidance, unanimously adopted on August 12, 2015.

Policies – Shoreline Hazards

Policies related to shoreline hazards in the LUP address potential impacts to development and coastal resources occurring at the shoreline, as exacerbated by sea level rise. Policies in this chapter mainly consider hazard avoidance and adaptation measures required to protect coastal resources and development in Half Moon Bay. As sea level rise projections will likely continue to be revised over the course of the 2040 planning horizon, it is important for land use policies to consider triggers, thresholds, and various scenarios rather than specific sea level rise amounts or timing. Additional policies regarding sea level rise and public access and recreation may be found in other chapters of the LUP including Coastal Access and Recreation, Natural Resources, Scenic and Visual Resources, and Cultural Resources.

Blufftop and Beachfront Development

The LUP limits development on and near blufftops and beaches. Policies require new blufftop development and redevelopment to demonstrate stability of the site over its anticipated life span without relying on protective devices; establish performance standards for construction adjacent to beachfronts and blufftops to prevent negative impacts such as runoff and erosion and to restore already-impacted areas; and require setbacks to prevent erosion impacts over the life of the structure. Policies apply the industry standard for determining if and where a blufftop site is stable for development, called a factor of safety, of at least 1.5 for the static condition and 1.1 for seismic conditions. Factors of safety at increasing values above 1.0 lend increasing confidence in the stability of a slope. The factor of safety generally increases with distance from the bluff edge, so the point at which the minimum required factor of safety is reached typically constitutes a minimum blufftop setback. Erosion, wave runoff, and sea level rise must also be considered.¹⁵

“Blufftop and beachfront development” is defined as development within 300 feet landward of a bluff line or edge or 300 feet landward from the inland extent of the beach, pursuant to California Code of Regulations Section 13577(g) and (h). Typically, policies for beachfront development and beach setbacks apply where there are sand dunes or other low-lying areas rather than coastal bluffs. “Anticipated life span” is defined as the period over which a development is expected to be usable, with normal repairs and maintenance, for the purpose for which it was designed. The anticipated life span may range from a minimum of 100 years for residential and commercial development to approximately 150 years for critical infrastructure. Certain types of development and public access facilities such as trails that are sited and designed in a manner to facilitate relocation may have a lesser anticipated life span. The anticipated life span is not an entitlement to maintain development for that amount of time, particularly where hazards or public safety risks are present, but rather is a planning tool for sea level rise adaptation, structure siting, and permitting purposes. The actual life of the development is dictated by on-the-ground conditions in the future, and any conditions of approval for the development. Policies require that new blufftop and beachfront development address the potential for flooding, erosion, and other sea level rise impacts over time. The LUP calls for including sea level rise impacts as an area of study in required geological reports in potentially vulnerable areas and adopting sea level rise avoidance and

¹⁵ California Coastal Commission Local Coastal Program Update Guide, Part 1 – Section 8. Coastal Hazards.

adaptation measures for new development. The LUP calls for the anticipation of future impacts on public facilities and the development strategies for eventual managed retreat with sea level rise. Policies establish criteria for nonconforming structures and prohibit substantial redevelopment of at-risk structures, providing for managed retreat and rolling easements, thereby allowing coastal lands to migrate inland over time.

Policies also allow additional protections for critical facilities in the Planning Area to ensure that essential services are continuously provided to the community. The City defines “critical facilities” as public utilities including water tanks, municipal wells, and major sewer and water service mains and pumps; communications infrastructure; the SAM Wastewater Treatment Plant; Highways 1 and 92; emergency preparedness and response facilities including the Emergency Operations Center and fire station; and schools. The city does not have any hospitals; however, large-scale medical care facilities would qualify as critical facilities.

Shoreline Protection

Several policies cover the topic of shoreline protection, which is known to have negative impacts on coastal processes in the long-term. Hard shoreline protection devices alter natural shoreline processes by preventing natural bluff retreat and reducing sources of sand supply. As a result, these devices can cause loss of beach area which may be accelerated by sea level rise. Policies limit the construction of new hard shoreline protection to only that which is required to protect existing structures, and critical facilities in danger from erosion, and require the use of soft protection where feasible as a preferred alternative to hard protection when protection is needed.

The LUP also calls for the gradual removal of protective devices as they are no longer used or fall into disrepair, and restoration of the bluff and beach area when protective devices are removed. The LUP provides for the monitoring of and mitigation for impacts of shoreline protection over time, and requires the City to prevent and remove illegal or unpermitted protection. Finally, the LUP calls for establishing a shoreline management plan. Such a plan would take a long-term, comprehensive approach to addressing changes in the shoreline from coastal processes such as erosion and sea level rise, with an emphasis on soft strategies, such as beach nourishment and sediment management.

Policies – General

- 7-8. Shoreline Hazards and New Development.** Ensure that new development, including land division, is sized, sited and designed to be safe from shoreline hazards such as coastal flooding, shoreline erosion, tsunami inundation, seawater intrusion, and other sea level rise impacts without requiring a shoreline protection device at any time over the anticipated life span of the structure.
- 7-9. New Development in Tsunami Inundation Zone.** Limit the creation of new building sites in the tsunami inundation zone. Infill development on existing building sites may be permitted in the tsunami inundation zone, provided that a disclosure of hazard presence and a hold harmless clause indemnifying the City from any harm caused to permitted development by tsunami inundation are recorded against the property.

- 7-10. Shoreline Hazard Mapping.** Maintain and update shoreline hazard maps to incorporate significant updates in best available science and information when such significant updates are available, including areas subject to wave action, flooding, tsunamis, and erosion due to sea level rise.
- 7-11. Dynamic Sea Level Rise Adaptation Strategy.** Continue to review and use current and best available sea level rise science and projections and periodically identify coastal resources, development, infrastructure, and communities that are vulnerable to sea level rise impacts. Use this information to continue to develop or adjust adaptation strategies.

Policies – Blufftop and Beachfront Development

- 7-12. Site-Specific Shoreline Hazards Evaluation.** All new development proposed in areas that may be subject to shoreline hazards, including all beaches and beachfronts, blufftops, and areas mapped in Figure 7-1, shall require the submittal of a site-specific evaluation report of shoreline hazard risks over the anticipated life of the proposed development. Analyses shall be conducted by a qualified professional with expertise in coastal processes and shall establish the appropriate setback from the beach or bluff edge based on the anticipated life of the structure, best available science including utilizing the highest projected sea level rise amounts appropriate for the type of proposed development with a 100-year storm event and for blufftop development, a demonstrated factor of safety greater than or equal to 1.5 for static conditions and greater than or equal to 1.1 for seismic conditions. The evaluation shall include an analysis of the following:
- a. Historic and projected rates of erosion over the anticipated life span of the proposed development, including potential erosion considering future sea level rise, and possible changes in shore configuration and sand transport. Sources to be investigated include recorded land surveys and tax assessment records, historic maps and photographs where available, and best available science on sea level rise and erosion projections such as that developed by USGS, the National Academy of Engineering, the National Academy of Science, the California Geological Survey, and the California Coastal Commission;
 - b. Cliff geometry and site topography, extending the surveying work beyond the site as needed to depict geomorphic conditions that might affect the site and the proposed development;
 - c. Geologic conditions, including soil, sediment and rock types and characteristics in addition to structural features such as bedding, joints, and faults;
 - d. Evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development on landslide activity;
 - e. Wave and tidal action, including effects of marine erosion on bluffs;

- f. Ground and surface water conditions and variations, including 100-year riverine flooding and its impact/interaction with bluff erosion and ocean forces at creek mouths and low-lying areas, changes to groundwater resulting from rising sea levels, and hydrologic changes caused by the development (e.g., introduction of irrigation water to the ground- water system; alterations in surface drainage);
- g. Potential effects of seismic forces resulting from a maximum credible earthquake;
- h. Effects of the proposed development including siting and design of structures, landscaping, drainage, grading, and impacts of construction activity on the stability of the site and adjacent area;
- i. Any other factors that may affect slope stability; and
- j. Potential erodibility of site and mitigating measures to be used to ensure minimized erosion problems during and after construction (i.e., landscaping and drainage design).

7-13. Blufftop Development Setbacks. Permit new blufftop development only if, as demonstrated by the site-specific evaluation required by Policy 7-12:

- a. Design and setback provisions are adequate to assure stability and structural integrity for the anticipated life span of the development, taking into consideration long-term future erosion and short-term episodic erosion including the influence of sea level rise, plus an added geologic stability factor of safety greater than or equal to 1.5 for the static condition and greater than or equal to 1.1 for the seismic condition, without reliance on existing or proposed shoreline protective devices; and
- b. The development (including associated stormwater runoff, foot traffic, grading, irrigation, and septic tanks) will neither create nor contribute to erosion, geologic instability of the site or surrounding area, or otherwise harm coastal resources.

Setbacks may also be needed to protect visual resources as well as ESHA. In such cases, the most protective setback requirement applies. Setbacks shall also include room for buffers from hazards and/or ESHAs as applicable.

7-14. Beach Setbacks. Ensure that new beachfront development is set back far enough inland from the beach and other low-lying areas, as demonstrated by the required Shoreline Hazards Evaluation, such that the development will not be endangered by coastal flooding, seasonal and long-term erosion (including sea level rise induced erosion), and other shoreline hazards over the anticipated life span of the structure without the use of an existing or proposed shoreline protective device. Setbacks may also be needed to protect visual resources and/or the presence of ESHA, and, in such cases, the most protective setback requirement applies.

7-15. Land Divisions near Beachfront and Blufftops. Land divisions, including subdivisions, lot splits, and lot line adjustments that create new lots near beaches or blufftops, shall not be permitted unless the lots can be developed in accordance with the bluff and beach setback policies in this LCP and without requiring a current or future shoreline protective device.

- 7-16. Grading near Beachfront or Blufftop.** Require that any grading necessary to establish proper drainage, install minor improvements (e.g. trails), restore eroded areas, restore habitat, or provide permitted accessways directs water runoff away from the beach or edge of the bluff or requires runoff to be handled so as to prevent damage to the beach or bluff from surface and percolating water.
- 7-17. Beachfront or Blufftop Vegetation.** Require the installation and maintenance of drought-tolerant native coastal vegetation capable of enhancing bluff and dune stability within 100 feet from the bluff or foredune edge as part of any new development near the beachfront or blufftops.
- 7-18. Assumption of Risk.** As a condition of approval for all coastal development permits that may be subject to shoreline hazards, require a deed restriction to ensure that property owners understand and assume the risks, and mitigate the coastal resource impacts, of new development and redevelopment in a hazardous area. Recorded assumptions of risk shall include a waiver of claim of damage or liability against the City of Half Moon Bay, waiver of rights to future shoreline armoring, acknowledgement that the development may need to be removed and the site restored in response to future hazard conditions, and any other acknowledgements and mitigation measures necessary to internalize risk decisions. In the event that development is threatened by shoreline erosion or other hazards and needs to be removed or relocated, the owner shall bear full responsibility for all costs and must work with the City to implement the mitigation in a timely manner.
- 7-19. Non-conforming Development.** Consider a structure non-conforming when its seaward edge no longer meets the standards or setback that would be required for new development at the location. Allow repair, maintenance, and modifications only if such actions do not increase the intensity of use or increase the size or degree of non-conformity of the structure. Additions to existing non-conforming structures are considered new development that must conform to the standards for new development, including but not limited to avoiding the need for future shoreline protective devices and sufficient beach or blufftop setbacks.
- 7-20. Redevelopment Standards.** Redevelopment in areas subject to shoreline hazards shall not be approved unless the entire structure meets the current standards for new development, including beach or blufftop setback requirements, based on an up-to-date, site-specific shoreline hazards evaluation. If the structure proposed for redevelopment is protected by a shoreline protective device, require the device to be removed and the site to be restored as a condition of redevelopment.
- 7-21. Repair and Retrofit of Existing Structures.** When it is necessary to repair damage to or retrofit existing structures, require materials and improvements that will better withstand shoreline hazard impacts, such as stronger materials, elevated bridges or sections of roadways, and larger or additional drainage systems to address flooding and erosion sedimentation concerns. Such repair, maintenance, and additions shall protect visual resources and other coastal resources while minimizing hazards.

- 7-22. New or Replacement Foundations and Basements.** Where an existing foundation or basement is located seaward of the blufftop or beach setback appropriate for assuring site stability for at least 100 years, replacement or substantial improvements that constitute redevelopment is prohibited. New foundation or basement work, replacements, or substantial improvements are permitted only when it is located inland of the blufftop or beach setback line for new development. Require that new foundation and basement designs for blufftop and beachfront development will not preclude future incremental relocation or managed retreat as the structural elements become exposed to avoid future impacts to coastal bluffs, beaches, and other coastal resources.

Policies – Infrastructure and Public Facilities

- 7-23. Infrastructure and Public Facilities.** Site, design, and upgrade infrastructure and public facilities, including roads, trails, parks, and other public access and recreation facilities with consideration for shoreline hazards including sea level rise impacts that may occur over the anticipated life of the development. Ensure that the connectivity of infrastructure is preserved in the event of ongoing erosion or wave run-up, and ensure adequate egress/evacuation is preserved during storm events. In cases where facilities cannot be sustainably maintained, removal or abandonment of infrastructure should be evaluated, and the least environmentally damaging approach shall be implemented. Where facilities can be safely sited for the near term but future impacts are likely, require an adaptive management plan detailing steps for maintenance, retrofitting, and/or relocation.
- 7-24. Coastal Trail Improvements.** Consider sea level rise projections, planned retreat and other adaptive measures in the siting and design of new and existing Coastal Trail areas at risk of erosion, flooding or wave run-up. New or re-aligned trail segments shall be set back a sufficient distance from bluff edges to avoid impacts from erosion and sea level rise, generally 50 feet, unless there is inadequate space to accommodate the Coastal Trail in this area.
- 7-25. State Parks Facilities.** Require maintenance and improvement projects at State Parks facilities such as beach parking lots, the Francis Beach Campground, Coastal Trail segments, State Parks Beach corporation yard, and State Parks workforce housing to plan and adapt for long-term shoreline hazard impacts as exacerbated by sea level rise, including retrofitting or inland relocation to maintain public access and recreation opportunities. When necessary to provide continued public access or to protect coastal-dependent State Parks facilities from shoreline hazards, shoreline protection may be permitted only if consistent with Coastal Act Sections 30235 and 30253 and if no feasible alternative exists.
- 7-26. Existing Critical Facilities.** Identify existing critical facilities that are vulnerable to shoreline hazards, such as the Sewer Authority Mid-Coastside Wastewater Treatment Plant, and establish measures to protect continued function of critical infrastructure, or the basic facilities, service, networks, and systems needed for the functioning of a community, including:

- a. Developing strategies for the managed retreat (retiring, moving, or replacing) of infrastructure and public facilities at risk of damage from shoreline hazards including sea level rise impacts that may occur over the economic life of the structure (at least 150 years for critical facilities);
- b. Providing for functional continuity of the critical services provided by infrastructure at risk from shoreline hazards and extreme weather events; and
- c. Providing for the use of protective devices, if necessary to ensure the continuation of needed services, as a temporary option while longer-term strategies are identified and implemented.

7-27. Shoreline Hazard Avoidance for New Critical Facilities. Avoid locating new or expanded critical facilities in areas susceptible to shoreline hazards. If no feasible alternative exists and a new or expanded critical facility must be located in a shoreline hazard area, require the new development to incorporate siting and design measures based on worst-case sea level rise projections and extreme weather event scenarios to promote continued functionality and public services, resist structural damage, facilitate evacuation on short notice, and minimize risk to life, property, and coastal resources.

Policies – Shoreline Protective Devices

7-28. Shoreline Protective Device Limitations. Unless otherwise provided for in Policy 7-29. Protection for Critical Facilities or Policy 7-40. Property Protection Plans, shoreline protective devices shall be permitted only to serve a coastal-dependent use or to protect an existing structure in imminent danger from erosion (i.e., when substantial evidence indicates that the structure will be significantly damaged by coastal flooding or erosion hazards within two to three storm cycles, or approximately three years); when found to be the least environmentally damaging feasible alternative (e.g., if relocation or soft armoring approaches cannot mitigate the hazard); and when all coastal resource impacts are appropriately and proportionally mitigated.

7-29. Protection for Critical Facilities. Notwithstanding the shoreline protective device limitations of Policy 7-28, shoreline protective devices may be permitted to protect critical public infrastructure and facilities, including the SAM Wastewater Treatment Plant, that may require shoreline protective devices or other shoreline hazard adaptation measures in order to continue providing needed services to the community. Such protection shall be permitted on a temporary basis only, with required check-ins and trigger points to determine when it is feasible to relocate such critical infrastructure inland and away from shoreline hazard risks in the future. As a CDP condition, a long-term adaptation plan that identifies relocation options shall be required.

7-30. Geotechnical Reports for Shoreline Protection. Require applications for hard shoreline protection to include a geological and engineering report prepared by a qualified professional indicating that the structure has been designed to stabilize that portion of the shoreline which is subject to severe erosion, wave run-up, or other

shoreline hazards and will minimize the potential for aggravating erosion in other shoreline areas.

- 7-31. Shoreline Protective Device Siting and Design.** Allowable shoreline protective devices shall be sited and designed to avoid impacts to coastal resources to the maximum extent feasible, including through preserving the maximum amount of existing beach, protecting lateral public access along the shoreline, protecting and enhancing public views, minimizing alteration of and visually blending with the surrounding natural shoreline; avoiding impacts to archaeological resources; and not encompassing an area larger than that necessary to protect the coastal-dependent use, existing structure, or critical facility.
- 7-32. Soft Protection Devices.** Require development to use “soft” or “natural” solutions or “living shorelines” where feasible and appropriate as a preferred alternative to the placement of hard shoreline protection in order to protect development or other resources and to enhance natural resource areas. Examples of soft solutions include vegetative planting, dune restoration, and sand nourishment.
- 7-33. Mitigation and Monitoring for Shoreline Protection Impacts.** Require as a condition of approval of any shoreline protective devices, including hard devices and soft alternatives, a plan to mitigate all unavoidable impacts to shoreline sand supply, public access and recreation, and any other relevant coastal resources. The mitigation and monitoring plan shall be phased in 20-year increments and shall, at a minimum, address the following:
- a. Impacts on local shoreline sand supply including sand and beach area that are lost through the shoreline protective device’s physical encroachment on a beach, fixing of the back beach, prevention of new beach formation in areas where the bluff or shoreline would have otherwise naturally eroded, reflected wave energy up and down coast from the device, and the loss of sand-generating bluff or shoreline materials that would have entered the sand supply system absent the device;
 - b. Impacts to public access and recreation resulting from loss of beach area;
 - c. Impacts to any other relevant coastal resources; and
 - d. Form of mitigation and preliminary plans as applicable (e.g. sand replenishment, mitigation banking, on- or off-site restoration, construction of new public access and recreation opportunities, or payment of fees to fund such projects). Mitigation measures shall be planned for long-term resiliency with sufficient setbacks such that sea level rise will not impair their efficacy over time.
 - e. A plan for the periodic monitoring for structural damage, excessive scour, or other impacts to the device from shoreline hazards and sea level rise, as well as for impacts to shoreline processes and beach width both at the project site and the broader area and/or littoral cell as feasible. Monitoring reports shall include an

analysis of any changed site conditions (e.g. periodic Mean High Tide Line surveys) and the need for additional mitigation.

Prior to expiration of each 20-year mitigation and monitoring period, a coastal development permit amendment shall be required for retention of the shoreline protective device beyond the preceding 20-year period. Such application shall include analysis of potential modifications to the shoreline protective device that would lessen its impacts on coastal resources, including potential removal, as well as any proposed modifications to the previously approved mitigation measures and monitoring program.

- 7-34. Accessory Structure Protection Prohibited.** Do not permit shoreline protection structures for the sole purpose of protecting an ancillary or accessory structure or use. Such accessory structures shall be removed if they are in danger from erosion, flooding, or wave run-up or if the bluff edge encroaches to within 10 feet of the structure as a result of erosion, landslide, or other form of bluff collapse. New accessory structures shall be constructed and designed to be removed or relocated in the event of threat from erosion, bluff failure, or wave hazards.
- 7-35. Removal of Existing Shoreline Protection.** Require removal of existing shoreline protective devices when the structure requiring protection is redeveloped, removed, or no longer requires a protective device, whichever occurs first.
- 7-36. Shoreline Protection Permit Expiration.** Permits for new shoreline protective devices shall be tied to the life of the structure it has been authorized to protect and shall expire when the structure requiring protection is redeveloped, is no longer present, or no longer requires a protective device, whichever occurs first. As a condition of approval for such permit, require the protective device to be removed and the beach area to be restored for public use upon permit expiration.
- 7-37. Maintaining Existing Shoreline Protection.** Allow repair and maintenance of existing, legally permitted shoreline protective devices only if such activities do not result in an enlargement or extension of armoring, and if mitigation measures are included as necessary. Any proposed enlargement, extension, or repair and maintenance that replaces 50 percent or more of the protective device shall be subject to provisions applicable to new shoreline protective devices, including mitigation requirements. Establish conditions that provide for potential future removal of the armoring in coordination with surrounding development.
- 7-38. Permit Tracking.** Develop a permit tracking and monitoring system to identify and prevent illegal and unpermitted construction of shoreline protective devices (e.g. protection is no longer warranted by changed site conditions, the anticipated life span of the structure being protected has expired, the structure being protected has redeveloped or is no longer present).

- 7-39. Shoreline Protective Device Inventory.** Develop an inventory to track and map all shoreline protective devices in coordination with permit tracking and monitoring efforts.

Policies – Managed Retreat, Relocation, and Removal

- 7-40. Property Protection Plans.** In association with a coastal development permit approval, the City shall require owners of any property with a principle structure, such as a primary residence, closer than 100 feet to the blufftop edge, or located in an area subject to potential risk of shoreline hazards during the anticipated life span of the structure, to develop a property protection plan and submit it to the City for review and approval. In addition, at any time a landowner may voluntarily submit a property protection plan to the City for review and approval. The property protection plan shall:

- a. Provide an estimate of when the structure may be permanently unsafe for occupancy due to wave action, bluff failure, or erosion, including as may be exacerbated by sea level rise;
- b. Identify measures that could make the structures suitable for habitation without the use of bluff or shoreline protective devices, including necessary steps and thresholds for how and when to retrofit, remove or relocate the structure before it becomes permanently unsafe for use or occupancy or otherwise poses a threat to public safety; and
- c. Be recorded against the property once it has been approved by the City.

In the event that the approved plan identifies there is no feasible alternative that could make the structure(s) suitable for habitation while the approved plan is being implemented, a shoreline protective device may be allowed if the shoreline protective device is only in place for the time needed to retrofit, remove or relocate the structure pursuant to the approved plan and if all coastal resources impacts are appropriately and proportionally mitigated and the site is fully restored upon removal of the protective device.

- 7-41. Incremental Removal.** When a lot is not large enough to accommodate development that avoids shoreline hazards and/or the inland migration of the public trust boundary for the anticipated life of the development, develop a project option that minimizes hazards from the identified sea level rise scenarios and/or avoids encroachment into the public trust boundary for as long as possible, and then requires incremental retreat once certain triggers are met. Triggers for relocation or removal of the structure would be determined by changing site conditions such as when erosion is within a certain distance of the foundation; when monthly high tides are within a certain distance of the finished floor elevation; when building officials prohibit occupancy; when essential services to the site can no longer feasibly be maintained (e.g. utilities, roads); or when a wetland buffer area decreases to a certain

width. It will be the property owner's responsibility to remove the structure(s) and restore the site such that the public trust and coastal resources are protected.

7-42. Rolling Easements. Utilize rolling easements or other strategies to limit or restrict development on lands within 300 feet of the beach or bluff edge (i.e. lands that are most vulnerable to shoreline hazards) as a condition of approval for new development or new subdivisions located in such areas to allow coastal lands and habitats, including beaches and wetlands, to migrate landward over time as the mean high tide line and public trust boundary moves inland with sea level rise.

7-43. Shoreline Management Plans. Develop shoreline management plans for shoreline areas subject to wave hazards, sea level rise and erosion, prioritizing armored areas such as Surfers Beach and Mirada Road, in coordination with Caltrans, San Mateo County and the Harbor District. Any plans should include:

- a. Short and long-term goals for the Half Moon Bay coast, the management actions and policies necessary for reaching those goals, any necessary monitoring to ensure effectiveness and success, and any necessary strategies to manage and adapt to changes in wave, flooding, and erosion hazards due to sea level rise;
- b. An examination of local and regional annual erosion rates and natural and man-made sediment supplies in order to reflect current shoreline changes;
- c. Identified priority areas where shoreline protection structures should be phased out or removed if they are no longer needed or if in a state of great disrepair, including areas where structures threaten the survival of wetlands and other habitats, beaches, trails, and other recreational areas;
- d. An examination of opportunities to maximize public beach area and enhance or provide new lateral and vertical public beach accessways;
- e. An examination of locations where beach nourishment may be appropriate, with recommended criteria and protocols for design, construction, and management to minimize potential biological impacts;
- f. Procedures for preparing an alternatives feasibility analysis for all hazard response projects and hard engineered shoreline protective device projects. The analysis should require, but not be limited to, the use of technical evaluations of the site (geotechnical reports, engineering geology reports, wave uprush reports etc.), an examination of all other options (removal, relocation, sand replenishment, no action etc.), and a conclusion that a shoreline protective device would be the best option (most protective of the public trust, best long-term solution etc.) for the subject site;
- g. Engineering plans and analyses defining the specific types of armoring that would be acceptable or preferable for specific areas if otherwise allowed by the Coastal Act and this LCP, and where appropriate, identification of the types of armoring that should not be considered for certain areas or beaches, in order to minimize risks and impacts from armoring to public access and scenic resources along the shoreline and beach recreation areas;

- h. Conditions and monitoring requirements that should include mechanisms to ensure shoreline protection effectiveness and public safety with provisions for the removal or ineffective or hazardous protective structures as well as programs to address beach replenishment and sand supply; and
- i. Procedures to address emergency armoring, such as: coordination with property owners and for field inspections before and after storm seasons; guidance for types of temporary protective structures preferred; mitigation requirements; and a provision for removal of temporary structures if no follow up permit is filed.

Geologic and Seismic Hazards

This section describes the geologic and seismic hazards that can occur within the City upland of the shoreline, including erosion and sedimentation, landslides, subsidence, seismicity, and liquefaction.

GEOLOGY AND SOILS

A majority of the Planning Area consists of a gently sloping marine terrace, containing watercourses and wetlands. The western edges of the Planning Area consist of coastal bluffs, and sandy shoreline. The northeastern section of the Planning Area contains steep hills with erosion potential. The city is underlain with poorly consolidated shallow marine sands, silts, and gravels resting on top of an ancient wavecut bedrock platform. Most soils are derived from alluvial sources, as the geology of the Planning Area is defined to a large extent by the sea, the San Gregorio Fault, and wetlands and watercourses.

Elevations within the Planning Area range from a high of approximately 1,100 feet above mean sea level in the hills on the northeastern end of the Planning Area, to sea level along the shore. Much of the development within the Planning Area occurs at elevations between approximately 40-80 feet above mean sea level. The Planning Area generally slopes downward in a westerly direction towards the ocean. Prominent geologic features in the city include the hills east of Nurserymen's Exchange and the Frenchmans Creek neighborhood; the nine drainage sub-areas (Roosevelt, Pullman, Frenchmans, Pilarcitos, Kehoe, Beachwood, Kelly-Metzgar, Seymour, and Canada Verde); and the shoreline, including the steep coastal bluffs along Wavecrest, Redondo Beach, and Miramontes Point Road.

The following paragraphs outline geologic hazards and identify particular concerns for existing and future population and development.

GEOLOGIC HAZARDS

Erosion and Sedimentation

Erosion is a natural process by which wind and water move across the earth and break down existing geologic features and structures. Human alteration of the natural environment can accelerate the pace of erosion, and/or create unnatural patterns of erosion. Accelerated erosion can cause instability in geologic structures, and water quality concerns in receiving waters. Erosion can be created by point sources, such as utility and industrial discharge

points and mining and agricultural operations, or by non-point sources, such as impervious surfaces (paving and developed land uses), unpaved roads, and unsound grading or construction practices.

There are different sources of and risks related to erosion within the interior of the Planning Area. In the interior of the Planning Area, sources of erosion include concentrated surface runoff, reduced absorption by soils and vegetation, and channelized drainages. Soils in Half Moon Bay are generally considered to have low to moderate erosion potential, but evidence of substantive erosion has been documented along the shoreline, including bluff erosion along much of the shoreline of the Planning Area, as well as along the city's creek banks, drainages, and other water courses.

In the cases of these watercourses, erosion can be caused by the action of flowing water. Erosion occurs when the force of flowing water exceeds the ability of the soil to remain aggregated. Water moving in higher volumes or speeds can accelerate the rate of erosion, such as when watercourses are channelized or when excessive runoff enters a watercourse during a storm event. This process is exacerbated by numerous factors, including improperly sloped culverts, disruption of subsurface flows, vegetation removal, and changes in land use within the watershed that lead to greater amounts of runoff. Furthermore, the eastern hillsides have erosion potential that can be exacerbated by effects of velocity and accelerated channel flow. For the most part, these areas are not developed; however, erosion of these slopes contributes sedimentation to the various drainage courses. Erosion impacts within watercourses can be remedied through proper maintenance practices including meander belt restoration, invasive plant removal, and limiting increases in upland impervious surfaces.

The emptying of culverts carrying upland flows has destabilized downstream drainages in some basins. In some cases, excessive erosion has led to stream channel incising - the lowering or widening of a stream channel due to excessive erosion, as observed along watercourses like Seymour Watercourse and the arroyo outflow from the swale adjacent to Kelly Avenue. Figure 7-2 illustrates the Channel Evolution Model developed by Simon and Hupp (1986), showing how erosion along a channel can lower a streambed, degrading it and causing undercutting along the banks, leading to bank collapse, and resulting in widening and eventual stabilization. This model assumes that topsoil erodes more swiftly than subterranean soils. In places like the Seymour Watercourse where this is not the case, bank retreat can occur much faster.

Sedimentation occurs when soil-heavy waters slow down, allowing solids to settle on the bottom of a watercourse. This can increase flood risk to development in or too close to the floodplain by reducing the immediate carrying capacity of a watercourse. Storm and seasonal rain events may then cause overflow and contribute to downstream erosion. The City has undertaken several studies of its watercourses in order to assess flood risk and establish approaches to reduce erosion.

Erosion can also occur where an incremental intensification of use causes devegetation and compaction of gently sloping soils to create a watercourse where precipitation was historically absorbed by vegetation and soils. Foot traffic attempting to avoid eroded (and in

winter, flooded) trail areas expand the compacted and devegetated area, as can be seen along several lateral trails between the Casa del Mar and Miramar neighborhoods and the California Coastal Trail. Loss of stabilizing vegetation can further contribute to erosion in these areas and along stream banks.

Within the city, the following areas are especially vulnerable to erosion:

Drainages and Culverts. There are nine drainage sub-areas defined in the City's 2016 Storm Drain Master Plan. Channelized watercourses in these sub-areas are producing erosion, including the channel directing water around the Grandview Terrace Subdivision, the Seymour Watercourse, and the Pullman Watercourse. Culverts placed in watercourses have also been subject to undercutting and collapse due to erosion. Of note, the Kehoe Watercourse has been assessed as an abrading stream as the channel banks are eroding, and the Pullman Watercourse has eroded such that the outflow channel west of Naples Avenue has widened and damaged the culverts that passed under the State Parks access road to Dunes Beach parking lot.

Hazardous Materials Sites. The Safety Element addresses hazardous materials sites throughout the city. Very few sites remain that have not been remediated. However, two of these open cases are located in areas subject to erosion and thus are at risk for upset in the event that the hazardous materials become exposed in the future.

- Closed Half Moon Bay Landfill. The closed Half Moon Bay Landfill is owned by San Mateo County and is located on approximately 14 acres along Railroad Avenue between Metzgar and Seymour streets. It is traversed by the California Coastal Trail. It was operational in the 1960s and 70s and capped in 1978. The landfill is of special concern due to its location on the coastal bluff. In the early 1990s, a portion of the landfill was exposed when wave action eroded the bluff face. The exposed area was secured with a concrete block and steel chain mat and is inspected regularly. At the time of the LUP update, San Mateo County was studying the potential impacts of sea level rise on the landfill and considering options for safely securing the property over the long-term.
- Landfill Near SAM Plant. A portion of an abandoned landfill located on City property upstream from Sewer Authority Mid-Coastside (SAM) Plant and Caltrans mitigation wetland immediately east of Pilarcitos Creek was remediated in 1996. Remediation included removal of landfill refuse and establishment of a wetland restoration area where the 2.5-acre landfill had been located. Another portion of this same landfill is located upstream on private property and has not been remediated. Because it is immediately adjacent to the creek which is subject to erosion, it is a potential coastal hazard.

Figure 7-2: Channel Evolution Model

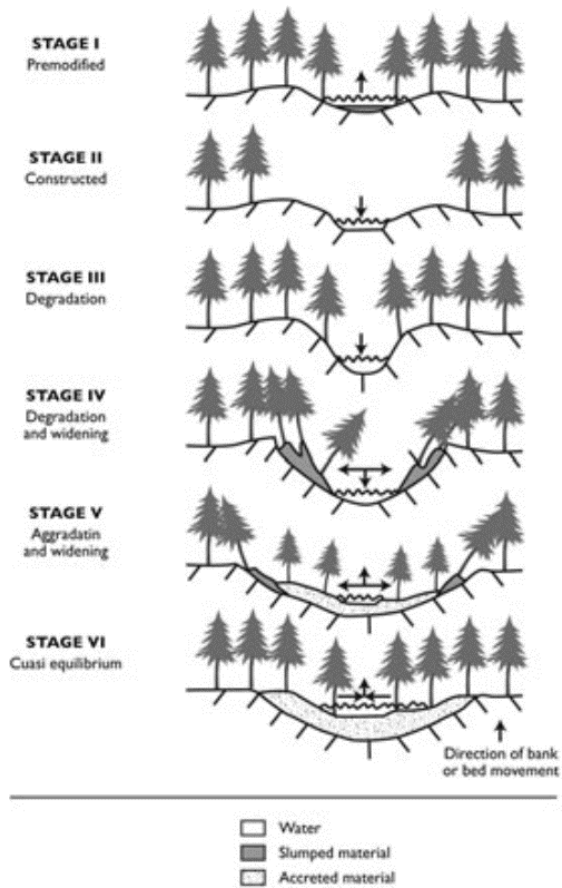
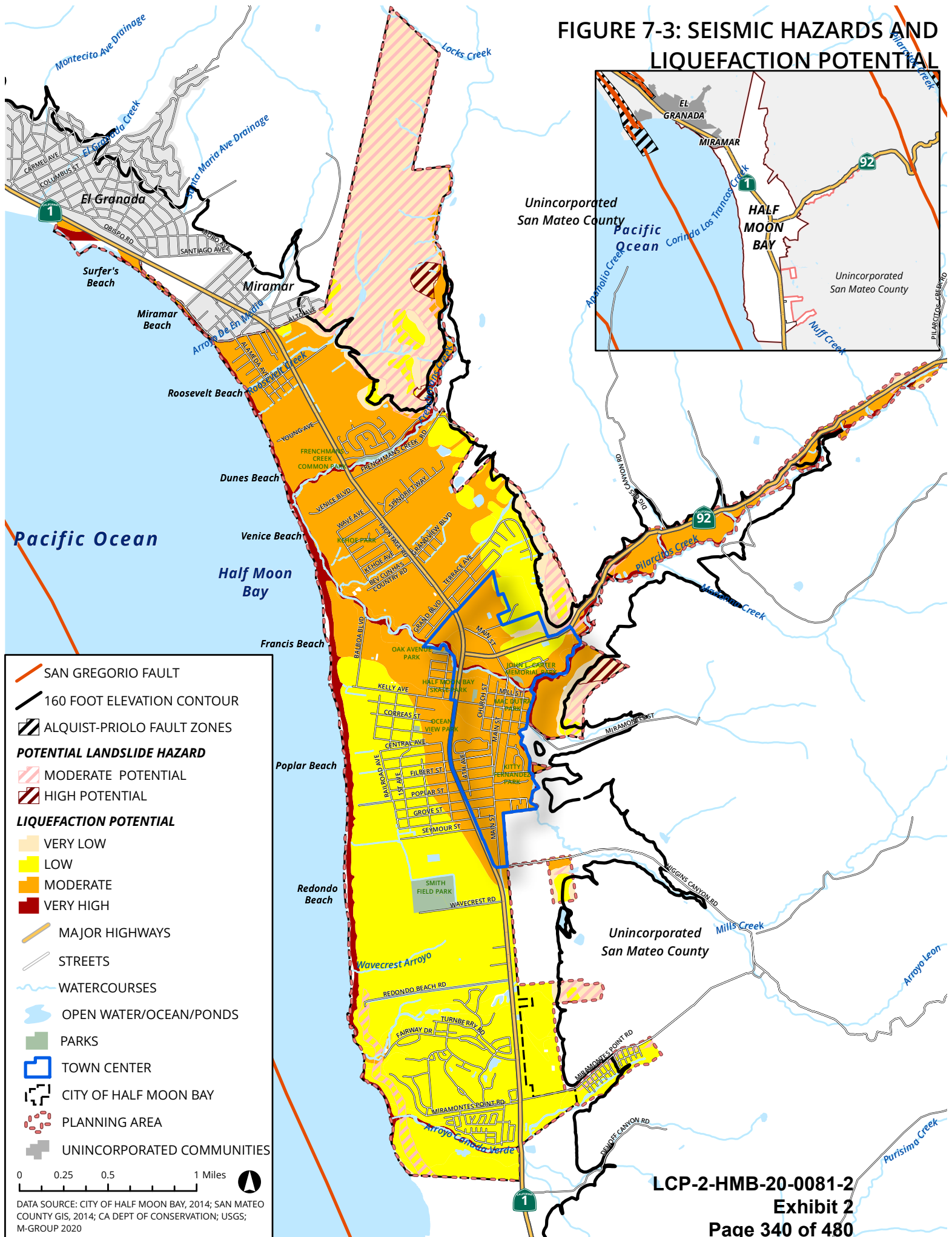


Image Source: Cluer and Thorne, 2013.

FIGURE 7-3: SEISMIC HAZARDS AND LIQUEFACTION POTENTIAL



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Landslides

The Planning Area is mapped with localized landslide hazards in the following areas: hills rising out of the Frenchmans Creek valley; hills north and south of Highway 92 along the eastern edge of the Planning Area; and hills east of the Rice Trucking Soil Farm on Highway 1 near the intersection with Redondo Beach Road, in the southern portion of the Planning Area (Figure 7-3). In addition to hill slope, the potential for landslides is also influenced by soil moisture content, vegetative cover, and the physical characteristics of the underlying geologic formations. Landslide potential is generally considered low for much of the Planning Area, except in those portions of the planning area adjacent to hillsides, coastal bluffs, and shorelines. Mitigation of landslide risk is achieved through proper evaluation of underlying site conditions, structural components, and avoidance of active landslide areas. Different types of landslides are shown in Figure 7-4.

Figure 7-4: Landslide Types

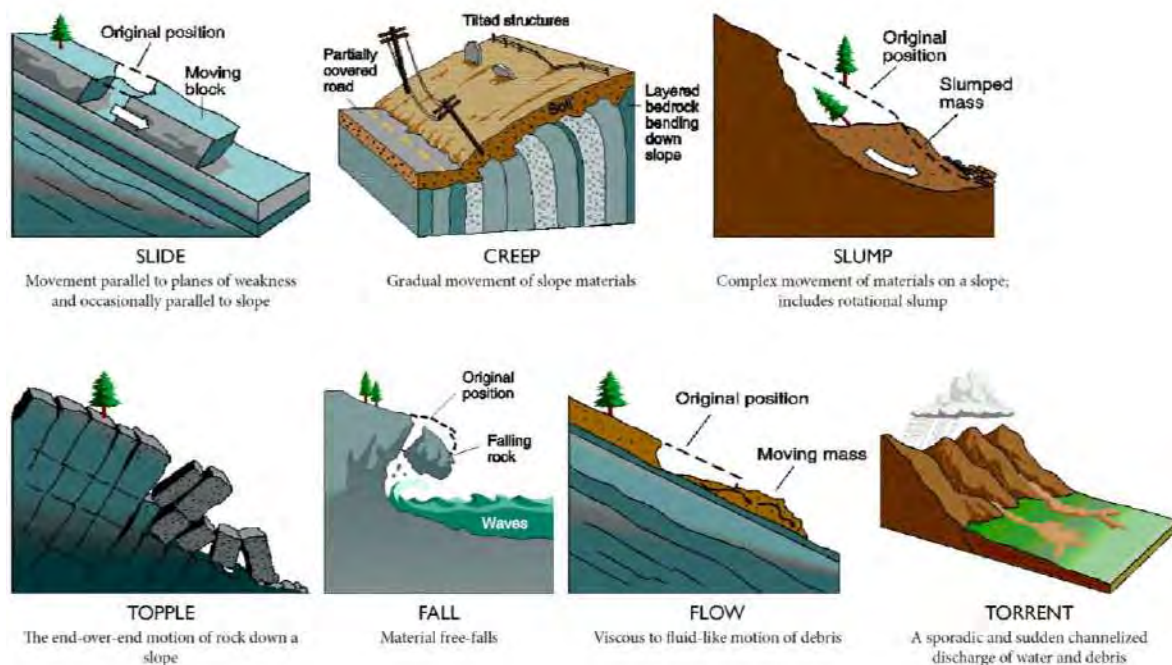


Image source: British Columbia Geological Survey (1997)

Subsidence

Subsidence occurs where water, gas, or other material is removed from intergranular spaces, resulting in compaction of soils. In extreme circumstances, this phenomenon can cause severe lowering of the soil surface, causing damage to overlying structures and placing lives at risk. Piping-induced subsidence occurs when erosion removes soil from a tunnel into a stream bank without eroding the exposed face of the stream bank. Leaking infrastructure pipes can also remove surrounding soils, creating subsidence. Subsidence is most common in areas underlain by loose, compressible clay rich soils, where water or oil is withdrawn in

excessive amounts. Subsidence may also occur within landfill areas, as the underlying materials compact over time. The potential for subsidence in the Planning Area is considered low. However, the use of private wells for agriculture may become more of a concern as climate change causes more severe drought cycles and more ground water is extracted over longer periods of time to maintain irrigation needs.

Soil Expansion

The shrink-swell potential of soils, or expansion potential, denotes the amount the volume of a particular soil type in response to presence or lack of moisture. Expansion and contraction of soils over time can damage slabs, foundations, and structures if the site is not properly prepared or if the slab or structure is not designed to withstand or accommodate such forces. The expansion potential of soils underlying the Planning Area varies depending on the clay content. Soil expansion and shrink-swell is typically addressed through preparation of site-specific soil engineering reports and compliance with the Uniform Building Code. Methods to address expansive soils include over-excavation and replacement or amendment of fill materials, moistening of fill materials, and special specifications for concrete materials and reinforcement.

SEISMIC HAZARDS

Faults

There are several significant faults that could be the source of a seismic event in the Planning Area (Figure 7-3). The extent of the effect depends in part on the source fault and epicenter location. The San Andreas Fault system, located approximately 5 miles east of the Planning Area, is considered the most likely source of a major earthquake event in California's future. The southern end of the Planning Area is within 0.5 miles of the San Gregorio Fault. The San Gregorio Fault and smaller faults including Denniston Creek and Seal Cove that are part of this system are mapped Alquist-Priolo Special Studies Zones and are considered active. Not much is understood about this fault system, since little of the fault is exposed onshore. However, it is considered active, with a potential earthquake moment at a magnitude of 7 or greater. Specific hazards associated with seismic events and features are discussed below.

Groundshaking

Groundshaking potential throughout the Planning Area is mapped as very strong to violent (based on a major event along the San Andreas Fault).¹⁶ An event of sufficient magnitude would damage even strong, modern buildings in the area. The extent of potential damage depends on a number of factors, including the location of the earthquake epicenter, and the intensity of shaking on a given site. Groundshaking associated with a major event along the San Andreas or San Gregorio Fault systems would have severe effects in the Planning Area.

¹⁶ California Seismic Safety Commission, California Geological Survey, Governor's Office of Emergency Services, and United States Geological Survey. 2003. Earthquake Shaking Potential for California, California Seismic Safety Commission Publication No. 03-02. Accessed January 16, 2014 Located at: http://www.seismic.ca.gov/pub/intensitymaps/sfbay_county_print.pdf.

Ground Failure

Settlement

Seismic settlement is the displacement of surface geologic structures associated with a seismic event. Settlement can cause unexpected changes in grade, interrupt utilities, and damage structures. The potential for seismic settlement has not been mapped for the Planning Area; however, considering the alluvial nature of most soils within the Planning Area, there is potential for seismic settlement.

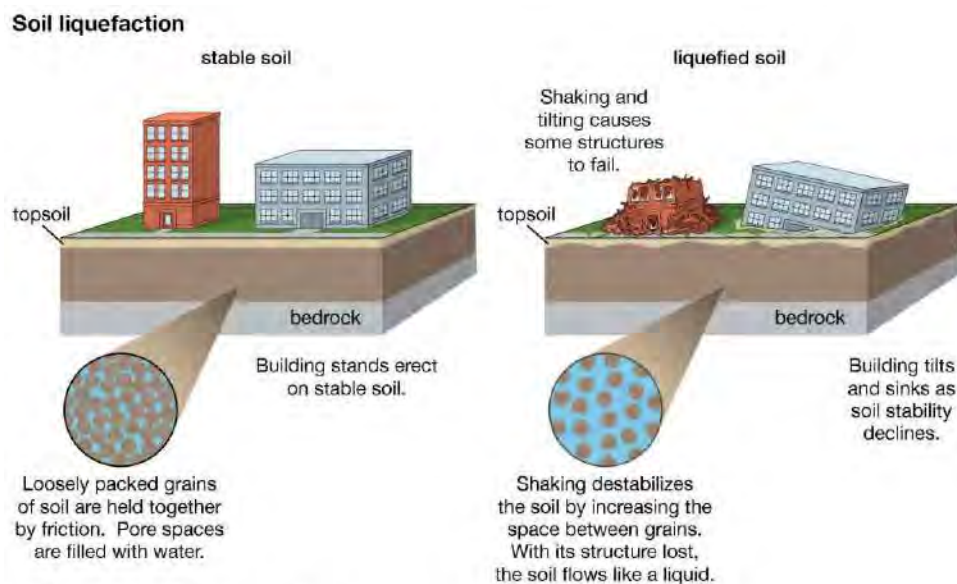
Rupture

Rupture occurs when movement on a fault breaks through to the surface. Areas overlying active faults are among those areas at risk of rupture during a seismic event. There are no known faults that go through the Planning Area and therefore rupture is considered to be a low risk hazard.

Liquefaction

Liquefaction is the condition by which saturated soils lose cohesion during seismic events and settle, lose stability or amplify the effects of groundshaking (See Figure 7-5). Liquefaction is most associated with alluvium and other young soil types with high sand content. The potential for liquefaction in the Planning Area is mapped as low to very high, depending on location (see Figure 7-3). Areas of very high hazard exist along the shoreline sand beaches within the Planning Area. Areas of high hazard include the areas surrounding the Frenchman's Creek, Pilarcitos Creek, and Arroyo Leon watersheds. Areas of low to moderate hazard comprise of most of the Planning Area.

Figure 7-5: Soil Liquefaction



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Image source: Encyclopædia Britannica Online, 2012.

Slope Failure

Seismic events can cause landslides, failure of slopes, and exacerbation of existing slope instability. The Planning Area is generally gently sloping, except for the northeastern section of the Planning Area and areas along the shoreline bordered by bluffs and revetments.

Risk of Upset

As previously noted, there are a limited number of hazardous materials sites in the city that have not been remediated. Seismic events can affect the security of these sites. The Half Moon Bay Landfill site may be particularly vulnerable because of its location on the eroding coastal bluff.

Inundation

In addition to impoundments within the Planning Area, portions of the City of Half Moon Bay are downstream from bodies of water created by the Pilarcitos Dam or the Johnston Dam. Ground shaking could pose a threat of inundation caused by seiche (waves within closed water bodies) or by dam failure. These risks are addressed as flood risks later in this chapter.

Policies – Geologic and Seismic Hazards

The LUP's policies serve to minimize exposure to geologic and seismic hazards by limiting development in areas potentially subject to such hazards. Policies require geological reports for development in potentially hazardous areas that identify any necessary mitigation measures, as well as the review of development applications based on threats from and impacts on geologic and seismic hazards. Additionally, geologic event analyses are required to document the factors involved in a damaging event such as a landslide.

- 7-44. Minimize Geologic Hazard Consequences.** New development in areas of high geologic and seismic hazard shall minimize risk to life and property and neither create nor contribute to geologic and seismic hazards. Geologic and seismic hazards are defined to include soil stability, erosion, sedimentation, landslides, subsidence, seismicity, and liquefaction.
- 7-45. Seismic and Geologic Hazard Mapping.** Maintain and update maps of geologic and seismic hazard areas in response to significant updates in best available science and information.
- 7-46. Geological Reports.** Require submittal of a site-specific geologic hazards report prepared by a qualified professional for new development proposed in areas of high geologic hazard risk, including as indicated on the Seismic Hazards and Liquefaction Potential map (Figure 7-3). The report shall describe the threats and impacts from geologic hazards arising from, for example, seismic events, watercourse erosion, landslides, expansive soils, and subsidence areas. Reports shall identify appropriate hazard setbacks, siting and design options, and mitigation measures where necessary to minimize potential impacts to life and property.

- 7-47. Hillside Construction Slope Limitation.** Require submittal of a soils and slope stability report prepared by a qualified professional for all new development on slopes 20 percent or greater. Development of new structures on hillside slopes 30 percent or greater shall be prohibited, with the exception of critical facilities and public infrastructure that cannot be located elsewhere.
- 7-48. New Critical, High-Occupancy, and Public Facilities in Geologic Hazard Areas.** Prohibit the siting of new critical facilities, structures involving high occupancies, and public facilities in areas of high geologic hazard unless such location is deemed essential to the public welfare. Where permitted, these structures will be sited, designed, and constructed to minimize and mitigate potential for damage due to ground deformation, seismically triggered subsidence, landslides, or other geologic hazards. Public access and recreation facilities, such as trails, may be located in such areas when geologic hazards are appropriately avoided or mitigated to the extent feasible.
- 7-49. Landslide Remediation and Stabilization.** Permit the remediation or stabilization of landslides that affect existing structures or that threaten public health or safety except along coastal bluff or other eroding edges, such as streambanks. Permit remediation or stabilization to the extent necessary where an existing landslide prevents development of private property and remediation does not shift risk to other property, and the remediation project includes mitigation monitoring and reporting. Alternative remediation or stabilization techniques shall be analyzed to determine the least environmentally damaging alternative. Maximum feasible mitigation shall be incorporated into the project in order to minimize adverse impacts to resources.
- 7-50. Geologic Event Analysis.** Require a detailed study to be conducted in the event that a substantial landslide or seismic event may have caused significant damage to a foundation or structure to document the geologic materials, foundations, or structures involved.

Fluvial Flood Hazards

This section describes fluvial flood hazards in the City's watercourses that occur upland from the shoreline. Several creeks and drainages pass through the city and are subject to fluvial flooding. Fluvial flooding can be exacerbated by sedimentation, which reduces carrying capacity, and by coastal flooding, as wave run-up reduces discharge capacity. Figure 7-6 maps flood hazards for the Planning Area pursuant to the Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Map (FIRM) for San Mateo County. Data shown in this figure reflects the most recent flood hazard mapping for the Planning Area at the time of the LUP update. However, it is important to note that FIRMs are based on historical flooding and do not include consideration of future flooding impacts that would be exacerbated by sea level rise. As such, sea level rise projections and LUP policies, including as mapped on Figure 7-1, should also be considered for new development projects along watercourses as applicable.

FLOOD HAZARD ZONES

According to the FIRM, several portions of the Planning Area are mapped within flood hazard zones. The entirety of the coast typically landward to the nearest coastal bluff or just inland is within a coastal high hazard area, designated Zone VE. Zone VE denotes coastal areas subject to the 100-year flood with additional hazards associated with storm-induced waves for which Base Flood Elevations (BFEs) have been determined. BFEs are the computed elevations to which floodwater is anticipated to rise during the 100-year flood (a flood having a 1 percent chance of being equaled or exceeded in any given year), as calculated by FEMA. Along Half Moon Bay's coast, the BFEs range from 19 to 38 feet relative to the North American Vertical Datum of 1988 (NAVD 88).

In addition to coastal high hazard area, a special flood hazard area (Zone A, 100-year flood; no BFE determined) is mapped along the entirety of Frenchmans Creek and along portions of Arroyo Leon Creek and Pilarcitos Creek in the eastern portion of the Planning Area. With the exception of these creek spans, FEMA mapping for the Planning Area has been primarily limited to the shoreline and does not indicate flood hazards further inland such as those that may be associated with other watercourses, or for dam inundation. However, there is the potential for such hazards to exist as flood zone changes occur over time.

Existing state and local regulations generally guide development within the 100-year flood hazard zone. The City has participated in the National Flood Insurance Program (NFIP) since 1986 and adopted a floodplain management program into the local ordinance in 2002.

LOCALIZED FLOODING, EROSION AND SEDIMENTATION

Urban development and impervious surfaces typically change the distribution of storm impact intensities and related hydrology. At development sites with traditional storm drainage infrastructure (e.g. pipes and culverts), water quickly flows into the system, potentially causing a more severe localized storm impact and adversely impacting natural hydrology. Because the stormwaters are not allowed to recharge, over time traditional stormwater management systems can contribute to lowering the water table. At the other end of the storm drainage system, however, the flow of water is accelerated, and property near the outflow might also experience a larger storm impact. Such hydromodification can result in degradation of natural and man-made features, as well as localized flooding, erosion or sedimentation where existing features (natural or man-made) are not sized, designed, or maintained in a manner sufficient to handle storm flow quantities and maintain a balanced sediment transport.

The City's storm drainage system typically conveys run-off to various natural or man-made drainage features. Much of this drainage system consists of a network of man-made ditches or swales originally constructed prior to 1948 (earliest imagery available for review) or by the mid-1950s as roadside or agricultural drainage features. The primary function of these drainage features is to convey run-off from the east side of Highway 1 through culverts to the network of ditches and swales located along the coastal terrace and eventually to the ocean. Between the 1960s and 1980 large portions of agricultural lands in the Planning Area were developed with residential uses with much of the Planning Area resembling current conditions in the late 1990's. Much of the drainage infrastructure has not been updated and

many features are not suitable for current development flows, resulting in localized flooding that damages or threatens property and infrastructure. Lack of maintenance of existing drainage infrastructure can also result in localized flooding as culverts are blocked or sediment or debris accumulates reducing capacity.

Areas within the Planning Area where previous events or studies have identified that localized flooding may be a concern include, but are not limited to, the Casa del Mar neighborhood near Kehoe Watercourse, Miramar neighborhood near Roosevelt Drainage and Pullman Watercourse, and the Grandview and Highland Park neighborhoods below impoundments. Many of the studies are outdated or limited to small portions of the Planning Area.

Flooding, erosion and sedimentation risks can all be reduced by protecting watercourses. The primary objective is to manage the volume and speed of flows to levels that the watercourse, whether natural or manmade, can sustainably convey. Restoring the capacity in upper watersheds can reduce flood risk in lower watercourses. Factors that contribute to increased flows and speed include accelerated stormwater from upper watershed infrastructure; development and reduction in vegetation along the extents of the watercourse and in the flood plain that drains into the watercourse; and channelization and channel hardening.

Green Infrastructure

Development almost always reduces pervious surface area and thereby contributes to a cumulative increase in stormwater run-off throughout the Planning Area. The City has been implementing stormwater management requirements conforming to federal, state, and local regulations. In 2019, the City adopted a Green Infrastructure Plan to further improve stormwater management and to ensure consistent incorporation of green infrastructure into public and private development projects. As discussed further in Chapter 6. Natural Resources, green infrastructure is an approach to stormwater management that uses natural systems such as swales and rain gardens to retain run-off on-site, and meandering watercourses that sustainably transport flows that charge the riparian corridor and beach. These systems allow for natural filtration to the water table, or controlled release of stored water into the storm drain system. With green infrastructure design, stormwater is viewed as a resource with many potential purposes, including groundwater recharge and habitat restoration.

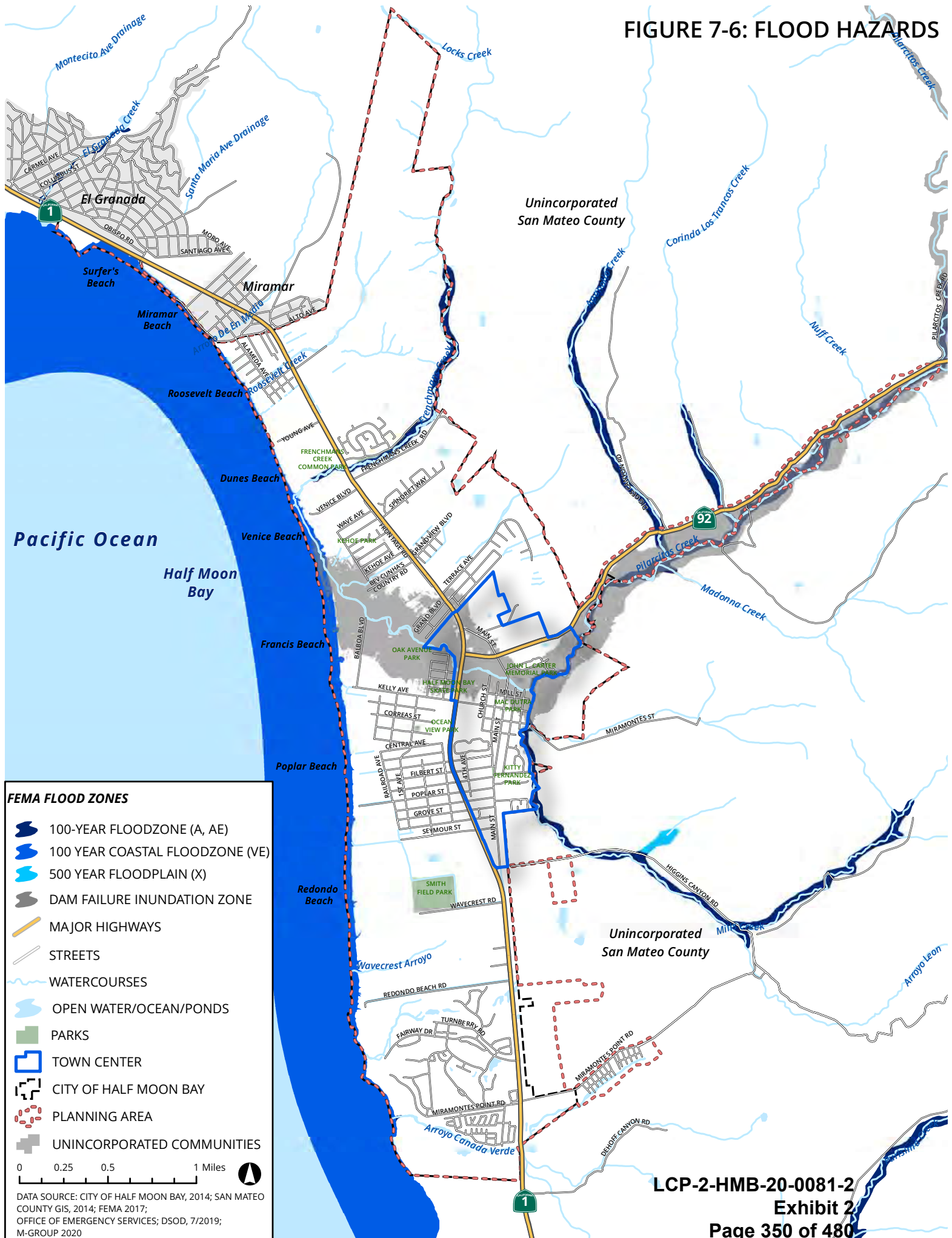
Vegetation and Riparian Habitat

With respect to vegetation, riparian and other plant materials are highly effective at slowing flows and reducing the volume of runoff. Trees are especially effective at absorbing run-off and uptake capacity is quantified for some species. The presence of vegetation in the flood plain adjacent to a watercourse slows the arrival of surface flows at the stream bank and absorbs additional stormwater. When vegetation is enriched along any span of a watercourse, flow volume and speed will decrease which can reduce localized flooding downstream.

Channel Hardening

Engineered solutions to address flood control include concrete channels, paved gutters, culverts, and piping systems. Hardening of a natural or manmade drainage, including creeks, ditches and other watercourses, can in the short term improve the stability of the hardened portion of the drainage and protect it from erosion. However, often these types of improvements have unintended consequences of increasing flow speed and disrupting natural drainage systems. This can also consequently result in erosion and increased flood risk downstream, as well as flanking erosion and hydrostatic pressure that can undercut hardened banks. For emergency situations, temporary hardening systems may be appropriate; however, most of the City's drainages are not hardened and a planning objective is to use restoration techniques to avoid future hardening. Where channel hardening is necessary, design should carefully consider how to avoid contributing to erosion and other downstream impacts.

FIGURE 7-6: FLOOD HAZARDS



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INUNDATION CAUSED BY DAM OR IMPOUNDMENT FAILURE

Dams can be damaged resulting in possible dam failure from several natural or man-made hazards such as large storms, earthquakes, slope failures, design flaws, and erosion. Dam failure is a concern for many reasons. Most important, dam failure can result in substantial inundation of downstream areas endangering public health, safety, and property as well as loss of water storage for significant time periods. There are no records of dam failure within the Bay Area.¹⁷ Two dams located in the vicinity have the capacity to endanger lives and property within the Planning Area in the event of failure; Johnston Dam and Pilarcitos Dam. Johnston Dam is relatively small, and no inundation area data is available. As shown on Figure 7-6, inundation from Pilarcitos Dam could be substantial with areas adjacent to the creek experiencing inundation from 200-600 feet in width covering an area of approximately 247 acres within the Planning Area (approximately 176 acres of urban land)¹⁸ as well as portions of Highway 92 and the SAM wastewater treatment facility. The Pilarcitos Dam is operated by San Francisco Water Department (SFWD) and is located outside of the study area and bounds of Figure 7-6.

Dam inundation mapping typically occurred during the 1970s. Such mapping represents a best estimate and typically assumes that the dam is full during failure, does not account for potential run-off from storms or other contributing factors, and does not indicate inundation depths. Similar to tsunami mapping, dam failure mapping is generally for evacuation planning and risk assessment or future safety upgrades or planning.¹⁹

The Planning Area also includes several impoundments. Most of them are manmade ponds presently or previously used for agricultural purposes. They are not large enough to be regulated by the State and no inundation data is available for these water storage facilities. Impoundments contribute flows to various drainages and other watercourses. Several are located in the eastern hillsides, including at Pacific Ridge and facilities higher up the hill outside the Planning Area. Some of these impoundments have been observed to overtop during severe storm events which can adversely affect water quality. Failure at these higher elevations could result in a surging conveyance of large volumes of water to lower lying areas in a short period of time. Impoundments can also improve public safety by retaining water during significant storm events, and can be sensitive habitat areas (reference Figures 6-2 through 6-4 in Chapter 6. Natural Resources). Future study of City drainages should consider the potential risks associated with these impoundments during natural disasters including severe storm conditions. Such study can lead to implementation of water level management policies and other avoidance and mitigation measures for safe on-going maintenance of these facilities.

¹⁷ Association of Bay Area Governments (ABAG), 2010, Taming Natural Disasters, Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area, Publication Number: P09001EQK.

¹⁸ ABAG, 2014b Land Use and Infrastructure in Hazard Areas Data, Accessed 1/24/2014 at <http://quake.abag.ca.gov/mitigation/landuse/>.

¹⁹ Association of Bay Area Governments (ABAG), 2010, Taming Natural Disasters, Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area, Publication Number: P09001EQK.

Policies – Fluvial Flood Hazards

The LUP seeks to reduce the risk to life and property from flood hazards. It requires the City to maintain updated information on flood hazards for planning purposes, including flood and dam/impoundment inundation hazard areas. Policies are in place to limit development in flood hazard zones and require mitigation for any permitted development in those areas. Development in adjacent areas is required to increase site performance and address biological and water quality issues. Development of critical facilities is also limited in dam inundation areas. No development is permitted that would cause or contribute to flood hazards, and existing hazards should be abated through a variety of potential measures. Additionally, the LUP requires the City to update its Citywide Drainage Master Plan to improve the capacity of the stormwater system, protect floodplains, and maintain balanced sediment transport.

Policies – General Fluvial Flood

- 7-51. Flood Hazard Avoidance for New Development.** Ensure that no new permitted development causes or contributes to flood hazards.
- 7-52. New Development in Flood Zones.** Prohibit new development, except for those uses allowed within the watercourse itself or its buffer zone pursuant to Chapter 6. Natural Resources (e.g. restoration), within the 100-year flood hazard zone of a watercourse. If no alternative building site exists, proper mitigation measures shall be provided to minimize or eliminate risks to life and property from flood hazard, and to ensure the development would not constitute a public nuisance, decrease watercourse capacity, or direct flows outside of the watercourse.
- 7-53. New Development Adjacent to Flood Zones.** Require new development in areas outside of the identified 100-year flood hazard zones to identify opportunities to improve site drainage, address biological resource and water quality issues, and reduce contributions to flood hazards.
- 7-54. Flood Hazard Mapping.** Maintain and update flood hazard mapping (flooding and dam or impoundment inundation) to incorporate significant updates in best available science and information, including but not limited to the most current official FEMA FIRM to determine the general location of flood hazard areas. Support and pursue study and mapping of inland watercourses, prioritizing Pilarcitos Creek, as well as updated dam inundation and local impoundment mapping.
- 7-55. Flood Protection.** Prohibit habitable space at elevations subject to flood risk. New development that must be located in areas subject to current or future flooding shall be sited and designed to be capable of withstanding such impacts in compliance with FEMA, NFIP, and Coastal Act requirements. This shall include elevating all finished floor elevations at least 2 feet above the 100-year flood event, taking into account future climate change and projected storm events. Allow retrofitting for existing development in areas subject to current or future flood, including through elevation of habitable areas, use of break-away walls, etc. Ensure that flood protection

measures are consistent with the visual and other coastal resource protection policies of this LCP in the siting and design of raised development and other adaptation measures.

- 7-56. Flood Hazard Abatement.** Flood hazard abatement projects that require a coastal development permit shall be designed with performance standards that consider the following:
- a. Removal or relocation of development from flood hazard areas;
 - b. Prioritizing green infrastructure approaches;
 - c. Restoration of flood plains and meander belts of drainages that were channelized;
 - d. Construction of impoundments or channel diversions when necessary, provided that adequate mitigation of environmental impacts can be demonstrated; and
 - e. Debris clearance and silt removal conducted in a manner so as not to disrupt existing riparian communities.
- 7-57. Flood Protection Evaluation.** Require new development proposals to evaluate potential impacts to adjacent or downstream properties from all proposed structural flood protection measures to ensure that the flood protection measures will not create adverse direct and/or cumulative impacts either on-site or off-site.

Policies – Localized Flood

- 7-58. Dam Inundation Impact Avoidance.** Update the Pilarcitos Dam inundation evaluation periodically to account for changes in localized flood risk. Establish setbacks and minimum building pad elevations for new development to avoid and mitigate flooding impacts in the event of dam failure, in coordination with SFWD dam management.
- 7-59. Impoundment Impact Avoidance.** Where a new or modified impoundment project requires a coastal development permit, require avoidance measures and on-going maintenance to minimize risk of flood and water quality impacts and protect ESHAs associated with impoundments, such as proof of flood insurance. Study the condition and function of the impoundments located within and on the hills above the city limits, and assess the cumulative impacts of anticipated development within watersheds.
- 7-60. Development in Dam Failure Inundation Zone.** Except for public works and critical facilities or within established neighborhoods as identified in Chapter 2. Development, do not permit new non-coastal dependent structures in areas at risk of flooding due to dam or impoundment failure, unless a technical study demonstrates all of the following:
- a. The hazard no longer exists or has been or will be reduced or eliminated by improvements or design adaptations incorporated into the proposed

development (e.g. raised foundation) which are consistent with the policies of this Plan; and

- b. The development will not contribute to flood hazards; and
- c. The development will not require the expenditure of public funds for flood control works.

In the case that a technical study demonstrates these findings, require as a condition of approval a hold harmless to be recorded against the property that indemnifies the City from any harm caused to permitted development by dam or impoundment failure.

Fire Hazards

This section describes fire hazards present in the Planning Area.

URBAN FIRE HAZARD

Urban fires are fires that begin in buildings in urban centers. They are typically localized but have the potential to spread to adjoining buildings. The risk of urban fires is highest where single-family homes, multifamily residences and business facilities are clustered close together, increasing the possibility of rapid spread to an adjoining building. The risk to life and property can be reduced by adopting and funding adequate levels of fire protection, siting new buildings a sufficient distance from high fire risk areas, ensuring new buildings are built to include fire resistive features which conform to modern fire and building codes, and implementing fuel management strategies such as removal of dead and dying brush.

WILDLAND FIRES

Wildland fires are fires that start in a wooded or undeveloped area. Their potential for damage is dependent on the extent and type of vegetation, known as surface fuels, as well as weather and wind conditions. Wildland fires occur infrequently but typically cause more damage than urban fires.

The Wildland-Urban Interface (WUI) is any area where structures and other human developments meet or intermingle with wildland vegetative fuels. The shrubs, trees and grasses that make Half Moon Bay's hills so beautiful have evolved to burn. Some invasive exotic species such as Cape ivy and Blue gum eucalyptus are prominent in the Planning Area and are both highly invasive and fire-prone. Parts of the Planning Area located in the natural vegetation of the foothills are in the WUI and are thus inherently at risk from wildfires.

The California Department of Forestry and Fire Protection (Cal Fire) maps areas of significant fire hazards in the state. These areas are identified based on weather, terrain, fuels, and other factors. According to Cal Fire, Very High Fire Severity Zones (VHFSZ) are located in the vegetated hills in the north of Half Moon Bay east of Nurserymen's Exchange and the Frenchmans Creek and Sea Haven neighborhoods, as well as the Carter Hill PD area and both sides of Highway 92 as it leaves the city. Portions of the Planning Area outside city limits along

Highway 92 and Miramontes Point Road are generally mapped as Moderate Fire Hazard Zones, with areas north of Highway 92 mapped as Very High hazard. East of city limits, the land north of Miramontes Street is generally mapped as Very High hazard, while land to the south is mapped as High or Moderate.

Cal Fire also designates land as either a State or Local Responsibility Area (SRA and LRA). The SRA is the area of the state where the State of California is financially responsible for the prevention and suppression of wildfires. SRA does not include lands within city boundaries, which are considered LRAs. The City of Half Moon Bay is an LRA while the small areas of the Planning Area outside city limits are in the SRA. Fire hazard severity zones are shown in Figure 7-7.

Historically, wildland fires have occurred in and around the Planning Area. Cal Fire maintains records of these fires, including the specific location, land area involved, the cause if known, as well as details about the overall event and response. Large historic wildland fires on the San Mateo County coastside are summarized below in Table 7-3. Four wildland fires occurred after 1976, ranging in affected area from 7 to 20 acres. These smaller areas of impact reflect improvements in fire prevention and suppression. Historic wildland fires occurring between 1929 and 2008 are mapped on Figure 7-8. This historic information informs fire prevention and emergency services policies.

Table 7-3: Historic Large Wildland Fires – Fire Area Greater than 100 Acres

<i>Year</i>	<i>Approx. Size (Acres)</i>	<i>Location</i>
1929	400	San Pedro Valley/Montara
1929	3,000	Montara, San Francisco Watershed
1930	Not known	Gazos Creek, El Moore Camp
1936	1,500	Pedro Ridge and San Gregorio
1943	600	San Mateo Rd, Skyline, marsh Ranch
1946	650	El Granada Highlands, Goldberg
1949	100	Lobitas, Tunitas
1952	100	Pedro Mountain
1955	200	El Granada Highlands, Goldberg
1958	300	Valleamar
1976	150	Tunitas Canyon

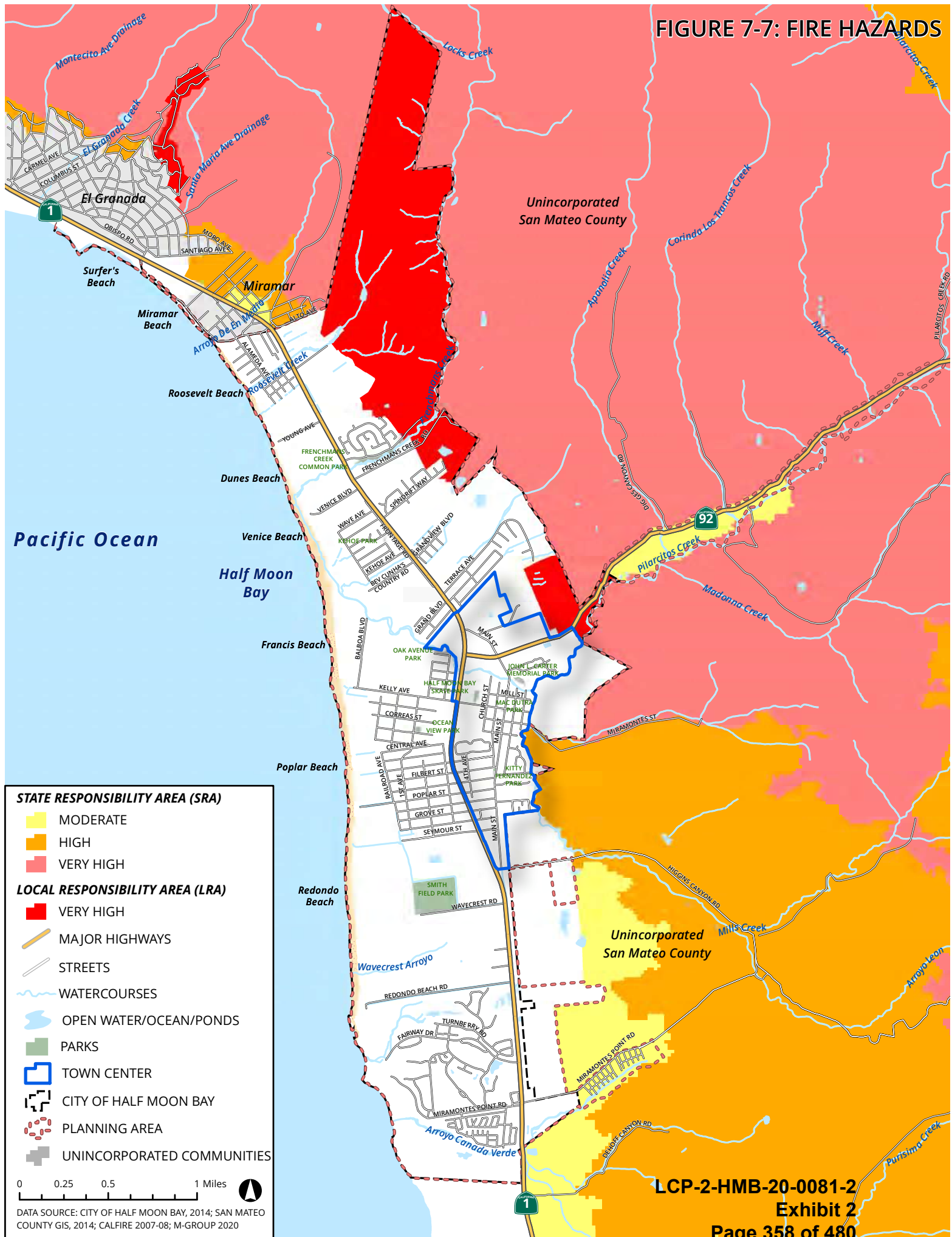
Sources: Cal Fire Santa Cruz office, August 2017, fires greater than 100 acres 1929 - 2008

FIRE PROTECTION SERVICE

The Coastside Fire Protection District (CFPD) provides fire protection services in the Planning Area, neighboring communities and surrounding unincorporated areas, a territory covering approximately 50 square miles along the San Mateo County coast and a population of approximately 30,000. In addition to Station 40 on Main Street near Highway 1, CFPD also operates Station 41 immediately north of the Planning Area in El Granada. CFPD is staff and managed by Cal Fire. As such, CFPD provides coverage within and all around the Planning Area and can direct response needs across multiple stations. In the event that more support is required, mutual aid is available from Belmont and other peninsula fire districts. CFPD staff receive the same training as Cal Fire employees and are therefore especially well prepared to prevent and quickly repress wildland fires. CFPD also conducts routine inspections of properties within or near VHFSZs, specifically ensuring that defensible space is provided around structures and that access for emergency response vehicles and critical fire breaks are maintained. CFPD indicated that as of 2017 there are no gaps in coverage and that service levels and response times are well within established standards throughout the Planning Area.²⁰

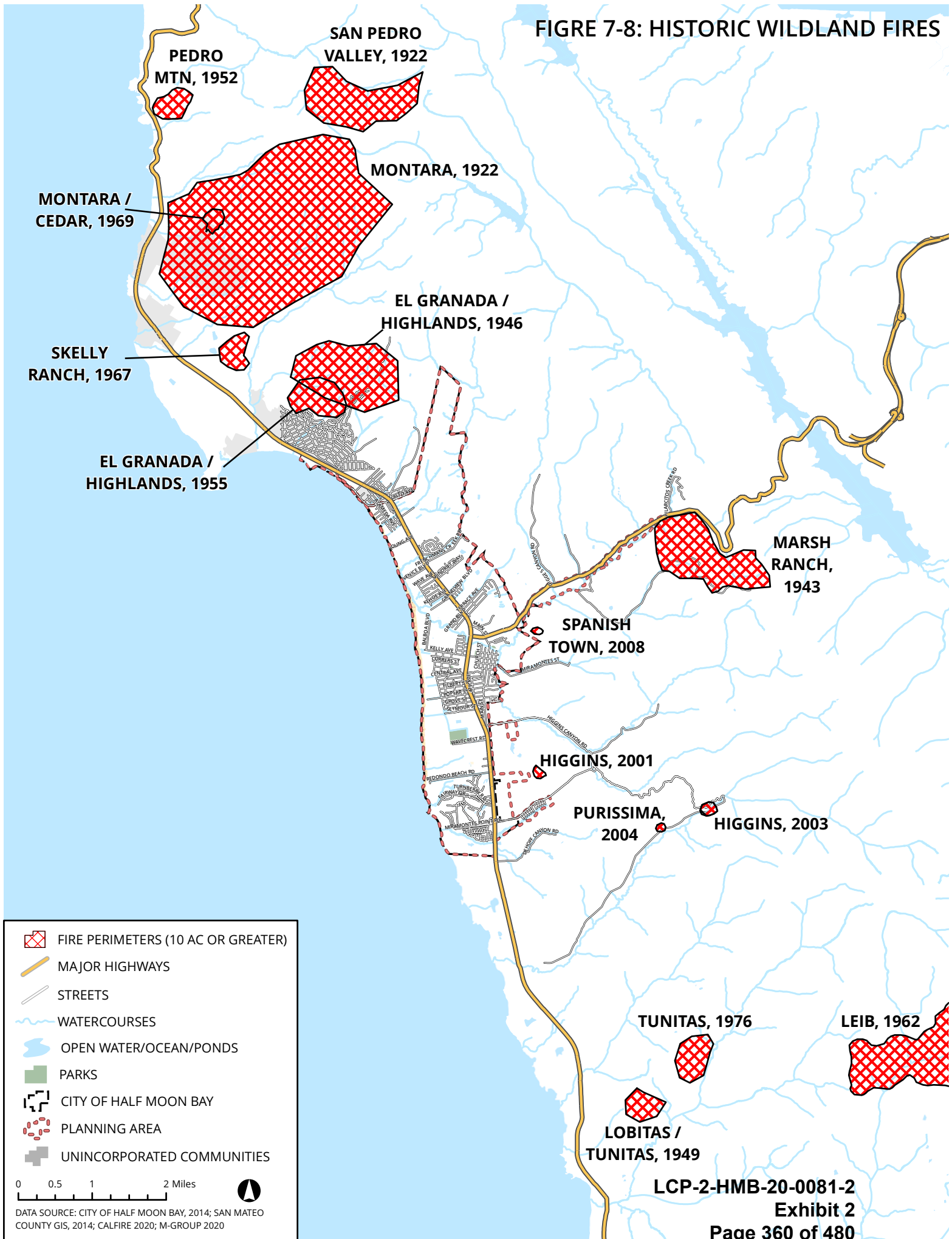
²⁰ Discussion with Battalion Chief/Fire Marshall, CFPD, August 2017.

FIGURE 7-7: FIRE HAZARDS



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FIGURE 7-8: HISTORIC WILDLAND FIRES



DATA SOURCE: CITY OF HALF MOON BAY, 2014; SAN MATEO COUNTY GIS, 2014; CALFIRE 2020; M-GROUP 2020

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Exhibit 2

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Policies – Fire Hazards

The LUP seeks to reduce the risks to life and property from fire hazards in Half Moon Bay by setting conditions for new development and encouraging cooperation with the CFPD. Policies require that new development be limited in areas of high fire risk and that any new development use siting and design and fuel modification to minimize risks. They also require new development to pay impact fees to contribute to the provision of fire protection services. Where fuel modification is necessary, the LUP requires that it is done in a manner that minimizes impacts to vegetation, ESHA, and parkland, as well as effects such as erosion, runoff, and sedimentation. Policies require that development is reviewed by the CFPD to ensure compliance with fire safety regulations and that development must be accessible to fire services. The City must also coordinate with the CFPD to ensure consistency between its fire hazard policies and fire regulations and ensure that the community is adequately covered by fire protection and prevention services. The LUP also requires that the City plan for fire risks that may arise in the future due to factors such as climate change.

- 7-61. Minimize Fire Hazards.** Minimize fire hazards in the city by appropriately siting development and managing fuels and ensuring adequate firebreaks and buffers around high-risk areas.
- 7-62. Fire and ESHA Protection Policy Consistency.** Balance the need for fire protection for existing structures with the need to protect environmental resources. Examples of such measures include sprinkler system retrofits, smart landscaping, restoring ESHAs for better biological function and defensible fire-fighting space, surrounding ESHAs with fire breaks, and limiting activities in areas adjacent to ESHAs.
- 7-63. Siting and Design for Fire Hazard Avoidance.** Require that both new development and redevelopment, including remodeling and additions, minimize risks to life and property from fire hazard through siting and design considerations. Specifically require that:
 - a. Development is sited and designed to avoid hazardous locations, including to avoid the need for fuel modification within ESHA and ESHA buffer zones;
 - b. Site-specific characteristics such as topography, slope, vegetation type, and wind patterns are assessed and considered in development plan review;
 - c. Appropriate building materials and design features to ensure the minimum amount of required fuel modification are utilized; and
 - d. Landscaping consists of fire-retardant, native plant species.
- 7-64. Fire Hazard Avoidance Conditions for New Development.** Require, as a condition of approval for new development and redevelopment, that risks to life and property from fire hazards are minimized for the life of the development through:
 - a. Incorporation of fuel modification and brush clearance techniques for the development site and adjacent private or public roads in accordance with applicable fire safety requirements, carried out in a manner which avoids impacts to ESHA and does not diminish its buffer area;

- b. Providing adequate ingress and egress for fire equipment access; and
 - c. Landscaping maintenance, including removal of fire-prone, non-native and invasive species such as Cape ivy and Blue gum eucalyptus to reduce fuel load where appropriate, avoiding adverse impacts to sensitive habitats and replacing with fire-retardant, native species of higher habitat value.
- 7-65. Fuel Modification Zones.** For new habitable structures requiring fuel modification, establish two fuel modification zones as follows: Zone 1 shall extend 30 feet from the exterior walls and requires thinning, pruning, or removal and replacement of vegetation; Zone 2 shall extend between 30 and 100 feet from the exterior walls and requires thinning of non-native vegetation and removal of dead vegetation. The City retains discretion to consider project alternatives, including for siting, design, and use, if either zone includes ESHA.
- 7-66. Fire Marshal Review.** All discretionary permit applications for new habitable structures shall be reviewed by the City Fire Marshal to determine if fire safety regulations are met, if any thinning or clearing of vegetation is required for fuel modification, and if there is potential for any impacts to existing fire protection services or need for additional and expanded services. The City Fire Marshal retains the discretion to modify the fuel modification requirements on a case-by-case basis, upon finding that such changes are necessary to protect public safety due to site-specific factors such as building material, topography, vegetation type, and fuel load. However, the City retains discretion to consider project alternatives that would not require such modifications.
- 7-67. Unavoidable Fuel Modification in ESHA.** Where fuel modification within ESHAs is unavoidable or there is potential to impact habitat for protected species, require the following:
- a. Fuel modification plans for review and approval by the City that incorporate measures to minimize impacts; consider environmental and risk reduction benefits of one-time versus recurring fuel modification approaches; and include mitigation, monitoring and reporting requirements as consistent with the ESHA policies of Chapter 6. Natural Resources;
 - b. Proposed methods for protecting sensitive species, such as those required by Policy 6-35. Standards in Non-Aquatic Habitat for Special Status and Unique Species; and
 - c. Use of environmentally responsible and nature-based approaches to remove fire-prone vegetation and avoid impacts to ESHA (e.g. hand crews; grazing sheep or goats penned away from the highest value habitat area).
- 7-68. Fire Hazard Avoidance for New Subdivisions.** Ensure that new subdivisions are established with adequate emergency vehicle access, evacuation standards for residential development, and can be maintained without requiring fuel modification

within ESHAs and their buffer areas. Prohibit the creation of new developable lots within high fire hazard zones.

- 7-69. Fire Hazard Avoidance of Critical Facilities.** Locate, where feasible, new critical facilities outside of high fire risk areas, including, but not limited to, hospitals and health care facilities, emergency shelters, emergency command centers, and emergency communications facilities. If no feasible alternative exists, identify construction methods or other methods to minimize risk.
- 7-70. Emergency Vehicle Accessibility of New Development.** Require new development to assure that it can be adequately served by the CFPD, provide adequate access for fire protection vehicles, and guarantee sufficient water supply and fire flow. Development in rural or high fire hazard areas should be clustered near major roads to ensure access.
- 7-71. Street Identification and Visibility.** Ensure that all roads, streets, and major public buildings are identified in a manner that is clearly visible to fire protection and other emergency vehicles.
- 7-72. Impact Fees.** Continue to require new development to pay a fee and/or participate in an Assessment District for CFPD equipment, facility expansions, additional man power, and other capital improvements when the need arises to accommodate the increased service demand of new development and/or provide for needed capital improvements through future Capital Improvement Programs.
- 7-73. Fire Flow Upgrades.** Work with the CFPD and Coastside County Water District to establish and maintain a priority list for upgrading fire flow capabilities in neighborhoods that may have inadequate fire flows. Fire flow upgrades may require upsizing water mains solely for the purpose of establishing and maintaining adequate fire flow to protect existing development; and not for accommodating future growth. This distinction shall be acknowledged and documented for each such upgrade and restrictions limiting future use of expanded capacity to fire protection shall be implemented.

8. Cultural Resources

This chapter provides policies for protection and enhancement of Half Moon Bay's cultural resources. Throughout the chapter, the term "cultural resources" is used to collectively refer to archaeological and paleontological resources, including Native American cultural sites, tribal cultural resources, artifacts, and remains.

Land Use Plan Framework

Half Moon Bay has significant cultural resources, including archaeological sites and historic structures and properties. These resources serve important social, commercial, recreational, and educational roles in the community while evoking the community's unique heritage. Archaeological and paleontological resources are addressed herein, while historic resources are primarily addressed in the General Plan.

COASTAL ACT POLICY AND GUIDANCE

The following California Coastal Act policy is relevant to the protection of archaeological and paleontological resources and is incorporated into this LUP.

Section 30244. Archaeological or paleontological resources

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Coastal Commission guidance documents also prescribe archaeological and paleontological resource protections. In August 2018, the Coastal Commission adopted a comprehensive tribal consultation policy. The new policy, along with the Coastal Commission's Local Coastal Program (LCP) update guidance, emphasizes the importance of consultation with Native American tribes, consistent with other state law and the California Natural Resources Agency tribal consultation policy. The Coastal Commission's Environmental Justice Policy, adopted in March 2019, reaffirms their tribal consultation policy by recognizing the need to understand local and regional cultural concerns and to protect areas of cultural significance.

Although the Coastal Act does not explicitly protect historic resources, Coastal Commission LCP update guidance acknowledges the value of historic resource preservation. Historic resources often contribute to the coastal zone as visual resources and may also be features of visitor serving commercial and recreational uses. While historic resources are primarily addressed in the Community Preservation Element of the City's General Plan, Chapter 9: Scenic and Visual Resources of the Land Use Plan contains policies recognizing and protecting the aesthetic value of historic resources.

Cultural Resources: Archaeological and Paleontological

CULTURAL CONTEXT

The Planning Area is in a region historically occupied by the tribelets of the Costanoan linguistic group.¹ Descendants of Costanoan speakers prefer to be called by the name of the tribelet from which they are descended. When their heritage is mixed or the specifics have been lost over generations, they prefer the use of a native term, Ohlone, rather than the European-imposed term Costanoan (“coastal dwellers”).² The rich resources of the ocean, bays, valleys, and mountains in the region provided Ohlone-speaking peoples with food and all their material needs.³ The primary food staple was the acorn, supplemented by a great variety of animal and plant resources.

The Ohlones were composed of 50 or more Tribes in the southern San Francisco Bay Region, ten of which were situated along the peninsula. The Portola Expedition, set out to claim land for Spanish territory, encountered several Ohlone villages after their arrival in the late 1760’s, including the Chinguan village in today’s Half Moon Bay. Spanish explorer records indicate that the Spanish received meals, directions, and guidance from the Ohlones leading up to the 1769 ascent up Sweeney Ridge.⁴ This marked the point of Spanish discovery and settlement of the San Francisco Bay. When Mexico won its independence from the Spanish crown in 1821, California fell under rule of Mexican territorial governors who granted much of the former Spanish mission lands to Mexican subjects. These land grants effectively displaced the Ohlones, ignoring any of their remaining territorial rights.⁵

As of 2020, the San Mateo County Parks Department is in the early design phase for a new Ohlone-Portola Heritage Trail intended to commemorate the Portola Expedition and honor the region’s California Native American history. The general trail alignment that will pass through the City’s jurisdiction will utilize the California Coastal Trail.

ARCHAEOLOGICAL RESOURCES

Archaeological resources may include any material remains of past human life or activities of archaeological interest, such as pottery, tools, weapons, or human remains. A complete list of documented archaeological resources in the Planning Area can be obtained through the California Historical Resources Information System Northwest Information Center (NWIS). The following information is based on a records search through NWIS and is presented as a snapshot of the Planning Area’s archaeological resources. The NWIS’ data is frequently updated as new resources are

¹ Levy, Richard 1978. Costanoan. In *California*, edited by R. F. Heizer, pp. 485–495. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

² Margolin, Malcolm 1978. *The Ohlone Way: Indian Life in the San Francisco-Monterey Bay Area*. San Francisco: Heyday Books.

³ Levy, Richard 1978. Costanoan. In *California*, edited by R. F. Heizer, pp. 485–495. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C. 491-492.

⁴ Ohlone/Portola Heritage Trail Committee, Statement of Historic Significance, 2018.

⁵ Gualtieri, Kathryn. 1988. *Half Moon Bay: The Birth of a Coastside Town*. Spanishtown Historical Society, Half Moon Bay, California.

recorded, and should be consulted for the most current documentation of resources. Due to sensitivity of this data, certain records or portions thereof may not be available to the public.

Prehistoric examples of the types of archaeological sites that are known to exist within the Planning Area and vicinity include:

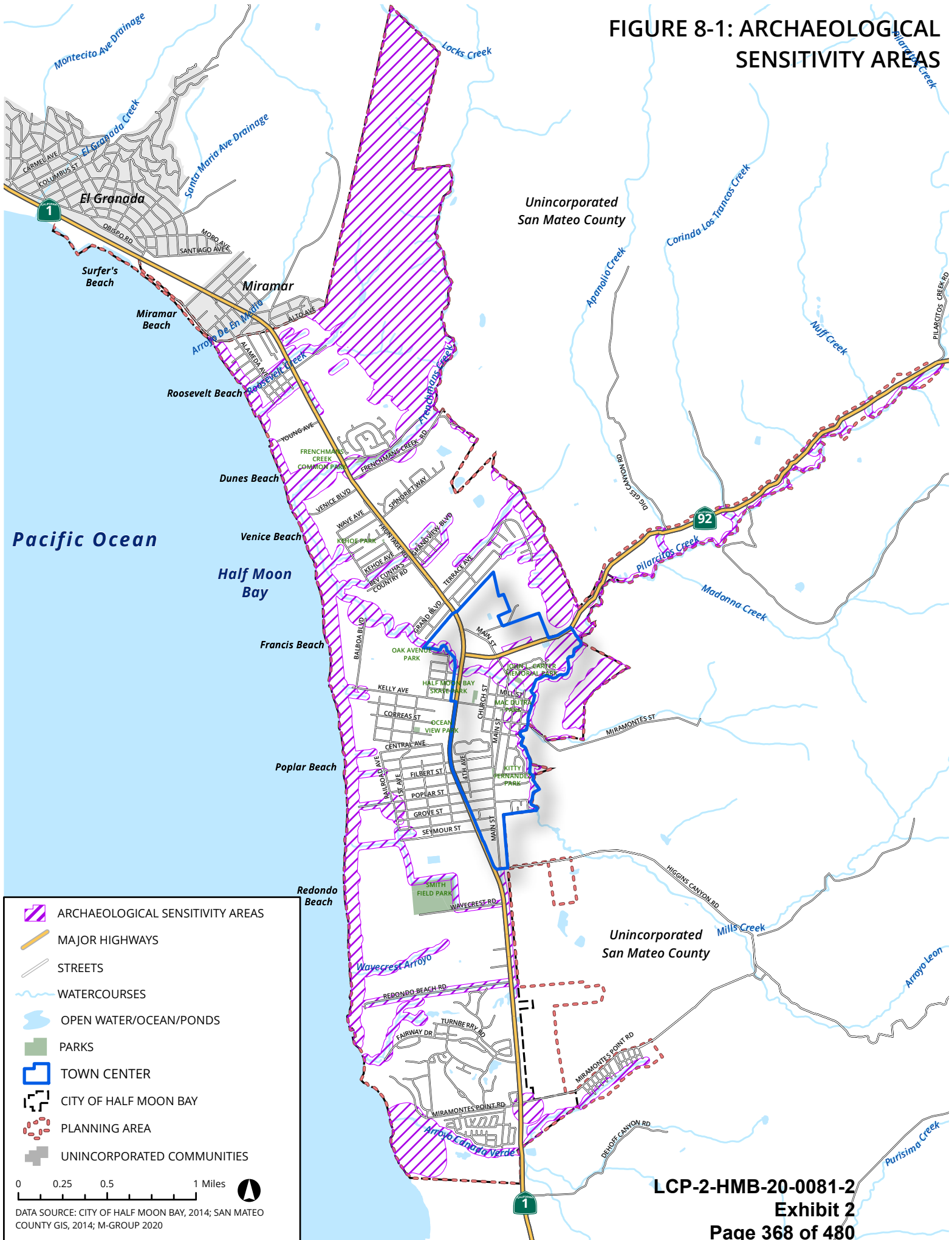
- Shell middens and shell mounds are characterized by concentrations of marine shells that were harvested and processed for consumption.
- Lithic debris and tool scatters are characterized by the presence of tool stone manufacturing waste flakes, core fragments, and formed flaked stone tools such as projectile points, knives, and scrapers.
- Habitation sites are characterized by long-term, extended use, with various activity areas, which may include evidence of food processing, tool manufacturing, and ceremonial events.
- Temporary campsites are generally limited use sites that may contain evidence of food manufacturing or tool production.
- Historic examples of the types of archaeological sites that are known to exist within the Planning Area include ranching, dairy, and maritime structures and remnants.

There are 15 documented archaeological resources in the Planning Area, including prehistoric shell middens and lithic scatters, historic debris scatters, and historic structural remnants. Although there have been very few archeological findings in the City's development permit history, indicating that there is likely a low percentage of developable acreage in the city that contains archeologically significant artifacts, these resources are culturally significant and must be preserved.

PALEONTOLOGICAL RESOURCES

Paleontological resources may include any fossilized remains, traces, or imprints of organisms that are of paleontological interest and provide information about the history of life on Earth. No paleontological resources of known significance have been identified in Half Moon Bay, and they are extremely limited throughout the San Mateo County coastal zone. Although likelihood of discovery is very low, it is important that any paleontological resources are properly protected if discovered.

ECOLOGICAL AREAS



Policies – Cultural Resources

The LUP includes policies intended to ensure the protection and preservation of cultural resources in Half Moon Bay. Policies provide for the identification and documentation of archaeological and paleontological resources, call for an archaeological survey for projects located in archaeologically sensitive areas, and require that a qualified archeologist document the resources on a site as well as any potential impacts. The LUP also requires mitigation and monitoring plans to avoid or minimize any identified impacts to cultural resources and seeks to protect such resources from potential impacts from rising sea levels. Policies establish a requirement for Native American consultation consistent with the provisions of SB 18, AB 52 and Coastal Commission policy.

Policies – General

- 8-1. Cultural Resources Protection.** Half Moon Bay's cultural resources shall be protected and preserved through identification, education and awareness, and development standards for avoidance and mitigation of impacts.
- 8-2. Development Impacts on Cultural Resources.** New development shall avoid impacts to cultural resources through siting and design measures to the extent feasible. Any unavoidable impacts, disturbance, or substantial adverse changes caused by development on cultural resources shall be mitigated through measures such as preservation in place or site sampling and salvage. The preferred and required alternatives for mitigating impacts, if feasible, are avoidance or preservation in place. Consult with Native American representatives on appropriate alternatives.
- 8-3. Cultural Resources Reporting.** Require all known and newly discovered cultural resources to be reported to the appropriate tribe or tribal community, agency, or organization. These may include but are not limited to the California Native American Heritage Commission, the State Historical Resources Commission, or the California Office of Historic Preservation.
- 8-4. Impacts of Environmental Hazards on Cultural Resources.** Ensure that cultural resources are protected from the impacts of environmental hazards, including sea level rise. Work with the State Historic Preservation Officer to identify actions such as mitigation and monitoring programs to protect archaeological and paleontological resources including Native American artifacts at risk from hazards such as erosion, inundation, and sea level rise in a manner consistent with the policies of the LCP and other applicable provisions of the Coastal Act.

Policies – Native American Cultural Resources

- 8-5. Native American Cultural Sites.** Work with local Native American tribes to protect sacred and culturally significant sites, as well as discovered Native American artifacts and remains.
- 8-6. Native American Consultation.** Notify and consult with Native American organizations of proposed developments or land use actions that have the potential to adversely impact cultural resources early in the development review process, providing early and frequent opportunities for concerned Native American parties to comment on or participate in any treatment plan for sites with cultural or religious significance to the Native American community. Development on sensitive sites requires on-site monitoring by appropriate Native American consultant(s) such as tribal monitors and a qualified archaeologist for all grading, excavation, and site preparation activities that involve earth-moving operations.

Policies – Archaeological and Paleontological Resources

- 8-7. Archaeological Resources Archive.** Establish a comprehensive archive of archaeological surveys, maps, and other relevant studies, inventories, and information for sites throughout the city to support archaeological resource protection.
- 8-8. Archaeological Resources Mapping.** Maintain Figure 8-1 as an updated generalized archaeological resource map for public use that designates archaeologically sensitive areas and identifies where archaeological reports may be required for future development. Develop and maintain a detailed archaeological resources map, which, due to the sensitive and fragile nature of archaeological resources, is intended for use by City staff and authorized persons only.
- 8-9. Archaeological Survey with Development Applications.** Require the submission of a report by a qualified archaeologist as part of applications for new development based on the location and scope of the project, including within any archaeologically sensitive area as designated on the archaeological resources map. In areas vulnerable to sea level rise impacts, require a site-specific evaluation of potential sea level rise impacts to any archaeological resources on the development site. A report may include the results of an archaeological records review and/or survey observations with findings on actual and potential resources on the site, impacts of the development proposed, and any recommended mitigation measures. All feasible mitigation measures shall be incorporated in any plan for development prior to the issuance of a permit for development.
- 8-10. Archaeological and Paleontological Resources Monitoring.** Require, where a pre-development survey identifies the potential to affect known or newly discovered archaeological, Native American, or paleontological resources, the submittal of a monitoring and reporting plan that identifies methods and describes the procedures for selecting archeological and Native American monitors and procedures that will be followed if additional or unexpected resources are encountered during development of the site. Procedures may include, but are not limited to, provisions for cessation of all grading and construction activities in the area of the discovery that has any potential to uncover or otherwise disturb cultural deposits in the area of the discovery and all construction that may foreclose mitigation options to allow for significance testing, additional investigation and mitigation.
- 8-11. Discovery of Archaeological and Paleontological Resources.** Regardless of site location, require all development to halt work if subsurface archaeological or paleontological resources are discovered during construction. The developer shall notify the City and retain a qualified professional to identify any necessary handling and notification procedures and mitigation measures. Work shall not resume until these measures have been reviewed and approved by the City and all appropriate entities have been notified. Consult with the appropriate Native American tribe(s) on if and how to rebury any discovered tribal resources.
- 8-12. Discovery of Human Remains.** When human remains are uncovered during development, no further disturbance of the site shall occur until the County Coroner has made the necessary findings as to origin and disposition of the remains. If the Coroner determines that the remains are Native American, the California Native American Heritage Commission shall be notified and no further disturbance of the site shall occur until the Commission provides direction on handling procedures.

9. Scenic and Visual Resources

This chapter of the Local Coastal Land Use Plan (LUP) provides policies for protection and enhancement of Half Moon Bay's scenic and visual resources.

Land Use Plan Framework

The City of Half Moon Bay has scenic resources of substantial importance to the satisfaction of its residents, the pleasure afforded visitors, and the economy of the city. The city's visual identity as a coastal retreat is bolstered by sweeping views from the foothills to beaches and bluffs, open lands and agricultural fields, historic buildings, and a charming downtown, providing for a memorable visual experience.

The Land Use Plan reflects Coastal Act priorities of preserving and enhancing scenic and visual resources. The Coastal Act considers the scenic and visual qualities of coastal areas to be a resource of public importance and provides for the protection of these qualities through requirements on siting and design and visual compatibility of new development, minimizing the alteration of natural landforms, and restoration and enhancement of visual quality. Coastal Act Section 30251, presented below, is directly relevant to the protection, preservation, and enhancement of scenic and visual resources. Part (e) of Section 30253 requires protection of special communities and neighborhoods with unique characteristics, which may include scenic and visual resources valued by both the local community and visitors. Additional Coastal Act policies, such as those that emphasize visitor serving uses, coastal access, and the preservation of natural and manmade coastal resources also pertain to scenic and visual resources in Half Moon Bay.

COASTAL ACT POLICIES

The following Coastal Act policies inform the City's scenic and visual resource policies and are incorporated into this LUP.

Article 6: Development

Section 30251 Scenic and visual qualities

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

Section 30253 Minimization of adverse impacts

New development shall do all of the following:

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

In addition to its policies, the findings and declarations made by the State legislature in establishing the Coastal Act state that “the permanent protection of the state’s natural and scenic resources is a paramount concern to present and future residents of the state and nation.”¹ Furthermore, the Coastal Act prioritizes protection of views from public places such as trails, parks, vistas, rights-of-way, and areas with public access easements. Views from private property are not a Coastal Act policy concern.

Visual Attributes and Conditions

The visual character of Half Moon Bay is defined by its setting on the marine terrace between an exceptional coastline and the scenic foothills of the Santa Cruz Mountains, its agricultural heritage, and its small-scale downtown, residential neighborhoods, and public roads that provide sweeping views of open space and habitat areas. Although the availability of views in and around the Planning Area is varied and dependent on a number of factors such as topography, intervening development, viewing distance and duration, and atmospheric conditions, each area of the City provides some level of a high-quality viewing experience.

Comprehensive review of the visual qualities and character of the Planning Area helps identify locations and resources with scenic value that should be protected or that would benefit from restoration and enhancement. To make this assessment, this section describes positive and negative visual attributes and conditions evident throughout categorized areas of the City. Such attributes and conditions generally describe scenic and visual characteristics to be protected, development encroachments on public views and scenic areas, and visual clutter to be improved.

Coastal Bluffs and Beaches

The Planning Area is defined on its western edge by approximately 6 miles of sandy beaches, coastal bluffs, and coves, the majority of which are accessible to the public. Because of the crescent-shaped curve of the coastline, views from these beachfront areas often include sweeping panoramas from Pillar Point to the Santa Cruz Mountains. Looking east from these areas, the coastal foothills can be

¹ California Coastal Act, Section 30001.

seen rising up as a scenic backdrop to the city. Several city streets provide direct access to these areas, sometimes leading all the way to the blufftops themselves. High quality views are readily available from the bluffs and beaches.

Coastal Bluffs and Beaches Visual Attributes and Conditions

<i>Positive visual attributes and conditions</i>	<i>Negative visual attributes and conditions</i>
<ul style="list-style-type: none"> • Views of hillsides and ridgelines of coastal mountains • Agricultural fields, operations, and greenhouses • Ocean views • Pillar Point and Pillar Point Harbor • Bluffs, sandy beaches and shoreline • Riparian corridors • Recreational uses including the California Coastal Trail • Tideland rocky shore edges • Dunes 	<ul style="list-style-type: none"> • Development adjacent to blufftops • Recreational vehicles at certain locations • Parking lots • Overhead utilities in certain locations • Degraded drainages

Highway Corridors

Highways 1 and 92 are the primary access points to and through Half Moon Bay, and as a result provide many travelers with their first visual impressions of the city. There are eight gateways along the highways that provide a sense of arrival, community identity, and wayfinding at major intersections and city limits: five along Highway 1, two along Highway 92, and one at the intersection of Highway 1 and 92.

This LUP update includes implementation policies for the Town Boulevard. As envisioned, the Town Boulevard includes Highways 1 and 92 within the city limits. There are many objectives for the Town Boulevard including safety, traffic flow, and community character. Anticipated outcomes include reduction of unnecessary pavement area, improved lighting that provides pedestrian safety while protecting dark night skies, established landscaping that frames or enhances views, and safe and efficient crossings and parallel facilities for cyclists and pedestrians. The Town Boulevard should establish a sense of place and community identity. On Highway 92, it is especially important to improve the pedestrian environment. Examples of useful upgrades include landscape buffering (i.e. street trees or parkway strips between the curb and sidewalk), removal of encroachments (i.e. utility boxes, poorly placed signage on sidewalks, overgrown landscaping), and reduction in visual clutter (i.e. excessive signage, and large minimally-landscaped parking, loading, and service areas on commercial properties). Build-to lines would provide for a required building façade setback line, resulting in improved pedestrian orientation and framing of the visual corridor.

Highway 1

Highway 1 is the primary north-south transportation route through the Planning Area. As a result, a large share of the visual impression of the city is experienced from this corridor. Highway 1 provides an overview of the city and surrounding area's visual character and scenic resources. Views along

Highway 1 include agricultural uses and open space, mixed with residential neighborhoods and a few roadside businesses. There are five gateways along Highway 1:

- Northern Gateway: The northernmost gateway at Mirada Road, where southbound Highway 1 enters the city limits;
- North Town Center Gateway: The northern entrance into the Town Center, where Highway 1 meets North Main Street;
- Beach-Downtown Gateway: The central gateway linking downtown to the beaches, where Highway 1 meets Kelly Avenue;
- South Town Center Gateway: The southern entrance into the Town Center, where Highway 1 meets South Main Street by Higgins Canyon Road; and
- Southern Gateway: The southernmost gateway, where northbound Highway 1 enters the southern city limits.

Highway 1 Visual Attributes and Conditions	
<i>Positive visual attributes and conditions</i>	<i>Negative visual attributes and conditions</i>
<ul style="list-style-type: none"> • Views of hillsides and ridgelines of coastal mountains • Agricultural fields, operations, and greenhouses • Ocean views • Wetlands and riparian corridors • Historic and coastal compatible buildings • Pillar Point Harbor and Marina • Pillar Point • Johnston House • Mature tree stands • Wildlife/birds • Open spaces • Undeveloped properties • Median landscaping 	<ul style="list-style-type: none"> • Broad expanses of pavement • Broad expanses of gravel/dirt abutting sidewalks • Parking areas without landscaping • Congested vehicular traffic • Scale of intersections of Highway 1/92 and Highway 1/North Main Street • Overhead utilities • Excessive signage • Featureless commercial development

Highway 92

Highway 92 serves as the eastern gateway to the city at its intersection with Main Street. As the highway winds down from the hills, the curving alignment and groves of mature roadside trees just east of town tend to limit longer-range views. Continuing west however, the highway straightens out, revealing a brief vista of Half Moon Bay and the ocean beyond. This spatial dynamic along westbound Highway 92 contributes to a sense of arrival from an agricultural perspective (roadside farms, farm stands and displays) to a coastside community enclave. Three gateways are located along Highway 92:

- Eastern Gateway: The easternmost gateway, where westbound Highway 92 enters city limits;
- Highway 92-Downtown Gateway: Where Highway 92 meets Main Street, providing direct access into downtown; and
- Highway 1-92 Gateway: Where Highway 92 meets Highway 1, the city's largest intersection.

Highway 92 Visual Attributes and Conditions

<i>Positive visual attributes and conditions</i>	<i>Negative visual attributes and conditions</i>
<ul style="list-style-type: none">• Views of hillsides and ridgelines of coastal mountains• Agricultural fields, operations, and greenhouses• Brief ocean views• Riparian corridors• Mature tree stands• Historic cemetery• Median landscaping• Wildlife/birds	<ul style="list-style-type: none">• Broad expanses of pavement• Parking areas without landscaping• Poor streetscape design• Vehicular and commercial truck traffic• Utility boxes, pylons• Overhead utilities• Excessive signage• Development disconnected from streetscape• Featureless commercial development• Visual disconnect from downtown

Local Streets

Because of the grid layout of local roadways, many of the east-west oriented streets provide view corridors to the ocean as well as the inland hills. Local streets also serve as public viewpoints to the surrounding areas. For example, Kelly Avenue provides views of the Half Moon Bay State Beach and the agricultural field to the north; Venice and Young Avenues provide views of the adjacent open fields and ocean (Venice Beach PD, Surf Beach/Dunes Beach PD); and North Main Street provides views over open fields (Podesta PD).

Local Streets Visual Attributes and Conditions

<i>Positive visual attributes and conditions</i>	<i>Negative visual attributes and conditions</i>
<ul style="list-style-type: none">• Greater visual access to scenic resources• View corridors to the ocean and hills• Modest scale development (one and two stories)• Views of hillsides and ridgelines of coastal mountains• Agricultural fields, operations, and greenhouses• Ocean views• Riparian corridors• Mature tree stands• Wildlife/birds• Open spaces• Undeveloped properties	<ul style="list-style-type: none">• Overhead utilities• Vehicular traffic• Excessive signage• Featureless/unimproved streetscapes• Inconsistent landscaping• Broad expanses of pavement (wide streets and/or lack of pedestrian pathways)• Excessive lighting• Development blocking or partially blocking view corridors

Agriculture and Maritime Uses

Agricultural heritage and character are evidenced by the fields, greenhouses, and nurseries seen throughout the Planning Area. This is particularly noticeable along Highway 1 where greenhouses and nursery operations line the roadway and agricultural fields separate neighborhood developments, as well as along Highway 92 where horticulture and other agricultural-oriented retail businesses greet the highway traveler. These agricultural uses create visual connections to the local and regional history and contribute significantly to the small-town setting and visual character of Half Moon Bay. The generally pastoral qualities of the surrounding open space and agricultural lands have an inherent scenic benefit which increases the city's visual quality and are highly valued by visitors and residents alike. While not a designated visual resource area, agricultural lands are very important to the scenic quality, culture, and economy of Half Moon Bay and are protected through the policies of Chapter 4. Agriculture.

The maritime and fishing industries and recreational activities contribute greatly to the visual character of the Planning Area. The Half Moon Bay city limits encompass the southernmost portion of the Pillar Point Harbor frontage and include dramatic views of the Harbor and Pillar Point to the northeast. Views of these natural landforms and working harbor are memorable and have a substantial positive effect on visual quality.

Agriculture and Maritime Uses Visual Attributes and Conditions

<i>Positive visual attributes and conditions</i>	<i>Negative visual attributes and conditions</i>
<ul style="list-style-type: none">• Agricultural fields, operations, and greenhouses• Ocean views including fishing boats and other maritime activities• Pillar Point and Pillar Point Harbor	<ul style="list-style-type: none">• Overhead utilities• Increased traffic and parked cars (marina area)• Litter• Nighttime glow from greenhouses• Poor streetscape design

Recreational Areas

Recreational opportunities in Half Moon Bay are plentiful and include the beaches, the California Coastal Trail, golf courses, and City parks. These recreational areas generally allow for increased exposure to the surrounding highly scenic environment of the beach and coastal areas, and recreational enjoyment is enhanced by the views. Many of these recreational areas provide scenic value themselves in terms of open space, topography, and native vegetation or other landscaping. Views are also available from the lateral or vertical accessways to recreational areas, particularly beach accessways including Mirada Road, Roosevelt Boulevard, Young Avenue, Venice Boulevard, Wave Avenue, Kelly Avenue, Poplar Street, Wavecrest Road, Redondo Beach Road, and Miramontes Point Road.

Recreational Areas Visual Attributes and Conditions

<i>Positive visual attributes and conditions</i>	<i>Negative visual attributes and conditions</i>
<ul style="list-style-type: none">• View corridors to the ocean and hills	<ul style="list-style-type: none">• Development adjacent to bluffs• Blocked views of hillsides

<ul style="list-style-type: none"> • Views of hillsides and ridgelines of coastal mountains • Agricultural fields, operations, and greenhouses • Ocean views • Views of Half Moon Bay State Beach • Pillar Point and Pillar Point Harbor • Bluffs, sandy beaches, dunes and shoreline • Riparian corridors and wetlands • Increased visual access to scenic resources • Bicycle, pedestrian, and horse trails • Bicycle and pedestrian bridges • Wildlife/birds • Native habitat areas and tree stands • Undeveloped properties 	<ul style="list-style-type: none"> • Recreational vehicles at certain locations • Parking lots with excessive paving/without landscaping • Excessive signage • Half Moon Bay landfill • Litter • Degraded trails and fences • Overhead utilities
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Town Center

Overall, the Town Center, especially Heritage Downtown centered around Main Street, enjoys a high degree of visual quality. The combination of its quaint and compact walkable scale, historic and older-appearing buildings, hillside views, and nearby creek corridors presents a varied and high-quality visual character. Views of the hillsides are prevalent throughout the Town Center and can be enjoyed from the public right-of-way along nearly every block. Heritage Downtown provides a desirable visual experience of a traditional small town enhanced significantly by its coastal setting, agricultural heritage, and historic context.

Town Center Visual Attributes and Conditions

<i>Positive visual attributes and conditions</i>	<i>Negative visual attributes and conditions</i>
<ul style="list-style-type: none"> • Main Street bridge • Views of hillsides and ridgelines of coastal mountains • Pilarcitos Creek riparian corridor and tributaries • Historic buildings and older heritage buildings including the Jail, San Benito House, Odd Fellows building, and other notable structures • Parks and public gathering spaces • Pedestrian-scaled buildings and streetscape 	<ul style="list-style-type: none"> • Inadequate right-of-way and streetscape design with gaps in amenities such as street trees • Overhead utilities on the southern end of Main Street and side streets • Generic architectural styles associated with newer buildings • Dilapidated historic buildings • Taller buildings obstructing views of hillsides • Excessive, inappropriately-designed signage, especially overly large free-standing signs • Tall “cobra”-style street and highway lights

	<ul style="list-style-type: none"> • Excessive commercial lighting • Utility boxes and poorly placed street furniture and signage (e.g. parking signs, newspaper boxes, waste receptacles) • Trash/clutter
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Residential Neighborhoods

Most of the city's neighborhoods are well-established and have mature landscaping. Although much of the area is composed of single-family residential subdivisions, they are intermixed with other types of development such as nurseries, mobile home and recreational vehicle parks, hotels, golf courses, and larger-lot residences. Many neighborhoods are surrounded by undeveloped open space or agricultural fields on either side and provide views across these areas from their outer streets and sidewalks. A common visual characteristic is that almost all of the residential areas have some sort of views to the inland hillsides. In addition, glimpses of the ocean are often available where streets create an open view corridor to the west.

Residential Neighborhoods Visual Attributes and Conditions

<i>Positive visual attributes and conditions</i>	<i>Negative visual attributes and conditions</i>
<ul style="list-style-type: none"> • Views of hillsides and ridgelines of coastal mountains • Agricultural fields, operations, and greenhouses • Small-scale residential farms and gardens • Eclectic, pedestrian-scale streetscapes • Ocean views • Riparian corridors • Mature roadside and neighborhood trees • Views of the bluffs, beaches, harbor, and Pillar Point from certain areas • Wildlife/birds 	<ul style="list-style-type: none"> • Overhead utilities • Blocked views of coastline • Featureless/unimproved streetscapes • Broad expanses of pavement (wide streets and/or lack of pedestrian pathways) • Excessive lighting • Litter and other pollutants

Visual Attributes and Conditions Photos

Surf/Dunes Beach PD: Example of undeveloped PD that provides a broad ocean view from Highway 1.



Rocket Farms: Example of view of greenhouses and hillsides from Coastal Trail by Venice Beach



Highway 92: Example of clusters of utility boxes and signage at a highly visible corner with sidewalk encroachments.



Highway 92: Example of broad expanses of pavement, no pedestrian buffer from street, limited landscaping, sense of arrival and wayfinding for beach or Downtown not evident



Main Street Bridge and Downtown: Example of historic structure and streetscape



California Coastal Trail: Example of views of ocean, beaches, bluffs, hillsides, and coastal terrace prairie from recreation area



Downtown: Example of excessive overhead utilities



Poplar Beach Parking Lot: Example of excessive signage and visual clutter



Johnston House: Example of views of historic resource and agricultural land from Highway 1.



Historic Jail and Johnston Barn: Example of views of historic resources and hillsides from Downtown



Roosevelt Boulevard: Example of a scenic coastal access route



Frenchmans Creek: Example of a neighborhood park and riparian corridor



Scenic and Visual Resource Areas

The assessment in the previous section identified positive and negative aspects of the visual environment throughout Half Moon Bay. From that assessment, the following categories of scenic corridors, natural resources, and built environment resources are designated scenic and visual resource areas determined to have scenic value that should be protected or that would benefit from restoration and enhancement. Designated scenic and visual resource areas are shown in Figure 9-1.

Scenic Corridors

Town Boulevard Corridor. The Town Boulevard is envisioned to include Highway 1 and Highway 92 within city limits. Highway 1 provides a unique experience of travelling through a small coastal town. Sweeping views of the ocean, upland slopes, open spaces, and agricultural areas that make Half Moon Bay so distinctive and picturesque can all be seen from different segments of Highway 1. Significant views of the James Johnston House are available at the southern end of the city, offering a historic visual context to the landscape. Highway 92 offers a sweeping view of the ocean and town upon entering city limits. Along the two highways, eight gateway areas provide major points of access within and to the city. Future improvements to establish the Town Boulevard may include wayfinding at the gateways, restoring the negative visual attributes identified in this chapter, and opportunities for protecting and enhancing views of the ocean, upland slopes, and other scenic areas.

Scenic Coastal Access Routes. Scenic coastal access routes are public roadways associated with coastal access points where breaks in vegetation and development allow for uninterrupted views west towards the ocean from Highway 1. From the perspective of scenic and visual resources, these routes and access locations provide an arrival sequence from the built environment to the dramatic expanse of Half Moon Bay's beaches. Scenic coastal access routes are shown on Figure 9-1. Primary scenic coastal access routes include Young Avenue, Venice Boulevard, Kelly Avenue, Poplar Street, Wavecrest Road, and Miramontes Point Road. Secondary scenic coastal access routes include Mirada Road, Roosevelt Boulevard, Wave Avenue, and Redondo Beach Road.

Broad Ocean Views. Public views of the Pacific Ocean are a fundamental character-defining visual element for the Planning Area as well as for the California coastline. Although not visible from all locations within the Planning Area, where the ocean can be seen, it substantially adds to the visual interest and quality of the view. Several segments of Highway 1 provide broad ocean views; namely across Surfer's Beach, between the paper street Knewing Avenue and Frenchmans Creek, between Venice Boulevard and Wave Avenue, and between Seymour Street and Wavecrest Road. Other broad, public ocean views are available from Naples Avenue, Wave Avenue, Railroad Avenue, Highway 92, the James Johnston House, the Pacific Ridge Trail, and the future Vista Trail.

California Coastal Trail. The California Coastal Trail is an essential Half Moon Bay scenic resource. The multimodal Class 1 trail contributes to the city's bicycle and pedestrian network and offers recreational opportunities. From the perspective of scenic and visual resources, traversing any segment of the trail within the city is a fulfilling experience. Throughout its extents the trail provides expansive views of the ocean, beaches, bluffs, foothills, coastal recreation activities, Pillar Point, the harbor and marina, and even historic resources. Along the blufftops, the trail also offers elevated viewing opportunities of the coastline and much of the inland hills.

Natural Resources

Beaches and Shoreline. Where visible, the beaches and shoreline are primary contributors to the visual composition of the coastal setting. Views of the beaches and shoreline are mostly visible from locations along the westernmost portion of the Planning Area. Vantages from the beach and shoreline are primarily of natural settings including the bluffs, dunes, native vegetation, and ocean. Residents and visitors alike treasure these views and the sense of an underdeveloped, natural coastline. As such a highly scenic area, it is important to protect public views to and from the beach and shoreline area. New development along the bluffs and shoreline may need to incorporate height limits, setbacks, or other design standards to achieve this.

Significant Plant Communities. Significant plant communities that contribute to the scenic quality of the Planning Area include Monterey cypress and Monterey pine stands or rows, riparian vegetation along stream corridors, and mature roadside trees. Both canopies and understories can have visual quality as well as important habitat for listed and protected wildlife and bird species. Similar to historic buildings, healthy stands of vegetation connect the viewer to the story of the land and the community. Although the Monterey cypress and Monterey pine are not native to Half Moon Bay, their presence is visually significant. Riparian corridors often serve to visually frame the surrounding scenery in addition to providing local landmarks and place-identifiers. Trees of large stature located along roadsides can create a sense of spatial definition, along with a general increase in vegetative character. It takes many years, if not decades, for trees to mature such that they contribute in a significant manner to the visual quality of the environment and will diminish absent preemptive planting programs. Invasive tree species such as eucalyptus are generally excluded from these protections, except where they support special status species.

Open Space Conservation Areas. Open space conservation areas can be seen throughout the Planning Area and can be contiguous with and supportive of environmentally sensitive habitat areas (ESHAs) and protected species. These areas include a range of habitat types such as coastal prairie, coastal scrub, central dune scrub, central coast riparian scrub, non-native grasslands, and wetlands, and can primarily be viewed from the Coastal Trail, Highway 1, and the edges of residential neighborhoods. Such conservation areas contribute to the sense of openness and the natural habitats of the City.

Upland Slopes. As seen from the majority of the Planning Area, the upland slopes to the east create a scenic backdrop that contributes greatly to the overall visual quality. Long-standing policy has effectively kept development below the 160-foot contour line. Therefore, these mostly undeveloped upland slopes, including the hillsides and ridgelines, underscore the rural and natural character seen in the Planning Area and throughout much of the surroundings. These upland slopes provide context and visually frame many of the other scenic resources in the area.

Built Environment

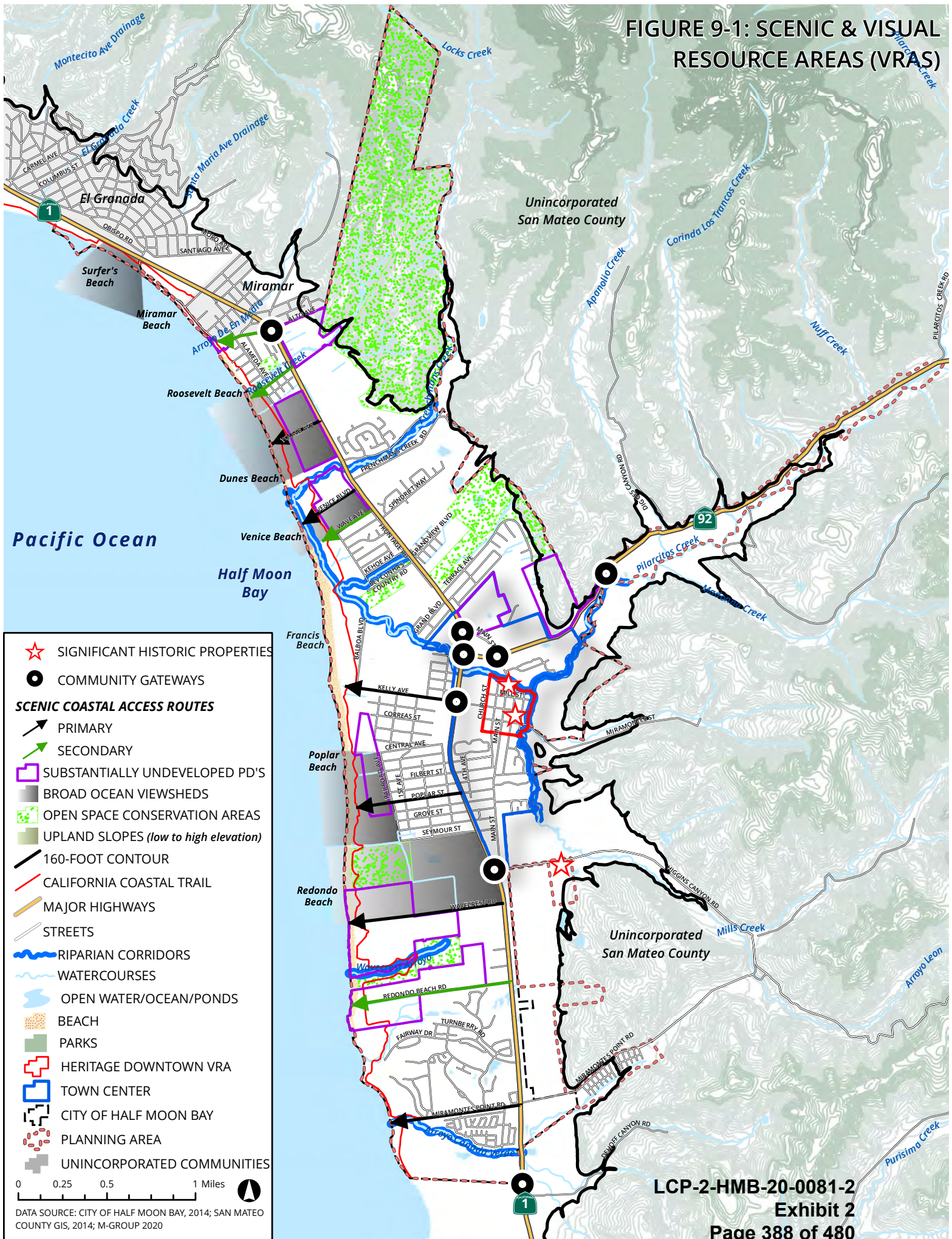
Heritage Downtown. Heritage Downtown is the city's most significant neighborhood from a visual resource perspective. Historic properties and structures within Heritage Downtown contribute to the community's cultural and historic character and are important visual resources. While historic properties can be found in other areas of the city, Heritage Downtown contains the concentration. Of note is the Main Street Bridge which, built in 1900, is a visual resource in terms of its aged character and its prominence on Main Street at a primary gateway to the city. The historic vintage of the Main Street Bridge is evident in its narrow scale as well as its architectural and engineering design. The

historic jail on Johnston Street is another visually significant structure with its scenic backdrop of the foothills. As a whole, much of the visual quality of Heritage Downtown is a result of the scale of its buildings and streets, the close layout of the central retail zone along the traditional Main Street, and the human-scale amenities at the sidewalk and storefront level. These characteristics, combined with the historic character, hillside views, and proximity to Arroyo Leon and Pilarcitos Creek are primary contributors to the scenic quality and significant visitor destination attractions of the downtown area. For the purposes of visual resource protection, the Heritage Downtown scenic and visual resource area is bound by Church Street on the west, Main Street Bridge on the north, Arroyo Leon on the east, and Correas Street on the south.

Substantially Undeveloped Planned Developments. Several of the City's substantially undeveloped Planned Developments (PDs) are located along major coastal accessways or the shoreline, or both, and provide sweeping views of the ocean and upland slopes across the site as seen from Highway 1 and the Coastal Trail. Other scenic views of Pillar Point, native vegetation and habitat areas, and agricultural operations are provided by substantially undeveloped PDs. For PDs that have not been substantially developed, visual resource assessments are required as part of the master planning process and must include siting and design guidelines for the long-term protection of the scenic quality and visual resources of these areas. Upon substantial buildout, a PD is no longer considered a visual resource area but must maintain the visual resource protections established by the approved master plan and the LCP.

Parks. Parks in the Planning Area include small parks and plazas, passive areas along creeks, and active recreation areas such as Smith Field Park and the State Beach uses along the shore. These parks have a variety of individual characteristics and provide scenic value in different ways. They all, however, are aesthetically pleasing areas, which adds to the overall visual quality of the setting. They also create increased opportunities and exposure for the public enjoyment of the surrounding visual environment. The City frequently plans for park improvements, including those that will enhance the scenic aspects of these facilities.

FIGURE 9-1: SCENIC & VISUAL RESOURCE AREAS (VRAS)



Policies – Scenic and Visual Resources

The LUP provides for the protection and enhancement of scenic and visual resources pursuant to the Coastal Act. LUP policies identify scenic and visual resource areas as the scenic corridors, natural resources, and built environment resources designated on Figure 9-1 and include requirements to protect such areas through review of new development proposals. Policies require development to minimize visual impacts, including by protecting views to and along the ocean, minimizing the alteration of natural landforms, ensuring compatibility with the surrounding setting, and restoring visually degraded areas where feasible. Policies also establish citywide development standards for design review and measures to minimize visual impacts from grading and land divisions.

Scenic corridor policies require protection of significant views available along Highways 1 and 92, scenic coastal access routes between Highway 1 and the beach, and the California Coastal Trail. Additional policies address the need to enhance community gateways on Highway 1 and 92, and ensure that improvements to highways, roads, and streetscapes minimize visual impacts.

LUP policies protect the scenic quality of Half Moon Bay's natural resources by requiring setbacks for new blufftop and shoreline development, emphasizing preservation of upland slope and ridgeline views, and ensuring visual compatibility with surrounding landforms and development. The LUP retains long-standing policies to keep development below the 160-foot contour line on hillsides, and requires lower-scale building heights along major roads, view corridors, and other public viewing areas to maintain the quality of broad views of the ocean and upland slopes. The LUP contains measures to promote vegetation preservation and plan for long-term conservation of significant tree stands. New development is required to minimize the removal of vegetation and to revegetate and maintain disturbed areas with native plants.

Policies for built environment visual resource areas require new development in Heritage Downtown to be compatible with the surrounding scale and architecture, protect visual resources through master planning of substantially undeveloped Planned Developments, and address new development in parks and recreation areas.

Policies further seek to minimize visual impacts from lighting, signs, and utilities. Policies protect dark night skies by limiting light pollution through design requirements for exterior lighting. The intent of the dark night sky policies is to preserve dark views of the night sky and improve the visibility of stars above the city. Dark night sky policies also benefit wildlife by reducing exposure of sensitive species to artificial light. Additional policies require that signs be designed to be compatible with their surroundings, prohibit billboards, require undergrounding utilities, and address the siting of utility boxes, right-of-way signage, and telecommunications facilities.

Policies – General

- 9-1. Scenic and Visual Resource Areas.** Identify and protect scenic and visual resource areas in Half Moon Bay, including but not limited to the scenic corridors, natural resource areas, and built environment resources as defined in this chapter and designated on Figure 9-1.
- 9-2. Scenic Resource Protection.** New development shall be sited and designed to protect views to and along the ocean, to minimize the alteration of natural land form, to be visually compatible with the character of its setting, and, where feasible, to restore and enhance visual quality in visually degraded areas.
- 9-3. Visual Quality.** Preserve and enhance the unique visual quality that contributes to Half Moon Bay's coastal and small-town character, including its open, expansive views from the coastal terrace to the beaches, bluffs, ocean, and upland slopes.
- 9-4. Negative Visual Attributes.** Where feasible, improve the negative visual attributes and conditions identified in this chapter through new public and private development and redevelopment projects.
- 9-5. Visual Impact Evaluation.** Where any development is proposed within a scenic and visual resource area, including as designated on Figure 9-1, a site-specific visual impact evaluation shall be required and may include visual simulations, story poles, and/or other means of visual assessment as appropriate based on the type and location of development.

Policies – Development Standards

- 9-6. Site Planning and Design for New Development.** Require new development to be subject to design review to ensure it is sited and designed to protect public views of scenic and visual resource areas and to be visually compatible with the character of the surrounding area. Measures to be considered may include, but are not limited to the following:
 - a. Siting development in the least visible portion of the site;
 - b. Breaking up the mass of new structures;
 - c. Designing structures to blend into the surrounding natural landscape;
 - d. Restricting building maximum size and height;
 - e. Clustering or distributing development;
 - f. Incorporating landscape elements and screening; and
 - g. Conformance with any adopted design guidelines.
- 9-7. Alteration of Landforms.** Require that all new development be sited and designed to minimize alteration of natural landforms through the following measures:
 - a. Conform to the natural topography of the site;
 - b. Minimize substantial grading or reconfiguration of the project site;
 - c. Prohibit flat building pads on slopes and requiring building pads on sloping sites to utilize split-level or stepped-pad designs;

- d. Require that man-made contours mimic the natural contours of the site;
- e. Ensure that graded slopes blend with the existing terrain of the site and surrounding area;
- f. Minimize grading permitted outside of the building footprint;
- g. Cluster structures to minimize site disturbance and development area;
- h. Avoid landscaping that blocks public ocean views;
- i. Minimize the height and length of cut and fill slopes;
- j. Minimize the height and length of retaining walls; and
- k. Allow the balancing of cut and fill operations on site only where the grading does not substantially alter the existing topography, where it blends with the surrounding area when viewed from public locations, and where it conforms to all applicable LCP policies for hazard avoidance and habitat protection. Export of cut material may be required to preserve natural topography.

9-8. Land Divisions. Require land divisions, including lot line adjustments, to be designed in a manner that minimizes impacts to visual resources. Measures for minimizing visual impacts include the following:

- a. Clustering the building sites to minimize site disturbance and maximize open space;
- b. Prohibiting land divisions and adjustments that would create lots with insufficient space for development, including to avoid the need for fuel modification, without impacting visual resources;
- c. Requiring new land divisions to provide sufficient park and open space areas;
- d. Prohibiting creation of new building sites above the 160-foot contour line within City limits;
- e. Minimizing the length and impermeability of access roads and driveways;
- f. Using shared or abutting driveways to access development on adjacent lots, where appropriate;
- g. Reducing the maximum allowable density in steeply sloping and visually sensitive areas; and
- h. Revegetating graded building pad areas, if any, with native plants.

9-9. Streetscapes. Streetscape improvements, whether they are required as a condition of new development or implemented as a City project, shall be designed and maintained with street trees, vegetation, and landscaping to enhance the visual experience of the streetscape without obstructing scenic views upon maturity.

9-10. Fences, Walls, and Landscaping. Ensure that fences, walls, and landscaping shall not block public views of or from scenic and visual resource areas including along scenic corridors, at parks and beaches, and other scenic public viewing areas through height restrictions and required landscape maintenance.

- 9-11. Landscape Screening.** Prioritize avoidance of development impacts to scenic and visual resource areas through site planning and design alternatives over landscape screening. Landscape screening as mitigation of visual impacts shall not substitute for project alternatives including re-siting or reducing the height or bulk of structures, but may be used where appropriate to soften any unavoidable visual impacts of new development. Where permitted, landscape screening shall be comprised of native and drought tolerant species and shall be maintained such that scenic views are not blocked at maturity.

Policies - Scenic Corridors

- 9-12. Town Boulevard Scenic Corridor.** Require that new development in close proximity to or easily visible from the Town Boulevard scenic corridor, including Highways 1 and 92:
- a. Protects views of visual resource areas as seen from the Town Boulevard, including views to the ocean, upland slopes (i.e. minimizes intrusions into the ridgeline), and the historic Johnston House;
 - b. Incorporates design standards such as screening of commercial parking areas and landscaping provisions; and
 - c. Is visually compatible with the surrounding land and development.

Update the IP with additional standards for new development along the Town Boulevard based on additional study of the scenic corridor. Assessment should, at a minimum, consider views of visual resource areas from the perspective of existing and potential development along the Town Boulevard and identify scenic segments along Highway 1 and 92, including views of the ridgelines and other visual resource areas. Development standards should address, at a minimum, appropriate building heights and setbacks, longest wall lines, minimum space between buildings, and streetscape design.

- 9-13. Highway 1 and 92 Frontages.** Improve the appearance of the Highway 1 and 92 frontages as properties redevelop through the following means:
- a. Establish build-to lines to frame and define the transportation corridors.
 - b. Reduce visual clutter by consolidating utilities, phasing out monument signs, and requiring permanent maintenance of frontage landscaping.
- 9-14. Highway Improvements.** Coordinate with Caltrans to ensure that future improvements and changes to the highways such as new traffic signals, road width modifications, and implementation of the Town Boulevard consider context-sensitive design and preserve or enhance the visual experience of traveling through a coastal community with small town character.
- 9-15. Scenic Coastal Access Routes.** Require that new development on designated scenic coastal access routes from Highway 1 to the beach, including roadway improvements and development proposed in close proximity to the road, protects the scenic quality of the corridor and avoids obstruction or significant degradation of public ocean views such as through provision of sufficient setbacks from the public right-of-way, low building heights, and landscaping that establishes and/or maintains a scenic gateway.

- 9-16. Broad Ocean Views.** Ensure that areas providing broad, public ocean views, including as designated on Figure 9-1, are preserved and enhanced in association with new development projects. In such areas, structures shall be sited and designed to avoid obstruction of broad, public ocean views, shall not exceed 15 feet in height unless an increase in height would not obstruct public views to the ocean or would facilitate clustering of development so as to result in greater view protection, and shall ensure that any proposed landscaping, when mature, will not obstruct public views to the ocean.
- 9-17. California Coastal Trail Views.** Ensure that views of the ocean, bluffs, upland slopes, and ridgelines from the California Coastal Trail are protected, particularly in areas adjacent to substantially undeveloped Planned Developments including Surf Beach/Dunes Beach, Venice Beach, West of Railroad, and North Wavecrest. Require sufficient setbacks, height limits, and other design standards for any new development permitted near the trail to minimize impacts to visual resources.
- 9-18. Gateways Enhancement.** For City right-of-way projects and public or private development near the eight gateways along Highway 92 and Highway 1 identified on Figure 9-1, require enhancements to improve community identity and provide wayfinding.

Policies – Natural Resources

- 9-19. Blufftop and Beachfront Development.** Require new development along the beaches and blufftops to incorporate a height limit, setback, and design treatment that minimizes its visibility from the beach and ocean below. The beach or blufftop setback necessary to protect visual resources may be in excess of the setback necessary to ensure that risk from shoreline hazards are minimized for the anticipated life of the structure, as required in the Environmental Hazards chapter of the LUP.
- 9-20. Significant Plant Communities.** Preserve the scenic quality of significant plant communities including but not limited to Monterey cypress and Monterey pine stands or rows, riparian vegetation along stream corridors, and non-invasive mature roadside trees to the extent feasible. Preservation may be achieved through siting and design of new development, compliance with habitat buffers required pursuant to Chapter 6. Natural Resources, minimizing significant alteration and removal, vegetation maintenance and restoration, and replanting as mitigation for removed vegetation where approved.
- 9-21. Preemptive Tree Replacement.** Allow for preparation and implementation of preemptive tree replacement plans for significant stands of trees and large landscapes (e.g. golf courses) in order to maintain long-term canopy health and scenic quality.
- 9-22. Open Space Conservation Areas.** Ensure that any development permitted within or adjacent to open space conservation areas is sited and designed to minimize impacts to public views of the conservation areas and to be visually compatible with the surrounding natural environment.
- 9-23. Upland Slopes and Ridgelines.** Protect broad views of upland slopes, prominent ridgelines and other intervening ridgelines as viewed from scenic corridors and the beach and shoreline through the following means:

- a. Prohibiting new development above the 160-foot contour line and on slopes greater than 30 percent, including grading and subdivisions but excluding public trails and critical facilities or public infrastructure that cannot be located elsewhere;
- b. Ensuring new development below the 160-foot contour line is sited and designed to minimize intrusions into the ridgeline through the application of appropriate height and setback restrictions; and
- c. Establishing standards for the Town Boulevard, other streetscapes, and large-scale landscaping projects to highlight and frame, but not block, views of visual resource areas.

9-24. New Development on Slopes. On sloped building sites below the 160-foot contour line, locate building pads and new development on flatter portions of the project site as consistent with the grading restrictions and hazard avoidance policies of this LCP, except where there is an alternative location that would be more protective of scenic resources or ESHA.

Policies – Built Environment

9-25. Heritage Downtown. Preserve and enhance the architecture, landscape, scale and ambience of the Heritage Downtown visual resource area through design review of new development, redevelopment, and streetscape improvements. Design review shall consider:

- a. Compatibility with scale and style of predominant older structures;
- b. Continuity in building lines maintained along Main Street;
- c. Maintaining key architectural features in proposed alterations to existing older buildings; and
- d. Avoiding demolition of existing older buildings that contribute significantly to the character of the area.

9-26. Historic Buildings Maintenance. Allow the maintenance and restoration of historic buildings and properties to preserve their scenic and visual qualities.

9-27. Significant Historic Properties. Maintain the scenic quality and public views of significant historic structures and properties including the Main Street Bridge, the historic Jail and San Mateo County Garage on Johnston Street, and the James Johnston House.

9-28. Substantially Undeveloped Planned Developments. Require projects proposed in substantially undeveloped Planned Developments (PDs) to assess visual resources and provide a visual impact evaluation as part of the master planning process for developing the PD in accordance with Chapter 2. Development. PDs shall be planned to protect public views of visual resource areas (e.g. broad ocean views, scenic coastal access routes, upland slopes, significant plant communities) and minimize adverse visual impacts as consistent with all applicable policies of this chapter. Following master planning and substantial development, the PD as a whole is no longer considered a visual resource area. The approved master plan shall continue to designate and protect other visual resource areas in Figure 9-1 (e.g. broad ocean views) through siting and design of new development and redevelopment projects.

- 9-29. Parks and Recreation Areas.** New development in parks and recreation areas shall be sited and designed to be compatible with the surrounding area, to minimize alteration of natural landforms, and to improve any associated negative visual attributes such as excessive signs, waste receptacles, and paved areas.

Policies – Lighting, Signs and Utilities

- 9-30. Dark Night Skies.** Protect dark night skies as part of Half Moon Bay’s scenic and visual character by preventing light pollution from development. Avoid impacts from exterior lighting on dark night skies, sensitive habitat areas, and agricultural operations by:
- a. Limiting exterior lighting to low-intensity fixtures that are shielded, down-cast, and concealed so that the light source is not directly visible from public viewing areas, with the exception of traffic lights, navigational lights, and other similar safety lighting;
 - b. Limiting installation and use of high-intensity perimeter lighting and lighting for sports fields, other private recreational facilities, or public facilities in scenic areas, with the exception of safety lighting provided that any high-intensity lighting is down-cast, shielded, and minimizes spillover; and
 - c. Reducing light pollution from greenhouses as a condition of approval for new development through shielding and other practices that minimize light spillover.
- 9-31. Lighting Plan Review.** Require submittal of lighting plans with applications for new development, including subdivisions, for review of lighting characteristics.
- 9-32. Street Lighting.** Street lighting design and fixtures shall abide by the following criteria:
- a. Provide enough lighting to meet safety standards;
 - b. Utilize lower light poles as feasible;
 - c. Ensure that fixtures direct light down with no spillover beyond the roadway area they intend to illuminate; and
 - d. Retrofit existing street lights that do not meet these standards.
- 9-33. Lighting Inspection.** Where new lighting associated with residential or commercial developments will face the public right-of-way, ESHA, ESHA buffer areas, or agricultural operations, require design review during the construction phase to ensure compliance with any required lighting criteria.
- 9-34. Signs.** Ensure that signs are designed and located to minimize impacts to visual resource areas. Signs approved as part of commercial development shall be incorporated into the design of the project and shall be subject to height, width, and lighting limitations and design standards to ensure that signs are visually compatible with surrounding areas and protect views to and from visual resource areas. Prohibit placement of signs, excluding traffic or public safety signs, which obstruct views to the ocean or beaches from public viewing areas or public roads.
- 9-35. Billboards.** Prohibit the construction of new off-site commercial signs, including billboards.

- 9-36. Public Access Signage.** Locate public access signage so as to not encroach into any pedestrian path or sidewalk. Encourage use of consistent highway, directional, and parking signage, and require removal or consolidation of excess signage where feasible.
- 9-37. Utility Boxes.** Locate utilities including traffic control boxes, transformers, meters, backflow prevention devices, and others in underground vaults where feasible; or if above finished grade, in discrete locations outside of any pedestrian path or sidewalk.
- 9-38. Utilities in New Development.** Require applications for new development to include preliminary utilities plans to ensure that undergrounding and minimizing the negative visual impacts of utilities are considered during the earliest phases of project design. For all new development and new subdivisions, utilities shall be underground unless infeasible, such as in locations subject to erosion or with especially high water tables, or unless otherwise permitted on a case-by-case basis such as where no protected public views would be impacted (e.g. a pump house for an agricultural operation). For such cases, require utilities to be designed and sited in a manner to minimize impacts to coastal resources, and require the development to contribute in-lieu fees to support undergrounding utilities in other locations.
- 9-39. Telecommunications Facilities.** Require all telecommunications facilities to place support facilities underground where feasible. New communication transmission lines shall be sited and designed to be located underground, except where doing so would result in a hazardous condition. Existing communication transmission lines should be relocated underground when they are replaced or when funding for undergrounding is available. Where undergrounding is not feasible, require new facilities including small cell and other wireless communication facilities to be sited and designed in a manner that minimizes impacts to visual resources by co-locating facilities, utilizing a constructed disguise, or ensuring compatibility with surrounding development or natural character.

Appendix A: Land Use Plan Implementation

This appendix presents the measures required for implementing the Land Use Plan update. First, the plan administration and development review process are summarized. Table D-1 summarizes Zoning Map Amendments consistent with the land use designations established in the Land Use Plan update. Table D-2 summarizes amendments needed for the Implementation Plan, including the City's subdivision and zoning ordinances. Finally, this appendix summarizes other applicable state and federal regulations that must be considered in implementation of this Land Use Plan.

Plan Administration

LOCAL COASTAL PROGRAM CERTIFICATION

Local Coastal Programs (LCPs) consist of Land Use Plans together with zoning codes, zoning maps, and any other implementation tools needed to assure that Coastal Act policies are properly carried out at the local level. After Coastal Commission certification, all programs are implemented by the local government.

An LCP may be submitted to the Coastal Commission all at once, or in two phases with the Land Use Plan submitted first and the implementing actions second, each of which may be separately certified. The Coastal Commission reviews the Land Use Plan for consistency with the coastal resource planning and management policies of the Coastal Act. Review of the Implementation Plan is focused on its conformance with and adequacy to carry out the provisions of the certified Land Use Plan. An LCP is not effectively certified by the Coastal Commission until all parts have been certified.

Coastal Commission Jurisdiction

Following certification, the Coastal Commission retains original permitting jurisdiction over public trust lands and tidelands, as well as permit appeals jurisdiction over developments approved between the sea and the first public road paralleling the sea; within 100 feet of any wetland, estuary, or stream; within 300 feet of a coastal bluff edge, and for any major public works project or major energy facility. Although the City is the primary coastal development permitting authority, the Coastal Commission often plays a pivotal role in the permitting process by providing input and oversight, particularly for projects within the appeals jurisdiction.

Amendments and Periodic Review

Any amendments to the Land Use Plan must be reviewed and certified by the Coastal Commission. An exception exists for minor amendments if the Coastal Commission's executive director determines that they are "de minimis," have no impact on coastal resources and main consistency with Coastal Act policies. The Coastal Commission also has the authority to periodically review certified LCPs to ensure that coastal resources are being effectively protected in conformance with State law.

DEVELOPMENT REVIEW PROCESS SUMMARY

Development review takes place as part of the coastal development permit process. Some developments may be subject to Environmental Review and/or Architectural, Landscape, and Site Plan Review approvals before a coastal development permit may be issued. Submission requirements, review procedures, and approval criteria are detailed in the Local Coastal Implementation Plan, which includes the Half Moon Bay Zoning Ordinance. The Community Development Director, Planning Commission, and/or City Council are responsible for action on development applications within the City's permitting jurisdiction and consider all findings of any required review processes in the decision.

Coastal Development Permits

A coastal development permit is required for any project that meets the definition of development pursuant to Coastal Act Section 30106. The administration of coastal development permits is established in the Implementation Plan (IP). The coastal development permit review process ensures that development complies with the Land Use Plan, the IP, growth management objectives, and the Coastal Act, and that the proposed development be provided with adequate services and infrastructure. Certain categories of development are exempt from coastal development permit requirements, such as repair and maintenance, agricultural harvesting, minor additions to existing structures, and replacement of structures destroyed by natural disaster. Other types of de minimis development projects that do not have potential for any coastal resource impacts, such as residential additions, accessory dwelling units, invasive plant removal, and minor habitat restoration projects without the use of motorized or mechanized equipment, may be granted a coastal development permit waiver. A public hearing is required on most discretionary action and on all actions appealable to the Coastal Commission. Approvals for relatively minor permits, such as for accessory dwelling units and additions to single-family homes, as well as permit exemptions and waivers are made by the Community Development Director. Appeals of the Community Development Director's decisions may be made to the Planning Commission. The majority of discretionary approvals are made by the Planning Commission; these decisions may be appealed to City Council, which would then make the final determination for projects located outside of the Coastal Commission appeals jurisdiction. Any decision made by the City within the Coastal Commission's appeals jurisdiction may be appealed to the Coastal Commission.

Master Plans

Specific plans and precise plans are master planning tools. They both establish zoning regulations for the affected property(ies), including land use, density and intensity, design guidelines, and all other development standards such as height, setbacks and build-to lines, lot coverage and floor area ratios, parking, landscaping, and open space.

Specific plans are defined under Government Code section 65451. In addition to land use and development standards, specific plans must also address infrastructure and financing. Specific plans are most appropriate for areas lacking infrastructure, with multiple ownerships, where significant grading would be necessary, or in cases where financing mechanisms and other complicated matters must be addressed.

Precise plans are not defined by State Government Code and can be structured to suit the needs of individual jurisdictions. To implement precise plans, a jurisdiction must adopt enabling language in its zoning ordinance. For Half Moon Bay, precise plans enabling language will be established in the IP to implement this Land Use Plan update. The precise plan enabling language will specify the guidelines and standards that must be included in precise plans; the process for adopting precise plans; and the process for permitting development within adopted precise plan areas. Precise plans are most appropriate for infill sites where infrastructure is already present.

Until such time as Coastal Commission certification of a specific plan or precise plan, the zoning map will generically identify areas with PD land use designations as “specific plan” or “precise plan” districts. Once certified, these planning areas will be zoned as the adopted master plan. Specific plans and precise plans may also be used as zoning overlays for defined areas such as Downtown or commercial corridors. In these cases, master plans serve to provide additional planning context and requirements that go above and beyond site specific zoning standards and do not change the base zoning.

Special Development Permits

A Special Development Permit is an entitlement that allows flexibility from the strict adherence to the zoning regulations for qualifying sites not located in a PD land use designation to encourage mixed-use, multi-family residential, and residential development affordable to lower income households. This permit type will be established in the IP to implement this Land Use Plan update and provide a vehicle for planned development within existing zoning districts. Sites within the Town Center or an area designated for multi-family development are eligible for this entitlement. In the IP, the Special Development Permit enabling language will allow for clustered development, condominiums, townhouses, and other forms of subdivisions that would not otherwise comply with zoning standards. The Special Development Permit will not allow for higher residential densities than the base zoning; however, it will allow for flexibility in setbacks, and other zoning standards while also establishing criteria for appropriate architectural solutions, building materials, landscaping, and sustainable development measures to ensure a high-quality living environment and compatible infill residential development within established neighborhoods.

Review for Coastal Resource Conservation

Coastal resource conservation policies are discussed in Chapter 6: Natural Resources, including those that define the conditions under which special environmental studies are required. The necessary elements of each study are detailed in the Implementation Plan.

CEQA Review

Any development deemed a non-categorically exempt “Project” by California Environmental Quality Act (CEQA) standards requires an environmental review to determine the extent of any environmental impacts and whether or not significant impacts can be avoided or lessened to a level of insignificance. Projects with significant environmental impacts that cannot be mitigated to a level of insignificance require an environmental impact report (EIR) prior to Planning Commission consideration of the development application and before any decision on discretionary approvals may take place. Projects with potentially significant environmental impacts that can be mitigated require a mitigated negative declaration. Where mitigation is required, the City must adopt a mitigation monitoring and reporting program for the project. Non-exempt projects that will not result in significant, adverse environmental effects require a Negative Declaration. Local review is concurrent with review by outside agencies to ensure opportunities for coordinated public and agency participation in the CEQA process. Local thresholds of significance will be established and updated pursuant to Land Use Plan policy.

Architectural, Landscape, and Site Plan Review

The architectural, landscape, and site plan approval process is intended to ensure that development projects comply with site specifications established in the Zoning Ordinance and that development of the city’s neighborhoods and commercial areas proceeds in a harmonious fashion. The process is described in the Implementation Plan. Review criteria address such issues as the compatibility of building materials, colors, and textures with adjacent development; the compatibility of height, bulk, and design with the surrounding environment; the safety and convenience of access to the site; and the appropriateness of landscaping.

Review for Historic Resource Protection

The City’s municipal code requires protection of historic structures as important cultural, visual, and visitor-serving resources in Half Moon Bay. Any alterations or demolition of designated historic structures triggers architectural review to ensure design compatibility and historic resource protection. The Historic Resources Preservation Ordinance establishes review criteria for designating, altering, or demolishing any historic resource as consistent with the Historic Preservation Act of 1966 and the state standards of the Secretary of the Interior. Historic resources make a significant contribution to the development context of Half Moon Bay, especially where resources are concentrated in the downtown area, and are primarily addressed in the Community Preservation Element of the General Plan.

Heritage Tree Ordinance

The city's "town forest" consists of notable tree stands and hedgerows along roadways and within habitat areas throughout the city; neighborhood trees on private property; trees included in landscaping for commercial development; expansive landscaped areas such as golf courses; and public trees including street trees and park trees. The Heritage Tree Ordinance is intended to preserve and protect the City's town forest to provide a range of scenic, biological, and hydrologic benefits. The ordinance requires property owners to maintain and preserve any heritage trees on their property and property frontage and requires planting replacement trees in the event that a tree needs to be removed.

Sign Permits

Sign permits are required for most new permanent signage and some temporary signage. Much of the City's signage supports coastal access and visitor-serving uses, promotes local businesses and historic structures, and improves traffic safety and wayfinding. Review criteria for sign permits is designed to ensure compatibility with community character and continuity of city streetscapes, promote economic sustainability and public safety, protect scenic and visual quality, and protect residents' constitutionally protected free speech rights. Signage is an important component of building and site design and is therefore acknowledged in the Land Use Plan, especially in the Scenic and Visual Resources and Coastal Access and Recreation chapters of the Land Use Plan.

Implementation Plan Updates

The following tables summarize updates necessary to bring the Implementation Plan into conformance with the 2020 LUP update. Table A-1 lists each land use map designation change brought forward with the 2020 Land Use Plan update and the associated amendments required for the Zoning Map, with sites listed from north to south. Table A-2 summarizes anticipated amendments for the Subdivision Ordinance and Zoning Ordinance based on new policies, programs, and land use designations established by the 2020 LUP update.

Table A-1: Zoning Map Amendments

Site	1985/96 Designation	2020 Designation	Anticipated Zoning
City Parks	Various	City Parks and Recreation	OS – A
Urban Reserve and Open Space Reserve land use designations	Urban Reserve and Open Space Reserve	Rural Coastal	R – C
Nerhan property above Nurserymen's	Open Space Reserve	Open Space for Conservation	OS – C
2001 Ruisseau Francais Ave	Residential – Low Density	Residential – Low Density	New low-density residential zoning district
Miramar Beach PD	PD	Residential – Medium Density	R – 2
Guerrero PD	PD	Open Space for Conservation Residential – Medium Density	OS – C R-1 B-1
Nurserymen's Exchange PD	Residential – Low Density	PD	PUD
Stoloski/Gonzalez PD	PD	Residential – Low Density	New low-density residential zoning district
City-SAM Bev Cunha's Country Road Properties	Public Facility, PD, and Urban Reserve	Open Space for Conservation	OS – C
Glencree	Residential – Medium Density	Open Space for Conservation Residential – Medium Density	OS – C R – 2
Beachwood	Residential – Medium Density	Open Space for Conservation	OS – C
Pacific Ridge Areas A and B	PD	Open Space for Conservation	OS – C
Pilarcitos West Urban Reserve PD	PD	Rural Coastal	R – C
250 San Mateo Road and "Goat Farm" parcels to the east – 6 parcels	Industrial	Mobile Home Park	MHP

Site	1985/96 Designation	2020 Designation	Anticipated Zoning
151 Main Street and 2220 Cabrillo Hwy South	Public Facilities	Light Industrial	IND
Andreotti PD	PD	City Parks Residential – Medium Density Commercial – General Light Industrial Mobile Home Park	OS – A R – 2 C – G IND MHP
880 Stone Pine Road	Urban Reserve	Public Facilities and Institutions	P – S
737 Mill Street and adjacent parcel to the east	Residential – Medium Density	Commercial – General	C – R
740 Miramontes Street and 612, 640, and 642 Johnston Street	Residential – Medium Density	Commercial – General	C – R
901-1023 Miramontes Street	Open Space Reserve	Residential – Medium Density	R-1 B-2
555 Kelly and westerly strip and back portion of 515 Kelly Avenue	Commercial – General	Public Facilities and Institutions	P – S
Railroad right-of-way conservation easement between Kelly Avenue and Seymour Street	Residential – Medium Density	Open Space for Conservation	OS – C
Amesport Landing	Residential – High Density	Residential – High Density	R – 3
700 Monte Vista, 840 and 890 Main Street	Residential – Medium Density	Commercial – General	700 Monte Vista: C-R 840 and 890 Main: C – D
740 Purissima Street	Residential – High	Residential – High	R – 3
900, 926, and 940 Main Street; both sides of Poplar Street between Highway 1 and Main Street	Residential – Medium Density	Residential – High Density	R – 3
Main Street Park PD	PD	Residential – High Density	R – 3
L.C. Smith Estate PD	PD	Commercial – General	C – G
1167 Main Street (Theatre)	Public Facilities and Institutions	Commercial – General	C – G
1191 Main Street, Fire Station	Open Space Reserve	Public Facilities and Institutions	P – S
County-owned properties south of West of Railroad PD	Regional Public Recreation	Regional Public Recreation	OS – P

Site	1985/96 Designation	2020 Designation	Anticipated Zoning
1430 Cabrillo Highway and 450 Wavecrest Road	Horticulture Business	Commercial – Visitor Serving	C – VS
Coastside Land Trust 50 Acres	PD	Open Space for Conservation	OS – C
POST 80 Acres	PD	Rural Coastal	R – C
Smith Field Park	PD	City Parks	OS – A
Wavecrest Arroyo	PD	Open Space for Conservation	OS – C
29 acres bounded by Bernardo Avenue and horticultural business to the north, Highway 1 to the east, Redondo Beach Road to the south and Central Avenue and Occidental Avenue to the west	Residential – Medium Density and PD	Residential – Medium Density Horticulture Business	R – 1 B – 2 A – 1
400 – 408 Redondo Beach Road	PD	Residential – Medium Density	R – 1 B – 2
Frontage of 2119 Cabrillo Highway South	Open Space Reserve	Horticulture Business	A – 1
2005 – 2265 Cabrillo Highway South	Open Space Reserve	Horticultural Business	A – 1
2251 Cabrillo Highway and 1602 Miramontes Point Road (4 parcels, 2.6 AC)	Open Space Reserve	Commercial – Visitor Serving	C – VS
South Wavecrest	PD	Commercial – Visitor Serving	C – VS

Table A-2: Subdivision and Zoning Ordinance Amendments

Subdivision Ordinance		
Topic	Related LUP Policy	Anticipated Updates
Lot Retirement	2-21	Regulations to implement lot retirement requirements
Lot Mergers	2-23	Regulations to implement lot merger requirements
Certificates of Compliance/Lot Legality Confirmation	2-21, 2-23	Procedures for confirming lot legality
Measure D	Policy 2-16 and 2-17	Update procedures to prioritize affordable and sustainable housing, Town Center development, and Workforce Housing Overlay units
Zoning Ordinance		
Topic	Related LUP Policy	Scope/notes
Zoning Code Definitions	Glossary	Update to conform with LUP

Precise Plans	Appendix A	Enabling language
Special Development Permits	Appendix A	Establish new entitlement process
General Plan initiation	2-10	Procedures for initiating amendments to the General Plan
CDP Waivers	2-11	Expedited processing for de minimus development projects
Minimum Densities	2-18	Establish minimum residential densities
Small lot infill	2-73	Update standards for substandard infill residential lots
ADUs	2-74	Update to comply with state law
Short term rentals	2-76	Establish regulations to protect residential living environment and coastal resources
Home Occupation	2-75	Establish performance standards for traffic, parking, noise, etc.
Coastal Resource Conservation Standards zoning ordinance	Chapter 6. Natural Resources, Chapter 7. Environmental Hazards	Update to conform with LUP
Visual Resources zoning ordinance	Chapter 9. Scenic and Visual Resources	Update to conform with LUP
Public Access zoning ordinance	Chapter 5. Coastal Access and Recreation	Update to conform with LUP
Planned Unit Development zoning district	2-41 through 2-65	Update to conform with LUP (permitted uses, master planning requirements, Dykstra Ranch zoning ordinance)
Rural Coastal zoning district	2-86 through 2-94	Establish new zoning district with use regulations and development standards
Agriculture zoning district	2-86 through 2-94	Establish new zoning district with use regulations and development standards
Workforce Housing Overlay	2-70, 2-94, 2-98, 2-104, 2-107	Establish new overlay district with affordability requirements, development standards, etc.
Public Services zoning district	2-110	Update development standards for land use compatibility
Industrial zoning district	2-82, 2-83, 2-84	Include live-work uses, update development standards for land use compatibility
Other updates/programs		
Topic	Related LUP Policy	Scope/notes
Right to Farm	4-15	Land use compatibility, disclosure requirements, implementation
Transfer of Development Rights	2-22	Establish TDR program
Town Center Planning	2-30	Use requirements, design standards, circulation and parking strategies

Federal and State Regulations

The following section summarizes other federal and state regulations related to implementation of the Coastal Act and this Land Use Plan, organized by related chapter.

CHAPTER 2: DEVELOPMENT

State Planning and Zoning Law: State law requires all local jurisdictions in California to adopt a general plan that provides comprehensive policy direction for the long-term physical development, preservation, and conservation of the jurisdiction. The General Plan must address at least seven elements: land use, housing, circulation, conservation, open space, noise, and safety. An environmental justice element or policies are also required when two or more elements are updated. Optional elements are also allowed. The State Office of Planning and Research provides General Plan Guidelines for local jurisdictions to use in periodic general plan updates. .

State Housing Laws: Numerous state laws impose requirements on local jurisdictions related to the development of housing. These laws include the Permit Streamlining Act, Housing Accountability Act, SB 35 (Streamline Housing Approvals), and the Housing Crisis Act of 2019. In general, the Housing Crisis Act prohibits local governments from reducing the density/intensity of residential development unless they adopt concurrent increases, subject to certain exceptions. SB 35 does not apply to development in the Coastal Zone. Other state housing laws clarify that they are not intended to override the requirements of CEQA or the Coastal Act. Some of these laws, including SB 330 which enacted the Housing Crisis Act of 2019, sunset on January 1, 2025.

CHAPTER 3: PUBLIC WORKS

U.S. Safe Drinking Water Act: Established in 1974, this act is the foundational federal law that ensures the quality of drinking water.

State Health and Safety Code: This code requires each public water system to have sufficient water available from its water sources and distribution reservoirs. The system must be shown as able to supply adequately, dependably, and safely the total requirements of all its users under maximum demand conditions before an agreement can be made to permit additional service connections to that system.

California Water Code: Broadly, this code requires water conservation throughout the state. It further establishes that it is wasteful to use potable water for purposes that can be served with reclaimed water when it is available.

Urban Water Management Plan Act: This act requires water suppliers to prepare and submit to the State Department of Water Resources (DWR) an Urban Water Management Plan (UWMP) every five years. The UWMP must document the quality of a supplier's available water source(s) and provide an assessment of the ways in which water quality affects its water management strategies and supply.

Water Conservation Act of 2009 (SB X7-7): This act requires urban retail water suppliers to set and achieve water use targets that will help the state achieve a 20 percent per capita urban water use reduction by 2020.

Water Conservation in Landscaping Act: This act requires local governments to require the use of low-flow plumbing fixtures and the installation of drought tolerant landscaping in new development.

Sustainable Groundwater Management Act (SGMA): Included in the California Water Code, this act requires the Department of Water Resources (DWR) to monitor and assess the status of groundwater basins throughout the state. Basins receiving a priority or high priority rating are required to establish a groundwater sustainability agency to prepare and implement a groundwater sustainability plan.

Clean Water Act: Sewage treatment systems and sewage collection systems in the United States are subject to this federal act and are regulated by federal and state environmental agencies including the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB). Local sewage plants typically receive discharge permits from state agencies or the Environmental Protection Agency (EPA). Treatment plants must ensure that wastewater does not contaminate the local potable water supply or violate any additional water quality standards.

U.S. Safe Drinking Water Act: Large-capacity septic systems are regulated under the EPA's Safe Drinking Water Act Underground Injection Well program.

California Ocean Plan: SWRCB is responsible for implementation of the California Ocean Plan, originally adopted in 1972 and most recently updated in 2015. A 2013 amendment to the plan addressed wastewater outfalls to the ocean, including a prohibition of new outfalls in State Water Quality Protection Areas which include state-designated Areas of Special Biological Significance and Marine Protected Areas. The nine statewide RWQCBs support this Plan and its regulations through review and approval of National Pollutant Discharge Elimination System (NPDES) permits. Permits contain specific requirements that limit pollutant loads and discharge locations.

Clean Water Act: The federal Clean Water Act regulates discharges of dredged or fill material in the Waters of the United States (sections 401 and 404). In 1972, the Act was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. Additional regulatory context pertaining to the Clean Water Act is provided in Chapter 6. Natural Resources.

Porter-Cologne Water Quality Control Act: The California State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) share the responsibility under the Porter-Cologne Act to formulate and adopt water policies and plans, and to adopt and implement measures to fulfill Clean Water Act requirements. State policy for water quality control in California is directed toward achieving the highest water quality consistent with maximum benefit to the people of the State. Therefore, all water resources must be protected from pollution and nuisance that may occur from waste discharges or

damaging extractions. Beneficial uses of surface waters, ground waters, marshes, and mud flats serve as a basis for establishing water quality standards and discharge prohibitions to attain this goal. The goals of this act compliment Coastal Act Section 30231 by ensuring water quality protection both for biological productivity and human consumption.

Federal Emergency Management Agency (FEMA): FEMA is responsible for management of floodplain areas defined as the lowland and relatively flat areas adjoining inland and coastal waters subject to a 1 percent or greater chance of flooding in any given year (the 100-year floodplain). Under Executive Order 11988, FEMA requires that local governments covered by the federal flood insurance program pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year floodplain. Flood insurance rate maps (FIRM) present the various risk areas.

California Department of Transportation (Caltrans): Caltrans has authority over the State highway system, including mainline facilities, interchanges, and arterial State routes. Caltrans approves the planning and design of improvements for all State controlled facilities.

Metropolitan Transportation Commission (MTC): MTC is the regional transportation planning agency for the nine-county Bay Area and is the authorized clearinghouse for State and federal transportation improvement funds. Funded projects are included in the Regional Transportation Plan (RTP) prepared by MTC.

San Mateo City/County Association of Governments (C/CAG): C/CAG is the Congestion Management Agency (CMA) for San Mateo County authorized to set State and federal funding priorities for improvements affecting the San Mateo County Congestion Management Program (CMP) roadway system.

San Mateo County Transit District (SamTrans): SamTrans is the primary public transportation provider in San Mateo County. SamTrans manages local and regional bus services, paratransit services, and the Caltrain commuter rail.

CHAPTER 6: NATURAL RESOURCES

Clean Water Act – Section 401/Porter-Cologne Water Quality Act: Pursuant to Section 401 of the Federal Clean Water Act, projects that require a Corps permit for the discharge of dredge or fill material must obtain water quality certification that confirms a project complies with state water quality standards before the Corps permit is valid. State water quality is regulated by the State Water Resources Control Board and the nine Regional Water Quality Control Boards. The state also maintains independent regulatory authority over the placement of waste, including fill, into waters of the State under the Porter-Cologne Act.

The California State Water Resource Control Board has developed a general construction storm water permit to implement the requirements for the federal National Pollution Discharge Elimination System (NPDES) permit. The permit requires submittal of a Notice of Intent to comply, fees, and the implementation of a Storm Water Pollution Prevention Plan.

Clean Water Act-Section 404: The U.S. Army Corps of Engineers (Corps) regulates discharges of dredged or fill material into Waters of the United States under Section 404 of

the Clean Water Act (CWA). “Discharge of fill material” is defined as the addition of fill material into Waters of the U.S., including but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and sub-aqueous utility lines (33 C.F.R. §328.2(f)). In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and state water quality standards.

The Corps and the U.S. Environmental Protection Agency (US EPA) are responsible for implementing the Section 404 program. Section 404(a) authorizes the Corps to issue permits, after notice and opportunity for comment, for discharges of dredged or fill material into waters of United States. Section 404(b) requires that the Corps issue permits in compliance with US EPA guidelines, which are known as the Section 404(b)(1) Guidelines. Specifically, the Section 404(b)(1) guidelines require that the Corps only authorize the “least environmentally damaging practicable alternative” (LEDPA) and include all practicable measures to avoid and minimize impacts to the aquatic ecosystem. The guidelines also prohibit discharges that would cause significant degradation of the aquatic environment or violate state water quality standards (i.e. Porter-Cologne Water Quality Act).

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 C.F.R. §328.3(b)). This is known as a “three-parameter” definition, as it requires the presence of three wetland indicators (hydrophytic vegetation, hydric soils, or saturated substrate) in order to positively identify and delineate a wetland area.

Furthermore, Jurisdictional Waters of the U.S. can be defined by exhibiting a defined bed and bank and ordinary high-water mark (OHWM). The OHWM is defined by the Corps as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (33 C.F.R. §328.3(e)).

Tidal waters are also under the jurisdiction of the Corps. The landward limits of jurisdiction in tidal waters extend to the high tide line “or, when adjacent non-tidal waters of the United States are present, to the limits of jurisdiction for such non-tidal waters” (33 C.F.R. §328.4(b)). High tide is further defined to include the line reached by spring high tides and other high tides that occur with periodic frequency (33 C.F.R. §328.3(d)).

Clean Water Act-NPDES Requirements: In 1972, the Clean Water Act was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollution Discharge Elimination System (NPDES) permit. The 1987 amendments established a framework for

regulating municipal, industrial, and construction-related storm water discharges under the NPDES Program. On November 16, 1990, the US EPA published final regulations that establish storm water permit application requirements for specified categories of industries. The regulations provide that discharges of storm water from construction projects that encompass one or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. The California State Water Resources Control Board has developed a general construction storm water permit to implement this requirement.

Federal Endangered Species Act: The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. The FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. The FESA establishes an official listing process for plants and animals considered to be in danger of extinction; requires development of specific plans of action for the recovery of listed species; and restricts activities perceived to harm or kill listed species or affect critical habitat (16 USC 1532, 1536).

The FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined as harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species, or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3) Taking can result in civil or criminal penalties. Federal regulation 50 CFR 17.3 further defines the term harm in the take definition to mean any act that kills or injures a federally listed species, including significant habitat modification or degradation. Additionally, FESA prohibits the destruction or adverse modification of designated critical habitat. In the Service’s regulations at 50 CFR 402.2, destruction or adverse modification is defined as a “direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species.

The FESA also requires federal agencies to ensure that their actions do not jeopardize the continued existence of listed species or adversely modify critical habitat (16 USC 1536). Therefore, the FESA is invoked when the property contains a federally-listed threatened or endangered species that may be affected by a permit decision. In the event that listed species are involved and a Corps permit is required for impacts to jurisdictional waters, the Corps must initiate consultation with U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the FESA (16 USC 1536; 40 CFR § 402). If formal consultation is required, USFWS or NMFS will issue a biological opinion stating whether the permit action is likely to jeopardize the continued existence of the listed species, recommending reasonable and prudent measures to ensure the continued existence of the species, establishing terms and conditions under which the project may proceed, and authorizing incidental take of the species.

Magnuson-Stevens Fishery Conservation and Management Act: The Magnuson-Stevens Fishery Conservation and Management Act (MSFA) conserves and manages the fishery resources found off the coasts of the United States, the anadromous species, and the Continental Shelf fishery resources of the United States, including the conservation and

management of highly migratory species through the implementation and enforcement of international fishery agreements. The NMFS enforces the MSFA and regulates commercial and recreational fishing and the management of fisheries resources. The Sustainable Fisheries Act of 1996 amended the MSFA to include new fisheries conservation provisions by emphasizing the importance of fish habitat in regards to the overall productivity and sustainability of U.S. marine fisheries (Public Law 104-267). The revised MSFA mandates the identification and protection of Essential Fish Habitat (EFH) for managed species during the review of projects conducted under federal permits that have the potential to affect such habitat. Federal agencies are required to consult with NMFS on all actions or proposed actions authorized, funded, or undertaken by the agency, which may adversely affect EFH (MSFA 305.b.2).

Under the MSFA, NMFS identifies, conserves, and enhances EFH for those species regulated under a federal fisheries management plan (FMP). EFH is defined as those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity and includes all associated physical, chemical and biological properties of aquatic habitat that are used by fish. Projects that have the potential to adversely affect EFH must initiate consultation with NMFS. Adverse effects are any impacts that reduce the quality and/or quantity of EFH and can include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey or reduction in species fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). There are four FMPs in California, Oregon, and Washington that identify EFH for groundfish, coastal pelagic species, Pacific salmon, and Pacific highly migratory fisheries.

Migratory Bird Treaty Act: The Migratory Bird Treaty Act implements international treaties devised to protect migratory birds and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the Migratory Bird Treaty Act, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits are in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. On December 22, 2017, the U.S. Department of Interior's Office of the Solicitor issued Memorandum M-37050, which states an interpretation that the Migratory Bird Treaty Act does not prohibit the accidental or "incidental" taking or killing of migratory birds.

Fish and Wildlife Coordination Act: The USFWS also has responsibility for project review under the Fish and Wildlife Coordination Act. This statute requires that all federal agencies consult with USFWS, NMFS, and the state's wildlife agency (California Department of Fish and Wildlife, CDFW) for activities that affect, control, or modify streams and other water bodies. Under the authority of the Fish and Wildlife Coordination Act, USFWS, NMFS, and CDFW review applications for permits issued under Section 404 and provide comments to the Corps about potential environmental impacts.

Marine Mammal Protection Act: The Marine Mammal Protection Act (MMPA) was established by Congress in 1972 to prevent marine mammal species and population stocks

from declining beyond the point where they ceased to be significant functioning elements of the ecosystem of which they are a part. Three federal entities share responsibility for implementing the MMPA: NOAA Fisheries is responsible for the protection of whales, dolphins, porpoises, seals, and sea lions; USFWS is responsible for the protection of walrus, manatees, sea otters, and polar bear; and the Marine Mammal Commission provides independent oversight of domestic and international policies and actions of federal agencies addressing human impacts on marine mammals and their ecosystems. The MMPA establishes “take” prohibitions with certain exceptions and focuses on “optimum sustainable populations” to ensure healthy ecosystems.

California Endangered Species Act: The State of California enacted the California Endangered Species Act (CESA) in 1984. The CESA is similar to the FESA but pertains to state-listed endangered and threatened species. CESA requires state agencies to consult with the CDFW when preparing CEQA documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that “overriding considerations” exist; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species.

The CESA prohibits the taking of state-listed endangered or threatened plant and wildlife species. CDFW exercises authority over mitigation projects involving state-listed species, including those resulting from CEQA mitigation requirements. CDFW may authorize taking if an approved habitat management plan or management agreement that avoids or compensates for possible jeopardy is implemented. CDFW requires preparation of mitigation plans in accordance with published guidelines.

California Department of Fish and Wildlife Species of Special Concern: CDFW tracks species in California whose numbers, reproductive success, or habitat may be threatened. Even though not formally listed under FESA or CESA, such plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of “Species of Special Concern” developed by the CDFW. CDFW has also designated special-status natural communities which are considered rare in the region, support special status species or otherwise receive some form of regulatory protection. Documentation pertaining to these communities, as well as special status species (including species of special concern), is kept by CDFW as part of the California Natural Diversity Data Base (CNDDB).

California Department of Fish and Wildlife-Streambed Alteration Agreement: Section 1602 of the California Fish and Game Code requires any person, governmental agency, or public utility proposing any activity that will divert or obstruct the natural flow or change the bed, channel or bank of any river, stream, or lake, or proposing to use any material from a streambed, to first notify CDFW of such proposed activity. CDFW may propose reasonable modifications, based on the information contained in the notification form and a possible field inspection. CDFW may propose reasonable modifications in the proposed construction to

provide for the protection of fish and wildlife resources. Upon request, the parties may meet to discuss the modifications. If the parties cannot agree and execute a Lake and Streambed Alteration Agreement, then the matter may be referred to arbitration.

California Department of Fish and Wildlife Fish and Game Code 3503 and 3503.5: The State of California has incorporated the protection of nongame birds and birds of prey, including their nests, in Sections 3800, 3513, 3503, and 3503.5 of the California Fish and Game (CFG) Code. Section 3503 of the Fish and Game Code makes it unlawful to take, possess, or needlessly destroy the nests or eggs of any bird. Section 3503.5 makes it unlawful to take or possess birds of prey (hawks, eagles, vultures, owls) or destroy their nests or eggs.

California Department of Fish and Wildlife Fully Protected Animal Species: The classification of Fully Protected was an effort by the State of California in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Most Fully Protected species have also been listed as threatened or endangered species under state endangered species laws and regulations. Species classified as Fully Protected Species by the CDFW may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock (as per California Fish and Game Code Section 3511(a)(1)).

CHAPTER 8: CULTURAL RESOURCES

National Historic Preservation Act: Significant archaeological and historic resources are protected by the National Historic Preservation Act (NHPA). The National Register of Historic Places (NRHP) is an inventory of the United States' cultural resources and is maintained by the National Park Service. The inventory includes buildings, structures, objects, sites, districts, and archeological resources meeting the following criteria as specified in the Code of Federal Regulations:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and that:

- (a) Are associated with events that have made a significant contribution to the broad patterns of our history; or*
- (b) Are associated with the lives of persons significant in our past; or*
- (c) Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or,*
- (d) Have yielded, or may be likely to yield, information important in prehistory or history.*
(36 Code of Federal Regulations 60.4)

National Register resources may be rehabilitated pursuant to the Secretary of Interior's standards.

California Environmental Quality Act: The California Environmental Quality Act (CEQA) requires consideration of impacts on significant paleontological, historical, and archaeological resources. Significant or potentially significant impacts by projects on such resources are to be avoided or mitigated to less than significant levels. If the project may cause damage to a significant resource, the project may thus have a significant effect on the environment. Achieving CEQA compliance with regard to treatment of impacts to significant cultural resources requires that a mitigation plan be developed for the resource(s). Preservation in place is the preferred manner of mitigating impacts to archaeological resources.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a “unique archeological resource,” impacts to the resource should be avoided or fully mitigated. A unique archaeological resource is defined as follows:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.*
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.*
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person. (Public Resources Code, Section 21083.2)*

State Legislation: State planning law requires cities and counties to consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Places. Senate Bill (SB) 18 requires cities and counties to contact and consult with California Native American tribes prior to amending or adopting any general plan or specific plan, or designating land as open space. For purposes of consultation with tribes, the NAHC maintains a list of California Native American Tribes with whom local governments must consult. Assembly Bill 52 furthers SB 18 and provides for consideration of tribal cultural values. Tribal cultural values may include a site feature, place, cultural landscape, sacred place or object. The cultural value must be either on or eligible for the CAHR; or treated as a tribal cultural value pursuant to the discretion of the city or county.

In addition to SB 18 and AB 52, Governor Brown issued Executive Order B-10-11 in 2011 to reinforce communication and consultation with California Native American Tribes. Under this order, the California Natural Resources Agency (CNRA) adopted a Tribal Consultation Policy to govern and ensure effective communication and government-to-government consultation between Tribes and CNRA and its constituent departments that are under executive control.

Appendix B: Buildout and Public Works Capacity

Buildout

Buildout projections are necessary to determine the extent to which the City's public works infrastructure has the capacity to serve existing and anticipated development for the planning horizon and beyond. This appendix presents two levels of buildout estimates: first for the 2040 planning horizon to help foresee infrastructure needs for the life of this Land Use Plan, and second for the maximum theoretical buildout (MTB). These buildout projections are *maximum* as they include all potential development sites and opportunities in Half Moon Bay. They are also *theoretical* as they represent an extreme scenario of development that is unlikely to ever occur. Many sites containing existing development with viable uses may have potential to support additional development, but such additional development may never occur without complete redevelopment or unanticipated changes in use. Other development constraints could impact future buildout as well, such as changed environmental conditions, climate change and sea level rise, and land conservation acquisitions.

Residential buildout projections include vacant sites, infill opportunities, and density bonus considerations for sites in land use designations that permit residential uses. Residential buildout assumptions rely on the City's 2015 certified Housing Element, 2018 County Assessor's data, 2017 American Community Survey data, parcel-by-parcel GIS analysis, and land use and zoning development standards. This buildout is provided in individual units, with a maximum 35% density bonus applied to sites where at least twenty new units are estimated (except for shopping centers). Transfer of development rights (TDR) donor or receiver units are not included, as these units are meant to move density to a different location rather than change the total number of permitted units. The anticipated buildout for the 2040 plan horizon is significantly lower than the MTB as it is constrained by the City's annual residential growth limitation and relies on past market trends and City permit history. It is especially notable that the MTB for residential dwelling units results in a 1,315-unit decrease from what the 1996 Land Use Plan anticipated.

Non-residential buildout projections include vacant and underutilized sites in land use designations that permit non-residential uses and rely on 2018 County Assessor's data, parcel-by-parcel GIS analysis, and land use and zoning development standards. This buildout is provided to the nearest hundred square feet as the existing non-residential floor area is not well documented by the County Assessor and was estimated using GIS and field verification as necessary. The anticipated non-residential buildout for the 2040 plan horizon is also significantly lower than the MTB as it relies on past market trends and City permit history.

In addition to those established above, Appendix B uses the following abbreviations:

DU = Dwelling Unit **DB** = Density Bonus **SF** = Square Feet **FAR** = Floor Area Ratio

Disclaimer: The buildout estimates in this appendix and the LCP policies on which they are based are not entitlements and do not guarantee that any proposed development will be approved.

Any proposed development will be reviewed for its compliance with the certified Land Use Plan policies and zoning regulations and shall not be controlled by the estimates in this appendix.

Table B-1: Residential Maximum Theoretical Buildout Potential – Dwelling Units (DUs)

Neighborhood/Area	Existing DUs	Potential New DUs: -Base	Potential New DUs: - DB ¹	Potential New DUs: -Base -DB	Total Potential DUs: -Existing -Base -DB
Town Center					
North Downtown	71	476	74	550	621
Heritage Downtown	227	84	5	89	316
South Downtown	866	197	50	247	1,113
Totals:	1,164	757	129	886	2,050
Outside Town Center					
Neighborhoods ²	2,887	284	0	284	3,171
Planned Developments	726	362	123	485	1,211
Agriculture, Open Space, and Recreation ³	33	16	0	16	49
Totals:	3,646	662	123	785	4,431
Other Residential					
Workforce Housing Overlay ⁴	0	225	75	300	300
ADUs ⁵	20	250	0	250	270
Totals:	20	475	75	550	570
TOTAL:	4,830	1,894	327	2,221	7,051

¹ 35% density bonus (DB) applied to sites with potential for at least 20 new dwelling units.

² Includes established neighborhoods with residential land use designations and residential lots that are not part of neighborhoods, such as the eastern end of Miramontes St.

³ Includes Rural Coastal, Horticulture Business, Open Space for Conservation Regional Public Recreation; does not include Workforce Housing Overlay units.

⁴ Includes affordable Workforce Housing Overlay (WHO) units in Rural Coastal, Horticultural Business, Regional Public Recreation, and Public Facilities land use designations. 95 WHO units are in Town Center; 205 WHO units are outside Town Center.

⁵ ADUs are counted as a half unit as consistent with development footprint and infrastructure needs.

Table B-2: Comparison of 1996 LUP and 2020 LUP Update Residential Buildout

Area	Total Potential Units - 1996 LUP⁶	Total Potential Units - 2020 LUP⁷	Difference: 2020 - 1996 LUP
Town Center ⁸	690	1,870	+1,180
Planned Developments	3,153	1,391	-1,762
Neighborhoods and Pockets	3,524	3,171	-353
Urban Reserve	695	---	-695
Open Space Reserve	50	---	-50
Rural Coastal	---	32	+32
Horticultural Business	56	9	-47
Open Space for Conservation	---	2	+2
Regional Public Recreation	65	6	-59
Workforce Housing Overlay	0	300	+300
Accessory Dwelling Units ⁹	133	270	+137
Totals:	8,366	7,051	-1,315

Table B-3: Summary Comparison of 1996 and 2020 LUP Residential Buildout

Existing (2018) Residential Units¹⁰	New Units per 1996 LUP Estimated MTB¹¹	New Units per 2020 LUP Estimated MTB¹²	% Change in New Units
4,830	3,668	2,211	-40%

⁶ From Table 9-1 and the Planned Development policies in the 1996 LUP, supplemented to include 100 density bonus units in Town Center and 150 density bonus units in Planned Developments.

⁷ Includes density bonus units.

⁸ Noted as Community Core/Spanishtown/Arleta Park East in 1996 LUP (did not include North Downtown area).

⁹ Added ADUs as 50% of dwelling units, ADUs were not included in the 1996 LUP buildout estimates.

¹⁰ Total existing residential units from Table B-1.

¹¹ Total units permitted under 1996 LUP (from Table B-3) minus existing residential units (2018).

¹² Total units permitted under 2020 LUP Update (from Table B-3) minus existing residential units (2018).

Table B-4: General Commercial & Visitor-Serving Commercial Buildout Potential

Area	Buildout Assumption	Potential Additional Area - SF
Town Center¹³		
North Downtown	0.35 – 0.50 FAR	262,800
Heritage Downtown ¹⁴	0.50 FAR + 5% growth factor	116,400
South Downtown	0.35 – 0.50 FAR	135,800
Town Center Total:		515,000
Outside Town Center¹⁵		
Planned Developments	Per Ch. 2 policies	72,400
Other Commercial Areas	0.40 FAR	198,400
Outside Town Center Total:		270,800
TOTAL		785,800

Table B-5: Other Non-Residential Buildout Potential

Area	Buildout Assumption	Potential Additional Area - SF
Light Industrial¹⁶		
In Town Center	See Light Industrial Footnote	124,200
Outside Town Center	See Light Industrial Footnote	25,000
Public Facilities¹⁷		
In Town Center	See Public Facilities Footnote	100,600
Outside Town Center	See Public Facilities Footnote	152,000
Horticultural Business¹⁸		
Outside Town Center	See Hort. Business Footnote	166,000
TOTAL		567,800

¹³ Commercial - Town Center: Applied 0.35 FAR maximum for mixed use and 0.50 FAR maximum for single use commercial in North and South Downtown, and 0.50 FAR maximum for mixed use in Heritage Downtown for vacant and underutilized General Commercial sites inside Town Center.

¹⁴ Commercial – Heritage Downtown: Assumed 5% growth factor in commercial areas of Heritage Downtown to account for potential redevelopment.

¹⁵ Commercial – Outside Town Center: Applied 0.40 FAR maximum for single use commercial to vacant and underutilized Visitor-Serving Commercial sites outside Town Center.

¹⁶ Light Industrial: Assumed 0.35 FAR for development of vacant Highway 92 parcels, and the need for additional warehouse/storage space in other Light Industrial areas rather than application of FAR maximums.

¹⁷ Public Facilities: Assumed 0.10 FAR for supporting structures at the City corporate yard and a 5% growth factor for remaining areas in Public Facilities land use designation.

¹⁸ Hort. Business: Areas in active field agricultural use are considered a developed land use. GIS analysis of land in Horticultural Business not occupied by active field use, greenhouses, or other supporting structures were identified as areas with potential for new greenhouses or other supporting structures.

**Table B-6: Buildout Summary Table –
Population, Residential, Non-Residential and Employment**

	Existing (2018)	2040 Existing + New	2018-2040 % Change	MTB Existing + New	2018 – MTB % Change
Population ¹⁹	12,565	14,535	16%	18,262	46%
Residential (DUs) ²⁰	4,830	5,612	16%	7,051	46%
Commercial (SF) ²¹	1,654,000	1,948,000	18%	2,439,800	48%
Other Non- Residential (SF) ²²	1,336,000	1,483,000	11%	1,903,800	43%
Employment ²³	5,379	6,053	13%	7,684	43%

¹⁹ Existing: American Community Survey; projections based on 2.59 persons per household for new units.

²⁰ Existing: American Community Survey and GIS analysis; 2040 projections based on recent average of 0.7% annual residential development growth per “City of Half Moon Bay Economic and Real Estate Conditions and Trends” report, EPS, 2014; City permit data.

²¹ “City of Half Moon Bay Economic and Real Estate Conditions and Trends” report, EPS, 2014; City permit data.

²² “City of Half Moon Bay Economic and Real Estate Conditions and Trends” report, EPS, 2014; City permit data.

²³ Existing employment based on ABAG projections (2018) of 5,250 jobs in 2015, plus 500 square feet per job of new commercial development and 1,000 square feet per job of other new non-residential development constructed since 2015. Projected employment, VTA/CCAG traffic modeling.

Public Works Capacity

Water

Table B-7. City of Half Moon Bay New Priority Use Water Supply Reserves and Connections

Priority Land Uses:	2040		Maximum Theoretical Buildout	
	gpd/MGY	Connections	gpd/MGY	Connections
Coastal Act Priority Uses ²⁴	124,680/46	320	219,500/80	507
Ag. and Ag. Compatible uses				
- Field Agriculture	12,500	21	25,000	42
- Horticulture	30,000	50	37,000	62
Coastal Recreation				
- Coastal parks, equestrian	6,250	10	12,500	21
Visitor-Serving Commercial				
- Accommodations	40,000	133	70,000	234
- Restaurant	18,600	62	24,000	80
- Other Commercial	8,600	28	11,700	39
Essential Services	8,750	15	17,500	29
Local Priority Uses ²⁵	40,000/15	133	102,000/37	340
Workforce Housing Overlay w/ Coastal Act Priority Uses ²⁶	15,000	50	34,000	113
Affordable Housing	25,000	83	68,000	227
Total Annual Demand				
- gpd	164,680	453	321,500	847
- MGY	61		117	

²⁴ Coastal Act Priority Uses:

- Ag and Ag Compatible Uses include:
 - o Field Agriculture: Add growth to 2019 actual use: 2040 +25% increase; MTB +50% increase
 - o Horticulture: 1,500 gpd/acre of new greenhouse site area
- Coastal Recreation: Parks; Commercial Equestrian, etc.: Add growth to 2019 actual use: 2040 +25%; MTB +50% increase
- Visitor-Serving Commercial Uses include:
 - o Accommodations: 200 gpd/hotel or motel room, RV space, or campsite; does not include restaurants.
 - o Restaurant: 0.6 gpd/SF; Retail: 0.17 gpd/SF
- Essential Services (e.g. schools, government): 2019 actual use: 2040 +25% increase; MTB +50% increase

²⁵ Local Priority Uses:

- Workforce Housing Overlay with Coastal Act Priority Uses: 200 gpd/housing unit (if some units use potable well water, average use of municipal water per unit will be lower)
- Affordable Housing: 200 gpd/housing unit; units include Workforce Housing Overlay units in association with Public Facilities and Institutions land use designation; and inclusionary units required as part of the City's below market rate development requirements at a rate of 20% per development with 10 or more units.

²⁶ Farmworker housing units provided through the Workforce Housing Overlay qualify as both Coastal Act Priority Uses and Local Priority Uses.

Sewer

**Table B-8. City of Half Moon Bay New Priority Use Sewer Capacity Reserves
(Based on water demand estimate from Table B-7)**

Priority Land Uses:²⁷	2040 gpd/MGY	Maximum Theoretical Buildout gpd/MGY
Coastal Act Priority Uses	89,300/33	145,850/53
Ag. and Ag. Compatible uses		
- Field Agriculture	625	1,250
- Horticulture	1,500	1,850
Coastal Recreation		
- Coastal parks, equestrian	3,125	6,250
Visitor-Serving Commercial		
- Accommodations	40,000	70,000
- Restaurant	18,600	24,000
- Other Commercial	8,600	11,700
Essential Services	8,750	17,500
I&I Factor +10% ²⁸	8,100	13,300
Local Priority Uses	44,000/16	112,200/41
Workforce Housing Overlay w/ Coastal Act Priority Uses ²⁹	15,000	34,000
Affordable Housing	25,000	68,000
I&I Factor +10%	4,000	10,200
Total Annual Demand		
- gpd	133,320	321,500
- MGY	49	94

²⁷ Discharge Factors:

Coastal Act Priority Uses: Discharge Factors as a percent of water demand:

- Ag and Ag Compatible Uses: 5%
- Coastal Recreation: 50%
- Visitor-Serving Commercial: 100%
- Essential Services: 100%

Local Priority Uses:

- Workforce Housing Overlay with Coastal Act Priority Uses: 100%
- Affordable Housing: 100%

²⁸ I&I Factor: 10% was added to the total for each category to account for Infiltration and Inflow (I&I)

²⁹ Farmworker housing units provided through the Workforce Housing Overlay qualify as both Coastal Act Priority Uses and Local Priority Uses.

Circulation System

Circulation system modeling for the LUP considered LOS and delay. LOS performance measures range from A to F. While F is the worst grade in the LOS scale, this designation can represent dramatically different levels of delay and gridlock conditions. LOS grades are summarized in Table B-9 for roadway segments.

Table B-9. Roadway Level of Service Criteria – Volume-to-Capacity Ratio

LOS	Description	Two Lane Highways (or rolling terrain w/ 80% no-passing zone)	Multilane Highways (for 50 mph free-flow speed)
A	Free flow operations with average operating speeds at, or above, the speed limit. Vehicles are unimpeded in their ability to maneuver.	0.04	0.30
B	Free flow operations with average operating speeds at the speed limit. Ability to maneuver is slightly restricted. Minor incidents cause some local deterioration in operations.	0.15	0.50
C	Stable operations with average operating speeds near the speed limit. Freedom to maneuver is noticeably restricted. Minor incidents cause substantial local deterioration in service.	0.30	0.70
D	Speeds begin to decline slightly with increasing flows. Freedom to maneuver is more noticeably restricted. Minor incidents create queuing.	0.46	0.84
E	Operations at capacity. Vehicle spacing causes little room to maneuver but speeds exceed 50 miles per hour (mph). Any disruption to the traffic stream can cause a wave of delay that propagates throughout the upstream traffic flow. Minor incidents cause serious breakdown of service with extensive queuing. Maneuverability is extremely limited.	0.90	1.00
F	Operations with breakdowns in vehicle flow. Volumes exceed capacity causing bottlenecks and queue formation.	Greater than 0.90	Greater than 1.00

Source: C/CAG Congestion Management Plan, 2017.

Delay as a factor instead of an amount of time, is a measure that represents actual roadway performance from the perspective of the driver and passengers. Delay factors for a roadway segment are determined relative to the “free flow” condition, which is assigned a measure of 1. Free flow is similar to LOS B, wherein signal light timing is in sync, there is no back up for turn movements, and cars are able to travel at the speed limit. The delay factor is the amount of time it will take to traverse a span of roadway relative to the free flow condition. A delay of 2 indicates that roadway traffic is notable and that the trip will take twice as long as it would in the free flow condition.

LOS and delay factors for the Planning Area are presented in Table B-10 for the weekday and weekend peak periods.

Table B-10. Highway 1 and 92 LOS and Delay Model

Measure	2018	2040	MTB³⁰
AM Peak Hour (LOS):			
• HWY 1 North	F	F	F
• HWY 1 South	D	D	D
• HWY 92	E	F	F
PM Peak Hour (LOS)			
• HWY 1 North	F	F	F
• HWY 1 South	D	E	E
• HWY 92	E	F	F
Weekend AM Peak Hour (LOS)			
• HWY 1 North	F	F	F
• HWY 1 South	D	D	D
• HWY 92	E	F	F
Weekend PM Peak Hour (LOS)			
• HWY 1 North	F	F	F
• HWY 1 South	D	D	D
• HWY 92	E	F	F
Weekday AM Delay (time factor)			
• HWY 1 North	3.1	4.4	5.1
• HWY 1 South	1.01	1.03	1.03
• HWY 92	1.3	2.0	2.3
Weekday PM Delay (time factor)			
• HWY 1 North	2.9	4.8	5.7
• HWY 1 South	1.01	1.03	1.03
• HWY 92	1.8	3.3	3.9

Sources: Traffic Model: Valley Transportation Authority (VTA)/ San Mateo County Association of Governments (C/CAG) Travel Demand Model; Association of Bay Area Governments (AGAG) Projections 2013 base data for 2018 and 2040 conditions

³⁰ The MTB model inputs included the Half Moon Bay Land Use Plan MTB input with the C/CAG/VTA Travel Demand Model buildout projections for the greater Bay Area through 2040. The C/CAG/VTA Travel Demand Model does not have growth projections past 2040.

Appendix C: Special Status Species Summary Tables

The following tables summarize special status species that are present or are likely to be present in the Half Moon Bay Planning Area. Table C-1 is specific to animal species, and Table C-2 is specific to plant species.

TABLE C-1: SPECIAL STATUS ANIMAL SPECIES WITH POTENTIAL TO OCCUR IN HALF MOON BAY PLANNING AREA

ANIMAL SPECIES	STATUS FED / STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Monarch Butterfly (<i>Danaus plexippus</i>) (Wintering sites)	-/CR	Winter roost sites extend along the coast from northern Mendocino to Baja California. Roosts are typically located in wind-protected groves of Eucalyptus, Monterey pine or Monterey cypress, with nectar and water sources nearby. Native tree species are typically preferred for their higher habitat value.	Winter roosts have been located within Eucalyptus groves at Sweetwood Group Camp area, within Wavecrest near Magnolia Avenue (site has been inactive in recent years), and at other areas with location information suppressed due to their sensitivity.

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
San Bruno Elfin Butterfly (<i>Incisalia mossii bayensis</i>),	FE/--	Found in coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is <i>Sedum spathulifolium</i> .	No records for the Planning Area and no suitable habitat. Nearest records are from the vicinity of Montara Mountain.
Steelhead - Central CA Coast ESU (<i>Oncorhynchus mykiss</i>)	FT/--	Well-oxygenated streams with riffles; loose, silt-free gravel substrate. ESU encompasses drainages in San Francisco and San Pablo Bays east to the Napa River.	Pilarcitos Creek and Frenchmans Creek are historic spawning streams for Steelhead. Pilarcitos Creek, Frenchmans Creek, Arroyo Leon and Apanolio Creek within the Planning Area are designated Critical Habitat for Steelhead.
Northern tidewater Goby (<i>Eucyclogobius newberryi</i>)	FE/CSC	Found in brackish water habitats along the California coast from San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches. Needs fairly still but not stagnant water and high oxygen levels.	Potential habitat may occur during portions of the year when tidal lagoons form at the mouth of Pilarcitos Creek, but the species has never been documented in the Planning Area. Nearest record is from Tunitas Creek in 2015.
California Red-legged Frog (<i>Rana draytonii</i>)	FT/CSC	Mostly in lowlands and foothills in/near permanent sources of deep water but will disperse far during and after rain. Prefers shorelines with extensive vegetation.	Breeding sites are located at the Caltrans mitigation site near the SAM plant, City property near the City Corporation Yard and at the Half Moon Bay Golf Links (Ocean Course). Has been documented in Pilarcitos

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
			Creek, Frenchmans Creek, Arroyo Cañada Verde, at Wavecrest, the Casa del Mar neighborhood, and elsewhere.
Santa Cruz black salamander (<i>Aneides niger</i>)	--/CSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz and Santa Clara Counties. Adults are found under rocks, talus, and damp woody debris.	No observations within the Planning Area. Nearest occurrence is at Huddart Park in Woodside.
California giant salamander (<i>Dicamptodon ensatus</i>)	--/CSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae are found in cold, clear streams, occasionally in lakes and ponds. Adults are found in wet forests under rocks and logs near streams and lakes.	No observations within the Planning Area. Nearest occurrence is at the end of Purisima Creek Road near Purisima Creek Redwoods Open Space Preserve. Also known from the Tunitas Creek watershed southeast of Half Moon Bay.
Western Pond Turtle (<i>Emmys marmorata</i>)	-/CSC	Aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites and suitable	No known records within Half Moon Bay, but suitable habitat for this species occurs within the City.

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
San Francisco Garter Snake (<i>Thamnophis sirtalis tetrataenia</i>)	FE/CE, CFP	upland habitat for egg-laying (sandy banks or grassy open fields). Found in vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County. Prefers dense cover and water depths of at least one foot. Also requires uplands near aquatic habitats.	Documented as occurring near the mouth of Pilarcitos Creek and along Pilarcitos Creek near downtown. U.S. Fish and Wildlife Service found suitable dispersal habitat for this species in Wavecrest and nearby areas, Pacific Ridge, Beachwood.
Northern Harrier (<i>Circus cyaneus</i>) (nesting)	-/CSC	Coastal salt marsh and freshwater marsh; nests and forages in grasslands; nests on ground in shrubby vegetation, usually at marsh edge.	San Mateo County Breeding Bird Atlas indicates past confirmed nesting just south of town near Verde Road and probable past nesting just north of town near El Granada. This is a regularly occurring species in Half Moon Bay in winter. Common in winter at Wavecrest and the open fields west of Railroad Avenue.
White-tailed Kite (<i>Elanus caeruleus</i>) (nesting)	-/CFP	Open grassland and agricultural areas throughout Central California.	Breeding confirmed at Wavecrest south of Smith Field park. San Mateo County Breeding Bird Atlas indicates possible past nesting near Miramontes Point. A regularly occurring species in winter. Common in winter at Wavecrest and the area

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
			west of Railroad Avenue. Over 100 were counted in the fall of 2007.
Sharp-shinned Hawk (<i>Accipiter striatus</i>) (nesting)	-/WL	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. All habitats except alpine, open prairie, and bare desert used in winter.	San Mateo County Breeding Bird Atlas recognizes possible past nesting within Half Moon Bay. Breeding confirmed just north of town near El Granada in 1993. A regularly occurring species in winter, especially at Wavecrest.
Cooper's Hawk (<i>Accipiter cooperii</i>) (nesting)	-/WL	Nests primarily in deciduous riparian forests; forages in open woodlands.	San Mateo County Breeding Bird Atlas indicates past confirmed nesting just south of Half Moon Bay near Verde Road, and possible nesting just north of town near El Granada and just east of town in Higgins Canyon. A regularly occurring species in winter, especially at Wavecrest.
Ferruginous Hawk (<i>Buteo regalis</i>) (Wintering)	BCC/WL	Inhabits open country. Winters in small number along California coast and inland valleys.	Winters in small numbers in the Half Moon Bay area. Observed annually in winter at Wavecrest and in the vicinity of the Half Moon Bay Airport.
Swainson's Hawk (<i>Buteo swainsoni</i>) (nesting)	BCC/CT	Breeds in stands with few trees in juniper-sage flats, riparian corridors and oak savannah. Requires suitable adjacent foraging areas such as	Occasionally found at Wavecrest in winter and fall migration. An individual of this species that spent the winter of 1998-1999 at

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
		grasslands or alfalfa or grain fields supporting rodent populations.	Wavecrest represents the first record of overwintering Swainson's hawk in coastal Northern California.
Golden Eagle (<i>Aquila chrysaetos</i>) (nesting and wintering)	BCC/WL, CFP	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	Occasionally found in Half Moon Bay in winter. Has been found some years at Wavecrest.
American Peregrine Falcon (<i>Falco peregrinus</i>) (nesting)	Delisted, BCC/Delisted, CFP	Inhabits open wetlands near cliffs, also occurs in some cities where nests on buildings and bridges.	Species nests at Devils Slide and winters in the area. Occasionally found foraging in Half Moon Bay.
Merlin (<i>Falco columbarius</i>) (wintering)	-/WL	Breeds in Canada, winters in a variety of California habitats, including grasslands, savannahs, wetlands, etc.	Winters annually in small numbers in Half Moon Bay. Found every winter in the area west of Railroad Avenue, Wavecrest, and the Half Moon Bay Golf Links.
Western Snowy Plover (<i>Charadrius alexandrinus nivosus</i>) (nesting)	FT, BCC/CSC	Found on sandy beaches or marine and estuarine shores; also salt pond levees and shores of large alkali lakes; requires sandy, gravelly or friable soil substrate for nesting. Threatened due to beachfront development, human disturbance, off-leash dogs and other factors.	Nests at Half Moon Bay State Beach, which is designated as critical habitat. Nesting assisted by Plover Watch Program run by State Parks with the help of Sequoia Audubon Society volunteers. Also winters on beaches in the area (40 to 60 can be

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Marbled Murrelet (<i>Brachyramphus marmoratus</i>) (nesting)	FT/CE	Nests inland along the coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz in old growth redwood dominated forests, often in Douglas fir, up to six miles inland. Feeds on the ocean near shore.	seen at Half Moon Bay State Beach each winter).
Short-eared Owl (<i>Asio flammeus</i>) (nesting)	-/CSC	Found in marshes, both freshwater and salt; lowland meadows; irrigated alfalfa fields. Tule patches/full grass needed for nesting and daytime seclusion. Nests on dry ground in a depression concealed in vegetation.	Marbled Murrelets breed in the San Francisco Watershed in forests located within four miles of Half Moon Bay. The breeding areas are to the north and inland of El Granada. During the breeding season foraging birds fly over land to the sea and can be found just offshore from anywhere in Half Moon Bay. A population of up to five individuals winters annually at Wavecrest and the area west of Railroad Avenue. Wavecrest is the most important wintering site for the species in San Mateo County, one of the most important wintering sites in the San Francisco Bay Area and is a coastal wintering site for the species of statewide significance. The species of concern designation protects nesting sites, and the California Department of Fish and Wildlife and California Coastal Commission have indicated protections for the wintering

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Burrowing Owl (<i>Athene cunicularia</i>)	BCC/CSC	Found in open dry annual or perennial grasslands, deserts and scrublands characterized by low growing vegetation. This species is a subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	population at Wavecrest are warranted. Occasionally found in the Planning Area. This species has occurred along the ocean bluffs in Half Moon Bay, at Wavecrest, and most recently at Half Moon Bay State Beach.
Olive-sided Flycatcher (<i>Contopus cooperi</i>) (nesting)	BCC/CSC	Uncommon to common, summer resident in a wide variety of forest and woodland habitats below 2800 meters throughout California. Requires large, tall trees, usually conifers, for nesting and roosting sites.	A fairly common nesting species in Half Moon Bay in areas with taller trees, particularly on the inland side of the city where taller eucalyptus and Monterey cypress occur.
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	BCC/CSC	Habitat includes open areas such as desert, grasslands and savannah. Nests in thickly foliated trees or tall shrubs. Forages in open habitats, which contain trees, fence posts, utility poles, and other perches.	San Mateo County Breeding Bird Atlas indicates past probable breeding just south of Half Moon Bay. Small numbers occur in Half Moon Bay in winter and during migration.
Purple Martin (<i>Progne subis</i>)	--/CSC	Uses a variety of wooded, low-elevation habitats throughout California. Uses hardwood and	In 2016, a breeding population of this species was identified approximately four miles from Half Moon Bay along

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
		hardwood-conifer habitats as well as riparian habitats. Now a rare and local breeder on the coast and in interior mountain ranges.	Skyline Boulevard. The birds likely forage at times near the mouth of Pilarcitos Creek.
San Francisco Common Yellowthroat (<i>Geothlypis trichas sinuosa</i>)	BCC/CSC	Requires thick continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Breeding by this species has been confirmed in the mitigation wetlands near the sewage treatment plant, along Frenchmans Creek, at the mouth of Pilarcitos Creek, in riparian corridors at Wavecrest, and on the Half Moon Bay Golf Course (Old Course).
Yellow Warbler (<i>Septophaga petechia</i>) (Nesting)	BCC/CSC	Breeds in deciduous riparian woodlands, widespread during fall migration.	San Mateo Breeding Bird Atlas lists this species as a nesting species in riparian habitat within Half Moon Bay. Nesting Yellow Warblers have been documented along Pilarcitos Creek in the riparian area behind Safeway and in the riparian area upstream from the Main Street Bridge. Species is common in Half Moon Bay during fall migration.
Grasshopper Sparrow (<i>Ammodramus savannarum</i>)	--/CSC	Found in dense grasslands, especially those with a variety of	This species breeds in various spots in Half Moon Bay. Nesting has been documented in grasslands at the Johnston House, at Wavecrest and in

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
		grasses and tall forbs and scattered shrubs for singing perches.	the coastal prairie between Kelly and Poplar Avenue. Sites vary from year to year; some sites are not used annually.
Bryant's Savannah Sparrow (<i>Passerculus sandwichensis alaudinus</i>)	--/CSC	Occupies low tidally influenced habitats, adjacent ruderal areas, moist grasslands within and just above the fog belt, and, infrequently drier grasslands.	This is a common species in Half Moon Bay. A sizeable and important breeding and wintering population has been documented in Half Moon Bay. The area of highest use is Wavecrest and the area west of Railroad Avenue, generally between Kelly Avenue and Redondo Beach Road. Lower densities exist south of Redondo Beach Road adjacent to the golf course, and some also occur to the north of Kelly Avenue.
Large-billed Savannah Sparrow (<i>Passerculus sandwichensis rostratus</i>) (wintering)	--/CSC	Breeding habitat limited to open, low salt marsh vegetation, including grasses, pickleweed, etc. around the mouth of the Colorado River and adjacent coastlines of the uppermost Gulf of California. Winters along shorelines.	For at least two winters one or two Large-billed Savannah Sparrows wintered near the City of Half Moon Bay at Pillar Point Harbor. The species may winter on Half Moon Bay beaches.
San Francisco Dusky-footed Woodrat (<i>Neotoma fuscipes annectens</i>)	-/CSC	Found in forested habitats of moderate canopy and moderate to dense understory.	San Francisco dusky-footed woodrat houses can be found in riparian vegetation, Central Coast Scrub habitat, and in forested areas,

ANIMAL SPECIES	STATUS FED/STATE	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
			particularly on the inland side of the City where taller eucalyptus and cypress occur.
American badger (<i>Taxidea taxus</i>)	-/CSC	Drier open stages of most shrub, forest, and herbaceous habitats; needs sufficient food, friable soils and open, uncultivated ground.	The CNDDB documents occurrences of American badger in the hills northeast of Half Moon Bay.
Pallid bat (<i>Antrozous pallidus</i>)	--/CSC	Roosts primarily in oak woodland and ponderosa pine habitats; forages in open areas.	Has not been reported from the Planning Area but could occur.
Townsend's Big-eared Bat (<i>Corynorhinus townsendii</i>)	--/CCT, CSC	Found in desert scrub and coniferous forests. Roost in caves or abandoned mines and occasionally are found to roost in buildings.	Has not been reported from the Planning Area but could occur.

Table C-1 Status Codes:

FE: Federally-listed Endangered	CE: California State-listed Endangered
FT: Federally-listed Threatened	CT: California State-listed Threatened
FPE: Federally-proposed Endangered	CR: California Rare
FPT: Federally-proposed Threatened	FP: California Fully Protected
BCC: USFWS Bird Species of Conservation Concern	CSC: CDFW Species of Special Concern
	WL: CDFW Watch List Species

Table C-1 Sources:

California Department of Fish and Game. November 1990. California's Wildlife, Volume II, Birds.

California Department of Fish and Wildlife, Natural Heritage Division. California Natural Diversity Data Base for the Half Moon Bay 7.5-Minute Quadrangle Map and surrounding areas, May 2018.

California Department of Fish and Wildlife. Special Animals List. July 2017.

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Jaramillo, Alvaro. 2018. Local Expert Ornithologist and Senior Biologist, San Francisco Bay Bird Observatory. Personal Communication.

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TABLE C-2: SPECIAL STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN HALF MOON BAY PLANNING AREA

PLANT SPECIES	STATUS FED/STATE/CNPS	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
San Mateo thorn-mint (<i>Acanthomintha duttonii</i>)	FE/CE/1B.1	Chaparral, valley and foothill coastal scrub, vernal pools. Endemic from very uncommon San Mateo serpentine vertisol clays. 50-200m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Blasdale's bent grass (<i>Agrostis blasdalei</i>)	-/-/1B.2	Coastal dunes, coastal bluff scrub, coastal prairie. Sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation. 5-105m	Has not been documented as occurring in the Half Moon Bay Planning Area.
Franciscan onion (<i>Allium peninsulare franciscanum</i>)	-/-/1B.2	Found in cismontane woodland and valley and foothill grassland in clay soils and serpentine on dry hillsides. 100-300m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	-/-/1B.2	Cismontane woodland and valley and foothill grassland. 50-500m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Anderson's manzanita (<i>Arctostaphylos andersonii</i>)	-/-/1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest, open sites, redwood forest. 180-800m..	Has not been documented as occurring in the Half Moon Bay Planning Area.

PLANT SPECIES	STATUS FED/STATE/CNPS	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Kings Mountain manzanita (<i>Arctostaphylos regismontana</i>)	-/-/1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest, on granitic or sandstone outcrops. 305-730m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Montara manzanita (<i>Arctostaphylos montaraensis</i>)	-/-/1B.2	Slopes and ridges in chaparral and Coastal scrub. 150-500m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Coastal marsh milk-vetch (<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>)	-/-/1B.2	Found in mesic sites in dunes or along streams in coastal dunes and coastal salt marshes. 0-30m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Pappose tarplant (<i>Centromadia parryi</i> ssp. <i>parryi</i>)	--/--/1B.2	Found in mesic and often alkaline site in coastal prairie, meadows and seeps, coastal salt marsh and valley and foothill grasslands. 2-420m	Has not been documented as occurring in the Half Moon Bay Planning Area.
Points Reyes salty bird's beak (<i>Chloropyron maritimum</i> spp. <i>palustre</i>)	-/-/1B.2	Usually in coastal salt marsh with <i>Salicornia</i> , <i>Distichlis</i> , <i>Jaumea</i> , <i>Spartina</i> , etc. 0-15m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
San Francisco Bay spineflower (<i>Chorizanthe cuspidata</i> <i>cuspidata</i>)	-/-/1B.1	Found on sandy soil on terraces and slopes within coastal bluff scrub, coastal dunes, coastal prairie and coastal scrub. 5-550m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Franciscan thistle (<i>Cirsium andrewsii</i>)	-/-/1B.2	Found in Coastal bluff scrub. Boadleafed upland forest, coastal prairie on ultramafic soils. ~150m	Has not been documented as occurring in the Half Moon Bay Planning Area.

PLANT SPECIES	STATUS FED/STATE/CNPS	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Fountain thistle (<i>Cirsium fontinale fontinale</i>)	-/-/1B.2	Endemic to serpentine seeps in valley and foothill grassland and chaparral in San Mateo County. 90-180m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
San Francisco collinsia (<i>Collinsia multicolor</i>)	FE/CE/1B.1	Found in closed-cone coniferous forest and coastal scrub. Usually on decomposed mudstone shale mixed with humus. 30-250m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Western leatherwood (<i>Dirca occidentalis</i>)	-/-/1B.2	On brushy slopes and mesic sites mostly in mixed evergreen and foothill woodland communities. 30-550m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
San Mateo woolly sunflower (<i>Eriophyllum latilobum</i>)	-/-/1B.2	Endemic to cismontane woodland in San Mateo County, often on roadcuts and serpentine. 45-150m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Hillsborough chocolate lily (<i>Fritillaria biflora ineziana</i>)	FE/CE/1B.1	Endemic to serpentine cismontane woodland, valley and foothill grassland of San Mateo County.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Fragrant fritillary (<i>Fritillaria liliacea</i>)	-/-/1B.1	Coastal scrub, valley and foothill grassland, coastal prairie, often on ultramafic soils. 3-410m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
San Francisco gumplant (<i>Grindelia hirsutula</i> var. <i>maritima</i>)	-/-/3.2	Coastal bluff scrub and grasslands. 15-400m.	Has not been documented as occurring in the Half Moon Bay Planning Area.

PLANT SPECIES	STATUS FED/STATE/CNPS	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Short-leaved evax (<i>Hesperovax sparsiflora</i> var. <i>brevifolia</i>)	-/-/1B.2	Sandy bluffs and flats in Coastal bluff scrub, coastal dunes. 0-200M.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Marin western flax (<i>Hesperolinon congestum</i>)	FT/CT/1B.1	Chaparral, valley and foothill grassland. Found in serpentine barrens and serpentine grassland and chaparral. 31-365m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Kellogg's horkelia (<i>Horkelia cuneata</i> ssp. <i>sericea</i>)	-/-/1B.1	Closed-cone coniferous forest, coastal scrub. Old dunes, coastal sandhills; generally under 200 m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Point Reyes horkelia (<i>Horkelia marinensis</i>)	-/-/1B.2	Coastal dunes, coastal prairie and coastal scrub; in sandy flats and dunes of grassland or scrub habitats near the coast. 5-30m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Perennial goldfields (<i>Lasthenia californica</i> ssp. <i>macrantha</i>)	-/-/1B.2	Coastal bluff scrub, coastal dunes and coastal scrub. 5-520m.	Present in the Planning Area. This species occurs along the edge of the coastal bluff within Coastal Prairie habitat at Wavecrest and the area west of Railroad Avenue. Populations as mapped in the CNDDDB are included in Figure 6-3 and are designated as Potential ESHA.
Coast yellow leptosiphon (<i>Leptosiphon croceus</i>)	-/-/1B.1	Coastal bluff scrub and coastal prairie. (10- 150m).	Has not been documented as occurring in the Half Moon Bay Planning Area.

PLANT SPECIES	STATUS FED/STATE/CNPS	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Rose leptosiphon (<i>Leptosiphon rosaceus</i>)	-/-/1B.1	Coastal bluff scrub. 0-100m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Crystal Springs lessingia (<i>Lessingia arachnoidea</i>)	-/-/1B.2	Grassy slopes, roadsides in serpentine soils of coastal sage scrub, valley and foothill grassland and cismontane woodland. 60-200m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
<i>Ornduff's meadowfoam</i> (<i>Limnanthes douglasii</i> ssp. <i>ornduffii</i>)	-/-/1B.1	Agricultural fields. Meadows and seeps. 10-20m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Arcuate bush mallow (<i>Malacothamnus arcuatus</i>)	-/-/1B.2	Found in gravelly alluvium in chaparral. 80-355m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Davidson's bush mallow (<i>Malacothamnus davidsonii</i>)	-/-/1B.2	Sandy washes in coastal scrub, riparian woodland and chaparral. 180-855m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Marsh microseris (<i>Microseris paludosa</i>)	-/-/1B.1	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. 5-300m.	Has not been documented as occurring in the Half Moon Bay Planning Area.

PLANT SPECIES	STATUS FED/STATE/CNPS	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Woodland woollythreads (<i>Monolopia gracilens</i>)	-/-/1B.2	Chaparral, valley and foothill grasslands (serpentine), cismontane woodland, broadleaved upland forests, North Coast coniferous forest. Found in grassy sites in openings in sandy to rocky soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. 100-1200m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
White-rayed pentachaeta (<i>Pentachaeta bellidiflora</i>)	FE/CE/1B.1	Mostly on soils derived from serpentine bedrock or open, dry rocky slopes and grassy areas of valley and foothill grassland. 35-620m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Choris's popcornflower (<i>Plagiobothrys chorisianus</i>)	-/-/1B.2	Grassy and moist places, coastal scrub, chaparral; < 100m.	Present in the Planning Area. This species occurs within the mix of grassland, scrub, wetlands and coastal prairie at Wavcrest and the area west of Railroad Avenue. Populations as mapped in the CNDDDB are included in Figure 6-3 and are designated as Potential ESHA.
Oregon polemonium (<i>Polemonium carneum</i>)	-/-/2B.2	Found in Coastal prairie, coastal scrub and lower montane coniferous forest. 0-1830m.	Has not been documented as occurring in the Half Moon Bay Planning Area.

PLANT SPECIES	STATUS FED/STATE/CNPS	HABITAT	OCCURRENCE IN HALF MOON BAY PLANNING AREA
Hickman's cinquefoil (<i>Potentilla hickmanii</i>)	FE/CE/1B.1	Open habitats within closed cone coniferous forest, coastal bluff scrub, freshwater marsh, meadows and seeps, wetlands. 10-149m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Chaparral ragwort (<i>Senecio aphanactis</i>)	-/-/1B.2	Known from foothill woodland and chaparral habitats. 15-800m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
San Francisco campion (<i>Silene verecunda veracunda</i>)	-/-/2B.2	Often on mudstone or shale in coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral and coastal prairie. 30-645m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Saline clover (<i>Trifolium depauperatum</i> var. <i>hydrophilum</i>)	-/-/1B.2	Found in mesic alkaline sites in marshes and swamps, valley and foothill grassland and vernal pools. 0-300m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
San Francisco owl's clover (<i>Triphysaria floribunda</i>)	-/-/1B.2	Coastal prairie, valley and foothill grassland, on both serpentine and non-serpentine. 10-160m.	Has not been documented as occurring in the Half Moon Bay Planning Area.
Long-beard lichen (<i>Usnea longissima</i>)	-/-/4.3	North Coast coniferous forest, broadleaved upland forest. Grows in the "redwood zone" on a variety of trees including big leaf maple, oaks, ash, Douglas fir and bay. 0-700 m in California.	Has not been documented as occurring in the Half Moon Bay Planning Area.

Table C-2 Status Codes:

FE	Federal-listed Endangered
FT	Federal-listed Threatened
FPE	Federal Proposed Endangered
FPT	Federal Proposed Threatened
CE	California State-listed Endangered
CT	California State-listed Threatened
CR	California Rare
FP	California Fully Protected
CSC	California Species of Special Concern
California Rare Plant Rank 1A:	Plants presumed extirpated in California and either rare or extinct elsewhere.
California Rare Plant Rank 1B:	Plants rare, threatened, or endangered in California and elsewhere.
California Rare Plant Rank 2A:	Plants presumed extirpated in California, but more common elsewhere.
California Rare Plant Rank 2B:	Plants rare, threatened, or endangered in California, but more numerous elsewhere.
California Rare Plant Rank 3:	Plants about which more information is needed – a review list.
California Rare Plant Rank 4:	Plants of limited distribution – a watch list.
California Native Plant Society Threat Ranks	
0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)	
0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)	
0.3-Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)	

Table C-2 Sources:

California Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Wildlife for the Half Moon Bay 7.5-Minute Quadrangle Map and surrounding areas, information dated May 2018.

Corelli, Toni. 2017-2018 Consultation. Professional Botanist and Environmental Consultant, California Native Plant Society

Appendix D: History of LCP Amendments and Coastal Commission CDP Appeals

The following tables summarize the City's history of amendments made to the 1996 Local Coastal Program (LCP) since its effective certification, as well as a summary of Coastal Commission actions taken on coastal development permit (CDP) appeals. Full staff reports and findings for each amendment and appeal can be found in the Coastal Commission agenda archive at www.coastal.ca.gov.

TABLE D-1: LCP AMENDMENT HISTORY

Amendment Number	Amendment Description	CCC Action	CCC Meeting Date
1-97 (De minimis)	Architectural Review Committee. Amend IP to revise the eligibility qualifications for appointment to the 3-member Architectural Review Committee and to specify design review applicability, noticing and approval provisions, and procedures for appealing and enforcing ARC decisions.	Concurred	September 11, 1997
1-98A (Major)	Williamson rezone. Amend Zoning map to rezone a portion of a parcel at the intersection of Johnston and Monte Vista street from R-1 B-2 to C-R to bring into conformance with certified Land Use Plan designation.	Approved	February 5, 1999
1-98B (Major)	deBenedetti/Arleta Park area rezone. Amend LUP to re-designate 87 Arleta Park area lots from Planned Development to Medium Density Residential and another 15 Arleta Park lots from Planned Development to Local Recreation and Open Space. Amend IP to rezone 77 of the 87 lots from Planned Unit Development (PUD) to R-1-B2 (with amended site-specific modified development standards for 46 of the lots); rezone	Approved with Modifications	March 11, 1999

Amendment Number	Amendment Description	CCC Action	CCC Meeting Date
	10 of 87 lots from PUD to R-2 or R-1-B2 (with amended site-specific modified development standards); and rezone 15 lots from PUD to Open Space-Passive (OS-P).		
1-00 (Major)	Residential Development Standards. Amend IP to add and strengthen residential development and design standards for standard and substandard lots to preserve community character and reduce the size and bulk of new residential structures.	Approved	July 13, 2001
HMB-MAJ-1-99 (Major)	Caltrans & Alves Dairy Annexation. Amend LUP and IP to reflect annexation of three lots, 3.56 acres total, by City and Coastside County Water District and rezoning of two adjacent lots already within City limits. One parcel owned by Caltrans would be designated Public Facilities and Institutions under the Land Use Plan (LUP) and zoned entirely Public Service (P-S). The other two parcels owned by Alves Dairy would be designated Commercial-General and rezoned Commercial-General (C-G).	Approved	April 11, 2002
Post-LCP Certification Map	Post-LCP Certification Map. Adoption of map that depicts areas within the City of Half Moon Bay that are subject to the Commission's permit and appeal jurisdiction after transfer of permit authority pursuant to certification of the LCP.	Approved	December 9, 2004
HMB-MAJ-1-05 (Major)	Additions to homes/substandard lot procedures. (Originally approved with modifications March 18, 2005, subsequently resubmitted by City for approval.) Amend IP to ease residential development standards and permitting procedures for substandard lots and to establish stormwater pollution prevention requirements for related development.	Approved with Modifications	December 15, 2005
		Executive Director concurrence	April 13, 2006
HMB-MAJ-1-02 (Major)	Mobile Home Parks. Amend LUP and IP to 1) add "Mobile Home Park" as a new land use category, 2) add a new Chapter 18.17 to the Zoning Code to	Approved with Modifications	March 14, 2007

Amendment Number	Amendment Description	CCC Action	CCC Meeting Date
	establish a new "Mobile Home Park District" and detailed regulations applicable to lands within the district and 3) modify the LUP and zoning maps to change the designations of the existing Canada Cove and Hilltop Mobile Home Parks to the new Mobile Home Park category and district.		
		Executive Director concurrence	October 12, 2007
HMB-MIN-1-09 (Minor)	Appeals Procedures. Amend IP to consolidate the local appeals procedures into Chapter 1.25 of Title 1, General Provisions, and eliminate inconsistent appeals procedures that currently exist in Title 18, including inconsistencies regarding who can file an appeal, time allotted to file an appeal, method of notification, and how the appeal is to be heard. Does not affect the appeals procedure for Coastal Development Permits.	Concurred	September 9, 2009
HMB-MAJ-3-08 (Major)	Nurserymen's Exchange land use and zoning change. Amend LUP and IP maps to re-designate three parcels located at 1430 South Cabrillo Highway and 480 Wavecrest Road from Horticulture Business (A-1) to Commercial - Visitor Serving (C-VS) and rezone the parcels from Exclusive Floriculture (A-1) to Commercial Visitor Serving (C-VS).	Approved	March 12, 2009
HMB-MAJ-2-05 (Major)	Measure D. Amend LUP (Section 9.4) to reduce the annual residential growth rate from 3% to 1% -1.5%, and amend IP (Section 18.04) to update the existing building permit allocation system according to the requirements of Measure D.	Approved with Modifications	March 12, 2009
		Executive Director concurrence	August 12, 2009
HMB-MAJ-1-08 (Major)	Callan Rezone. Amend IP to rezone an approximately 0.8-acre site in the Addition to Arleta Park Subdivision from Single-Family Residential (R-1-B-2) to Single-Family Residential (R-1-B-1). This change would increase the development potential of the site from 3 to 4 conforming lots.	Approved	January 7, 2009

Amendment Number	Amendment Description	CCC Action	CCC Meeting Date
HMB-MAJ-1-09 (Major)	Map updates. Amend IP to change the zoning designations for various parcels within the City and to correct mapping errors that appeared on the 1996 certified Zoning Map. The City also submitted a revised and reformatted Land Use Plan (LUP) map.	Time extension	June 16, 2011
HMB-MAJ-2-10-A (Major)	IDES Rezone. Amend LUP and IP to change land use and zoning designation for a 0.44-acre portion of a 0.86-acre parcel located at 745 Main Street that is currently split-zoned residential and commercial. The land use designation would change from residential medium density (RM) to Commercial-General (C-G) and the zoning would change from Single-family Residential (R-1-B-2) to Commercial-Downtown (C-D).	Approved	March 11, 2011
LCP-2-HMB-13-0207-2 (De minimis)	Parking Standards. Amend IP (Section 18.36) in order to: 1) modify or remove parking standards for off-street vehicle parking that are outdated or ineffective; 2) simplify the application of those regulations in the downtown area and in larger parking facilities; 3) clarify the procedure and guidelines for obtaining an exception to the parking standards; 4) add standards to address compact parking and parking space size standards; and 5) modify bicycle parking and storm water requirements.	Concurred	September 11, 2013
HMB-1-13 (Major)	Andreini Rezone. Amend IP to realign the boundary between existing public services (P-S) and industrial (IND) zoned areas to conform to parcel boundaries near 151 Main Street.	Approved	August 15, 2013
LCP-2-HMB-13-0221-2, Part 1 (De minimis)	R-1 B-3 Standards. Amend IP to add standards for development in the R-1-B-3 residential areas.	Concurred	April 9, 2014
LCP-2-HMB-13-0221-2, Part 2 (De minimis)	On-site alcohol sales. Amend IP Chapter 18.22 "Use Permits" by adding Section 18.22.055, which will require establishments selling distilled spirits to obtain a use permit.	Concurred	April 9, 2014

Amendment Number	Amendment Description	CCC Action	CCC Meeting Date
LCP-2-HMB-13-0221-2, Part 3 (Major)	Wireless telecommunications facilities (WTFs). Amend IP to establish regulations and permitting requirements for WTFs, including prioritizing placement outside of the public viewshed and east of Highway 1, co-location to reduce visual impacts, and avoidance of coastal resource impacts. New WTFs would still require a CDP and to be able to accommodate co-located facilities, and new co-located facilities would not require a CDP if the underlying facility has a valid use permit and CDP.	Approved with Modifications	April 9, 2014
		Executive Director concurrence	August 15, 2014
HMB-MAJ-1-11 (Major)	Zoning Code Amendments. Amend IP's definition section, the water and sewer capacity allocation chapter, the residential land use standards, the development standards applied to "exceptional lots," the use permits chapter, the second dwelling units chapter, and the below market rate housing chapter. The amendments also relocated the LCP's review process for development associated with architectural improvements, historical structures and site design and added a residential density bonus chapter.	Approved with Modifications	July 11, 2014
		Executive Director concurrence	January 7, 2015
HMB-MAJ-2-10-B (Major)	A-1 Districts. Amend IP to add new principally permitted uses and accessory uses to the Agriculture (A-1) zoning district, including the cultivation of plants for medicinal, horticultural, floricultural, and agricultural purposes in nurseries, greenhouses, and field crops which are already principally permitted uses in the zoning district. Research and development related to horticulture and agricultural production would also be allowed as a principally permitted use in the A-1 zone district. Further, retail sales, so long as they are onsite and accessory to the principally permitted agricultural uses, would be allowed in the A-1 zoning district.	Approved	March 11, 2015

Amendment Number	Amendment Description	CCC Action	CCC Meeting Date
LCP-2-HMB-14-0847-3 Part A (Minor)	Convalescence Facilities. Amend IP Section 18.06.025, which allows the City to grant use permits for convalescence and general day care facilities for an initial period of two years. IP Section 18.0625 also allows for one-year extensions to the initial two-year use permits to be granted administratively, at a duly noticed public hearing prior to the expiration of the initial two-year permit. The proposed amendment would delete the two-year initial limit on use permits and the requirement for one-year extensions for all convalescence and general day care facilities.	Approved	May 14, 2015
LCP-2-HMB-14-0847-3 Part B (Major)	Animal Hospital (P-S Zone). Amend IP to add “animal hospital” as a principally permitted use within the Public Services (P-S) zone. The City proposes to add this additional principally permitted use to the P-S zones to allow for a new animal hospital location.	Approved	May 14, 2015
LCP-2-HMB-14-0845-2 (Major)	Measure F. Amends LUP and IP to implement Measure F, which was approved by the City’s Electorate on June 3, 2014. Measure F establishes a City policy that the Main Street Bridge is a historical resource and ensures the preservation of the historical, visual and physical integrity of the Bridge. The LCP amendment prohibits the Bridge’s demolition or “physical expansion,” unless voters approve it in a future ballot measure.	Approved	May 14, 2015
LCP-2-HMB-15-0030-1 (Major)	Supportive/Transitional Housing and Emergency Shelters. Amend IP to add new definitions for “Target Population,” “Supportive Housing,” “Transitional Housing” and “Emergency Shelter”; to add supportive and transitional housing as permitted uses in all residential districts (R-1, R-2 and R-3); and include emergency shelters as permitted uses in the public service zoning district (P-S); to assure compliance with state law (Cedilla, Sen. Bill No. 2 (2007-2008 Reg. Sess.)) that ensures zoning laws	Approved	December 11, 2015

Amendment Number	Amendment Description	CCC Action	CCC Meeting Date
	encourage and facilitate emergency shelters and limit the denial of shelters and transitional and supportive housing under the Housing Accountability Act.		
LCP-2-HMB-17-0006-1 Part A (Major)	Day Care Use Regulations. Amend IP to delete definitions for “Limited Day Care” and add definitions and use classifications for “Small” and “Large Family Day Care”; permit small and large family day cares in all residential zones, and commercial zones that allow residential; and establish use regulations for “Large Family Day Cares” in residential, commercial and mobile home park districts. The purpose of this amendment is intended to bring the City Zoning Ordinance into conformance with the State of California Child Care Act and state housing laws.	Approved	March 8, 2017
LCP-2-HMB-17-0006-1 Part B (De minimis)	Supportive and Transitional Housing. Amend IP Chapter 18.03.030, including deleting definitions for “Limited Residential Care” and “General Residential Care” and adding definitions for “Supportive Housing” and “Transitional Housing.” The proposed revisions were made when it was discovered during the code drafting process that there were internal inconsistencies between the current code provisions for “limited” and “general residential care” and the recently adopted definitions and use classifications for “supportive housing” and “transitional housing” (LCP Amendment Number LCP-2-HMB-15-0030-1, approved by Commission on December 11, 2015.)	Concurred	March 8, 2017
LCP-2-HMB-14-0612-1 (Major)	Habitat Map Revisions. Amend the LCP habitat maps to reflect certain additional areas in the City that have been found to contain or likely to contain habitat for certain sensitive species, based on a decision by the San Mateo County Superior Court. Specifically, the Court found that the Kehoe Watercourse and its adjacent riparian areas support or contain the protected California red-legged frog and San Francisco garter snake. In a	Approved with Modifications	July 15, 2016
		Executive Director concurrence	January 12, 2017

Amendment Number	Amendment Description	CCC Action	CCC Meeting Date
	subsequent settlement, the City agreed to submit an LCP amendment mapping those areas as environmentally sensitive habitat areas.		
LCP-2-HMB-18-0080-1 (Minor)	Accessory Dwelling Unit Ordinance Update. Amend the IP to update accessory dwelling unit regulations in compliance with State law, increasing maximum unit size to 800 square feet and expediting permit processing procedures.	Concurred	December 12, 2018
LCP-2-HMB-18-0081-2 (De minimis)	Stoloski/Gonzalez Planned Development District. Amend the LUP to establish the 2.1-acre Stoloski/Gonzalez Planned Development District as consistent with the approved Coastal Development Permit, PUD Plan, Use Permit, Tentative Parcel Map, and Settlement Agreement for the Stoloski/Gonzalez parcel between the City of Naples subdivision and the Surf Beach/Dunes Beach Planned Development.	Concurred	December 12, 2018
LCP-2-HMB-20-0019-1 (Major)	Downtown Revitalization. Amend the IP to prioritize active, ground-floor dependent visitor-serving uses in the City's primary visitor-serving downtown area ("Heritage Main Street"); streamline permitting requirements for multi-family residential uses in mixed-use zoning districts; and adjust parking requirements in certain mixed-use and residential zoning districts throughout the City including: Commercial-Downtown ("C-D"), Commercial-Recreation ("C-R"), Commercial-Visitor Serving ("C-VS"), Commercial-General ("C-G"), Single-Family Residential ("R-1"), Two-Family Residential ("R-2"), and Multi-Family Residential ("R-3").	Approved as Submitted	May 13, 2020

TABLE D-2: COASTAL COMMISSION CDP APPEAL ACTIONS

Permit Number	Project Description	CCC Action	CCC Meeting Date	Findings/Conditions
A-1-HMB-97-60	Application by Ocean Colony Partners LP for a butler building, golf course storage space, employee breakroom, snack bar/restaurant, parking, and associated site improvements and utilities at 3950 S. Cabrillo Hwy (APN 066-580-20).	Substantial Issue; Approved de novo with conditions	December 12, 1997	Proposed development needs to be adequately screened from view from Highway 1 and compatible with surrounding environment; required 100-foot urban/rural boundary line setback from the southern end of the South Wavecrest Specific Plan area.
A-1-HMB-98-81	Application by Paul McGregor and Robert Michaelian for construction of a two-story single-family residence at 73 San Pablo Avenue.	No Substantial Issue	November 6, 1998	Proposed project meets development standards and density requirements; LUP does not require consolidation of substandard lots to produce buildable sites; not subject to the neighborhood proportions policy for the downtown area.
A-1-HMB-99-051	Application by Wavecrest Village, LLC for the Wavecrest Village Specific Plan, Development Agreement, Vesting Tentative Maps and CDPs for 271 residential units, commercial uses, recreation and open space, roads and landscaping, a middle school, and Boys and Girls Club.	Substantial Issue	November 5, 1999	Entire PD must be planned as a unit; project did not provide for protection of all identified sensitive resources and proposed to defer complete wetland delineation; need specified beach access improvements instead of "contribution towards future development"; require one-story homes and clustering to allow protection of visual resources; uncertainty that CCWD has capacity to serve the project; merge small lots to offset traffic impacts, resulting in 79 lots maximum.
		Continued; application subsequently withdrawn	October 12, 2000	

Permit Number	Project Description	CCC Action	CCC Meeting Date	Findings/Conditions
A-1-HMB-99-20	Application by Coastside County Water District to replace 2,200 lineal feet of an existing 10-inch steel water transmission line with 16-inch ductile iron water line.	Substantial Issue	July 15, 1999	Proposed expansion on water service capacity would not be in phase with existing or probable future capacity of the regional transportation system; overstated demand projections from lack of actual use data; limit service capacity to that provided under Phase I Crystal Springs as the proposed project would only serve the level of growth provided by the already approved Phase I; prohibit capacity expansion from occurring out of phase with transportation and other area infrastructure.
		Approved de novo with conditions	December 10, 2003	
A-1-HMB-99-22	Application by Ailanto Properties for the Pacific Ridge subdivision, including 197 single-family residence lots, open space parcels, streets, utilities and park improvements (subsequent settlement agreement eventually reduced project to 63 residences).	Substantial Issue	March 17, 2000	Require retirement of development rights of existing lots on 1:1 basis to mitigate cumulative traffic impacts; eliminate 8 lots to increase riparian buffer from 150 to 300 feet; require dedication of open space conservation easement and habitat management plan to protect on-site ESHA.
		Continued	December 13, 2000	
		Approved de novo with conditions	August 9, 2001	
A-2-HMB-01-011	Application by Keenan Land Company for the Beachwood subdivision, including 83 lots, 80 single-family residences, roads, utilities, and a traffic signal.	Substantial Issue	May 9, 2001	Eliminate 58 lots to avoid wetlands and wetland buffer; require retirement of development rights of existing legal lots on 1:1 basis to mitigate cumulative traffic impacts; eliminate proposed sound wall to avoid visual impacts from Hwy 1.
		Approved de novo with conditions	November 14, 2001	

Permit Number	Project Description	CCC Action	CCC Meeting Date	Findings/Conditions
A-2-HMB-00-044	Application by California Department of Transportation for various improvements at the intersection of Coronado Street and Mirada Road with Hwy 1, including traffic signals, turn lanes, sidewalks, bus stops, and intersection lighting.	Substantial Issue	February 16, 2001	Public parking in the vicinity of the project site is scarce; closure of Mirada Road is not necessary to avoid public access impacts as the proposed development would not affect access to bluff-top parking area (case law: Nollan vs. CCC 1987).
		Approved de novo with conditions	April 12, 2001	
A-2-HMB-06-19	Application of the City of Half Moon Bay requiring permits for parking on designating blocks of Miramar/Naples and Alsace Lorraine neighborhoods between 12am-4am daily, with street signage (one-year permit authorization).	No Substantial Issue	December 15, 2006	Permit parking program does not impact access because of the restricted hours, one-year permit term, and monitoring program. Program is necessary to protect residents from disturbances.
A-2-HMB-07-034	Application of Ocean Colony Partners, LLC for a 32-unit subdivision (Carnoustie) south of Redondo Beach Road.	No Substantial Issue	November 16, 2007	No on-site ESHA; sufficient riparian buffer is provided; construction will not prevent public beach access and Redondo Beach has a low traffic demand; City approval included traffic mitigation fees, parks and recreation fees, and retirement of development rights on 34 lots to mitigate permanent public access impacts.
A-2-HMB-07-015	Application by Francisco Oliva to construct a 2,500 square foot single-family residence at 2788 Pullman Avenue.	Substantial Issue (Appeal subsequently withdrawn following project modifications)	May 9, 2007	Pullman Ditch qualifies as sensitive habitat under the LCP as it is an intermittent stream that provides habitat containing or supporting the San Francisco garter snake and California red-legged frog. The proposed 42-foot

Permit Number	Project Description	CCC Action	CCC Meeting Date	Findings/Conditions
				setback does not meet the required 50-foot minimum buffer for habitats for rare or endangered species.
A-2-HMB-07-030	Application by Thomas and Eugene Pastorino for construction of a 5,339 sq. ft. single-family residence, a 2,400 sq. ft. barn and associated improvements on a 20-acre OS-R parcel at 921 Miramontes.	No Substantial Issue; appeal withdrawn	January 10, 2008	Adequate protective measures proposed for on-site stream and habitat as recommended by USFWS; not a designated sensitive coastal resource area; appeals jurisdiction only covered a small portion of proposed development including trenching and utility improvements.
A-2-HMB-10-001	Application by Marcos and Esther Hernandez to construct new 2-story single-family residence with a road extension and associated infrastructure in R-1 B-2 zone at 306 Ralston Avenue.	Substantial Issue; application subsequently withdrawn	February 10, 2010	Parcel comprised of five 25-ft. wide lots is one legal parcel (Witt and Abernathy cases) and requires division of land rather than the conditioned lot merger. Any increase in potential level of buildout caused by new subdivisions can cause cumulative adverse impacts to traffic, public access, and infrastructure. No assessment by City of visual impacts caused by required subdivision.
A-2-HMB-12-011	Application by Gibraltar Capital to subdivide 2 parcels into 12 residential lots and 1 remainder lot with associated infrastructure improvements at 320 Church Street.	Substantial Issue	July 13, 2012	Pilarcitos Creek contains sensitive habitat and a 100-year floodplain, thus a 100-foot buffer (rather than the approved 50) is required with an open space easement and additional floodplain analysis is necessary; Lack of adequate public services (road capacity) necessitates 1:1 lot
		Approved de novo with conditions	July 11, 2014	

Permit Number	Project Description	CCC Action	CCC Meeting Date	Findings/Conditions
				retirement for dedication to open space.
A-2-HMB-13-001	Installation of 6-foot high 825-foot long hog wire fence along southwest property boundary of Pacific Ridge/Ailanto property.	No Substantial Issue	May 9, 2013	Approved fence would block a path on private property that the public does not have prescriptive rights to; the fence is partially located in the approved public park area for Pacific Ridge but the park does not open to the public until an agency accepts responsibility for the park; the fence would be removed as soon as dedication of the park is accepted.
A-2-HMB-12-005	Application by Marc Stoloski to subdivide one parcel into 4 residential lots with associated infrastructure improvements.	No Substantial Issue	May 15, 2014	Commission staff recommended Substantial Issue and Denial of the CDP based on inadequate setbacks from Pullman Ditch, lack of an approved Specific Plan, public access impacts, and flooding hazards. The Commission found no substantial issue exists.
A-2-HMB-14-0004	Application by the City of Half Moon Bay Public Works Department for flood control maintenance activities at 13 different drainages located throughout the city.	No Substantial Issue	April 9, 2014	City's action includes sufficient mitigation requirements; the project would not exacerbate flooding or erosion to surrounding areas or dewater wetlands.
A-2-HMB-15-0040	Application by Jack Hamilton to subdivide one parcel into	Substantial Issue; Approved de	August 14, 2015	Public has prescriptive rights to Parcel B so it should be protected from subdivision development; limit allowable

Permit Number	Project Description	CCC Action	CCC Meeting Date	Findings/Conditions
	two parcels at the western end of Kelly Avenue.	novo with conditions		uses on Parcel B to public access and agricultural uses to ensure protection of future public access, recreation and agriculture opportunities.
A-2-HMB-15-0006	Application by Robert Campodonico for demolition and reconstruction of a single-family residence, tree removal and landscaping at 170 Correas Street.	No Substantial Issue	March 11, 2015	Completion of lot merger prior to issuance of CDP is preferable but not required; proposed house will be proportionally larger as on a larger lot but is still compatible with the neighborhood; no impacts to protected public views; proposed landscaping mitigates tree removal.
A-2-HMB-16-0058	Application by Coastsides Fire for construction of a fire training tower.	No Substantial Issue	August 11, 2016	The project's effects on public views is tempered by the existing large fire station and surrounding development, vegetation screening is provided; LCP policies should protect scenic corridor within 200 yards of Hwy 1 even if not mapped as such; visual protection of the eastern ridgeline should apply even if site is not located in an upland slope area.

Appendix E: Public Engagement

In fall 2013, the City initiated a collaborative process to comprehensively update both the Land Use Plan (LUP) and the General Plan (GP) under the name “PlanHMB”. The following tables summarize the public engagement events and public meetings held throughout the PlanHMB process. These include outreach workshops and events, meetings requested by interested parties, and public meetings with the General Plan Advisory Committee, Planning Commission, and City Council. All Planning Commission and City Council meetings were duly noticed and televised.

TABLE E-1: PUBLIC OUTREACH

Event/Meeting Name	Date	Description
Community Visioning Workshop	March 20, 2014	2-hour community workshop discussion of GP/future of HMB
Business Outreach Workshop	May 6 and 7, 2014	2-hour meeting/workshop with local businesses.
Village of the Coastsiders Outreach Meeting	September 8, 2014	20-minute presentation to group about how to get involved in the GP process.
Coastside Farmers Market Outreach Event	September 13, 2014	9 am-1pm booth at market to educate public about City GP Update and activities
Kids Health Faire Outreach Event	September 14, 2014	1-3pm booth at the faire to educate public and children about City General Plan update with trinkets to giveaway
Spanish Community Outreach Meeting	September 25, 2014	2-hour meeting with Spanish community at 1101 Main Street

Event/Meeting Name	Date	Description
SAMCAR (San Mateo County Realtors) Outreach Meeting	October 21, 2014	20-minute presentation to group about getting involved in the GP process.
Parks & Rec. Committee Regular Meeting	October 22, 2014	Presentation presented at the monthly Park & Rec Committee meeting
SAMCAR (San Mateo County Realtors) Outreach Meeting	October 28, 2014	1-hour meeting with group discuss concerns and ideas.
Open Space Staff Outreach Meeting	October 29, 2014	Staff from various Open Space organizations and City Staff to discuss concerns & ideas regarding the General Plan.
Ag Community (Farm Bureau) Outreach Meeting	November 3, 2014	20-minute presentation to group about getting involved in the GP process.
Concerts in the Park Outreach Event	November 9, 2014	1-3pm booth at the MacDutra Park to educate public about City GP update.
Open Space Outreach Meeting	March 24, 2015	Round Table Discussion with Open Space Partners regarding refocus
Hatch Elementary Leadership Luncheon	May 22, 2015	Hatch Leadership Club – 4 th & 5 th Graders – 15 participants
Cunha Middle School Youth Summit	May 28, 2015	27 kids participated
Highland Park Neighborhood Listening Session	May 27, 2015	45 people attended
Grandview Neighborhood Listening Session	May 28, 2015	20 people attended
Sea Haven Neighborhood Listening Session	June 1, 2015	40 people attended
Casa Del Mar Neighborhood Listening Session	June 3, 2015	50 people attended
Pilarcitos Neighborhood Listening Session	June 4, 2015	30 people attended

Event/Meeting Name	Date	Description
Coastside Mother's Club Neighborhood Listening Session	June 4, 2015	18 people attended
Arleta Park Neighborhood Listening Session	June 8, 2015	40 people attended
Canada Cove Neighborhood Listening Session	June 9, 2015	20 people attended
Frenchmans Creek Neighborhood Listening Session	June 10, 2015	20 people attended
Miramar Neighborhood Listening Session	June 11, 2015	45 people attended
Farmer's Market Listening Session #1	June 13, 2015	25 people attended
Grand Blvd. Neighborhood Listening Session	June 15, 2015	25 people attended
Alsace Lorraine Neighborhood Listening Session	June 17, 2015	25 people attended
Ocean Colony Neighborhood Listening Session	June 18, 2015	25 people attended
Downtown Neighborhood Listening Session	June 20, 2015	15 people attended
Open House Listening Session #1	June 25, 2015	20 people attended
Open House Listening Session #2	June 27, 2015	30 people attended
Public Workshop #1	July 16, 2015	Recreation, Conservation & Open Space - 25 people attended
Public Workshop #2	July 30, 2015	Climate Action and Healthy Community - 20 people attended
Public Workshop #3	August 13, 2015	Transportation and Land Use Workshop - 47 people attended

Event/Meeting Name	Date	Description
Public Workshop #4	September 10, 2015	Synthesis Workshop: Open Space for Recreation, Conservation & Safety - 25 people attended
Farmer's Market Listening Session #2	September 12, 2015	12-15 people attended
Public Workshop #5	December 3, 2015	Synthesis Workshop: Land Use and Circulation
San Mateo Resource Conservation District meeting	July 24, 2018	LUP Update – Agriculture
San Mateo County Farm Bureau	December 14, 2018	LUP Update – Agriculture
San Mateo County Farm Bureau	January 14, 2019	LUP Update – Agriculture
Green Foothills	January 28, 2019	LUP Update—Hazards
Green Foothills	February 8, 2019	LUP Update—Agriculture
Coastside County Water District	May 6, 2019	LUP Update – Public Works
Coastside County Water District	June 14, 2019	LUP Update – Public Works
Coastside County Water District	August 29, 2019	LUP Update – Public Works
Green Foothills + Sierra Club	September 5, 2019	LUP Update (multiple topics)
Private Property Owners/Other Interested Parties (San Mateo County Farm Bureau, Green Foothills, Sierra Club)	August 6 - 21 2020	LUP Update (multiple topics)
Coastside County Water District	August 19, 2020	LUP Update – Public Works

TABLE E-2: GENERAL PLAN ADVISORY COMMITTEE (GPAC) PUBLIC MEETINGS

Meeting #	Meeting Date	Meeting Focus
1	December 17, 2013	City Council approval
2	January 30, 2014	Kick off meeting
3	July 1, 2014	General Plan Updates
4	July 29, 2014	General Plan Updates
5	October 2, 2014	General Plan Updates
6	November 13, 2014	Alternatives
7	March 31, 2015	General Plan re-focus
8	September 3, 2015	General Plan Updates
9	April 14, 2016	Sea level rise, existing conditions
10	April 28, 2016	General Plan Updates
11	June 2, 2016	Present Draft LUP – part 1
12	June 30, 2016	Review/discuss Draft LUP – Part 2
13	October 13, 2016	General Plan elements discussion
14	November 17, 2016	General Plan elements discussion
15	December 15, 2016	General Plan elements discussion
16	January 11, 2017	General Plan elements discussion
17	January 26, 2017	General Plan elements discussion

TABLE E-3: CITY COUNCIL (CC) AND PLANNING COMMISSION (PC) PUBLIC MEETINGS

Meeting Name	Meeting Date	Description
CC Meeting	June 18, 2013	Contract approval for PlanHMB consultant
CC Meeting	September 3, 2013	GPAC/Principles
CC Meeting	December 17, 2013	Appointment of GPAC members
PC & CC Joint Meeting	July 22, 2014	City Council and Planning Commission meeting
CC Meeting	December 9, 2014	General Plan Study Session
CC Meeting	January 20, 2015	GP Study Session for new City Council Members
CC Meeting	February 3, 2015	Continuation of GP Study Session Discussion
CC Meeting	March 3, 2015	Review of GP Update work Program
PC Meeting	August 25, 2015	Study Session #1: Existing Conditions
CC Meeting	September 1, 2015	General Plan Updates
PC Meeting	September 22, 2015	Study Session #2: Existing Conditions Report Follow up
CC Meeting	October 6, 2015	General Plan Process Update – direction from CC on process moving forward.
CC Meeting	November 3, 2015	PlanHMB Planning Boundaries & Working Plan
PC Meeting	April 12, 2016	General Plan Update
PC Meeting	December 13, 2016	General Plan Update
CC Meeting	January 17, 2017	General Plan Update
CC Meeting	February 7, 2017	PlanHMB update
CC Meeting	May 16, 2017	Housing Element Progress Report
CC Meeting	June 6, 2017	LCLUP Process Update
PC Meeting	June 27, 2017	LCLUP Joint Session with BPAC (Highway 1)

Meeting Name	Meeting Date	Description
PC Meeting	July 11, 2017	LCLUP Coastal Access & Rec review
PC Meeting	July 25, 2017	Coastal Access & Rec joint study session with Parks & Rec Commission
PC Meeting	August 8, 2017	Coastal Access & Recreation discussion
CC Meeting	August 15, 2017	LCLUP Process Update
PC Meeting	August 29, 2017	LCLUP Coastal Hazards, Cultural Resources, and Scenic and Visual Resources review
PC Meeting	October 24, 2017	Study Session – Land Use Overview
PC Meeting	October 30, 2018	Study Session – LUP Update
PC Meeting	November 27, 2018	Study Session – Natural Resources
PC Meeting	December 19, 2018	Study Session – Coastal Access and Rec, Coastal Hazards, Cultural Resources, Scenic and Visual Resources
PC Meeting	January 22, 2019	Study Session – Development and Agriculture
PC Meeting	February 26, 2019	Study Session – Development
PC Meeting	March 26, 2019	Study Session – Planned Developments
PC Meeting	June 25, 2019	Study Session – Public Works, Intro and Framework, Glossary, Appendix A and B, & List of Acronyms
PC Meeting	July 31, 2019	Study Session - Public Works
PC Meeting	September 24, 2019	Study Session – 2018-19 LCLUP Draft Update
PC Meeting	October 8, 2019	Study Session – 2018-19 LCLUP Draft Update
PC & CC Joint Meeting	October 29, 2019	Joint Study Session – 2018-19 LCLUP Draft Update
PC Meeting	July 28, 2020	Study Session – 2020 LCLUP Final Draft
PC Meeting	August 11, 2020	Study Session – 2020 LCLUP Final Draft

Meeting Name	Meeting Date	Description
PC Meeting	August 25, 2020	Public Hearing – 2020 LCLUP Final Draft (continued in whole to September 8, 2020)
PC Meeting	September 8, 2020	Public Hearing – 2020 LCLUP Final Draft
CC Meeting	September 29, 2020	Public Hearing – 2020 LCLUP Final Document (continued in whole to September 30, 2020)
CC Meeting	September 30, 2020	Public Hearing – 2020 LCLUP Final Document
CC Meeting	October 6, 2020	Public Hearing – 2020 LCLUP Final Document
CC Meeting	October 20, 2020	Public Hearing – 2020 LCLUP Final Document

Glossary

The following terms found throughout the Land Use Plan are defined herein.

Active Ground-Floor Dependent Use: A commercial or public space that is reliant on pedestrian foot traffic, generally open to the public, generates a high volume of customer or visitor traffic, provides ground-floor display windows to promote views into the business, and sells goods that are typically consumed on premises or carried away by customers or services of a personal or recreational nature. Inactive uses are typically not open to the general public, generate a lower volume of customer or visitor traffic, tend to have screened windows to maintain privacy (such as offices and residential uses) and are thereby not oriented to pedestrian foot traffic.

Affordable Housing: Housing that is (1) restricted to occupancy by extremely low, very low, and low income households for a specified period of time that is not less than 25 years; and (2) has rents or prices that do not exceed the affordable housing cost as set forth in Health and Safety Code Section 50052.5 as amended.

Agricultural Ancillary Use: Uses providing necessary support to the primary agricultural land use.

Agricultural Buffer Areas: Space provided between agricultural and non-agricultural land uses to reduce land use conflicts and support the continued productivity of agricultural uses.

Agricultural Compatible Use: Uses determined to be compatible with agricultural land uses that effectively preserve prime soils, including recreational uses such as parks and commercial equestrian uses, open space, and habitat restoration.

Agricultural Land Use, Operation, or Production: The use of land, including but not limited to greenhouses, to produce an agricultural commodity for commercial purposes. Specific uses include the cultivation of food, fiber or flowers; the grazing, growing or pasturing of livestock; and horse breeding operations. This definition also generally applies to the term “agriculture.”

Agricultural Supplemental Use: Uses that support the continued economic viability of agricultural land use, operation, or production while preserving suitable agricultural soil.

Anticipated Life Span: The period over which a development is expected to be usable, with normal repairs and maintenance, for the purpose for which it was designed.

Below Market Rate Unit: A unit which is affordable, either by rental or purchase, to very low, low, or moderate income households.

Coastal Access, Lateral: Public accessway that follows parallel to the shoreline, such as the California Coastal Trail, or provides perpendicular connections to the shoreline.

Coastal Access, Vertical: Public stairway or accessway that leads from a coastal access route or trail down to the sandy beach area.

Coastal-dependent Development or Use: Any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

Coastal-related Development: Any use that is dependent on a coastal-dependent development or use.

Context-sensitive Design: Innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals.

Critical Facilities: Public utilities including water tanks, municipal wells, and major sewer and water service mains and pumps; communications infrastructure; the SAM Wastewater Treatment Plant; Highways 1 and 92; emergency preparedness and response facilities including the Emergency Operations Center and fire station; and schools.

Cumulative Effect: The incremental effects of an individual project shall be reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Development: On land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any facility of any private, public, or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511). As used in this section, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power

transmission and distribution line. In this LCP, “development” is synonymous with “new development.”

Development, Blufftop and Beachfront: Development within 300 feet landward of a bluff line or edge or 300 feet landward from the inland extent of the beach as defined by California Code of Regulations Section 13577(g) and (h).

Essential Services: Essential services include critical facilities, public and quasi-public uses such as government buildings, public health services, and a wide range of care facilities.

Emergency: A sudden unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property or essential public services.

Environmental Justice: The fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. Environmental justice includes, but is not limited to, all of the following:

- a. The availability of a healthy environment for all people.
- b. The deterrence, reduction, and elimination of pollution burdens for populations and communities experiencing the adverse effects of that pollution, so that the effects of the pollution are not disproportionately borne by those populations and communities.
- c. Governmental entities engaging and providing technical assistance to populations and communities most impacted by pollution to promote their meaningful participation in all phases of the environmental and land use decision-making process.
- d. At a minimum, the meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions.

Environmentally Sensitive Habitat Area: Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments, including the following:

- a. Any habitat area that is rare or especially valuable from a local, regional, or statewide basis.
- b. Areas that contribute to the viability of plant or animal species designated as rare, threatened, or endangered under State or Federal law.
- c. Areas that contribute to the viability of species designated as Fully Protected or Species of Special Concern under State law or regulations.
- d. Areas that contribute to the viability of plant species for which there is compelling evidence of rarity, for example, those designated 1b (Rare or endangered in

California and elsewhere) or 2 (rare, threatened or endangered in California but more common elsewhere) by the California Native Plant Society.

In Half Moon Bay, these areas include, but are not limited to terrestrial ESHAs (marine environment, sea cliffs, dunes, coastal terrace prairie, and non-aquatic habitat for special status or unique species); wetlands; and watercourses.

Environmentally Sensitive Habitat Area, Potential: Areas that may support sensitive habitat or special status species but require further site-specific study to make this determination.

Fallback Zone: An applicable zoning district for future re-designation of a Planned Development area that is consistent with the policies and standards of the approved master plan.

Farmworker Housing: Dwelling unit(s) dedicated for use by people who earn a portion of their income through permanent or seasonal agricultural, agricultural compatible, and/or horticultural labor, and the household members who reside with such a person.

Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

Historical Resource: The term “historical resource” shall include the following:

- (1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.
- (2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, 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.
- (3) Any object, building, structure, site, area, place, record, or manuscript which 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 an 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 on the California Register of Historical Resources (Pub. Res. Code, § 5024.1, Title 14 CCR, Section 4852) including the following:
 - a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - b. Is associated with the lives of persons important in our past;

- c. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - d. Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

Horticulture: Cultivation of flowers, food, and similar plants, typically involving nursery or greenhouse production.

Household, Above Moderate Income: Any household whose income, with adjustments for family size, is over one hundred twenty percent of the median income for San Mateo County as published by the Department of Housing and Community Development.

Household, Extremely Low Income: Any household whose income, with adjustments for family size is between zero percent and thirty percent of the median income for San Mateo County as published by the Department of Housing and Community Development.

Household, Low Income: Any household whose income, with adjustments for family size, is between fifty and one-tenth percent and eighty percent of the median income for San Mateo County as published by the Department of Housing and Community Development.

Household, Moderate Income: Any household whose income, with adjustments for family size, is between eighty and one-tenth percent and one hundred twenty percent of the median income for San Mateo County as published by the Department of Housing and Community Development.

Household, Very Low Income: Any household whose income, with adjustments for family size, is fifty percent or less of the median income for San Mateo County as established by the U.S. Department of Housing and Urban Development.

Infrastructure, Green: A cost-effective, resilient approach to managing wet weather impacts that provides many community benefits.

Infrastructure, Natural: A strategically planned and managed network of natural lands, such as forests and wetlands, working landscapes, and other open spaces that conserves or enhances ecosystem values and functions and provides associated benefits to human populations.

Infrastructure, Traditional: A traditional stormwater management approach to collecting runoff and directing it to receiving waters, e.g. through curbs, gutters, storm drains, and pipes. Also referred to as gray infrastructure and hard infrastructure.

Level of Service (LOS): A measurement of traffic congestion, ranging from LOS A to LOS F, with LOS A representing free-flowing conditions, and LOS F stop-and-go conditions.

Meander Belt: The space an active channel uses to meander the width and length it requires for a stable planform on the landscape. The amplitude of a meander defines the minimum floodplain space required by a watercourse for physical stability.

Non-prime Agricultural Land: Other coastal agricultural lands that do not qualify as prime but are in use for crops or grazing or are otherwise suitable for agriculture.

Non-Priority Use: Any development other than those considered to be priority uses.

Open Space Land: As defined by Public Resources Code Section 65560, open space land means any parcel or area of land or water that is essentially unimproved and devoted to an open-space use as defined in this section, and that is designated on a local, regional, or state open-space plan as any of the following:

- (1) Open space for the preservation of natural resources, including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays, and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
- (2) Open space used for the managed production of resources, including, but not limited to, forest lands, rangeland, agricultural lands, and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers, and streams that are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
- (3) Open space for outdoor recreation, including, but not limited to, areas of outstanding scenic, historic, and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas that serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
- (4) Open space for public health and safety, including, but not limited to, areas that require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs, and areas required for the protection and enhancement of air quality.

(5) Open space in support of the mission of military installations that comprises areas adjacent to military installations, military training routes, and underlying restricted airspace that can provide additional buffer zones to military activities and complement the resource values of the military lands.

(6) Open space for the protection of places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

Open Space, Common: Open spaces areas for common use including but not limited to recreational areas and facilities for the use of prospective residents of a development, such as tennis courts, golf courses, swimming pools, playgrounds, or community gardens. Common open space does not include driveways, parking lots, private patios and yards, or other developed areas.

Open Space, Private: Open space areas for the private use of residents of individual units, including but not limited to patios, decks, yards, and land permanently dedicated to open field agricultural use.

Open Space, Public: Open space areas accessible to members of the general public, including but not limited to neighborhood and other public parks and accessory parking lots, beaches, bike paths, hiking or equestrian trails, and vista points. Environmentally sensitive habitat areas, green infrastructure for stormwater management, and archaeological sites may be included in public open space only if such areas are contiguous with or otherwise contribute to the open space area usable by the public for passive recreation, including walking, wildlife viewing. Public open space does not include areas which are unusable for recreational purposes, such as private or public streets, private parking lots, and hazardous areas such as steep slopes and bluff faces.

Prime Agricultural Land: Any land that meets the following criteria pursuant to Government Code Section 51201(c):

- (1) All land that qualifies for rating as class I or class II in the Natural Resource Conservation Service land use capability classifications.
- (2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.
- (3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.
- (4) Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars (\$200) per acre.

Priority Use, Coastal Act: Land uses that have priority over other uses for their location in the coastal zone, namely coastal-dependent uses, visitor-serving commercial uses, agricultural uses, and coastal access and recreation facilities.

Priority Use, Local: Uses that are considered second-tier priority behind Coastal Act Priority Uses in the Planning Area, namely affordable dwelling units for extremely low, very low, and low-income households.

Public Works: (1) All production, storage, transmission, and recovery facilities for water, sewerage, telephone, and other similar utilities owned or operated by any public agency or by any utility subject to the jurisdiction of the Public Utilities Commission, except for energy facilities. (2) All public transportation facilities, including streets, roads, highways, public parking lots and structures, ports, harbors, airports, railroads, and mass transit facilities and stations, bridges, trolley wires, and other related facilities. For purposes of this division, neither the Ports of Hueneme, Long Beach, Los Angeles, nor San Diego Unified Port District nor any of the developments within these ports shall be considered public works. (3) All publicly financed recreational facilities, all projects of the State Coastal Conservancy, and any development by a special district. (4) All community college facilities.

Redevelopment: Alteration, demolition, or replacement of 50 percent or more of the major structural components of any structure or an addition of 50 percent or more to the floor area of such structure. Incremental changes that cumulatively amount to replacement of 50 percent or more over time shall also be considered redevelopment. In all cases, policies that apply to “new development” shall also apply to “redevelopment.”

Resource-dependent Use: A development or use that depends on the area or resources within or adjacent to environmentally sensitive habitat areas to be able to function.

Riparian Corridor: An association of native, and in some cases non-native, plant and animal species within or adjacent to a watercourse that contribute to the function or distinction of the riparian habitat. Boundaries of riparian corridors are determined by the limit of riparian vegetation or top of bank, or other confining topography, whichever is greater. The limit of riparian vegetation is determined by the drip line of riparian canopy trees or the limit of riparian shrubs or herbaceous vegetation.

Sensitive Coastal Resource Area: Those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity, including the following:

- (1) Special marine and land habitat areas, riparian corridors, wetlands, lagoons, and estuaries.
- (2) Areas possessing significant recreational value.
- (3) Highly scenic areas.

- (4) Archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer.
- (5) Special communities or neighborhoods which are significant visitor destination areas.
- (6) Areas that provide existing coastal housing or recreational opportunities for low- and moderate-income persons.
- (7) Areas where divisions of land could substantially impair or restrict coastal access.

Special District: Any public agency other than a local government formed pursuant to general law or special act for the local performance of governmental or proprietary functions within limited boundaries, including, but not limited to, a county service area, a maintenance district or area, an improvement district or improvement zone, or any other zone or area, formed for the purpose of designating an area within which a property tax rate will be levied to pay for service or improvement benefiting that area.

Species, Special Status: Species that are listed or are proposed for listing as rare, threatened, endangered, or of special concern by the federal and/or state government.

Species, Unique: An organism or group of organisms that has scientific or historic value, few indigenous habitats, some characteristic(s) that draw attention or are locally uncommon, or that are common only locally or are of limited range.

Stormwater Outfall: The discharge point of a stormwater system into a body of water or waterway.

Street, Complete: A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility.

Street, Green: A street right-of-way that incorporates vegetation, soil, and engineered systems (e.g. permeable pavements) to slow, filter, and cleanse stormwater runoff from impervious surfaces (e.g. streets and sidewalks).

Vehicle Miles Traveled: The amount and distance of automobile travel attributable to a plan or project, determined for evaluation of transportation impacts under the California Environmental Quality Act.

Watercourse: The course over which water currently flows or has flowed. The boundaries of a watercourse are defined by the top of the bank or similar topography that confines the water at its highest level.

Wetlands: Land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes. Wetlands may also include land where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water

flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats.

List of Acronyms

The following acronyms found throughout the Land Use Plan are defined herein.

ABAG – Association of Bay Area Governments

ADA – Americans with Disabilities Act

ADT – average daily traffic

ADU – accessory dwelling unit

ADWF – average dry weather flow

ARB – California Air Resources Board

BAWSCA – Bay Area Water Supply and Conservation Agency

BFE – Base Flood Elevation

BMP – best management practice

BMR – below market rate

BOD – biochemical oxygen demand

CBPP – San Mateo County Comprehensive Bicycle and Pedestrian Plan

C/CAG – San Mateo City/County Association of Governments

Cal OES – California Governor’s Office of Emergency Services

CCC – California Coastal Commission

CCT – California Coastal Trail

CCWD – Coastside County Water District

CDFW – California Department of Fish and Wildlife

CDP – coastal development permit

CESA – California Endangered Species Act

CEQA – California Environmental Quality Act

CFPD – Coastside Fire Protection District

CIP – Capital Improvement Program

CLT – Coastside Land Trust

CMP – Congestion Management Program

CNDDDB – California Natural Diversity Data Base

CNPS – California Native Plant Society

CNRA – California Natural Resources Agency

CRHR – California Register of Historical Resources

CRLF – California red-legged frog

CTMP – San Mateo County Comprehensive Transportation Management Plan

CTP – Coastal Terrace Prairie

CWA – Clean Water Act

DB – density bonus

DUs – dwelling units

DWR – State Department of Water Resources

EIR – Environmental Impact Report

EPA – U. S. Environmental Protection Agency

ESHA – environmentally sensitive habitat area

EV – electric vehicle

FAR – floor area ratio

FEMA – Federal Emergency Management Agency

FESA – Federal Endangered Species Act

FIRM – Flood Insurance Rate Map

GI – green infrastructure

GIS – Geographic Information Systems

gpd – gallons per day

GSCSD – Granada Sanitary Community Services District

I/I – infiltration and inflow

IP – Implementation Plan

IPS – Intertie Pipeline System

JPA – Joint Powers Authority or joint powers agreement

LAFCo – San Mateo Local Agency Formation Commission

LCP – Local Coastal Program

LHMP – Local Hazard Mitigation Plan

LID – low impact development

LOS – level of service

LRA – Local Responsibility Area

LUP – Land Use Plan

LUST – leaking underground storage tank

MGY – million gallons per year

MHTL – mean high tide line

MMPA – Marine Mammal Protection Act

MSFA – Magnuson-Stevens Fishery Conservation and Management Act

MTB – maximum theoretical buildout

MTC – Metropolitan Transportation Commission

MWSD – Montara Water and Sanitary District

NEPA – National Environmental Policy Act

NFIP – National Flood Insurance Program

NHPA – National Historic Preservation Act

NMFS – National Marine Fisheries Service

NOAA – National Oceanic and Atmospheric Administration

NPDES – National Pollutant Discharge Elimination System

NRC – National Research Council

NRCS – Natural Resource Conservation Service

NRHP – National Register of Historic Places

NWIS – California Historical Resources Information System Northwest Information Center

OCOF – Our Coast Our Future

OHWM – ordinary high-water mark

PCA – Priority Conservation Area

PD – Planned Development

POST – Peninsula Open Space Trust

PPH – persons per household

PDWF – peak wet weather flow

PUD – Planned Unit Development

PWWF – peak dry weather flow

R&D – research and development

RTP – Regional Transportation Plan

RV – recreational vehicle

RWQCB – Regional Water Quality Control Board

SAM – Sewer Authority Mid-Coastside

SF – square feet

SFGS – San Francisco garter snake

SFPUC – San Francisco Public Utilities Commission

SFWD – San Francisco Water Department

SGMA – Sustainable Groundwater Management Act

SPD – shoreline protective device

SRA – State Responsibility Area

SSMP – Sewer System Management Plan

SWPPP – Storm Water Pollution Prevention Program

SWRCB – California State Water Resources Control Board

TDM – transportation demand management

TDR – transfer of development rights

TMDL – total maximum daily loads

USACE – U.S. Army Corps of Engineers

USFWS – U.S. Fish and Wildlife Service

USGS – U.S. Geological Survey

UWMP – Urban Water Management Plan

VHFSZ – Very High Fire Severity Zone

VMT – vehicle miles traveled

WUI – Wildland-Urban Interface

WSCP – Water Shortage Contingency Plan