

4.3 BIOLOGICAL RESOURCES

This chapter describes the regulatory framework and existing conditions of the City of San Mateo Environmental Impact Report (EIR) Study Area and evaluates the potential biological resource impacts from adopting and implementing the proposed General Plan 2040 and proposed Climate Action Plan, and from future development and activities that could occur under the proposed project. A summary of the relevant regulatory framework and existing conditions is followed by a discussion of potential impacts and cumulative impacts related to implementation of the proposed project.

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 REGULATORY FRAMEWORK

Federal Regulations

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered plant and animal species. The federal Endangered Species Act (FESA) and its implementing regulations prohibit the take of any fish or wildlife species that is federally listed as threatened or endangered without prior approval pursuant to either Section 7 or Section 10 of the FESA. FESA defines “take” as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Title 50, Wildlife and Fisheries, Part 17, Endangered and Threatened Wildlife and Plants, Section 17.3, Definitions, of the Code of Federal Regulations, defines the term “harass” as an intentional or negligent act that creates the likelihood of injuring wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns such as breeding, feeding, or sheltering. Furthermore, Section 17.3 defines “harm” as an act that either kills or injures a listed species. By definition, “harm” includes habitat modification or degradation that actually kills or injures a listed species by significantly impairing essential behavior patterns such as breeding, spawning, rearing, migrating, feeding, or sheltering.

Section 10(a) of the FESA establishes a process for obtaining an incidental take permit that authorizes nonfederal entities to incidentally take federally listed wildlife or fish. Incidental take is defined by FESA as take that is “*incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.*” Preparation of a habitat conservation plan (HCP) is required for all Section 10(a) permit applications. The USFWS and National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service) have joint authority under the FESA for administering the incidental take program. NOAA Fisheries Service has jurisdiction over anadromous fish species and USFWS has jurisdiction over all other fish and wildlife species.

Section 7 of the FESA requires all federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any species listed under the FESA, or result in the destruction or adverse modification of its habitat. Federal agencies are also required to minimize impacts to all listed species resulting from their actions, including issuance of permits or funding. Section

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7 requires consideration of the indirect effects of a project, effects on federally listed plants, and effects on critical habitat (FESA requires that the USFWS identify critical habitat to the maximum extent that it is prudent and determinable when a species is listed as threatened or endangered). This consultation results in a Biological Opinion prepared by the USFWS stating whether implementation of the HCP will result in jeopardy to any HCP Covered Species or will adversely modify critical habitat and the measures necessary to avoid or minimize effects to listed species.

Although federally listed animals are legally protected from harm no matter where they occur, Section 9 of the FESA provides protection for endangered plants by prohibiting the malicious destruction on federal land and other “take” that violates State law. Protection for plants not living on federal lands is provided by the California Endangered Species Act (CESA).

Clean Water Act

The United States Army Corps of Engineers (USACE) is responsible under Section 404 of the Clean Water Act to regulate the discharge of fill material into waters of the United States (U.S.). These waters, and their lateral limit, include streams that are tributaries to navigable waters and their adjacent wetlands.¹ The lateral limits of jurisdiction for a non-tidal stream are measured at the line of the ordinary high-water mark² or the limit of adjacent wetlands.³ Any permanent extension of the limits of an existing water of the U.S., whether natural or human-made, results in a similar extension of USACE jurisdiction.

Waters of the U.S. fall into two broad categories: wetlands and other waters. Other waters include waterbodies and watercourses generally lacking plant cover, such as rivers, streams, lakes, springs, ponds, coastal waters, and estuaries. Wetlands are aquatic habitats that support hydrophytic wetland plants and include marshes, wet meadows, seeps, floodplains, basins, and other areas experiencing extended seasonal soil saturation. Seasonally or intermittently inundated features, such as seasonal ponds, ephemeral streams, and tidal marshes, are categorized as wetlands if they have hydric soils and support wetland plant communities. Seasonally inundated waterbodies or watercourses that do not exhibit wetland characteristics are classified as other waters of the U.S.

Waters and wetlands that cannot trace a continuous hydrologic connection to a navigable water of the U.S. are not tributary to waters of the U.S. These are termed “isolated wetlands.” Isolated wetlands are jurisdictional when their destruction or degradation can affect interstate or foreign commerce.⁴ The USACE may or may not take jurisdiction over isolated wetlands depending on the specific circumstances.

In general, a project proponent must obtain a Section 404 permit from the USACE before placing fill or grading in wetlands or other waters of the U.S. Prior to issuing the permit, the USACE is required to consult with the USFWS under Section 7 of the FESA if the project may affect federally listed species.

¹ Code of Federal Regulations, Title 33, Navigation and Navigable Waters, Part 328.3(a).

² Code of Federal Regulations, Title 33, Navigation and Navigable Waters, Part 328.3(e).

³ Code of Federal Regulations, Title 33, Navigation and Navigable Waters, Part 328.3(b).

⁴ Code of Federal Regulations, Title 33, Navigation and Navigable Waters, Part 328.3(a).

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All USACE permits require water quality certification under Section 401 of the Clean Water Act. In the San Francisco Bay Area, this regulatory program is administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB). Project proponents who propose to fill wetlands or other waters of the U.S. must apply for water quality certification from the San Francisco Bay RWQCB. The San Francisco Bay RWQCB has adopted a policy requiring mitigation for any loss of wetland, streambed, or other jurisdictional area.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits the taking, hunting, killing, selling, purchasing, etc. of migratory birds, parts of migratory birds, or their eggs and nests. As used in the MBTA, the term “take” is defined as “to pursue, hunt, shoot, capture, collect, kill, or attempt to pursue, hunt, shoot, capture, collect, or kill, unless the context otherwise requires.” Most bird species native to North America are covered by this act.

State Regulations

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) has jurisdiction over State-listed endangered, threatened, and rare plant and animal species under CESA.⁵ CESA is similar to the FESA both in process and substance; it is intended to provide additional protection to threatened and endangered species in California. Species may be listed as threatened or endangered under both acts (in which case the provisions of both State and federal laws apply) or under only one act. A candidate species is one that the Fish and Game Commission has formally noticed as being under review by CDFW for addition to the State list. Candidate species are protected by the provisions of CESA.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to “projects” proposed to be undertaken or requiring approval by State and local government agencies. Projects are defined as having the potential to have physical impact on the environment. Under Section 15380 of the CEQA Guidelines, a species not included on any formal list “shall nevertheless be considered rare or endangered if the species can be shown by a local agency to meet the criteria” for listing. With sufficient documentation, a species could be shown to meet the definition of rare or endangered under CEQA and be considered a “de facto” rare or endangered species.

California Fish and Game Code

The CDFW is responsible for enforcing the California Fish and Game Code (CFGC), which contains several protections from “take” for a variety of species. The CDFW also protects streams, water bodies, and riparian corridors through the Streambed Alteration Agreement process under Section 1601 to 1606 of the CFGC. The CFGC stipulates that it is “unlawful to substantially divert or obstruct the natural flow or

⁵ California Fish and Game Code Section 2050 *et seq.*

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substantially change the bed, channel or bank of any river, stream or lake” without notifying the CDFW, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement. CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

The CFGC also lists animal species designated as Fully Protected or Protected, which may not be taken or possessed at any time. The CDFW does not issue licenses or permits for take of these species except for necessary scientific research, habitat restoration/species recovery actions, or live capture and relocation pursuant to a permit for the protection of livestock. Fully protected species are listed in CFGC Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish and Game Code, while protected amphibians and reptiles are listed in Chapter 5, Sections 41 and 42, respectively.

Several provisions in the CFGC provide for the protection of birds and bird nests in active use. Unless the CFGC or its implementing regulations provide otherwise, under California law it is unlawful to:

- Take a bird, mammal, fish, reptile, or amphibian.
- Take, possess, or needlessly destroy the nest or eggs of any bird.
- Take, possess, or destroy any bird of prey in the orders Strigiformes (owls) and Falconiformes (such as falcons, hawks and eagles) or the nests or eggs of such bird.
- Take or possess any of the thirteen fully protected bird species listed in CFGC Section 3511.
- Take any non-game bird (i.e., bird that is naturally occurring in California that is not a gamebird, migratory game bird, or fully protected bird).
- Take or possess any migratory non-game bird as designated in the MBTA or any part of such bird, except as provided by rules or regulations adopted by the DOI under the MBTA.
- Take, import, export, possess, purchase, or sell any bird (or products of a bird), listed as an endangered or threatened species under the CESA unless the person or entity possesses an Incidental Take Permit or equivalent authorization from CDFW.

Non-native species, including European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), and rock pigeon (*Columba livia*), are not afforded any protection under the MBTA or CFGC.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act,⁶ the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the State’s waters. The RWQCB asserts jurisdiction over isolated waters and wetlands, as well as waters and wetlands that are regulated by the USACE. Therefore, even if a project does not require a federal permit, it still requires review and approval by the RWQCB. When reviewing applications, the RWQCB focuses on ensuring that projects do not adversely affect the “beneficial uses” associated with waters of the State. In most cases, the RWQCB seeks to protect these beneficial uses by requiring the integration of waste discharge requirements into projects that will

⁶ California Water Code Sections 13000 through 14920.

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require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction best management practices.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 prohibits importation of rare and endangered plants into California, “take” of rare and endangered plants, and sale of rare and endangered plants. The CESA defers to the California Native Plant Protection Act, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to CEQA. In this case, plants listed as rare under the California Native Plant Protection Act are not protected under the CESA but rather under CEQA.

The California Native Plant Society (CNPS) is a non-governmental conservation organization that has developed a list of plants of special concern in California. The following explains the designations for each plant species:⁷

- **Rank 1A.** Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
- **Rank 1B.** Plants Rare, Threatened, or Endangered in California and Elsewhere
- **Rank 2A.** Plants Presumed Extirpated in California, But Common Elsewhere
- **Rank 2B.** Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- **Rank 3.** Plants About Which More Information is Needed; A Review List
- **Rank 4.** Plants of Limited Distribution; A Watch List

California Natural Communities

Sensitive natural communities are natural community types considered to be rare or of a “high inventory priority” by the CDFW. Although sensitive natural communities have no legal protective status under FESA or CESA, they are provided some level of consideration under CEQA. Appendix G of the CEQA Guidelines identifies potential impacts on a sensitive natural community as one of six criteria to consider in determining the significance of a proposed project. While no thresholds are established as part of this criterion, it serves as an acknowledgement that sensitive natural communities are an important resource and, depending on their rarity, should be recognized as part of the environmental review process. The level of significance of a project’s impact on any particular sensitive natural community will depend on that natural community’s relative abundance and rarity.

As an example, a discretionary project that has a substantial adverse effect on any riparian habitat, native grassland, valley oak woodland, and/or other sensitive natural community would normally be considered to have a significant effect on the environment. Further loss of a sensitive natural community could be interpreted as substantially diminishing habitat, depending on its relative abundance, quality and degree of past disturbance, and the anticipated impacts to the specific community type.

⁷ California Native Plant Society, CNPS Inventory of Rare Plants, [https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants#:~:text=List%20%2D%20Plants%20Presumed%20Extinct,is%20currently%20considered%20CRPR%204.](https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants#:~:text=List%20%2D%20Plants%20Presumed%20Extinct,is%20currently%20considered%20CRPR%204.,), accessed August 8, 2022.

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Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act⁸ of 2001 acknowledges the importance of private land stewardship to the conservation of the state's valued oak woodlands. This act established the California Oak Woodlands Conservation Program, which aims to conserve oak woodlands existing in the state's working landscapes by providing education and incentives to private landowners. The program provides technical and financial incentives to private landowners to protect and promote biologically functional oak woodlands.

Regional Regulations

McAteer-Petris Act

In 1969, the McAteer-Petris Act designated the San Francisco Bay Conservation and Development Commission (BCDC) as the agency responsible for the protection of the San Francisco Bay. The two primary goals of the BCDC are (1) to prevent the unnecessary filling of San Francisco Bay, and (2) to increase public access to and along the Bay shoreline. BCDC fulfills its mission through the implementation of the San Francisco Bay Plan (Bay Plan), an enforceable plan that guides the future protection and use of San Francisco Bay and its shoreline.⁹ The Bay Plan includes a range of policies on public access, water quality, fill, and project design, and designates shoreline areas that should be reserved for water-related purposes like ports, industry, and public recreation, airports, and wildlife areas.¹⁰

As a permitting authority along the San Francisco Bay shoreline, BCDC is responsible for granting or denying permits for any proposed fill, extraction of materials, or change in use of any water, land, or structure within 100 feet of the Bay shoreline. Projects in BCDC jurisdiction that involve Bay fill must be consistent with the Bay Plan policies on the safety of fills and shoreline protection.

San Francisco Bay Basin Water Quality Control Plan

The San Francisco Bay RWQCB adopted a Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan, which includes wetlands in and near the EIR Study Area. It is the RWQCB's master water quality control planning document. The most recent amendments were incorporated into the Basin Plan as of May 2017.¹¹

⁸ California Fish and Game Code Section 1360 et seq.

⁹ San Francisco Bay Conservation and Development Commission, May 5, 2020, *San Francisco Bay Plan*, <https://bcdc.ca.gov/pdf/bayplan/bayplan.pdf>, accessed August 8, 2022.

¹⁰ San Francisco Bay Conservation and Development Commission, May 5, 2020, *San Francisco Bay Plan*, <https://bcdc.ca.gov/pdf/bayplan/bayplan.pdf>, accessed August 8, 2022.

¹¹ San Francisco Bay Regional Water Quality Control Board, 2017, *San Francisco Bay Basin Water Quality Control Plan (Basin Plan)*, https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/BP_all_chapters.pdf, accessed August 8, 2022.

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Bay Delta Conservation Plan

In March 2009, the *Bay Delta Conservation Plan* (BDCP) was created to restore the ecosystem of the Delta, increase special-status fish populations, and ensure a reliable freshwater supply.¹² The Delta used to be a floodplain and marsh with a thriving ecosystem. It has since been dramatically altered with the construction of artificial levees and dredged waterways, to restore the ecosystem, the BDCP created a conservation strategy. The main goals of the strategy include restoring habitat, reducing acute stressors, and improving water quality flow and operation.

Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area

Adopted in 1998, the *Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area* covers 28 special status species of plants and animals that occur mainly on serpentine soils and grasslands in the San Francisco Bay Area.¹³ Due to much of the San Francisco Bay being converted into urban and industrial uses, many species have been forced to move from their historic ranges. The goal of this recovery plan is to delist certain endangered and threatened species, improve the security of several listed species, and ensure long-term conservation of certain species of concern.

Local Regulations

San Mateo General Plan 2030

The City of San Mateo General Plan 2030 goals, policies, and actions that are relevant to biological resources are primarily in the Conservation, Open Space, Parks and Recreation and Safety Elements. As part of the proposed project, some existing General Plan goals, policies, and actions would be amended, substantially changed, or new policies would be added. Applicable goals, policies, and actions are identified and assessed for their effectiveness and potential to result in an adverse physical impact later in this chapter under Section 4.3.3, *Impact Discussion*.

City of San Mateo Municipal Code

The San Mateo Municipal Code (SMMC) includes various directives pertaining to biological resources. The SMMC is organized by title, chapter, and section. Most provisions related to biological impacts are included in Title 7, *Health, Sanitation, and Public Works*, Title 13, *Parks and Recreation*, Title 23, *Buildings and Construction*, Title 26, *Subdivisions* and Title 27, *Zoning*, as follows:

- Chapter 7.39, *Stormwater Management and Discharge Control*, ensures that watercourses within the city is maintained for unobstructed flow of water, including the removal of debris, natural growth, and other materials. Any person wishing to construct or repair any structure within 30 feet

¹² California State Water Resources Control Board, March 2009, *Bay Delta Conservation Plan*, https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/ccc_cccwa/CCC-SC_12.pdf, accessed August 31, 2022.

¹³ United States Fish and Wildlife Service, September 1998, *Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area*, <https://www.nps.gov/goga/learn/management/upload/-1491-Recovery-Plan-for-serpentine-soil-species-of-the-San-Francis.pdf>, accessed August 9, 2022.

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of the center line of a creek or 20 feet of the top of a bank must first obtain a permit from the Public Works Department, to ensure that the free flow of water is not disrupted.

- Chapter 13.40, *Protected Trees*, places the authority to regulate trees along public streets, sidewalks, and walkways within the city, to the Parks and Recreation Department. Tree trimming, planting, and removal must be approved through a permit process by the Parks and Recreation Department.
- Section 23.72.050, *Landscape Project Application and Documentation Package*, sets criteria for water efficiency which includes using native plants.
- Section 23.72.080, *Landscape Design Plan*, aims to encourage water efficiency by creating criteria that protect and preserve native species and natural vegetation. This plan also prohibits planting plants listed by the California Invasive Plant Council.
- Section 26.16.040, *Street Plantings*, regulates all plantings along the street to conform to the Street Trees Master Plan.
- Section 26.16.060, *Open Space Easements*, creates easements within a subdivision for open space to protect significant natural vegetation. When this is done, a deed shall be executed to the City that is acceptable by the City Attorney.
- Chapter 27.59, *S Districts - Shoreline District*, aims to preserve and enhance the value of the shoreline and encourage uses that are compatible with the natural surroundings. All development will be subject to performance standards outlined in Chapter 27.76, *Performance Standards*, and obtain federal and State permits prior to approval of a use permit.
- Section 27.71.150, *Preservation of Existing Trees*, sets forth criteria for documenting and preserving existing trees on construction sites.

4.3.1.2 EXISTING CONDITIONS

Methodology

Available literature and mapping of biological resources reviewed included the CDFW California Wildlife Habitat Relationships (CWHR) and California Natural Diversity Database (CNDDDB), the Federal Endangered and Threatened Species list, the CNPS online Inventory of Rare and Endangered Plants of California, and the National Oceanic and Atmospheric Administration (NOAA) Critical Habitat and Essential Fish Habitat Mappers.

Due to the size of the EIR Study Area, a field reconnaissance survey was not conducted. Determinations regarding each species' potential to occur were made based on information available through the CNDDDB, available literature, and professional judgment.

Vegetation and Habitat Types

The majority of San Mateo is developed with urban uses. Non-urban land cover within the city includes hardwood forest/woodland and herbaceous land cover and mostly occur along the eastern edge of the

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City Limits and the southwestern portion of San Mateo.¹⁴ CWHR habitats include Annual Grassland, Blue Oak Woodland, Coastal Oak Woodland, Chamise-Redshank Chapparal, Coastal Scrub, Eucalyptus, Lacustrine, Saline Emergent Wetland, Valley Oak Woodland, and Valley Foothill Riparian.¹⁵ Riverine habitats also exist within the EIR Study Area, although not listed by CWHR. Descriptions of each habitat are provided below based on habitat information provided by the CDFW.¹⁶

Annual Grassland

Annual Grassland habitats are open grasslands composed primarily of annual plant species. They generally occur on flat plains to gently rolling foothills. Introduced annual grasses are the dominant plant species in this habitat and include wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*), riggut brome (*Bromus diandrus*), red brome (*Bromus madritensis*), wild barley (*Hordeum spontaneum*), and foxtail fescue (*Vulpia myuros*). Many wildlife species use Annual Grasslands for foraging, but some require special habitat features such as cliffs, caves, ponds, or habitats with woody plants for breeding, resting, and escape cover.

Blue Oak Woodland

Blue Oak Woodland habitats are usually associated with shallow, rocky, infertile, well-drained soils. These woodlands generally have an overstory of scattered trees. Blue oaks (*Quercus douglasii*) are the dominant species in this habitat and are well adapted to dry hilly terrain where the water table is usually unavailable. Common associates in the canopy are coast live oak (*Quercus agrifolia*) in the Coast Range and valley oak (*Quercus lobata*) where deep soil has formed. Associated shrub species include poison oak (*Toxicodendron diversilobum*), California coffeeberry (*Rhamnus californica*), buckbrush (*Ceanothus cuneatus*), redberry (*Rhamnus crocea*), California buckeye (*Aesculus californica*), and manzanita (*Arctostaphylos manzanita*). The ground cover is comprised mainly of annuals, such as wild oats, brome grass (*Bromus*), foxtail (*Setaria italica*), needlegrass (*Nassella*), filaree (*Erodium cicutarium*), fiddleneck (*Amsinckia*), and others.

Coastal Oak Woodland

Coastal oak woodlands are common to the mesic coastal foothills of California and provide habitat for a variety of wildlife species. Coastal oak woodlands are extremely variable and its overstory consists of deciduous and evergreen hardwoods. In mesic sites, the trees are dense and form a closed canopy while in drier sites, the trees are widely spaced, forming an open woodland or savannah. Typical understory plants in dense coast live oak woodlands are shade tolerant shrubs such as California blackberry (*Rubus*), creeping snowberry (*Gaultheria hispidula*), toyon (*Heteromeles arbutifolia*), and herbaceous plants such

¹⁴ United States Department of Agriculture and United States Forest Service, State Level Datasets, <https://www.fs.usda.gov/detail/r5/landmanagement/gis/?cid=STELPRDB5327836>, accessed August 4, 2022.

¹⁵ California Department of Fish and Wildlife, 2022, California Wildlife Habitat Relationships, <https://wildlife.ca.gov/Data/CWHR>, accessed August 4, 2022.

¹⁶ California Department of Fish and Wildlife, 2022, Wildlife Habitats – California Wildlife Habitat Relationships System, <https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats#:~:text=The%20CWHR%20habitat%20classification%20scheme%20was%20developed%20to%20provide%20a,classification%20scheme%20had%2053%20habitats>, accessed August 4, 2022.

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as bracken fern (*Pteridium*), California polypody (*Polypodium californicum*), fiesta flower (*Pholistoma auritum*), and miner's lettuce (*Claytonia perfoliate*). In drier areas where oaks are more widely spaced, the understory may consist almost entirely of grassland species with few shrubs.

Chamise-Redshank Chaparral

Chamise-dominated stands are most common on south- and west-facing slopes; redshank is found on all aspects. Mature Chamise-Redshank Chaparral is single layered, generally lacking well-developed herbaceous ground covers and overstory trees. Shrub canopies frequently overlap, producing a nearly impenetrable canopy of interwoven branches. Chamise-Redshank Chaparral may consist of nearly pure strands of chamise (*Adenostoma fasciculatum*) or redshank (*Adenostoma sparsifolium*), a mix of both, or with other shrubs. Toyon, poison oak, redberry, sugar sumac (*Rhus ovata*), and California buckthorn (*Rhamnus californica*) are commonly found in drainage channels and on other relatively mesic sites. At upper elevations or on more mesic exposures, chamise mixes with manzanita, ceanothus (*Ceanothus*), scrub oak (*Quercus berberidifolia*), and laurel sumac (*Malosma*). Fire occurs regularly in Chamise-Redshank Chaparral.

Coastal Scrub

Coastal Scrub seems to tolerate drier conditions and is typical of areas with steep, south-facing slopes and sandy, mudstone, or shale soils. It also regularly occurs on stabilized dunes, flat terraces, and moderate slopes of all aspects. Structure of the plant associations that comprise Coastal Scrub is typified by low to moderate-sized shrubs with mesophytic leaves, flexible branches, semi-woody stems growing from a woody base, and a shallow root system. No single species is typical of all Coastal Scrub stands. Two types of northern Coastal Scrub are recognized. The first type occurs as low-growing patches of bush lupine (*Lupinus*) and many-colored lupine at exposed oceanside sites. The second and more common type occurs at less exposed sites and coyote bush (*Baccharis pilularis*) dominates the overstory. Southern sage scrub occurs intermittently over a larger area, the most common species being California sagebrush (*Artemisia californica*). The federal- and State-delisted peregrine falcon (*Falco peregrinus*) occurs in Coastal Scrub, though not exclusively.

Eucalyptus

Eucalyptus habitats have been extensively planted throughout the state since their introduction in 1856 and are generally found on relatively flat or gently rolling terrain at low elevations where freezing is not a problem. They range from single-species thickets with little or no shrubby understory to scattered trees over well-developed herbaceous and shrubby understory. In most cases, eucalyptus (*Eucalyptus*) forms a dense stand with a closed canopy. Stand structure for this habitat varies considerably because most eucalyptus have been planted into either rows for wind protection or dense groves for hardwood production and harvesting. The most common species is the blue gum (*Eucalyptus globulus*), followed by redgum (*Eucalyptus camaldulensis*). In groves or rows, the understory is commonly composed of a host of annual grasses and other weedy species including mustard (*Brassica*), thistle (*Cirsium*), spurge (*Euphorbia*), cheeseweed (*Malva*), and prickly pear cactus (*Opuntia*). Eucalyptus is also known to become established along stream courses, encroaching upon existing riparian vegetation. Characteristic species of this habitat include crow (*Corvus*), raven (*Corvus corax*), barn owl (*Tyto alba*), and red-tailed

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(*Buteo jamaicensis*) and red-shouldered hawks (*Buteo lineatus*). Eucalyptus are important as roosts, perches, and nest sites for a number of bird species, particularly raptors (*Falconiformes*).

Lacustrine

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water that vary from small ponds less than one hectare to large areas covering several square kilometers. They can be found throughout California at all elevations but are less abundant in arid regions. Typical lacustrine habitats include permanently flooded lakes and reservoirs, intermittent lakes, and shallow ponds where rooted plants can grow over the bottom. Most permanent lacustrine systems support fish life; intermittent types usually do not. Suspended organisms such as plankton are found in the open water of lacustrine habitats. Submerged plants such as algae and pondweeds (*Potamogeton*) serve as supports for smaller algae and as cover for swarms of minute aquatic animals. A blanket of duckweed (*Lemnoideae*) may cover the surface of shallow water. Floating plants offer food and support for numerous herbivorous animals that feed both on phytoplankton and the floating plants such as water lilies (*Nymphaeaceae*) and smartweeds (*Persicaria*).

Saline Emergent Wetland

Saline Emergent Wetlands are characterized as salt or brackish marshes consisting mostly of perennial graminoids and forbs along with algal mats on moist soils and at the base of vascular plant stems. They occur above intertidal sand and mudflats and below upland communities not subject to tidal action, along the margins of bays, lagoons, and estuaries. Vegetational coverage is complete or nearly so, except where creeks and ponds are present or following disruption. Saline Emergent Wetlands provide food, cover, and nesting and roosting habitat for a variety of birds, mammals, reptiles, and amphibians. Endemic subspecies or birds include the California black rail (*Laterallus jamaicensis coturniculus*) and three subspecies of the song sparrow (*Melospiza melodia*), and characteristic mammals include the endangered salt marsh harvest mouse (*Reithrodontomys raviventris*) endemic at San Francisco Bay.

Valley Oak Woodland

Valley Oak Woodland habitat varies from savanna-like to forest-like stands with partially closed canopies, comprised mostly of winter-deciduous, broad-leaved species. This habitat occurs in a wide range of settings but is best developed on deep, well-drained alluvial soils, usually in valley bottoms. Canopies of these woodlands are dominated exclusively by valley oaks and most large, healthy valley oaks are rooted down to permanent water supplies. Coast live oak and foothill pine (*Pinus sabiniana*) are associated with the Valley Oak Woodland habitats along the Coast Range. The shrub understory consists of California blackberry, California coffeeberry, poison oak, toyon, blue elder (*Sambucus cerulea*), and California wild grape (*Vitis californica*). Various sorts of wild oats, needlegrass, brome, barley, and ryegrass (*Lolium*) dominate the ground cover. These woodlands provide food and cover for many species of wildlife. Oaks have long been considered important to some birds and mammals as a food resource.

Valley Foothill Riparian

Valley Foothill Riparian habitats are found in valleys bordered by sloping alluvial fans, slightly dissected terraces, lower foothills, and coastal plains. Most trees are winter deciduous. The understory is generally

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impenetrable and includes fallen limbs and other debris. Dominant species in the canopy layer are valley oak, cottonwood (*Populus sect. Aigeiros*), and California sycamore (*Platanus racemosa*). Typical understory shrub layer plants include California blackberry, blue elderberry, poison oak, wild grape (*Vitis vinifera*), wild rose (*Rosa*), buttonbrush (*Cephalanthus occidentalis*), and willows (*Salix*). The herbaceous layer consists of miner's lettuce, sedges (*Cyperaceae*), rushes (*Juncaceae*), grasses (*Poaceae*), Douglas sagewort (*Artemisia douglasiana*), poison-hemlock (*Conium maculatum*), and hoary nettle (*Urtica dioica* ssp.). Valley Foothill Riparian habitats provide food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife.

Riverine

Riverine habitats can be found adjacent to many rivers and streams and contiguous to lacustrine and fresh emergency wetland habitat. A stream originates at some elevated source and flows downward at a rate relative to slope and the volume of discharge. Velocity generally declines at progressively lower altitudes, and the volume of water increases until the enlarged stream becomes sluggish. The majority of fast stream inhabitants include nymphs of mayflies (*Ephemeroptera*), caddisflies (*Trichoptera*), alderflies (*Sialidae*), and stoneflies (*Plecoptera*), that live in riffles, on the underside of rubble and gravel, sheltered from the current. In pools, dominant insects are burrowing mayfly nymphs, dragonflies (*Anisoptera*), damselflies (*Zygoptera*), and water striders (*Gerridae*). Water moss (*Fontinalis antipyretica*) and heavily branched filamentous algae are held to rocks by strong holdfasts and align with the current. In slower moving water, mollusks (*Mollusca*) and crustaceans (*Crustacea*) replace the rubble-dwelling insects. Emergent vegetation grows along riverbanks, and duckweed floats on the surface. The open water zones of large rivers provide resting and escape cover for many species of waterfowl. Gulls (*Larus*), terns (*Sternidae*), osprey (*Pandion haliaetus*), and bald eagle (*Haliaeetus leucocephalus*) hunt in open water.

Special-Status Species

Special-status species are defined as plants and animals legally protected under the State and/or federal Endangered Species Acts (FESA and CESA) or other regulations, as discussed in Section 4.3.1.1, *Regulatory Framework*. Special-status species also include species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or den locations, communal roosts, and other essential habitat. Species with legal protection under FESA and CESA often represent major constraints to development, particularly when they are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take" of these species.

The CNDDDB is California's primary inventory on the distribution of special-status species, which is maintained by the Biogeographic Data Branch of the CDFW. The CNDDDB inventory provides the most comprehensive statewide information on the location and distribution of special-status species and sensitive natural communities. Occurrence data is obtained from a variety of scientific, academic, and professional organizations, as well as private consulting firms, and is entered into the inventory as expeditiously as possible. The occurrence of a species of concern in a particular region is an indication that an additional population may occur at another location if habitat conditions are suitable. However, the absence of an occurrence in a particular location does not necessarily mean that special-status species are absent from the area in question, it only indicates that no data has been entered into the

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CNDDDB inventory. Detailed field surveys are generally required to provide a conclusive determination on presence or absence of sensitive resources from a particular location, where there is evidence of potential occurrence.

The CNDDDB, CNPS, and USFWS database searches report a total of 30 special-status species historically and/or potentially occurring within or in the vicinity the EIR Study Area. Of the total, 12 special-status plants, 11 special-species animals were found to have some potential to occur. The remaining listed special-status species were found to be absent and there is no suitable habitat in the EIR Study Area or the EIR Study Area is outside the known range for the species. These species are listed in Table 4.3-1, *Potentially Occurring Special-Status Species*, and occurrences are shown in Figure 4.3-1, *Special-Status Plant Species and Sensitive Natural Communities*, and Figure 4.3-2, *Special-Status Animal Species*.

Sensitive Natural Communities

Sensitive natural communities are community types recognized by CDFW and other agencies because of their rarity. As shown in Figure 4.3-1, sensitive natural community types in the EIR Study Area include the Northern coastal salt marsh in the northeastern portion of the city.¹⁷

Critical Habitat

There are no USFWS-designated critical habitats within the city, but critical habitat for the Bay checkerspot butterfly lies between southwestern City Limits and I-280 (see Figure 4.3-2).¹⁸ There is a NOAA-designated habitat for the green sturgeon within City Limits by the bay.¹⁹ San Mateo is also within NOAA-designated boundaries of EFH for groundfish, Chinook salmon, Coho salmon, and coastal pelagic species.²⁰

Jurisdictional Waters

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. The CDFW, Corps, and RWQCB have jurisdiction over modifications to riverbanks, lakes, stream channels and other wetland features, as discussed in Section 4.3.1.1, *Regulatory Framework*.

¹⁷ California Department of Fish and Wildlife, February 2022, California Natural Diversity Database, <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data#43018409-monthly-data-updates>, accessed August 4, 2022.

¹⁸ United States Fish and Wildlife Service, July 2022, Critical Habitat for Threatened & Endangered Species, <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>, accessed August 4, 2022.

¹⁹ National Oceanic and Atmospheric Administration Fisheries, April 2022, National NMFS ESA Critical Habitat Mapper, <https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=68d8df16b39c48fe9f60640692d0e318https://www.habitat.noaa.gov/apps/efhmapper/>, accessed August 4, 2022.

²⁰ National Oceanic and Atmospheric Administration Fisheries, July 2021, Essential Fish Habitat Mapper, <https://www.habitat.noaa.gov/apps/efhmapper/>, accessed August 4, 2022.

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TABLE 4.3-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other)	Habitat Description	Potential to Occur in the EIR Study Area
Plants			
Franciscan onion (<i>Allium peninsulare</i> var. <i>franciscanum</i>)	--/--/1B.2	Cismontane woodland, valley and foothill grassland. Clay soils; often on serpentine. Dry hillsides.	Potential to occur
Bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	--/--/1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland.	Potential to occur
Coastal marsh milk-vetch (<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>)	--/--/1B.2	Coastal dunes, coastal scrub, marshes and swamps (coastal salt, streamsides).	Potential to occur
San Francisco collinsia (<i>Collinsia multicolor</i>)	--/--/1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus.	Potential to occur
Western leatherwood (<i>Dirca occidentalis</i>)	--/--/1B.2	Broadleafed upland forest; closed-cone coniferous forest; chaparral; cismontane woodland, North Coast coniferous forest; riparian forest; riparian woodland.	Potential to occur
San Mateo woolly sunflower (<i>Eriophyllum latilobum</i>)	FE/CE/1B.1	Cismontane woodland. Often on road cuts, found on and off serpentine.	Potential to occur
Hillsborough chocolate lily (<i>Fritillaria biflora</i> var. <i>ineziana</i>)	--/--/1B.1	Cismontane woodland, valley and foothill grassland. Mostly on serpentine.	Potential to occur
Fragrant fritillary (<i>Fritillaria liliacea</i>)	--/--/1B.2	Often serpentinite; cismontane woodland, coastal prairie, coastal scrub; valley and foothill grassland.	Potential to occur
Marin western flax (<i>Hesperolinon congestum</i>)	FT/CT/1B.1	Serpentine barrens and serpentine grassland and chaparral.	Low potential to occur
Crystal Springs lessingia (<i>Lessingia arachnoidea</i>)	--/--/1B.2	Coastal sage scrub, valley and foothill grassland, cismontane woodland. Grassy slopes on serpentine, sometimes on roadsides.	Potential to occur
Arcuate bush-mallow (<i>Malacothamnus arcuatus</i>)	--/--/1B.2	Chaparral. Gravelly alluvium.	Potential to occur
White-rayed pentachaeta (<i>Pentachaeta bellidiflora</i>)	FE/CE/1B.1	Cismontane woodland, valley and foothill grassland on open, dry rocky slopes and grassy areas, often on serpentinite.	Low potential to occur
San Francisco owl's-clover (<i>Triphysaria floribunda</i>)	--/--/1B.2	Coastal prairie, valley, and foothill grassland.	Absent
Birds			
Burrowing owl (<i>Athene cucularia</i>)	--/--/SSC, BCC	Open, dry grasslands that contain abundant ground squirrel burrows.	Potential to occur

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TABLE 4.3-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other)	Habitat Description	Potential to Occur in the EIR Study Area
American peregrine falcon (<i>Falco peregrinus anatum</i>)	DL/DL/FP, BCC	A variety of open habitats including coastlines, mountains, marshes, bay shorelines, and urban areas. Nest on cliffs, bridges, and tall buildings.	Potential to occur
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	--/CT/FP, BCC	Salt marshes bordering larger bays, also found in brackish and freshwater marshes.	Very low potential to occur
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	--/--/SSC, BCC	Tidal salt marshes on the fringes of the bay. Upper marsh vegetation for nesting.	Potential to occur
California Ridgway's rail (<i>Rallus obsoletus obsoletus</i>)	FE/CE/FP	Tidal salt marshes with sloughs and substantial cordgrass (<i>Spartina</i> sp.) cover.	Potential to occur
Fish			
Longfin smelt (<i>Spirinchus thaleichthys</i>)	FC/CT/--	Open water estuaries and bays, both in saltwater and freshwater areas.	Potential to occur
Insects			
Obscure bumble bee (<i>Bombus caliginosus</i>)	--/--/--	Coastal areas from Santa Barbara County to Washington.	Potential to occur
Western bumble bee (<i>Bombus occidentalis</i>)	--/--/--	Found in a variety of habitats. Once common and widespread. Species has declined precipitously, perhaps from disease.	Potential to occur
Bay checkerspot butterfly (<i>Euphydryas Euphydryas editha bayensis</i>)	FT/--/--	Shallow, serpentine-derived soils, native grassland located on large serpentine outcroppings.	Absent
Ricksecker's water scavenger beetle (<i>Hydrochara rickseckeri</i>)	--/--/--	Aquatic; known from the San Francisco Bay area.	Potential to occur
San Francisco forktail damselfly (<i>Ischnura gemina</i>)	--/--/--	Various wetland ecosystems, including seepages and ponds.	Potential to occur
Myrtle's silverspot butterfly (<i>Speyeria zerene myrtleae</i>)	FE/--/--	Found in coastal prairie, coastal scrub and sand dunes where larval host plant, <i>Viola adunca</i> , is present.	Absent
Mammals			
Pallid bat (<i>Antrozous pallidus</i>)	--/--/SSC	A variety of open arid habitats (e.g., chaparral, open woodland, deserts); primary roost sites include bridges, old buildings, and in tree hollows and/or bark; sometimes roost in caves and rock crevices.	Very low potential to occur
Santa Cruz kangaroo rat (<i>Dipodomys venustus venustus</i>)	--/--/--	Sandhill chapparal with sandy soil.	Absent

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TABLE 4.3-1 POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

Species Name	Status (Federal/State/Other)	Habitat Description	Potential to Occur in the EIR Study Area
Hoary bat (<i>Lasiurus cinereus</i>)	--/--/--	Prefers open habitats with access to trees for cover, roosting in dense foliage.	Very low potential to occur
Salt-marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE/CE/FP	Tidal salt marshes of San Francisco Bay and its tributaries. Requires tall, dense pickleweed for cover.	Potential to occur
Reptiles			
San Francisco garter snake (<i>Thamnophis sirtalis tetrataenia</i>)	FE/CE/FP	Small reedy marsh-edges and ponds.	Potential to occur

Status Codes:

FESA: Federal Endangered Species Act; CESA: California Endangered Species Act; CRPR: California Rare Plant Rank; CDFW: California Department of Fish and Wildlife; USFWS: United States Fish and Wildlife Service; DL: Formally Delisted (delisted species are monitored for five years); SSC: CDFW Species of Special Concern; BCC: USFWS Bird of Conservation Concern

FE: FESA listed, Endangered; FT: FESA listed, Threatened; FP: FESA listed, Protected; CE: CESA listed, Endangered; CT: CESA listed, Threatened;

1B: CRPR/Rare or Endangered in California and elsewhere

2B: CRPR/Plants rare, threatened, or endangered in California but more common elsewhere

3: CRPR/Plants About Which More Information is Needed – A Review List

4: CRPR/Plants of Limited Distribution – A Watch List

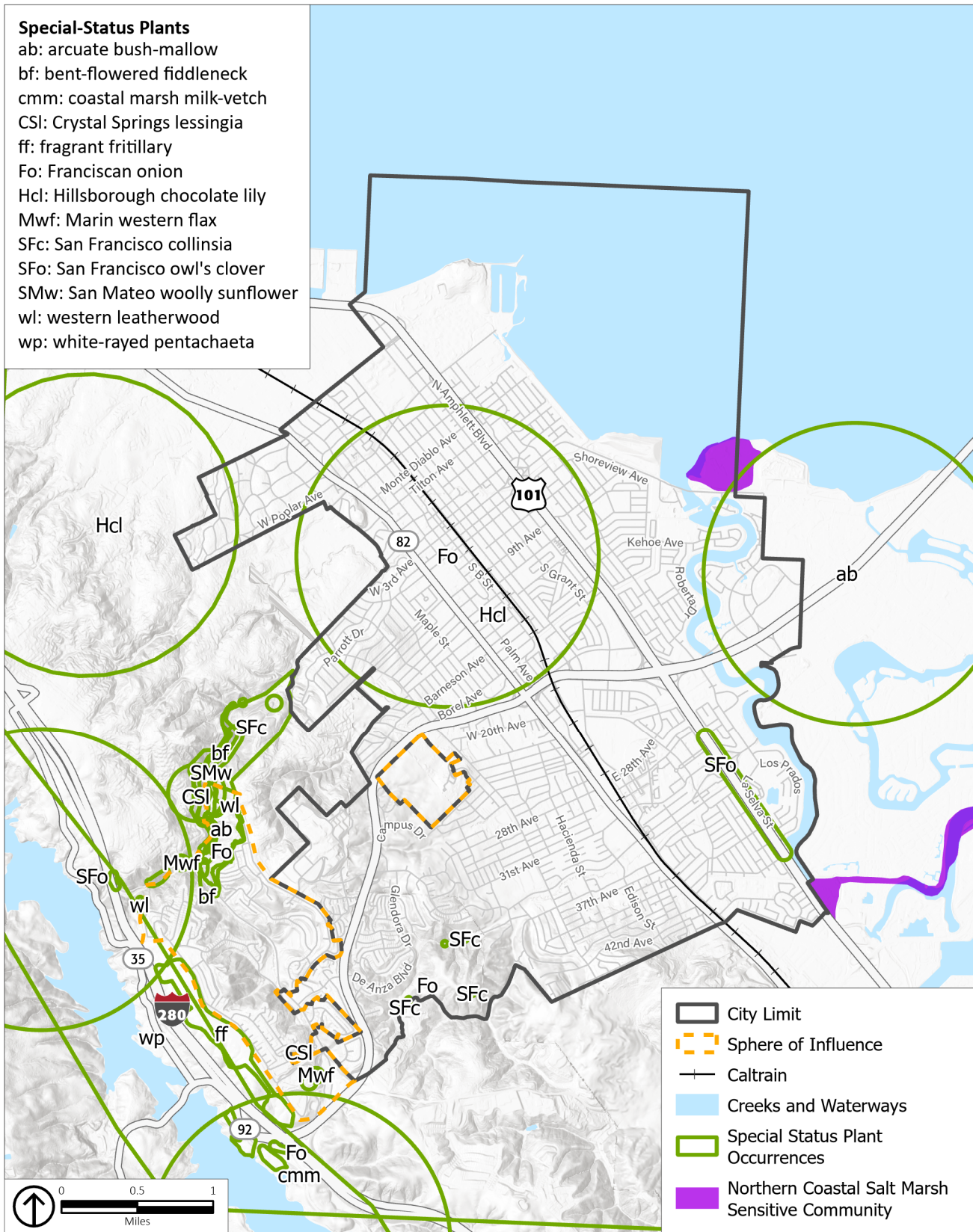
0.1: Threat Rank/Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)

0.2: Threat Rank/Moderately threatened in California (20-80 percent occurrences threatened / moderate degree and immediacy of threat)

0.3: Threat Rank/Not very threatened in California (<20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)

Source: California Department of Fish and Wildlife, August 2022, California Natural Diversity Database.

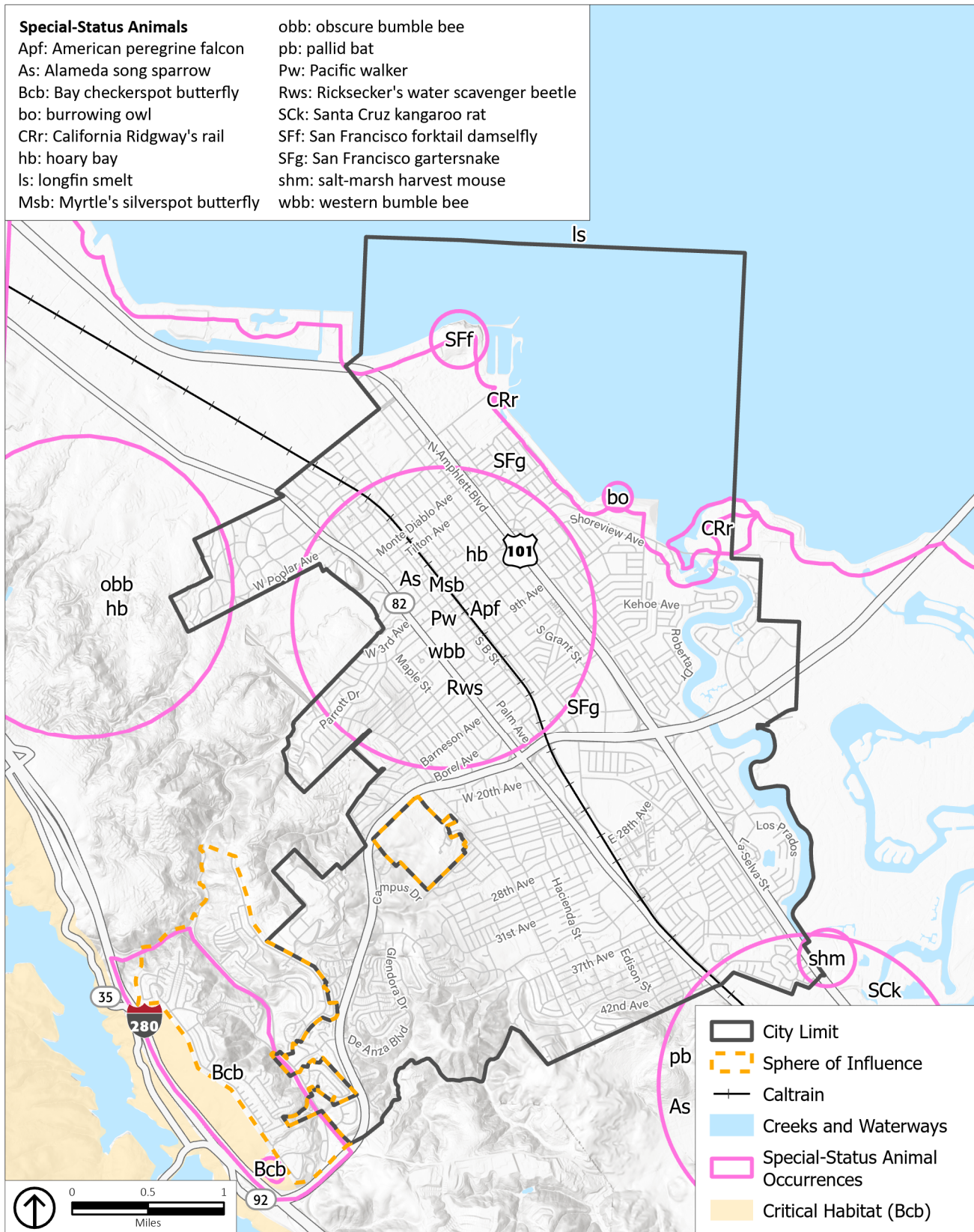
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Source: CNDDb, 2022; PlaceWorks, 2023.

Figure 4.3-1
Special-Status Plant Species and Sensitive Natural Communities

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Source: CNDDb, 2022; PlaceWorks, 2023.

Figure 4.3-2
Special-Status Animal Species and Critical Habitats

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Features within the EIR Study Area that would be considered wetland include the Marina Lagoon, Borel Creek, Leslie Creek, and the undeveloped land where US Highway 101 and East Hillsdale Boulevard intersect.²¹ Additional jurisdictional other waters of the U.S. and wetlands may be present elsewhere in the EIR Study Area, but detailed site-specific assessments would be required to confirm presence or absence from undeveloped lands.

Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by impassible barriers, large bodies of water, distinct changes in cover, and intensive human activity, among other factors. Urbanization and the resulting fragmentation of undeveloped open space areas can create isolated “islands” of wildlife habitat, separating populations that can lead to genetic isolation and sometimes extirpation. Corridors act as an effective link between populations, allowing for genetic exchange and recruitment of dispersing individual animals where the local carrying capacity, competition and other influences allow.

Wildlife movement through the EIR Study Area is limited due to urbanization of San Mateo. While the EIR Study Area is highly developed, some non-contiguous, vegetated sections along creeks and other areas of open space may provide enough cover to function as a migratory corridor for some species. Riparian habitat along the upper reaches of Laurel Creek within the Sugarloaf Mountain area and along Polhemus Creek may also serve as a wildlife corridor.²²

Habitat Conservation Plans

The EIR Study Area is not located within the planning area of an adopted Natural Community Conservation Plan or Habitat Conservation Plan.

4.3.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant biological resources impact if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

²¹ United States Fish and Wildlife Service, National Wetlands Inventory, <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>, accessed August 4, 2022.

²² City of San Mateo, July 2009, *General Plan Update Draft EIR, Chapter 4.9, Biological Resources*.

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4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
7. In combination with past, present, and reasonably foreseeable projects, result in cumulative biological resource impacts in the area.

4.3.3 IMPACT DISCUSSION

BIO-1	The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
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Local, regional, State, and federal regulations provide varying levels of protection for special-status species, depending on a number of factors, including legal protective status, rarity and distribution, the magnitude of the potential impact on essential habitat, specific occurrence and overall population levels, and take of individual plants or animals. Future development projects that could occur under the proposed project would be evaluated for their potential impact on special-status species and other sensitive biological resources, and activities requiring discretionary approvals by local, regional, State, and federal agencies would be subject to regulatory oversight.

As indicated in Table 4.3-1, *Potentially Occurring Special-Status Species*, 13 special-status plant species are reported to occur within or in the vicinity of the EIR Study Area. These consist of Franciscan onion, bent-flowered fiddleneck, coastal marsh milk-vetch, San Francisco collinsia, western leatherwood, San Mateo woolly sunflower, Hillsborough chocolate lily, fragrant fritillary, Marin western flax, Crystal Springs lessingia, arcuate bush-mallow, white-rayed pentachaeta, and San Francisco owl's-clover. As shown in Table 4.3-1, San Mateo woolly sunflower and white-rayed pentachaeta are listed as endangered, and Marin western flax as threatened, under both the FESA and CESA.

As indicated in Table 4.3-1, a total of 17 special-status animal species are reported to occur within or in the vicinity of the EIR Study Area. These consist of burrowing owl, American peregrine falcon, California black rail, Alameda song sparrow, California Ridgway's rail, longfin smelt, obscure bumble bee, Western bumble bee, Bay checkerspot butterfly, Ricksecker's water scavenger beetle, San Francisco forktail damselfly, Myrtle's silverspot butterfly, pallid bat, Santa Cruz kangaroo rat, hoary bat, salt-marsh harvest mouse, and San Francisco garter snake. As shown in Table 4.3-1, these species have varied legal status or are considered Species of Special Concern by the CDFW. A few have no special status but are monitored by the CDFW because of recent declines and abundance.

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As discussed in Chapter 3, *Project Description*, of this Draft EIR, future development and redevelopment activities are expected to be focused in the ten General Plan Land Use Study Areas, with approximately 90 percent of new development expected to occur in the General Plan Land Use Study Areas. As described in Chapter 3, the General Plan Land Use Study Areas are all near transit, contain aging shopping centers, or are areas where people have expressed interest in considering redevelopment; that is, they are areas that are already developed. The potential for occurrence of special-status species in developed areas is generally very remote in comparison to undeveloped lands with natural habitat that contain essential habitat characteristics for the range of species known in the EIR Study Area vicinity. While the potential for adverse impacts on special-status species is relatively low, there remains a varying potential for loss or disruption due to conversion of areas of natural habitat, removal of trees and other vegetation, increases in light and noise, and other modifications and disturbance. Development in locations abutting or in the vicinity of open space lands or water resources, where special-status species are more likely to occur, could potentially cause a significant impact to, or cause the inadvertent loss, of bird nests in active use, conflicting with both the MBTA and CFGC.

The Conservation, Open Space, and Recreation (COS) Element of the proposed General Plan provides guidance for the development, management, and preservation of San Mateo's natural, recreational, and cultural resources, including biological resources. The following General Plan 2040 goals, policies, and action would serve to minimize potential adverse impacts related to special-status species:

- **Goal COS-1:** Protect and enhance the City's natural resource areas that provide plant and animal habitat and benefit human and ecological health and resilience.
 - **Policy COS 1.1: Sensitive Natural Communities.** Protect riparian habitat and other sensitive natural communities. When an opportunity arises, restore natural resources, including wetlands.
 - **Policy COS 1.2: Interjurisdiction Coordination.** Coordinate with adjacent jurisdictions and regional, State, and federal agencies to protect critical wildlife habitat, including by participating in comprehensive habitat management programs.
 - **Policy COS 1.3: Site Evaluations.** Require independent professional evaluation of sites for any public or private development within known or potential habitat of species designated by State and federal agencies as rare, threatened, or endangered.

The site evaluation shall determine the presence/absence of these special-status plant and animal species on the site. The surveys associated with the evaluation shall be conducted for proper identification of the species. The evaluation shall consider the potential for significant impacts on special-status plant and animal species and shall include feasible mitigation measures to mitigate such impacts to the satisfaction of the City and appropriate governmental agencies (e.g., US Fish and Wildlife Service and California Department of Fish and Wildlife). The City shall require adequate mitigation measures for ensuring the protection of sensitive resources and achieving "no net loss" of sensitive habitat acreage, values, and functions.

In lieu of the site evaluation, presence of special-status plant and animal species may be assumed, and the City may require "no net loss" mitigation of sensitive habitat acreage be applied to the satisfaction of the City and appropriate governmental agencies.

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- **Policy COS 1.4: Avoidance of Nesting Birds.** Native bird nests in active use should be avoided in compliance with State and federal regulations. For new development sites where nesting birds may be present, vegetation clearing and construction should be initiated outside the bird nesting season (March 1 through August 31) or preconstruction surveys should be conducted by a qualified biologist in advance of any disturbance. If active nests are encountered, appropriate buffer zones should be established based on recommendations by the qualified biologist and remain in place until any young birds have successfully left the nest.
- **Policy COS 1.5: Surveys for Sensitive Natural Communities.** Require that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of sensitive natural communities prior to development approval. Such surveys should be conducted by a qualified biologist and occur prior to development-related vegetation removal or other habitat modifications.
- **Policy COS 1.6: Surveys for Regulated Waters.** Require that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of regulated waters prior to development approval. Such surveys should be conducted by a qualified wetland specialist and occur prior to development-related vegetation removal or other habitat modifications.
- **Policy COS 1.7: Surveys for Wildlife Movement Corridors.** Require that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of important wildlife corridors prior to development approval. Such surveys should be conducted by a qualified biologist and occur prior to development-related vegetation removal or other habitat modifications.
- **Policy COS 1.8: Development Near Wetlands or Water.** Avoid wetlands development where feasible (as defined under California Environmental Quality Act [CEQA] Guidelines, Section 15364). Restrict or modify proposed development in areas that contain wetlands or waters to ensure the continued health and survival of special-status species and sensitive habitat areas. Development projects shall be designed to avoid impacts on sensitive resources, or to adequately mitigate impacts by providing on-site or off-site replacement at a higher ratio. Project design modification should include adequate avoidance measures, such as the use of setbacks, buffers, and water quality, drainage-control features, or other measures to ensure that no net loss of wetland acreage, function, water quality protection, and habitat value occurs. This may include the use of setbacks, buffers, and water quality, drainage-control features, or other measures to maintain existing habitat and hydrologic functions of retained wetlands and waters of the US.
- **Policy COS 1.9: Wetland Development Mitigation.** If an applicant has demonstrated that wetlands avoidance is not feasible, provide replacement habitat on-site through restoration and/or habitat creation to ensure no net loss of wetland acreage, function, water quality protection, and habitat value. Allow restoration of wetlands off-site only when an applicant has demonstrated that on-site restoration is not feasible. Off-site wetland mitigation should consist of the same habitat type as the wetland area that would be lost.

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- **Policy COS 1.10: Wetland Access Design.** Design public access to avoid or minimize disturbance to sensitive resources, including necessary setback/buffer areas, while facilitating public use, enjoyment, and appreciation of wetlands.
- **Policy COS 1.11: Marina Lagoon Island.** Maintain Marina Lagoon Island as a bird nesting and breeding site.
- **Policy COS 1.12: Reduced Risk of Bird Collision.** Require that taller structures be designed to minimize the potential risk of bird collisions using input from the latest bird-safe design guidelines and best management practice strategies to reduce bird strikes.
- **Action COS 1.13 Environmental Review.** Review the environmental documents for projects adjacent to City boundaries regarding impacts and mitigation to species and habitat.
- **Goal COS-3:** Protect and improve San Mateo’s creeks as valuable habitat and components of human and environmental health.
 - **Policy COS 3.1: Aesthetic and Habitat Values – Public Creeks.** Preserve and enhance the aesthetic and habitat values of creeks, such as San Mateo, Laurel, and Beresford Creeks, and other City-owned channels in all activities affecting these creeks, including revegetation, rewilding, erosion control, and adequate setbacks for structures.
 - **Policy COS 3.2: Aesthetic and Habitat Values – Private Creeks.** Encourage preservation and enhance the aesthetic and habitat values of privately owned sections of all other creeks and channels.

Compliance with these proposed goals, policies, and action would help protect special-status species, and minimize impacts on any species identified as an endangered, threatened, candidate, sensitive, or special-status species and their habitat; therefore, impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

BIO-2 The proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Impacts to riparian habitats and other sensitive natural communities may occur from both direct and indirect sources from implementation of the proposed project. Direct impacts occur as a result of converting natural habitat to development, including construction of new structures, creating impervious surfaces for roadways and parking, and culverting of natural drainages. Direct impacts may also be temporary in nature if they disturb a habitat that is subsequently restored after construction. An indirect impact is a physical change in the environment, which is not immediately related to, but could be caused by, future development and activities under the proposed project. For example, if future development under the proposed project results in a collective reduction in habitat, the values and functions of that remaining habitat would be reduced. Changes in hydrology and water quality, through increases in sedimentation as a result of grading and the introduction of urban pollutants,

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could also have indirect impacts on aquatic habitat and contribute to a reduction in the value of downgradient waters.

As discussed in Section 4.3.1.2, *Existing Conditions*, sensitive natural communities in the EIR Study Area include Northern coastal salt marsh, in the northeastern portion of the city, where Marina Lagoon meets the bay. These marshlands are identified as wetlands under the National Wetlands Inventory, which is discussed further under impact discussion BIO-3.

As discussed in Chapter 3, *Project Description*, of this Draft EIR, potential future development that results from implementation of the proposed project would be focused in the ten General Plan Land Use Study Areas. Although these are urbanized areas, there is a possibility that development could be proposed in locations that may contain riparian habitat or other sensitive natural community. Additionally, potential future development that occurs adjacent to open space areas or along drainages and shoreline areas could have a significant impact on sensitive natural communities if present on a particular site. Further detailed site investigation is typically necessary for individual development projects to determine whether any sensitive natural communities are present on sites with natural habitat.

As discussed in impact discussion BIO-1, the Conservation, Open Space, Parks, and Recreation (COS) Element of the proposed General Plan provides guidance for the development, management, and preservation of San Mateo's natural, recreational, and cultural resources, including biological resources. The proposed General Plan goals, policies, and action listed in impact discussion BIO-1 would serve to minimize potential adverse impacts related to riparian habitat or other sensitive natural community. Specifically, proposed General Plan Policy COS 1.1 calls for the protection of riparian habitat and other sensitive natural communities. Proposed Policy COS 1.5 requires that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of sensitive natural communities prior to development approval.

In addition to these policies, potential future development that occurs under the proposed project would be required to comply with SMMC Chapter 7.39, which requires permits from the Public Works Department for construction or repairment of any structure within 30 feet of the center line of a creek or 20 feet of the top of the bank.

Compliance with SMMC regulations, as well as the proposed General Plan goals, policies, and actions identified would protect riparian habitat or other sensitive natural community. Therefore, the proposed project would have a *less-than-significant* impact on riparian habitat or other sensitive natural community.

Significance without Mitigation: Less than significant.

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BIO-3 **The proposed project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

Development and land use activities associated with implementation of the proposed project could result in direct loss or modification to existing wetlands and unvegetated other waters, as well as indirect impacts due to water quality degradation. Affected wetlands could include both the wetland-related sensitive natural community described under impact discussion BIO-2, as well as areas of open water, degraded and modified streams and channels, unvegetated waters, and isolated seasonal wetlands or freshwater seeps. Indirect impacts to wetlands and jurisdictional other waters include an increase in the potential for sedimentation due to construction grading and ground disturbance, an increase in the potential for erosion due to increased runoff volumes generated by impervious surfaces, and an increase in the potential for water quality degradation due to increased levels in non-point pollutants.

Water quality degradation may occur even when wetlands and unvegetated channels are avoided by proposed development if setbacks are inadequate to provide critical vegetation filtration functions. However, potential future development would be required to comply with SMMC Chapter 7.39, which protects and enhances the water quality of the watercourses, water bodies, and wetlands within the city by eliminating non-stormwater discharges to the municipal separate storm drain, controlling the discharge to municipal separate storm drains from spills, dumping or disposal of materials other than stormwater, and reducing pollutants in stormwater discharges to the maximum extent practicable. Indirect water quality-related issues are discussed further in Chapter 4.9, *Hydrology and Water Quality*, of this Draft EIR, and, as discussed in Impact Discussion HYDRO-1, water quality impacts were determined to be *less than significant*. Refer to Chapter 4.9 for a list of General Plan 2040 goals, policies, and actions that would preserve water quality of all water resources in the EIR Study Area, including wetlands.

As discussed in impact discussion BIO-1, the Conservation, Open Space, Parks, and Recreation (COS) Element of the proposed General Plan provides guidance for the development, management, and preservation of San Mateo's natural, recreational, and cultural resources, including biological resources. The proposed General Plan goal, policies, and action listed in impact discussion BIO-1 would serve to minimize potential adverse impacts related to state or federally protected wetlands. Specifically, Policy COS 1.6 requires that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of regulated waters prior to development approval.

Compliance with SMMC regulations, as well as proposed General Plan goals, policies, and actions, would ensure that the proposed project would have a *less-than-significant* impact on wetlands.

Significance without Mitigation: Less than significant.

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BIO-4 The proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Development and land use activities associated with implementation of the proposed project would generally be in urbanized areas with few wildlife corridors or locations and where wildlife is already acclimated to human activity. However, the EIR Study Area does contain some habitat areas that could be adversely affected by new development, particularly along creeks and other drainages, or adjacent to open space and undeveloped lands.

As discussed in impact discussion BIO-1, the Conservation, Open Space, Parks, and Recreation (COS) Element of the proposed General Plan provides guidance for the development, management, and preservation of San Mateo's natural, recreational, and cultural resources, including biological resources. The proposed General Plan goal, policies, and action listed in impact discussion BIO-1 would serve to minimize potential adverse impacts related to the movement of wildlife species or nursery sites. Specifically, proposed General Plan Policy COS 1.5 requires that sites with suitable natural habitat, including creek corridors through urbanized areas, be surveyed for the presence or absence of sensitive natural communities prior to development approval.

Potential future development could also result in the potential for bird collisions as a result of new buildings and other structures. Avian injury and mortality resulting from collisions with buildings, towers, and other human-made structures is a common occurrence in urban and suburban settings. Some birds are unable to detect and avoid glass and have difficulty distinguishing between actual objects and their reflected images, particularly when the glass is transparent and views through the structure are possible. Nighttime lighting can interfere with movement patterns of some night-migrating birds, causing disorientation or attracting them to the light source. The frequency of bird collisions in any particular area is dependent on numerous factors, including characteristics of building height, fenestration, and exterior treatments of windows and their relationship to other buildings and vegetation in the area; local and migratory avian populations, their movement patterns, and proximity of water, food and other attractants; time of year; prevailing winds; weather conditions; and other variables. Bird-safe design measures would serve to reduce the potential for bird collisions and can include the following design considerations and best management practice strategies:

- Avoid the use of highly reflective glass as an exterior treatment, which appears to reproduce natural habitat and can be attractive to some birds,
- Limit reflectivity and prevent exterior glass from attracting birds in building plans by utilizing low-reflectivity glass and providing other non-attractive surface treatments,
- Use low-reflectivity glass or other glazing treatments for the entirety of the building's glass surface, not just the lower levels,
- For commercial buildings, interior light "pollution" should be reduced during evening hours through the use of a lighting control system,
- Exterior lighting should be directed downward and screened to minimize illuminating the exterior of the building at night, except as needed for safety and security,

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- Glass skyways or walkways, freestanding glass walls, and transparent building corners should not be allowed,
- Transparent glass should not be allowed at the rooflines of buildings, including in conjunction with green roofs, and
- All roof mechanical equipment should be covered by low-profile angled roofing so that obstacles to bird flight are minimized.

As discussed in impact discussion BIO-1, proposed General Plan Policy COS 1.12 requires that taller structures be designed to minimize the potential risk of bird collisions using input from the latest bird-safe design guidelines and best management practice strategies.

Compliance with proposed General Plan policies and actions would ensure that the proposed project would not interfere with movement of wildlife species or nursery sites; therefore, impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

BIO-5 The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The City of San Mateo General Plan is the primary planning document for the City of San Mateo. The proposed revisions to policies and actions under Conservation, Open Space, Parks, and Recreation (COS) Element are intended to ensure consistency between the General Plan and Zoning Ordinance. Because the General Plan is the overriding planning document for San Mateo and because the proposed project involves updating the General Plan for internal consistency, implementation of the proposed project would not conflict with local policies and ordinances protecting biological resources. As described in impact discussions BIO-2 and BIO-3, potential future development under implementation of the proposed project would be required to comply with SMMC Chapter 7.39 to protect the flow of water in watercourses within the EIR Study Area. Furthermore, SMMC Chapter 13.40 has additional requirements that provide for the protection and preservation of trees along public streets, sidewalks, and walkways within the city. This chapter requires a permit be approved by the Public Works Department for the trimming, planting, and removal of street trees. SMMC Section 27.71.150 sets forth criteria for documenting and preserving existing trees on construction sites.

Additionally, the Community Design and Historic Resources (CD) Element of the proposed General Plan provides guidance for the development and physical form of San Mateo from the individual neighborhood scale to the overall cityscape and includes policies to help preserve the city's urban forest. The following General Plan 2040 goal and policies would serve to minimize potential adverse impacts related to trees:

- **Goal CD-3:** Protect heritage trees, street trees, and tree stands and maintain the health and condition of San Mateo's urban forest.

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- **Policy CD 3.1: Tree Preservation.** Continue to preserve heritage and street trees throughout San Mateo, where feasible.
- **Policy CD 3.2: Replacement Planting.** Require appropriate replacement planting or payment of an in-lieu fee when protected trees on public or private property are removed.
- **Policy CD 3.3: Tree Protection During Construction.** Require the protection of trees during construction activity; require that landscaping, buildings, and other improvements adjacent to trees be designed and maintained to be consistent with the continued health of the tree.
- **Policy CD 3.5: Tree Maintenance.** Preserve and regularly maintain existing City-owned heritage and street trees to keep them in a safe and healthy condition.
- **Policy CD 3.6: New Development Street Trees.** Require street tree planting where feasible as a condition of all new developments.
- **Policy CD 3.8: Tree Stand Retention.** Preserve the visual character of stands or groves of trees in the design of new or modified projects, where feasible.

Potential future development within the EIR Study Area would be required to comply with applicable SMMC regulations and the proposed General Plan goals, policies, and actions listed, which would reduce potential impacts on sensitive biological resources as a result of implementing the proposed project. With adherence to these regulations, no conflicts with local plans and policies are anticipated, and impacts would be considered *less than significant*.

Significance without Mitigation: Less than significant.

BIO-6 **The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

The EIR Study Area is not in any local, regional, or State habitat conservation plan areas. Therefore, the proposed project would not conflict with any such plan. The goals, policies, and actions in the proposed General Plan, listed under impact discussions BIO-1 through BIO-5, along with the stated SMMC regulations, would serve to protect and enhance the sensitive natural communities and special-status species within the EIR Study Area. Therefore, *no impact* would occur.

Significance without Mitigation: No impact.

BIO-7 **The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative biological resource impacts in the area.**

The impacts of potential future development on biological resources tend to be site-specific, and the overall cumulative effects would be dependent on the degree to which significant vegetation and wildlife

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resources are protected on a particular site. This includes preservation of well-developed native vegetation (e.g., native grasslands, oak woodlands, riparian woodland, and chaparral, among others), populations of special-status plant or animal species, and wetland features (e.g., coastal salt marsh, freshwater marsh and seeps, riparian corridors, and drainages). Further, site evaluations would be required for future projects where appropriate to determine the presence of special-status species, nesting birds, sensitive natural communities, regulated waters, and wildlife movement corridors, as required by the proposed General Plan Policies COS 1.3, COS 1.4, COS 1.5, COS 1.6 and COS 1.7, respectively. These biological resource assessments would serve to ensure that important biological resources are identified, protected, and properly managed, and to prevent any significant adverse development-related impacts, including development for the remaining undeveloped lands in the EIR Study Area and surrounding incorporated and unincorporated lands.

To some degree, cumulative development contributes to an incremental reduction in the amount of existing natural wildlife habitat, particularly for birds and larger mammals. Habitat for species intolerant of human disturbance can be lost as development encroaches into previously undeveloped areas, disrupting or eliminating movement corridors and fragmenting the remaining suitable habitat retained within parks, public and private open space, and undeveloped properties. New cumulative development in the region could result in further conversion of existing natural habitats to urban and suburban conditions, limiting the existing habitat values of the surrounding area. This could include further loss of wetlands and sensitive natural communities, reduction in essential habitat for special-status species, removal of mature native trees and other important wildlife habitat features, and obstruction of important wildlife movement corridors. Additional development may also contribute to degradation of the aquatic habitat in the creeks throughout the region, including the EIR Study Area. Grading associated with construction activities generally increases erosion and sedimentation, and urban pollutants from new development would reduce water quality.

However, increased development potential in the EIR Study Area is anticipated to predominantly occur in existing urbanized areas. Potential future development that could occur elsewhere in the region, outside of the EIR Study Area, is also anticipated to occur largely in urbanized areas. In the event that potential future development in the region is proposed in an undeveloped area, the project would likely undergo independent environmental review as required by the jurisdiction in which the project is proposed. Further, the goals, policies, and actions applicable to the proposed project would serve to address these contributions to cumulative impacts on sensitive biological and wetland resources, as discussed above. Therefore, the proposed project would not result in a cumulatively considerable impact to biological resources and cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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