



H. T. HARVEY & ASSOCIATES

Ecological Consultants



Shoreline Wildlife Management Plan

Project #4537-01

Prepared for:

Steve Achabal, Recreation Supervisor
Community Services Department
City of Mountain View
500 Castro Street
P.O. Box 7540
Mountain View, CA 94039-7540

Prepared by:

H. T. Harvey & Associates

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Table of Contents

Section 1. Introduction	1
1.1 Management Area.....	1
1.2 Background, Purpose, and Goals of the Plan.....	1
1.3 Nearby Habitat Restoration/Management Efforts.....	1
1.4 Plan Overview.....	1
1.4.1 Target Special-Status Species.....	2
1.4.2 Focal Ecosystems.....	2
1.4.3 Buffer Zones.....	2
1.4.4 Wildlife Corridors.....	2
1.4.5 Management and Educational Guidelines.....	2
1.4.6 Monitoring and Adaptive Management.....	2
1.4.7 Annual Reporting.....	3
1.4.8 Plan Review and Revision.....	3
Section 2. Regulatory Framework	4
2.1 Federal Regulations	4
2.1.1 Federal Migratory Bird Treaty Act	4
2.1.2 Federal Endangered Species Act	4
2.2 State Regulations.....	5
2.2.1 California Fish and Game Code	5
2.2.2 California Environmental Quality Act.....	5
2.2.3 California Endangered Species Act.....	6
2.3 City of Mountain View Policies and Procedures.....	7
2.3.1 Mountain View 2030 General Plan Policies.....	7
2.3.2 Project Evaluations	7
2.3.3 Burrowing Owl Preservation Plan.....	7
Section 3. Shoreline Ecosystems and Wildlife Corridors	8
3.1 Grassland	8
3.1.1 Locations within Plan Area.....	8
3.1.2 Vegetation.....	8
3.1.3 Wildlife.....	8
3.1.4 Wildlife Corridors.....	8
3.1.5 Management Recommendations.....	8
3.2 Riparian/Creek	8
3.2.1 Locations within Plan Area.....	8
3.2.2 Vegetation.....	9
3.2.3 Wildlife.....	9
3.2.4 Wildlife Corridors.....	9
3.2.5 Management Recommendations.....	9
3.3 Non-Tidal Freshwater Wetland.....	9
3.3.1 Locations within Plan Area.....	9
3.3.2 Vegetation.....	9
3.3.3 Wildlife.....	9
3.3.4 Wildlife Corridors.....	9
3.3.5 Management Recommendations.....	9
3.4 Non-Tidal Freshwater Pond.....	10
3.4.1 Locations within Plan Area.....	10
3.4.2 Vegetation.....	10

3.4.3 Wildlife.....	10
3.4.4 Wildlife Corridors.....	10
3.4.5 Management Recommendations.....	10
3.5 Non-Tidal Saltwater Lake	10
3.5.1 Location within Plan area.....	10
3.5.2 Vegetation.....	10
3.5.3 Wildlife.....	10
3.5.4 Wildlife Corridors.....	10
3.5.5 Management Recommendations.....	11
3.6 Non-Tidal Brackish Water/Marsh.....	11
3.6.1 Location within Plan Area	11
3.6.2 Vegetation.....	11
3.6.3 Wildlife.....	11
3.6.4 Wildlife Corridors.....	11
3.6.5 Management Recommendations.....	11
3.7 Tidal Marsh/Mudflat	11
3.7.1 Locations within Plan Area.....	11
3.7.2 Vegetation.....	11
3.7.3 Wildlife.....	11
3.7.4 Wildlife Corridors.....	12
3.7.5 Management Recommendations.....	12
Section 4. Special-Status Species of Shoreline.....	13
Section 5. Locations of Nesting Birds and Sensitive Nesting Areas	18
5.1 Nesting Season.....	18
5.2 Potential Nesting Locations and Sensitive Nesting Areas	18
5.3 Potential Nesting Bird Impacts	18
5.4 Nesting Bird Avoidance and Minimization.....	18
Section 6. Target Species Conservation	19
6.1 Black Skimmer	19
6.1.1 Ecology and Occurrence at Shoreline.....	19
6.1.2 Conservation Goals.....	19
6.1.3 Habitat Enhancement and Management Measures	19
6.2 California Ridgway’s Rail.....	19
6.2.1 Ecology and Occurrence at Shoreline.....	19
6.2.2 Conservation Goals.....	19
6.2.3 Habitat Enhancement and Management Measures	20
6.3 White-tailed Kite.....	20
6.3.1 Ecology and Occurrence at Shoreline.....	20
6.3.2 Conservation Goals.....	20
6.3.3 Habitat Enhancement and Management Measures	20
6.4 San Francisco Common Yellowthroat.....	20
6.4.1 Ecology and Occurrence at Shoreline.....	20
6.4.2 Conservation Goals.....	20
6.4.3 Habitat Enhancement and Management Measures	20
Section 7. Management of Invasive and Nuisance Species, and Pathogens.....	22
7.1 Invasive Plants	22
7.1.1 Invasive Plants at Shoreline	22
7.1.2 Best Management Practices for Invasive Plants.....	22
7.1.3 Measures for Invasive Plant Control.....	22
7.2 Nonnative, Invasive Animals and Native, Nuisance Animals.....	24
7.2.1 Invasive and Nuisance Animals at Shoreline.....	24

7.2.2 Best Management Practices for Invasive and Nuisance Animals.....	24
7.2.3 Measures for Invasive and Nuisance Animal Control.....	24
7.3 Pathogens.....	24
7.3.1 Potential Pathogens of Concern.....	24
7.3.2 Best Management Practices for Pathogens.....	26
7.3.3 Measures for Pathogen Control.....	26
Section 8. Habitat Management Guidelines, and Enhancement and Restoration Opportunities	27
8.1 Habitat Management Guidelines.....	27
8.2 Types of Enhancement and Restoration Opportunities.....	27
8.2.1 Wetland Enhancement.....	27
8.2.2 Movement Corridor Enhancement.....	27
8.2.3 Sailing Lake Island Enhancement.....	27
8.2.4 Charleston Slough Island Opportunity.....	27
8.2.5 Grassland Foraging Habitat Enhancement.....	28
8.2.6 Floating Islands.....	28
8.3 Details of Specific Restoration Projects.....	28
Section 9. Wildlife Connectivity	29
Section 10. Landscaping.....	30
10.1 Landscaping Types and Locations.....	30
10.2 Landscaping Maintenance.....	30
Section 11. Landfill Operations	31
Section 12. Protocols and Procedures	32
12.1 Avoidance Measures	32
12.2 Project Evaluations	32
12.3 Updates to Standard Operating Procedures	32
12.4 Staff Training	32
12.5 Monitoring and Adaptive Management.....	32
12.6 Annual Reporting.....	32
12.7 Plan Review and Revision.....	33
Section 13. References.....	34

Figures

Figure 1. Management Area Map.....	3
Figure 2. Shoreline Ecosystems and Wildlife Corridors.....	8
Figure 3. Burrowing Owl Mitigation and Preserve Areas	17
Figure 4. Burrowing Owl Locations	17
Figure 5. Congdon’s Tarplant Locations.....	17
Figure 6. Occurrence Locations of Other Regularly Occurring Special-Status Wildlife Species.....	17
Figure 7. Sensitive Nesting Areas of Protected Birds	18
Figure 8. Habitat Enhancement and Restoration Opportunities.....	28
Figure 9. Landscaping Opportunities	30
Figure 10. Landfill Map.....	31

Tables

Table 1. Special-Status Wildlife Species of Shoreline	14
Table 2. Invasive Plant Species and Management/Control Measures.....	23
Table 3. Invasive and Native Nuisance Animal Species and Management/Control Measures.....	25

Section 1. Introduction

This section will be an introduction that discusses the Shoreline Wildlife Management Plan (Plan) background, purpose, and goals, as well as the adaptive management necessary to meet the City's goals.

1.1 Management Area

Brief description of Shoreline at Mountain View and the geographic boundaries of the areas in the park that will be covered by the Plan, referencing a map of the management area (Figure 1).

1.2 Background, Purpose, and Goals of the Plan

Brief description of background and purpose, and a list of the Plan's goals. The Plan is intended to describe how Shoreline will be managed for wildlife by creating and maintaining a mosaic of different habitats throughout Shoreline, focusing on the enhancement and management of important focal ecosystems and habitat areas, providing buffer zones for those habitat areas, and providing a system of wildlife corridors to link those ecosystems and habitat areas.

This section will include a paragraph discussing biodiversity and how the Plan contributes to increasing and maintaining high biodiversity in the City of Mountain View by focusing on the species that, within the City, are found primarily or exclusively in the Shoreline area. Although the Plan will result in the management of Shoreline for large numbers of wildlife species, its primary importance to the City's biodiversity will be maintaining ecosystems and populations that are not present elsewhere in Mountain View.

This section will also include a paragraph about limitations to potential habitat enhancement due to presence of the landfill and the burrowing owl preservation plan.

1.3 Nearby Habitat Restoration/Management Efforts

This section will briefly describe nearby/adjacent habitat restoration or management projects, such as the City's Charleston Slough wetland mitigation project, the South Bay Salt Ponds Restoration Project, and the U.S. Army Corps of Engineers' South Bay Shoreline Project, that also include wildlife management aspects. The Shoreline Wildlife Management Plan will be designed to dovetail with and complement these adjacent projects as feasible.

1.4 Plan Overview

The following subsections will provide brief overviews of the main components of the Plan.

1.4.1 Target Special-Status Species

The Plan will focus on the California Ridgway's rail (*Rallus obsoletus obsoletus*), black skimmer (*Rhynchops niger*), white-tailed kite (*Elanus leucurus*), and San Francisco common yellowthroat (*Geothlypis trichas sinuosa*). Although many other special-status animal species occur at Shoreline, these four species serve as umbrella species for the entire suite of special-status species using Shoreline in that their habitat associations cover the important ecosystems in the Plan area. For example, habitat of the California Ridgway's rail is also used by other special-status species, including the salt marsh harvest mouse (*Reithrodontomys raviventris*), salt marsh wandering shrew (*Sorex vagrans halicoetes*), Alameda song sparrow (*Melospiza melodia pusillula*), and northern harrier (*Circus hudsonius*). [Provide examples of other species that are covered by management actions focusing on each of these four target species].

1.4.2 Focal Ecosystems

Brief mention of the ecosystems on which the Plan will focus.

1.4.3 Buffer Zones

Buffer zones will consist of native plantings that will have a dual function: providing habitat benefits in terms of food and cover and creating a physical barrier to discourage access into sensitive areas. These sensitive areas include sites adjacent to wetlands (creeks, ponds, and tidal areas) and burrowing owl nesting areas.

1.4.4 Wildlife Corridors

Wildlife corridors (contiguous vegetated areas with stratified layers of vegetation) will allow the safe movement of wildlife, especially mammals (e.g., gray fox), reptiles, invertebrates, and less mobile birds, to move from one location or habitat area to another, reducing impacts from human disturbance and depredation.

1.4.5 Management and Educational Guidelines

The Plan will include management and educational guidelines to focus enhancement on target species and to preserve wildlife habitat values while optimizing public use. Environmental guidelines will be included in Standard Operating Procedures (SOP) for maintenance crews, City staff, and contractors to ensure compliance with all State and Federal codes and requirements. The Plan will include quick reference guides to facilitate simple and easy implementation of maintenance work while adhering to environmental requirements.

1.4.6 Monitoring and Adaptive Management

The Plan will describe monitoring for special-status species, and adaptive management that will be performed as appropriate to protect and enhance populations with conservation measures and appropriate landscaping.

1.4.7 Annual Reporting

The Plan will include an outline for an annual summary report for City staff with an overview of environmental accomplishments and necessary steps for achieving goals moving forward, using a standard adaptive management approach.

1.4.8 Plan Review and Revision

The Plan will describe how City staff will periodically review, and revise if necessary, habitat management and related park maintenance policies, practices, rules, and regulations to ensure that they continue to conserve target species and wildlife habitat values while optimizing public use.

<<Insert Figure 1. Management Area Map>>

Section 2. Regulatory Framework

This section will outline the relevant state and federal regulations that apply to the special-status species and sensitive ecosystems and habitats within the Plan area.

2.1 Federal Regulations

2.1.1 Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. Section 703, prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA protects whole birds, parts of birds, and bird eggs and nests, and it prohibits the possession of all nests of protected bird species whether they are active or inactive. An *active* nest is defined as having eggs or young, as described by the USFWS in its June 14, 2018 memorandum “Destruction and Relocation of Migratory Bird Nest Contents”. Nest starts (nests that are under construction and do not yet contain eggs) and inactive nests are not protected from destruction.

In recent years, there have been changes to how the MBTA is implemented and enforced with respect to incidental take of protected birds. However, on October 4, 2021, the USFWS published a final rule revoking a January 7, 2021 regulation that limited the scope of the MBTA. The final rule goes into effect on December 3, 2021. With this final and formal revocation of the January 7, 2021 rule, the USFWS returns to implementing the MBTA as prohibiting incidental take and applying enforcement discretion, consistent with judicial precedent.

Project Applicability: Most native bird species that occur in the Plan area are protected under the MBTA.

2.1.2 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects federally listed wildlife species from harm or *take*, which is broadly defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” *Take* can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as *take* even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands.

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) have jurisdiction over federally listed, threatened, and endangered species under FESA. The USFWS also maintains lists of proposed and candidate species. Species on these lists are not legally protected under FESA, but may become listed in the near future and are often included in their review of a project.

Project Applicability: {Brief mention of the federally listed species that occur in the Plan area (i.e., California Ridgway’s rail, California least tern, and salt marsh harvest mouse).}

2.2 State Regulations

2.2.1 California Fish and Game Code

Certain sections of the California Fish and Game Code describe regulations pertaining to protection of certain wildlife species. For example, Code Section 2000 prohibits take of any bird, mammal, fish, reptile, or amphibian except as provided by other sections of the code. California Fish and Game Code Sections 3503, 3513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered *take* by the CDFW. Raptors (e.g., eagles, hawks, and owls) and their nests are specifically protected in California under Code Section 3503.5. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”

Non-game mammals are protected by California Fish and Game Code Section 4150, which states that all non-game mammals or parts thereof may not be taken or possessed except as provided otherwise in the code or in accordance with regulations adopted by the commission. Activities resulting in mortality of non-game mammals or disturbance that causes the loss of reproductive effort may be considered *take* by the CDFW.

{Add text describing the Fish and Game Code sections protecting “fully protected” species.}

Project Applicability: Most native bird, mammal, and other wildlife species that occur on the project site and in the immediate vicinity are protected under the California Fish and Game Code. {Describe how preactivity surveys and buffers around active bird nests are performed to avoid conflicts with the Fish and Game Code with respect to nesting birds. Also, mention which fully protected species occur at Shoreline – California Ridgway’s rail, California black rail, California least tern, brown pelican, white-tailed kite, bald eagle, golden eagle, peregrine falcon, and salt marsh harvest mouse.}

2.2.2 California Environmental Quality Act

CEQA is a state law that requires state and local agencies to document and consider the environmental implications of their actions and to refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. CEQA requires the full disclosure of the environmental effects of agency actions, such as approval of a general plan update or the projects covered by that plan, on resources such as air quality, water quality, cultural resources, and biological resources. The State Resources Agency promulgated guidelines for implementing CEQA known as the State CEQA Guidelines.

Section 15380(b) of the State CEQA Guidelines provides that a species not listed on the federal or state lists of protected species may be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the FESA and the CESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW or species that are locally or regionally rare.

The CDFW has produced three lists (amphibians and reptiles, birds, and mammals) of “species of special concern” that serve as “watch lists”. Species on these lists are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Thus, their populations should be monitored. They may receive special attention during environmental review as potential rare species, but do not have specific statutory protection. All potentially rare or sensitive species, or habitats capable of supporting rare species, are considered for environmental review per the CEQA Section 15380(b).

Project Applicability: {Describe that impacts of projects take special-status species into account, and mitigation measures are identified as necessary to avoid significant impacts under CEQA. State whether implementation of this management plan is considered a “project” that will require CEQA assessment, and if not, why not. State that this management plan is intended to be self-mitigating in that its implementation will result in a net benefit to special-status wildlife at Shoreline.}

2.2.3 California Endangered Species Act

The California Endangered Species Act (CESA; California Fish and Game Code, Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with CESA, the CDFW has jurisdiction over state-listed species (Fish and Game Code 2070). The CDFW regulates activities that may result in *take* of individuals (i.e., “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of *take* under the California Fish and Game Code. The CDFW, however, has interpreted *take* to include the “killing of a member of a species which is the proximate result of habitat modification.”

Project Applicability: {Brief mention of the state listed species that occur in the Plan area (e.g., California Ridgway’s rail, California black rail, California least tern, bald eagle, willow flycatcher, bank swallow, tricolored blackbird, and salt marsh harvest mouse.)}

2.3 City of Mountain View Policies and Procedures

2.3.1 Mountain View 2030 General Plan Policies

Summary of Mountain View 2030 GP policies pertaining to protection or management of wildlife

2.3.2 Project Evaluations

Description of how the City assesses impacts of projects following the Shoreline Project Evaluation Guidelines

2.3.3 Burrowing Owl Preservation Plan

Summary of the Burrowing Owl Preservation Plan and how it relates to the Wildlife Management Plan. The Wildlife Management Plan will not include measures that conflict with burrowing owl management. Mention also that there are restrictions on activities that can occur on the landfill; as a result, the Wildlife Management Plan focuses on activities outside of and at the edges of the landfill areas.

Section 3. Shoreline Ecosystems and Wildlife Corridors

Seven main ecosystems are present at Shoreline: grassland (irrigated and nonirrigated); riparian/creek; nontidal freshwater wetland; nontidal freshwater pond; nontidal saltwater lake; nontidal brackish water/marsh; and tidal marsh/mudflat. The locations of these ecosystems are depicted on Figure 2. The following sections describe each ecosystem in terms of its location within the Plan area; its dominant plant and animal species; locations of wildlife corridors relative to each ecosystem; and management recommendations.

3.1 Grassland

3.1.1 Locations within Plan Area

Description of general locations of occurrence of both irrigated and nonirrigated grassland in the Plan area

3.1.2 Vegetation

Description of dominant plants (including a description of differences between irrigated and nonirrigated grassland). Discussion of the occurrence of Congdon's tarplant in nonirrigated areas.

3.1.3 Wildlife

Description of typical/characteristic wildlife species, as well as special-status species using grassland (including a description of differences between wildlife use of irrigated and nonirrigated grassland)

3.1.4 Wildlife Corridors

Description of the locations of important wildlife corridors relative to grassland and the value of grassland as wildlife movement habitat

3.1.5 Management Recommendations

Description of management recommendations for grassland ecosystems

3.2 Riparian/Creek

3.2.1 Locations within Plan Area

Description of locations of occurrence in the Plan area

<< Insert Figure 2. Shoreline Ecosystems and Wildlife Corridors >>

3.2.2 Vegetation

Description of dominant plants, and any variability in types of riparian habitats/communities and creeks in the Plan area

3.2.3 Wildlife

Description of typical/characteristic wildlife species, as well as special-status species using riparian and creek ecosystems

3.2.4 Wildlife Corridors

Description of the value of riparian ecosystems and creeks as wildlife movement habitat

3.2.5 Management Recommendations

Description of management recommendations for riparian ecosystems and creeks, including buffers from activities that could degrade these ecosystems.

3.3 Non-Tidal Freshwater Wetland

3.3.1 Locations within Plan Area

Description of general locations of occurrence in the Plan area

3.3.2 Vegetation

Description of dominant plants, and any variability in types of non-tidal freshwater wetland habitats/communities in the Plan area

3.3.3 Wildlife

Description of typical/characteristic wildlife species, as well as special-status species using non-tidal freshwater wetland ecosystems

3.3.4 Wildlife Corridors

Description of the locations of important wildlife corridors relative to non-tidal freshwater wetland ecosystems and the value of non-tidal freshwater wetland ecosystems as wildlife movement habitat

3.3.5 Management Recommendations

Description of management recommendations for non-tidal freshwater wetland ecosystems, including buffers from activities that could degrade these ecosystems.

3.4 Non-Tidal Freshwater Pond

3.4.1 Locations within Plan Area

Description of general locations of occurrence in the Plan area

3.4.2 Vegetation

Description of dominant plants, and any variability in types of non-tidal freshwater pond habitats/communities in the Plan area

3.4.3 Wildlife

Description of typical/characteristic wildlife species, as well as special-status species using non-tidal freshwater pond ecosystems

3.4.4 Wildlife Corridors

Description of the locations of important wildlife corridors relative to non-tidal freshwater pond ecosystems

3.4.5 Management Recommendations

Description of management recommendations for non-tidal freshwater pond ecosystems, including buffers from activities that could degrade these ecosystems.

3.5 Non-Tidal Saltwater Lake

3.5.1 Location within Plan area

Description of location in the Plan area (the Sailing Lake and the Sailing Lake Island)

3.5.2 Vegetation

Description of dominant plants (submergent vegetation in the Sailing Lake, ruderal vegetation on the Sailing Lake Island)

3.5.3 Wildlife

Description of typical/characteristic wildlife species, as well as special-status species, using the Sailing Lake, and using the Sailing Lake Island for nesting and roosting

3.5.4 Wildlife Corridors

Description of the locations of important wildlife corridors relative to the Sailing Lake

3.5.5 Management Recommendations

Description of management recommendations for the Sailing Lake, including buffers from activities that could degrade this ecosystem, and for the Sailing Lake Island, including buffers from watercraft during the avian nesting season.

3.6 Non-Tidal Brackish Water/Marsh

3.6.1 Location within Plan Area

Description of location in the Plan area (Coast Casey Forebay)

3.6.2 Vegetation

Description of dominant plants

3.6.3 Wildlife

Description of typical/characteristic wildlife species, as well as special-status species using the Coast Casey Forebay

3.6.4 Wildlife Corridors

Description of the locations of important wildlife corridors relative to the Coast Casey Forebay

3.6.5 Management Recommendations

Description of management recommendations for the Coast Casey Forebay, including buffers from activities that could degrade this ecosystem.

3.7 Tidal Marsh/Mudflat

3.7.1 Locations within Plan Area

Description of locations in the Plan area (Charleston Slough, Mountain View Tidal Marsh, and Stevens Creek Tidal Marsh)

3.7.2 Vegetation

Description of dominant plants

3.7.3 Wildlife

Description of typical/characteristic wildlife species, as well as special-status species using the tidal marsh/mudflat

3.7.4 Wildlife Corridors

Description of the locations of important wildlife corridors relative to the tidal marsh/mudflat and the value of tidal marsh/mudflat as wildlife movement habitat

3.7.5 Management Recommendations

Description of management recommendations for tidal marsh/mudflat, including buffers from activities that could degrade these ecosystems.

Section 4. Special-Status Species of Shoreline

This section will describe the special-status species that occur at Shoreline. The majority of information will be included in a special-status species table formatted like Table 1 below.

This section will also include a brief description of the occurrence of Congdon's tarplant in the Plan area.

Figures to be provided include burrowing owl mitigation and preserve areas (Figure 3), a map of burrowing owl locations (Figure 4), a map of Congdon's tarplant locations (Figure 5), and a map showing the locations of potential occurrence of the California Ridgway's rail, black skimmer, white-tailed kite, and San Francisco common yellowthroat at Shoreline (Figure 6).

Table 1. Special-Status Wildlife Species of Shoreline [note: a number of species and other information still needs to be added to this table, and the “habitat and ecology” fleshed out further; the information below is a placeholder to show general format]

Name	*Status	Habitat and Ecology	Occurrence at Shoreline
Federal or State Endangered, Threatened, or Candidate Species			
Monarch butterfly (<i>Danaus plexippus</i>)	FC	Requires milkweeds (<i>Asclepias</i> spp.) for egg-laying and larval development, but adults obtain nectar from a wide variety of flowering plants in many habitats. Individuals congregate in winter roosts, primarily in Mexico and in widely scattered locations on the central and southern California coast.	
California least tern (<i>Sternula antillarum browni</i>)	FE, SE, SFP	Nests along the coast on bare or sparsely vegetated, flat substrates. In the San Francisco Bay, nests in salt pannes and on an old airport runway. Forages for fish in open waters.	
California Ridgway's rail (<i>Rallus obsoletus obsoletus</i>)	FE, SE, SFP	Salt marsh habitat dominated by pickleweed and cordgrass.	
California black rail (<i>Laterallus jamaicensis coroniculus</i>)	ST	Breeds in fresh, brackish, and tidal salt marshes.	
Bald eagle (<i>Haliaeetus leucocephalus</i>)	SE, SFP	Occurs mainly along seacoasts, rivers, and lakes; nests in tall trees or in cliffs, occasionally on electrical towers. Feeds mostly on fish.	
Tricolored blackbird (<i>Agelaius tricolor</i>)	ST	Nests near fresh water in dense emergent vegetation.	
Salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE, SE	Salt marsh habitat dominated by common pickleweed.	
California Species of Special Concern			

Name	*Status	Habitat and Ecology	Occurrence at Shoreline
Southwestern pond turtle (<i>Emys pallida</i>)	CSSC	Permanent or nearly permanent water in a variety of habitats.	
Black skimmer (<i>Rhynchops niger</i>)	CSSC, BCC		
Northern harrier (<i>Circus hudsonius</i>)	CSSC (nesting)	Nests in marshes and moist fields with tall vegetation and sufficient moisture to inhibit accessibility of nest sites to predators. Forages over open areas.	
Burrowing owl (<i>Athene cunicularia</i>)	CSSC, BCC	Nests and roosts in open grasslands and ruderal habitats with suitable burrows, usually those made by California ground squirrels.	
Yellow warbler (<i>Setophaga petechia</i>)	CSSC (nesting)	Nests in riparian woodlands.	
San Francisco common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	CSSC, BCC	Nests in herbaceous vegetation, usually in wetlands or moist floodplains.	
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	CSSC, BCC	Nests in salt marsh, primarily in marsh gumplant and cordgrass along channels.	

Name	*Status	Habitat and Ecology	Occurrence at Shoreline
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	CSSC (nesting)	Nests and forages in grasslands, meadows, fallow fields, and pastures.	
Bryant's savannah sparrow (<i>Passerculus sandwichensis alaudinus</i>)	CSSC	Nests in pickleweed dominant salt marsh and adjacent ruderal habitat.	
Salt marsh wandering shrew (<i>Sorex vagrans halicoetes</i>)	CSSC	Occurs primarily in medium-high, wet tidal marsh (6 to 8 feet above mean sea level) with abundant driftwood, plentiful invertebrate prey, and dense cover. Has also been recorded in diked marshes.	

State Fully Protected Species

American peregrine falcon (<i>Falco peregrinus anatum</i>)	SFP, BCC	Forages in many habitats; nests on cliffs and tall bridges and buildings.	
Golden eagle (<i>Aquila chrysaetos</i>)	SFP, BCC	Breeds on cliffs or in large trees (rarely on electrical towers); forages in open areas.	
White-tailed kite (<i>Elanus leucurus</i>)	SFP	Nests in tall shrubs and trees; forages in grasslands, marshes, and ruderal habitats.	

Key to Abbreviations:

Status: Federally Endangered (FE); Federally Threatened (FT); Federal Candidate for Listing (FC); State Endangered (SE); State Threatened (ST); State Fully Protected (SFP); California Species of Special Concern (CSSC); CDFW Watch List (WL); USFWS Bird of Conservation Concern (BCC).

<<Insert Figure 3. Burrowing Owl Mitigation and Preserve Areas>>

<<Insert Figure 4. Burrowing Owl Locations>>

<<Insert Figure 5. Congdon's Tarplant Locations>>

<<Insert Figure 6. Occurrence Locations of Other Regularly Occurring Special-Status Wildlife Species>>

Section 5. Locations of Nesting Birds and Sensitive Nesting Areas

This section will discuss issues related to nesting birds in general (i.e., not focused on the four target species discussed in Section 6), including the typical nesting season, exceptions to that nesting season, and measures to avoid and minimize disturbance of nesting birds.

5.1 Nesting Season

Discussion of the typical nesting season (February 1 through August 31), as well as discussion of species that could have active nests (nests with viable eggs or young) outside this period.

5.2 Potential Nesting Locations and Sensitive Nesting Areas

Discussion of the general types of birds that nest at Shoreline and the locations where they may nest; these locations may include bare ground (e.g., killdeer), grassland, weedy areas, shrubs, trees, and structures such as bridges, buildings, and light poles.

This section will also discuss areas at Shoreline that are particularly sensitive for nesting birds based on concentrations of nests (e.g., the island in the Sailing Lake) or the sensitivity of the species in question (e.g., marsh/wetland habitat). Refer to a map of these areas (Figure 7).

5.3 Potential Nesting Bird Impacts

Discussion of how recreation, maintenance, management, and other human activities at Shoreline can impact nesting birds, including physical disturbance/destruction of nests, eggs, or young, and noise and other human activity that can indirectly lead to loss of eggs or young (e.g., by causing abandonment of nests).

5.4 Nesting Bird Avoidance and Minimization

Discussion of measures to avoid and minimize impacts to nesting birds, including preactivity surveys for nesting-season activities; standard nesting bird buffers (e.g., 250 feet for burrowing owls, 300 feet for other raptors, 100 feet for non-raptors); the process by which reduced buffers might be determined to be appropriate in certain circumstances; and any general buffers that might be appropriate throughout the nesting season for features such as the Sailing Lake island; any such buffers would be depicted on Figure 7.

<<Insert Figure 7. Sensitive Nesting Areas of Protected Birds>>

Section 6. Target Species Conservation

This section will include specific conservation goals and recommendations for four target species: black skimmer, California Ridgway's rail, white-tailed kite, and San Francisco common yellowthroat. This section will describe these species' prime nesting and foraging locations and recommend conservation measures and vegetation enhancements at these sites, referencing a figure showing the prime locations of these species' occurrence (Figure 8).

6.1 Black Skimmer

6.1.1 Ecology and Occurrence at Shoreline

Although information on this species will be included in Table 1 above, this section will flesh out the species' occurrence at Shoreline, including locations of occurrence, how it uses various locations and habitats (e.g., for nesting vs. foraging), and any other information on its occurrence that influences conservation goals and measures.

6.1.2 Conservation Goals

Brief bullet list of goals

6.1.3 Habitat Enhancement and Management Measures

Description of conservation measures, including Sailing Lake island vegetation management, suitable soil substrate, erosion control, and disturbance prevention; Charleston Slough island vegetation management and suitable soil substrate [note: we will consider other conservation measures as well].

6.2 California Ridgway's Rail

6.2.1 Ecology and Occurrence at Shoreline

Although information on this species will be included in Table 1 above, this section will flesh out the species' occurrence at Shoreline, including locations of occurrence, how it uses various locations and habitats (e.g., for nesting vs. foraging), and any other information on its occurrence that influences conservation goals and measures.

6.2.2 Conservation Goals

Brief bullet list of goals

6.2.3 Habitat Enhancement and Management Measures

Description of conservation measures, including suitable vegetation enhancement along edge of Permanente Creek, Mountain View tidal marsh, and Stevens Creek tidal marsh; timing of vegetation management near suitable nesting habitat to avoid nest disturbance; and predator management [note: we will consider other conservation measures as well].

6.3 White-tailed Kite

6.3.1 Ecology and Occurrence at Shoreline

Although information on this species will be included in Table 1 above, this section will flesh out the species' occurrence at Shoreline, including locations of occurrence, how it uses various locations and habitats (e.g., for nesting vs. foraging), and any other information on its occurrence that influences conservation goals and measures.

6.3.2 Conservation Goals

Brief bullet list of goals

6.3.3 Habitat Enhancement and Management Measures

Description of conservation measures, including tree planting in strategic areas of north shore (historical nesting areas) to encourage kites to use these areas and hopefully not use other areas, and possibly management of foraging habitat [note: we will consider other conservation measures as well].

6.4 San Francisco Common Yellowthroat

6.4.1 Ecology and Occurrence at Shoreline

Although information on this species will be included in Table 1 above, this section will flesh out the species' occurrence at Shoreline, including locations of occurrence, how it uses various locations and habitats (e.g., for nesting vs. foraging), and any other information on its occurrence that influences conservation goals and measures.

6.4.2 Conservation Goals

Brief bullet list of goals

6.4.3 Habitat Enhancement and Management Measures

Description of conservation measures, including suitable vegetation planting in potential nesting areas along Permanente Creek, Coast-Casey Forebay, Pond 4, Mountain View tidal marsh, and Stevens Creek tidal marsh; timing of vegetation management near suitable nesting habitat to avoid nest disturbance; management of brood

parasites (through appropriate disposal of human food waste); and predator management [note: we will consider other conservation measures as well].

Section 7. Management of Invasive and Nuisance Species, and Pathogens

This section discusses why invasive and native nuisance species, as well as plant and animal pathogens such as the plant pathogen *Phytophthora*, are detrimental; the invasive plants and animals, native nuisance species, and pathogens that occur at Shoreline; best management practices (BMPs) to be implemented to minimize the potential for introduction, spread, or support of those species; and more active control methods that will be implemented for the most invasive or harmful species.

7.1 Invasive Plants

Brief discussion of why invasive plants can be detrimental to native species of both plants and animals.

7.1.1 Invasive Plants at Shoreline

Table 2 lists the most common invasive plant species occurring at Shoreline, as well as the invasiveness rating provided by the California Invasive Plant Council (Cal-IPC), the locations/ecosystems in which they occur, BMPs to be implemented to minimize the potential for introduction or spread of these species, and (as necessary) more active control methods for these species.

7.1.2 Best Management Practices for Invasive Plants

This section will include more fleshed-out, detailed descriptions (compared to the summaries in Table 2) of BMPs to be implemented to minimize the potential for introduction or spread of invasive plant species. This section will include any measures already being implemented by the City, as well as any others that are appropriate.

7.1.3 Measures for Invasive Plant Control

This section will include more fleshed-out, detailed descriptions (compared to the summaries in Table 2) of any measures that may be necessary to control occurrences of more invasive/harmful plant species, such as herbicide application, the timing of mowing, handpulling, solarization, or other methods. This section will include any measures already being implemented by the City, as well as any others that are appropriate.

Table 2. Invasive Plant Species and Management/Control Measures

Name	*Cal-IPC Status	Occurrence at Shoreline	Best Management Practices and Control Measures
Russian thistle (<i>Salsola tragus</i>)	Limited	[describe locations and ecosystems where it occurs]	[[list BMPs and control measures that are described in more detail in the text and that apply to each species]

* Cal-IPC status: "Watch" = species not currently invasive in California, but at risk for becoming invasive in the future

7.2 Nonnative, Invasive Animals and Native, Nuisance Animals

Discussion of why invasive and nuisance animals can be detrimental to native species, including examples of each type. Nuisance species are native species that benefit from human activities and that can adversely affect more sensitive native species.

7.2.1 Invasive and Nuisance Animals at Shoreline

Table 3 lists the most common invasive animal species and native nuisance species occurring at Shoreline, the locations/ecosystems in which they occur, BMPs to be implemented to minimize the potential for introduction or spread of these species, and (as necessary) more active control methods for these species.

7.2.2 Best Management Practices for Invasive and Nuisance Animals

This section will include more fleshed-out, detailed descriptions (compared to the summaries in Table 3) of BMPs to be implemented to minimize the potential for spread or support of invasive or native nuisance animal species. Examples include use, maintenance, and regular emptying of containers for human food waste. This section will include any measures already being implemented by the City, as well as any others that are appropriate.

7.2.3 Measures for Invasive and Nuisance Animal Control

This section will include more fleshed-out, detailed descriptions (compared to the summaries in Table 3) of any measures that may be necessary to control occurrences of more invasive animals or native nuisance animal species. This section will include any measures already being implemented by the City, as well as any others that are appropriate.

7.3 Pathogens

Brief discussion of why pathogens can be detrimental to native species of plants and animals.

7.3.1 Potential Pathogens of Concern

Discussion of pathogens, primarily *Phytophthora* but also potentially including animal pathogens; most animal pathogens of concern in the region are related to amphibians (chytrid fungus) or turtles (shell disease), which are not prevalent at Shoreline, but we will consider whether any animal pathogens are worthy of discussion. If any pathogens other than *Phytophthora* need to be considered, we will add a table (analogous to Tables 2 and 3) summarizing them.

Table 3. Invasive and Native Nuisance Animal Species and Management/Control Measures

Name	Potential Adverse Effect on Native Wildlife	Occurrence at Shoreline	Best Management Practices and Control Measures
<i>Nonnative, Invasive Animals</i>			
List species		[describe locations and ecosystems where it occurs]	[list BMPs and control measures that are described in more detail in the text and that apply to each species]
<i>Native Nuisance Animals</i>			
List species		[describe locations and ecosystems where it occurs]	[list BMPs and control measures that are described in more detail in the text and that apply to each species]

7.3.2 Best Management Practices for Pathogens

This section will include detailed descriptions of BMPs to be implemented to minimize the potential for introduction or spread of pathogens. This section will include any measures already being implemented by the City, as well as any others that are appropriate.

7.3.3 Measures for Pathogen Control

This section will include detailed descriptions of any measures that may be necessary to control occurrences of pathogens. This section will include any measures already being implemented by the City, as well as any others that are appropriate.

Section 8. Habitat Management Guidelines, and Enhancement and Restoration Opportunities

One of the main purposes of the Plan is to create and maintain a mosaic of different habitats throughout Shoreline (e.g., mowed areas in prime burrowing owl nesting locations with taller vegetated areas to attract prime prey species close by). This section will describe the types, locations, and benefits to wildlife of habitat enhancement and restoration opportunities at Shoreline to fulfill those habitat goals. [Note: the information below will be fleshed out considerably, and the specific enhancement and restoration activities below are not an exhaustive list of opportunities that will be discussed]. Reference Figure 8.

8.1 Habitat Management Guidelines

This section will describe general guidelines for management activities such as timing of mowing and pruning of vegetation (e.g., to ensure that flowers and seeds are available to wildlife rather than being removed prematurely) to maintain suitable wildlife habitat. This will be a reference/summary section that will be shared with staff and contractors to concisely summarize management guidelines.

8.2 Types of Enhancement and Restoration Opportunities

8.2.1 Wetland Enhancement

Describe enhancement through removal of invasive plants and planting of natives, including species that would provide high-tide refugia for sensitive marsh animals such as rails and salt marsh harvest mice.

For each enhancement/restoration opportunity, we will provide a plant palette as applicable. For enhancement and restoration opportunities in upland (non-wetland/aquatic) areas where recycled water may be used for irrigation, the plant palette will explicitly include species that can tolerate recycled water and state this.

8.2.2 Movement Corridor Enhancement

Describe how planting could enhance cover for animals to use during movement along wildlife corridors.

8.2.3 Sailing Lake Island Enhancement

Describe existing conditions and suggested enhancements to improve wildlife habitat.

8.2.4 Charleston Slough Island Opportunity

Review of draft designs for Charleston Mitigation and assess opportunities for Charleston Slough Islands supporting wildlife habitat. Ensure that recommendations of designs align with opportunities for enhancement.

<<Insert Figure 8. Habitat Enhancement and Restoration Opportunities>>

8.2.5 Grassland Foraging Habitat Enhancement

Describe measures to improve foraging habitat quality for raptors (which would include burrowing owls).

8.2.6 Floating Islands

Define and describe benefits of floating islands and explore opportunities for them within Shoreline.

8.3 Details of Specific Restoration Projects

This section will describe the timelines for specific restoration projects; who will assist; goals of specific projects; potential grant opportunities and partnerships; ongoing funding requirements to replace dead and dying vegetation; and how the City can involve the community.

Section 9. Wildlife Connectivity

This section will describe how potential movement corridors will be enhanced or created to connect different habitat patches or ecosystems together to allow the easy movement of wildlife from one area to another with limited human disturbance and limited predation risk. This section will reference Figure 2 for existing corridors and refer to Figure 8 for areas where corridors should be enhanced or created. This section will describe not only where/how corridors can be enhanced or created, but how the enhancement would limit human disturbance and predation on sensitive species. Species that will be discussed in the context of connectivity include native mammals such as the gray fox, reptiles, less mobile birds, and invertebrates.

Section 10. Landscaping

This section will describe landscaping at Shoreline for wildlife benefits and aesthetic purposes, including addressing high-visibility area landscaping with native flowers, wildlife-friendly habitat, and integrated pest management.

10.1 Landscaping Types and Locations

This section will describe the different types of landscaping that should be implemented, locations for such landscaping, and how that landscaping will be beneficial to wildlife, aesthetics, and integrated pest management. For each type of landscaping proposed, we will list suitable plant species that are native and easily maintained using recycled water. [Note: the types of landscaping to be implemented still need to be determined but will then be fleshed out].

This section will reference Figure 9.

10.2 Landscaping Maintenance

This section will describe training for vegetation management staff appropriate for each type of landscaping.

<<Insert Figure 9. Landscaping Opportunities>>

Section 11. Landfill Operations

This section will describe the City's ongoing maintenance and upkeep of the closed landfill, borrowing information from the Burrowing Owl Preservation Plan but revising that information as necessary to ensure that guidelines for landfill operations cover all special-status species.

This section will reference Figure 10.

<<Insert Figure 10. Landfill Map>>

Section 12. Protocols and Procedures

This section will provide a quick reference guide for a number of protocols and procedures to facilitate simple and easy implementation of maintenance work while adhering to environmental requirements.

12.1 Avoidance Measures

This section will summarize, as concisely as possible, avoidance measures such as timing of activities (e.g., to avoid the nesting season) and nesting-season buffer zones.

12.2 Project Evaluations

This section will describe how the City assesses impacts of projects following the Shoreline Project Evaluation Guidelines.

12.3 Updates to Standard Operating Procedures

This section will describe updates to the City's SOPs for maintenance crews, City staff, and contractors to ensure compliance with all State and Federal codes and requirements. This section will indicate when and where to have project evaluations, buffer zones, and timing of activities.

12.4 Staff Training

This section will describe the process and timeline/schedule for training of current Shoreline staff, City divisions, new hires, and outside contractors on the contents of the Plan, including wildlife compliance and habitat management.

12.5 Monitoring and Adaptive Management

This section will describe how monitoring for trends in abundance and changes in distribution of special-status species will occur; the process by which the need for adaptive management will be identified; and how adaptive management will be implemented as appropriate to protect and enhance populations with conservation measures and appropriate landscaping.

12.6 Annual Reporting

This section will include an outline for an annual summary report for City staff with an overview of environmental accomplishments and necessary steps for achieving goals moving forward, using a standard adaptive management approach.

12.7 Plan Review and Revision

This section will describe how and when City staff will periodically review, and revise if necessary, habitat management and related park maintenance policies, practices, rules, and regulations to ensure that they continue to conserve target species and wildlife habitat values while optimizing public use.

Section 13. References
