

Appendix D  
Biological Resources:  
Special Status Species  
in Alameda and  
Peninsula Watersheds

## **APPENDIX D**

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# Biological Resources: Special Status Species in Alameda and Peninsula Watersheds

**TABLE III.E-3  
SPECIAL-STATUS ANIMAL SPECIES  
POTENTIALLY OCCURRING IN THE ALAMEDA WATERSHED**

Common name <i>Scientific name</i>	Listing Status USFWS/ CDFG	Habitat Requirements	Potential to Occur Within the Watershed	Period of Identification
<b><u>Invertebrates</u></b>				
Opler's longhorn moth <i>Adella oplerella</i>	FSC/--	Serpentine grasslands	High Potential	Spring
Serpentine phalangid <i>Calcina serpentina</i>	FSC/--	Serpentine rocks and barrens	High Potential	Fall-Winter
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT/--	Serpentine grasslands	Moderate Potential	March-May
Ricksecker's water scavenger beetle <i>Hydrochara rickseckeri</i>	FSC/--	Found in freshwater ponds, shallow water of streams marshes and lakes	Moderate Potential	January-July
Curved-foot hygrotus diving beetle <i>Hygrotus curvipes</i>	FSC/--	Found in vernal pools and alkali flats	Moderate Potential	January-July
Unsilvered fritillary butterfly <i>Speyeria adiastrae adiastrae</i>	FSC/--	Found in native grasslands with <i>Viola pedunculata</i> as larval food plant	Moderate Potential	Spring
Callipe silverspot butterfly <i>Speyeria callippe callippe</i>	FE/--	Found in native grasslands with <i>Viola pedunculata</i> as larval food plant	Moderate Potential	Spring
Myrtle silverspot butterfly <i>Speyeria zerene myrtilleae</i>	FE/--	Found in native grasslands with <i>Viola pedunculata</i> as larval food plant	Moderate Potential	Spring
<b><u>Amphibians</u></b>				
California tiger salamander <i>Ambystoma californiense</i>	FC/CSC	Seasonal freshwater ponds with little or no emergent vegetation	High Potential	November- May
California red-legged frog <i>Rana aurora draytonii</i>	FT/CSC	Freshwater ponds and slow streams with emergent vegetation for egg attachment	High Potential	April-June
Foothill yellow-legged frog <i>Rana boylei</i>	FSC/CSC	Streams with quiet pools absent of predatory fish	High Potential	April-June
Western spadefoot toad <i>Scaphiopus hammondi</i>	FSC/CSC	Floodplains and grassland pools	High Potential	February- August

**TABLE III.E-3 (Continued)**  
**SPECIAL-STATUS ANIMAL SPECIES**  
**POTENTIALLY OCCURRING IN THE ALAMEDA WATERSHED**

<b>Common name</b> <i>Scientific name</i>	<b>Listing Status</b> USFWS/ CDFG	<b>Habitat Requirements</b>	<b>Potential to Occur Within the Watershed</b>	<b>Period of Identification</b>
<b><u>Reptiles</u></b>				
Western pond turtle <i>Clemmys marmorata</i>	FSC/CSC	Freshwater ponds and slow streams edged with sandy soils for laying eggs	High Potential	warm days
Southwestern pond turtle <i>Clemmys marmorata pallida</i>	FSC/CSC	Freshwater ponds and slow streams edged with sandy soils for laying eggs	High Potential	warm days
Coastal western whiptail <i>Cnemidophorus tigris multiscutatus</i>	FSC/--	Dry open habitats	High Potential	all year
Alameda whipsnake <i>Masticophis lateralis euryxanthus</i>	FT/CT	South, southeast and southwest facing slopes of coastal scrub and chaparral	High Potential	warm days
<b><u>Birds</u></b>				
Cooper's hawk <i>Accipiter cooperi</i>	--/CSC	Nests in riparian growths of deciduous trees and live oaks	High Potential	March-July
Sharp-shinned hawk <i>Accipiter striatus</i>	--/CSC	Nests in riparian growths of deciduous trees and live oaks	High Potential	March-July
Western grebe <i>Aechmophorus occidentalis</i>	--/*	Quiet lakes with tules or rushes	Moderate Potential	March-May
Tricolored blackbird <i>Agelaius tricolor</i>	FSC/CSC	Riparian thickets and emergent vegetation	High Potential	Spring
Golden eagle <i>Aquila chrysaetos</i>	BPA/CSC	Nests in large trees, snags, and cliffs, winters on lakes and reservoirs	High Potential	Spring
Great blue heron <i>Ardea herodias</i>	--/*	Nests in trees along lakes and estuaries	High Potential	December-July
Short-eared owl <i>Asio flammeus (nesting)</i>	--/CSC	Nests in open grasslands	High Potential	March-June
Aleutian Canada goose <i>Branta canadensis leucopareia</i>	FT/--	Winters on lakes and inland prairie	High Potential	Winter
Ferruginous hawk <i>Buteo regalis (wintering)</i>	FSC/CSC	Winters in flat open grasslands	High Potential	Winter
Northern harrier <i>Circus cyaneus</i>	--/CSC	Nests and forages in wet meadows and pastures	High Potential	Year-round

**TABLE III.E-3 (Continued)**  
**SPECIAL-STATUS ANIMAL SPECIES**  
**POTENTIALLY OCCURRING IN THE ALAMEDA WATERSHED**

<b>Common name</b> <i>Scientific name</i>	<b>Listing Status</b> USFWS/ CDFG	<b>Habitat Requirements</b>	<b>Potential to Occur Within the Watershed</b>	<b>Period of Identification</b>
<b><u>Birds (cont.)</u></b>				
California horned lark <i>Eremophila alpestris actia</i>	--/CSC	Open grasslands and irrigated pastures	High Potential	Year-round
Prairie falcon <i>Falco mexicanus</i>	--/CSC	Nests in snags and cliffs of arid climates	High Potential	Spring
Bald eagle <sup>a</sup> <i>Haliaeetus leucocephalus</i>	FT/CE	Nests and forages on inland lakes, reservoirs, and rivers	High Potential	Winter
Osprey <i>Pandion haliaetus</i>	--/CSC	Nests near fresh water lakes and large streams on large snags	Moderate Potential	March-June
American white pelican <i>Pelecanus erythrorhynchos</i>	--/CSC	Nests on protected islets near freshwater lakes for protection from predators	Moderate Potential	May-July
Burrowing owl <i>Speotyto (=Athene) cucularia</i> (burrow sites)	FSC/CSC	Nests in mammal burrows in open, sloping grasslands	High Potential	February-June
<b><u>Mammals</u></b>				
Pallid bat <i>Antrozous pallidus</i>	FSC/CSC	Roosts in caves, old buildings and under bark. Forages in open lowland areas and forms large maternity colonies in spring	Moderate Potential	February-August
Western mastiff bat <i>Eumops perotis</i>	FSC/CSC	Open semi-arid to arid habitats roosting on high cliffs and buildings	Moderate Potential	February-August
Small-footed myotis <i>Myotis ciliolabrum</i>	FSC/--	Roosts in caves, old buildings and under bark	Moderate Potential	February-August
Fringed myotis <i>Myotis evotis</i>	FSC/--	Roosts in caves, old buildings and under bark, forms maternity colony in the spring	Moderate Potential	February-August
Fringed myotis <i>Myotis thysanodes</i>	FSC/--	Roosts in caves, old buildings and under bark, forms maternity colony in the spring	Moderate Potential	February-August
Long-legged myotis <i>Myotis volans</i>	FSC/--	Roosts in caves, old buildings and under bark; Forms maternity colony in the spring	Moderate Potential	February-August

**TABLE III.E-3 (Continued)  
SPECIAL-STATUS ANIMAL SPECIES  
POTENTIALLY OCCURRING IN THE ALAMEDA WATERSHED**

<b>Common name Scientific name</b>	<b>Listing Status USFWS/ CDFG</b>	<b>Habitat Requirements</b>	<b>Potential to Occur Within the Watershed</b>	<b>Period of Identification</b>
<b><u>Mammals (cont.)</u></b>				
Townsend's big-eared bat <i>Plecotus townsendii</i>	FSC/CSC	Roosts in caves, old buildings and under bark; Forages in open lowland areas and forms large maternity colonies in spring	Moderate Potential	February-August
American badger <i>Taxidea taxus</i>	--/*	Open grasslands with loose, friable soils	Moderate Potential	Year-round
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE/CT	Annual grasslands or grassy open stages with scattered shrubby vegetation; Need loose-textured sandy soils for burrowing	Moderate Potential	February-October
Mountain Lion <i>Felis spp.</i>	--/4800	Rural grasslands and woodlands	High	Year-round

**LISTING STATUS CODES:**

U.S. Fish and Wildlife Service (USFWS)

FE = Listed as Endangered (in danger of extinction) by the federal government.  
 FT = Listed as Threatened (likely to become endangered within the foreseeable future) by the federal government.  
 FPE = Proposed for Listing as Endangered  
 FPT = Proposed for Listing as Threatened  
 FC = Candidate to become a *proposed* species.  
 FSC = Federal Species of Concern. May be endangered or threatened, but not enough biological information has been gathered to support listing at this time.  
 FC3c = Species removed from listing  
 BPA = Federal Bald Eagle Protection Act

California Department of Fish and Game (CDFG)

CE = Listed as Endangered by the State of California  
 CT = Listed as Threatened by the State of California  
 CR = Listed as Rare by the State of California (plants only)  
 CSC = California Species of Special Concern  
 \* = Special Animals  
 3503.5 = Protection for nesting species of Falconiformes (hawks) and Strigiformes (owls)  
 3511 = A fully protected species as defined by the CDFG  
 4800 = Mountain lion protection

High Potential = Species expected to occur and meets all habitats as defined in list  
 Moderate Potential = Habitat only marginally suitable or suitable but not within species geographic range

<sup>a</sup> Federal delisting is currently proposed, pending publication in the *Federal Register*.

SOURCE: Environmental Science Associates, 1994; EDAW, Inc., 1998; CDFG, 1998

**TABLE III.E-1  
SPECIAL-STATUS PLANT SPECIES  
POTENTIALLY OCCURRING IN THE ALAMEDA WATERSHED**

<b>Common name Scientific name</b>	<b>Listing Status USFWS/CDFG/ CNPS</b>	<b>Habitat Requirements</b>	<b>General Site Occurrence Within the Watershed</b>	<b>Flowering Period</b>
Santa Clara thorn mint <i>Acanthomintha lanceolata</i>	--/--/4	Chaparral, shale scree	High Potential Type Habitat- Calaveras <sup>a</sup>	March-June
Balsamroot <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	--/--/1B	Cismontane woodland, grassland	High Potential Interior slopes near SF Bay	March-June
Oakland star-tulip <i>Calochortus umbellatus</i>	--/--/4	Broadleafed upland forests, chaparral, lower montane coniferous forests, grasslands, often on serpentinite	Moderate Potential Mt. Hamilton Range <sup>a</sup>	March-May
Sharsmith's harebell <i>Campanula sharsmithiae</i>	FSC/--/1B	Chaparral, ultramafic talus	Moderate Potential Mt. Hamilton Range	May-June
Mt. Hamilton thistle <i>Cirsium fontinale</i> var. <i>campylon</i>	FSC/--/1B	Ultramafic seeps, sandy streams	High Potential Mt. Hamilton Range <sup>a</sup>	Feb-Oct
Brewer's clarkia <i>Clarkia breweri</i>	--/--/4	Chaparral, shale talus	High Potential Mt. Hamilton Range <sup>a</sup>	April-May
Santa Clara red ribbons <i>Clarkia concinna</i> ssp. <i>automixa</i>	FSC/--/1B	Coastal scrub, grassland (ultramafic)	High Potential Alameda County <sup>c</sup>	May-July
Presidio clarkia <i>Clarkia franciscana</i>	FE/CE/1B	Coastal scrub, grassland (ultramafic)	Moderate Potential Alameda County <sup>c</sup>	May-July
Serpentine collomia <i>Collomia diversifolia</i>	--/--/4	Serpentine seeps, streams	Moderate Potential Red Mountains <sup>a</sup>	May-June
Mt. Hamilton coreopsis <i>Coreopsis hamiltonii</i>	FSC/--/1B	Steep, shale talus, woodland	Moderate Potential Mt. Hamilton Range <sup>a</sup>	March-May
Inner Coast Range Larkspur <i>Delphinium californicum</i> ssp. <i>interius</i>	FSC/--/1B	Dry ravines	High Potential Mt. Hamilton Range <sup>a</sup>	April-June
Western leatherwood <i>Dirca occidentalis</i>	--/--/1B	Broadleafed upland forests, closed-cone coniferous forests, chaparral, cismontane woodland, North Coast coniferous forests, riparian forests, riparian woodland; mesic sites	Moderate Potential Alameda, Santa Clara County <sup>c</sup>	Jan-March
Santa Clara Valley dudleya <i>Dudleya setchellii</i>	FE/--/1B	Ultramafic grasslands	Moderate Potential Outside of range	May-June

**TABLE III.E-1 (Continued)**  
**SPECIAL-STATUS PLANT SPECIES**  
**POTENTIALLY OCCURRING IN THE ALAMEDA WATERSHED**

<b>Common name</b> <i>Scientific name</i>	<b>Listing Status</b> USFWS/CDFG/ CNPS	<b>Habitat</b> <b>Requirements</b>	<b>General Site</b> <b>Occurrence</b> <b>Within the</b> <b>Watershed</b>	<b>Flowering</b> <b>Period</b>
Tiburon buckwheat <i>Eriogonum luteolum</i> var. <i>caninum</i>	--/--/3	Chaparral, coastal prairie, grasslands, usually on serpentine	Moderate Potential Alameda, Santa Clara County <sup>c</sup>	June-Sept
Ben Lomond buckwheat <i>Eriogonum nudum</i> var. <i>decurrens</i>	--/--/1B	Chaparral, coastal prairie, grasslands, usually on serpentine	Moderate Potential Alameda, Santa Clara, Santa Cruz County <sup>c</sup>	June-Sept
Jepson's woolly sunflower <i>Eriophyllum jepsonii</i>	--/--/4	Coastal scrub	High Potential Alameda, Santa Clara County <sup>c</sup>	April-June
Stinkbells <i>Fritillaria agrestis</i>	--/--/4	Valley and foothill grasslands, oak woodlands; on clay flats; sometimes on serpentine	High Potential Alameda, Santa Clara County <sup>c</sup>	March- April
Talus fritillary <i>Fritillaria falcata</i>	FSC/--/1B	Chaparral, woodland, on talus	Moderate Potential Alameda, Santa Clara County <sup>c</sup>	March-May
Fragrant fritillary <i>Fritillaria liliacea</i>	FSC/--/1B	Coastal scrub, valley and foothill grassland, coastal prairie; on heavy clay soils, often on ultramafic soils	High Potential Alameda, Santa Clara County <sup>c</sup>	Feb-April
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE/--/1B	Moist grasslands, vernal pools	Moderate Potential Alameda, Santa Clara County <sup>c</sup>	March-June
Woolly-headed lessingia <i>Lessingia hololeuca</i>	--/--/3	Grasslands	Moderate Potential	June-Oct
Arcuate bush mallow <i>Malacothamnus arcuatus</i>	--/--/4	Chaparral	Moderate Potential Santa Clara County <sup>c</sup>	April-July
Hall's bush mallow <i>Malacothamnus hallii</i>	--/--/4	Chaparral	Moderate Potential Alameda, Santa Clara County <sup>c</sup>	May-Sept
Gairdner's yampah <i>Perideridia gairdneri</i>	FSC/--/1B	Broad-leaved Upland forest, chapparral	Moderate Potential Santa Isabella Valley <sup>a</sup>	June-July
Mt. Diablo phacelia <i>Phacelia phacelioides</i>	FSC/--/1B	Cismontane woodland, chaparral	High Potential Alameda, Santa Clara County <sup>c</sup>	April-May
Forget-me-not popcorn flower <i>Plagiobothrys myosotoides</i>	--/--/4	Chaparral	Moderate Potential Ridge-top in Mt. Hamilton Range <sup>a, c, e</sup>	April-May

**TABLE III.E-1 (Continued)  
SPECIAL-STATUS PLANT SPECIES  
POTENTIALLY OCCURRING IN THE ALAMEDA WATERSHED**

<b>Common name <i>Scientific name</i></b>	<b>Listing Status USFWS/CDFG/ CNPS</b>	<b>Habitat Requirements</b>	<b>General Site Occurrence Within the Watershed</b>	<b>Flowering Period</b>
Lobb's aquatic buttercup <i>Ranunculus lobbii</i>	--/--/4	Ponds, pools, watering holes	High Potential Alameda, Santa Clara County <sup>b</sup>	Feb-April
Rock sanicle <i>Sanicula saxatilis</i>	FSC/CR/1B	Broad-leaved upland forest, chaparral, valley and foothill grassland	Moderate Potential Santa Clara County <sup>c</sup>	April-May
Maple-leaved checkerbloom <i>Sidalcea malachroides</i>	--/--/1B	Grasslands	Moderate Potential Santa Clara County <sup>c</sup>	April-June
Metcalf Canyon jewelflower <i>Streptanthus albidus</i> ssp. <i>albidus</i>	FE/--/1B	Serpentine grassland, barrens	High Potential Santa Clara County <sup>c</sup>	April-June
Most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	FSC/--/1B	Serpentine grassland, chaparral	Moderate Potential San Francisco Bay Area <sup>d</sup>	April-June
Mt. Hamilton jewelflower <i>Streptanthus callistus</i>	FSC/--/1B	Shale talus	High Potential Endemic, Arroyo Bayo <sup>a</sup>	April-May
Mt. Diablo jewelflower <i>Streptanthus hispidus</i>	FSC/--/1B	Grassland	High Potential Endemic, Mt. Diablo <sup>c</sup>	March-June
Mt. Diablo cottonweed <i>Stylocline amphibola</i>	--/--/4	Broad-leaved Upland forest, Chaparral	High Potential Alameda County <sup>c</sup>	April-May

Federal Categories (USFWS)

FE = Listed as Endangered by the Federal Government  
 FT = Listed as Threatened by the Federal Government  
 FPE = Proposed for Listing as Endangered  
 FPT = Proposed for Listing as Threatened  
 FC = Candidate for Federal Listing  
 FSC = Federal Species of Concern (former Category 2  
 Candidate  
 FC3c = Species removed from listing

California Native Plant Society (CNPS)

List 1A = Plants presumed extinct in California  
 List 1B = Plants rare, threatened, or endangered in California  
 and elsewhere  
 List 2 = Plants rare, threatened, or endangered in California  
 but more common  
 List 3 = Plants about which more information is needed  
 List 4 = Plants of limited distribution

State Categories (CDFG)

CE = Listed as Endangered by the State of California  
 CT = Listed as Threatened by the State of California  
 CR = Listed as Rare by the State of California

High Potential = Species expected to occur and meets all habitats as defined in list  
 Moderate Potential = Habitat only marginally suitable or suitable but not within species geographic range

<sup>a</sup> Sharsmith, 1982.

<sup>b</sup> Hickman, 1993.

<sup>c</sup> Smith, Berg, 1992.

<sup>d</sup> CDFG, 1991.

<sup>e</sup> Environmental Science Associates, 1994.

SOURCE: Environmental Science Associates, 1994; EDAW, Inc., 1998; CNPS, 1998; CDFG, 1998

**TABLE III.E-3  
SPECIAL-STATUS ANIMAL SPECIES REPORTED OR  
POTENTIALLY OCCURRING IN THE PENINSULA WATERSHED**

<b>Common name Scientific name</b>	<b>Listing Status USFWS/ CDFG</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence Within the Watershed</b>	<b>Period of Identification</b>
<b><u>Invertebrates</u></b>				
Opler's longhorn moth <i>Adella oplerella</i>	FSC/--	Serpentine bunchgrass grassland	High Potential	Spring
Edgewood blind harvestman <i>Calcinia minor</i>	FSC/--	Serpentine rock outcrops and barrens	High Potential	Fall-Winter
Serpentine phalangid <i>Calcina serpentina</i>	FSC/--	Serpentine rocks and barrens	High Potential	Fall-Winter
Monarch butterfly <i>Danaus plexippus</i>	--/*	Eucalyptus groves (winter sites)	Moderate Potential	Winter
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT/--	serpentine bunchgrass grassland	High Potential	March-May
Mission blue butterfly <i>Icaricia icarioides missionensis</i>	FE/--	Grassland with <i>Lupinus albifrons</i> , <i>L. formosa</i> , and <i>L. varicolor</i>	High Potential	March-June
San Bruno elfin butterfly <i>Incisalia mossii bayensis</i>	FE/--	Found in coastal scrub	High Potential	March-April
San Francisco fork-tailed damsselfly <i>Ischnura gemina</i>	FSC/--	Wetlands with emergent vegetation	High Potential	April-October
San Francisco lacewing <i>Nothochrysa californica</i>	FSC/--	Grasslands	Moderate Potential	Spring
Unsilvered fritillary butterfly <i>Speyeria adiastrum adiastrum</i>	FSC/--	Found in native grasslands with <i>Viola pedunculata</i> as larval food plant	High Potential	Spring
Callipe silverspot butterfly <i>Speyeria callippe callippe</i>	FE/--	Found in native grasslands with <i>Viola pedunculata</i> as larval food plant	High Potential	Spring
Myrtle silverspot butterfly <i>Speyeria zerene myrtleae</i>	FE/--	Found in native grasslands with <i>Viola pedunculata</i> as larval food plant	High Potential	Spring
<b><u>Amphibians</u></b>				
California tiger salamander <i>Ambystoma californiense</i>	FC/CSC	Seasonal freshwater ponds with little or no emergent vegetation	Moderate Potential	November- May
California red-legged frog <i>Rana aurora draytonii</i>	FT/CSC	Freshwater ponds and slow streams with emergent vegetation for egg attachment	High Potential	April-June
Foothill yellow-legged frog <i>Rana boylei</i>	FSC/CSC	Streams with quiet pools absent of predatory fish	High Potential	April-June
Western spadefoot toad <i>Scaphiopus hammondi</i>	FSC/CSC	Floodplains and grassland pools	Moderate Potential	February- August

**TABLE III.E-3 (Continued)**  
**SPECIAL-STATUS ANIMAL SPECIES REPORTED OR**  
**POTENTIALLY OCCURRING IN THE PENINSULA WATERSHED**

<b>Common name</b> <i>Scientific name</i>	<b>Listing Status</b> USFWS/ CDFG	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b> Within the Watershed	<b>Period of Identification</b>
<b><u>Reptiles</u></b>				
Western pond turtle <i>Clemmys marmorata</i>	FSC/CSC	Freshwater ponds and slow streams edged with sandy soils for laying eggs	High Potential	warm days
San Francisco garter snake <i>Thamnophis sirtalis tetrataenia</i>	FE/CE	Freshwater ponds and slow streams with emergent vegetation	High Potential	warm days
<b><u>Birds</u></b>				
Cooper's hawk <i>Accipiter cooperi</i>	--/CSC	Nests in riparian growths of deciduous trees and live in oaks	High Potential	March-July
Sharp-shinned hawk <i>Accipiter striatus</i>	--/CSC	Nests in riparian growths of deciduous trees and live oaks	High Potential	March-July
Great blue heron <i>Ardea herodias</i>	--/*	Nests in trees along lakes and estuaries	High Potential	Dec.-July
Marbled murrelet <i>Brachyramphus marmoratus</i>	FT/CE	Nests in dense, old growth forests along coast	High Potential	Year-round
Northern harrier <i>Circus cyaneus</i>	--/CSC	Nests and forages in wet meadows and pastures	High Potential	Year-round
Merlin <i>Falco columbarius</i>	--/CSC	A winter visitor of woodlands, foothills and valleys	High Potential	Winter
● American peregrine falcon <i>Falco peregrinus anatum</i>	--/CE	Nests in cliffs and outcrops	Moderate Potential	Year-round
Bald eagle <sup>a</sup> <i>Haliaeetus leucocephalus</i>	FT/CE	Nests and forages on inland lakes, reservoirs, and rivers	High Potential	Winter
Osprey <i>Pandion haliaetus</i>	--/CSC	Nests near fresh water lakes and large streams on large snags	Moderate Potential	March-June
American white pelican <i>Pelecanus erythrorhynchos</i>	--/CSC	Nests on protected islets near freshwater lakes for protection from predators	Moderate Potential	May-July
<b><u>Mammals</u></b>				
Pallid bat <i>Antrozous pallidus</i>	--/CSC	Roosts in caves, old buildings and under bark. Forages in open lowland areas and forms large maternity colonies in spring.	High Potential	February-August
Western mastiff bat <i>Eumops perotis</i>	FSC/CSC	Open semi-arid to arid habitats roosting on high cliffs and buildings	High Potential	February-August
Small-footed myotis <i>Myotis ciliolabrum</i>	FSC/--	Roosts in caves, old buildings and under bark	High Potential	February-August

**TABLE III.E-3 (Continued)  
SPECIAL-STATUS ANIMAL SPECIES REPORTED OR  
POTENTIALLY OCCURRING IN THE PENINSULA WATERSHED**

<b>Common name Scientific name</b>	<b>Listing Status USFWS/ CDFG</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence Within the Watershed</b>	<b>Period of Identification</b>
<b><u>Mammals (cont.)</u></b>				
Long-eared myotis <i>Myotis evotis</i>	FSC/--	Roosts in caves, old buildings and under bark. Forms maternity colony in the spring	High Potential	February-August
Fringed myotis <i>Myotis thysanodes</i>	FSC/--	Roosts in caves, old buildings and under bark. Forms maternity colony in the spring	High Potential	February-August
Long-legged myotis <i>Myotis volans</i>	FSC/--	Roosts in caves, old buildings and under bark. Forms maternity colony in the spring.	High Potential	February-August
Townsend's big-eared bat <i>Plecotus townsendii</i>	FSC/CSC	Roosts in caves, old buildings and under bark. Forages in open lowland areas and forms large maternity colonies in spring.	Moderate Potential	February-August
Badger <i>Taxidea taxus</i>	--/*	Open grasslands with loose, friable soils	Moderate Potential	Year-round
Mountain lion <i>Felis spp.</i>	--/4800	Rural grasslands and woodlands	High	Year-round
<b><u>Fish</u></b>				
Steelhead trout <i>Oncorhynchus mykiss</i>	FT/--	Freshwater streams	High Potential	Year-round

**Federal Categories (USFWS)**

FE = Listed as Endangered (in danger of extinction) by the Federal Government.  
 FT = Listed as Threatened (likely to become endangered within the foreseeable future) by the Federal Government.  
 FPE = Proposed for Listing as Endangered  
 FPT = Proposed for Listing as Threatened  
 FC = Candidate to become a *proposed* species.  
 FSC = Federal Species of Concern. May be endangered or threatened, but not enough biological information has been gathered to support listing at this time.  
 FC3c = Species removed from listing

**State Categories (CDFG)**

CE = Listed as Endangered by the State of California  
 CT = Listed as Threatened by the State of California  
 CR = Listed as Rare by the State of California (plants only)  
 CSC = California Species of Special Concern  
 \* = Special Animals  
 3511 = Fully protected bird species (Fish and Game Code)  
 3503.5 = Protection for nesting species of Falconiformes (hawks) and Strigiformes (owls)  
 4800 = Mountain lion protection

High Potential = Species expected to occur and meets all habitats as defined in list.  
 Moderate Potential = Habitat only marginally suitable or suitable but not within species geographic range.  
 Low Potential = Habitat does not meet species requirements as currently understood in the scientific community.  
 -- = No listing status.

<sup>a</sup> Federal delisting is currently proposed, pending publication in the *Federal Register*.

SOURCE: Environmental Science Associates, 1994, 1998; CDFG, 1998

**TABLE III.E-1  
SPECIAL-STATUS PLANT SPECIES REPORTED OR  
POTENTIALLY OCCURRING IN THE PENINSULA WATERSHED**

<b>Common name <i>Scientific name</i></b>	<b>Listing Status USFWS/ CDFG/CNPS</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence Within the Watershed</b>	<b>Flowering Period</b>
San Mateo thorn-mint <i>Acanthomintha duttonii</i>	FE/CE/1B	Grassland and chaparral, on serpentinite	Found in "Triangle" a,b	April-June
Coast rock cress <i>Arabis blepharophylla</i>	FC3c/--/4	Broadleaved upland forests, coastal prairie, coastal scrub; often in rocky places	Found <sup>b,d</sup>	February-April
San Bruno Mtn. Manzanita <i>Arctostaphylos imbricata</i>	FSC/CE/1B	Chaparral, coastal scrub	Found <sup>b,d</sup>	February-May
Montara manzanita <i>Arctostaphylos montaraensis</i>	FC/--/1B	Maritime chaparral, coastal scrub	Found <sup>a,b</sup>	January-March
Brewer's calandrinia <i>Calandrinia breweri</i>	--/--/4	Burns and disturbed areas in coastal scrub and chaparral	Moderate Potential <sup>c</sup>	March-June
Robust spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i>	FPE/--/1B	Coastal scrub, coastal dunes, openings in oak woodlands	Moderate Potential <sup>c</sup>	May-September
Fountain thistle <i>Cirsium fontinale</i> var. <i>fontinale</i>	FE/CE/1B	Grassland and openings in chaparral, in serpentinite seeps	Found on Pulgas Ridge <sup>b</sup>	June-October
Mountain lady's-slipper <i>Cypripedium montanum</i>	FC3c/--/4	Broadleaved upland forests, lower montane coniferous forests	Moderate Potential <sup>c</sup>	March-July
Western leatherwood <i>Dirca occidentalis</i>	--/--/1B	Broadleaved upland forests, closed-cone coniferous forests, chaparral, cismontane woodland, North coast coniferous forests, riparian forests, riparian woodland; mesic sites	Found in many communities <sup>e</sup>	January-April
California bottle-brush grass <i>Elymus californicus</i>	FC3c/--/4	North coast coniferous forests	Occurs on Cahill Ridge <sup>b,c</sup>	June-August
Marsh horsetail <i>Equisetum palustre</i>	--/--/3	Marshes	Moderate Potential <sup>c</sup>	NK
Tiburon buckwheat <i>Eriogonum luteolum</i> var. <i>caninum</i>	FC3c/--/3	Chaparral, coastal prairie, grasslands, usually on serpentinite	High Potential <sup>c</sup> observed in coastal scrub	June-September
San Mateo woolly sunflower <i>Eriophyllum latilobum</i>	FE/CE/1B	Cismontane woodland, on serpentinite, often on roadcuts	Found along Crystal Sps. Rd. <sup>a,b,f</sup>	May-June

**TABLE III.E-1 (Continued)  
SPECIAL-STATUS PLANT SPECIES REPORTED OR  
POTENTIALLY OCCURRING IN THE PENINSULA WATERSHED**

<b>Common name <i>Scientific name</i></b>	<b>Listing Status USFWS/ CDFG/CNPS</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence Within the Watershed</b>	<b>Flowering Period</b>
San Francisco wallflower <i>Erysimum franciscanum</i>	FSC/--/4	Coastal dunes, coastal scrub, grasslands, often on serpentinite or granitic soils	Found throughout grassland <sup>b</sup>	March-June
Stink bells <i>Fritillaria agrestis</i>	--/--/4	Valley and foothill grasslands, oak woodlands; on clay flats; sometimes on serpentine	Low-Moderate Potential <sup>c</sup>	March-April
Fragrant fritillary <i>Fritillaria liliacea</i>	FSC/--/1B	Coastal scrub, valley and foothill grassland, coastal prairie; on heavy clay soils, often on ultramafic soils	Found on Pulgas Ridge <sup>b</sup>	February-April
Diablo rock-rose <i>Helianthella castanea</i>	FSC/--/1B	Openings in chaparral and broadleaved upland forest	Low-moderate <sup>c</sup> Potential	April-June
Marin dwarf flax <i>Hesperolinon congestum</i>	FT/CT/1B	Grassland and openings in chaparral, often on serpentinite	Found on Pulgas and Buri Buri Ridges <sup>b</sup>	May-July
Kellogg's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>	FSC/--/1B	Closed-cone coniferous forests, coastal scrub	Low-Moderate Potential <sup>c</sup>	April-September
Bristly linanthus <i>Linanthus acicularis</i>	--/--/4	Chaparral, cismontane woodland, coastal prairie	Low-Moderate Potential <sup>c</sup>	April-July
Large-flower linanthus <i>Linanthus grandiflorus</i>	--/--/4	Coastal bluff scrub, closed-cone coniferous forests, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, grasslands	Low-Moderate Potential <sup>c</sup>	April-July
San Mateo tree lupine <i>Lupinus eximius</i>	FSC/--/3	Chaparral and coastal	Found <sup>b</sup>	April-July
Arcuate bush mallow <i>Malacothamnus arcuatus</i>	--/--/4	Chaparral	Found <sup>c</sup>	April-July
Dudley's lousewort <i>Pedicularia dudleyi</i>	FSC/CR/1B	North Coast coniferous forests, maritime chaparral, grasslands, sometimes in disturbed sites	High Potential <sup>c</sup>	April-June
● White-rayed pentachaeta <i>Pentachaeta bellidiflora</i>	FE/CE/1B	Grasslands, serpentinite soils, dry rocky slopes	Found in triangle area <sup>c</sup>	March-May
Gaardner's yampah <i>Perideridia gairdneri</i> ssp. <i>gairdneri</i>	FSC/--/4	Broadleaved upland forests, chaparral, grasslands, vernal pools, usually in mesic sites	Moderate Potential <sup>c</sup>	June-October

**TABLE III.E-1 (Continued)  
SPECIAL-STATUS PLANT SPECIES REPORTED OR  
POTENTIALLY OCCURRING IN THE PENINSULA WATERSHED**

Common name <i>Scientific name</i>	Listing Status USFWS/ CDFG/CNPS	Habitat Requirements	Potential for Occurrence Within the Watershed	Flowering Period
Choris's popcorn-flower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	--/--/3	Chaparral, coastal prairie, coastal scrub, on mesic sites	Moderate Potential <sup>c</sup>	April-June
Hickman's cinquefoil <i>Potentilla hickmanii</i>	FPE/CE/1B	Coastal bluff scrub, closed- cone coniferous forests, meadows and marshes, mesic sites	Moderate Potential <sup>c</sup>	April- August
● San Francisco collinsia <i>Collinsia multicolor</i>	--/--/4	Closed-cone coniferous forests, coastal scrub, and moist, shady coast live oak woodland	High <sup>g</sup> Potential	March-May
● Hillsborough chocolate lily <i>Fritillaria biflora</i> var. <i>ineziana</i>	--/--/1B	Cismontane woodland, grassland, on serpentinite	Found on Buri Buri Ridge in serpentine grassland <sup>g</sup>	March-April
● San Francisco gumplant <i>Grindelia hirsutula</i> var. <i>maritima</i>	FSC/--/1B	Coastal bluff scrub, coastal scrub, grasslands, on sandy or serpentinite soils	High Potential <sup>g</sup>	August- September
● Crystal Springs lessingia <i>Lessingia arachnoidea</i>	FSC/--/1B	Cismontane woodland, coastal scrub, grasslands, on serpentinite, often on roadcuts	Found on Pulgas Ridge <sup>g</sup>	July-October
● Serpentine linanthus <i>Linanthus ambiguus</i>	--/--/4	Cismontane woodland, coastal scrub, grassland, usually on serpentinite	High Potential <sup>g</sup>	March-June
● Hickman's cinquefoil <i>Potentilla hickmanii</i>	FPE/CE/1B	Coastal bluff scrub, closed- cone coniferous forests, meadows and marshes, mesic sites	High Potential <sup>g</sup>	April- August

● Federal Categories (U.S. Fish and Wildlife Service)  
 FE = Listed as Endangered by the Federal Government  
 FT = Listed as Threatened by the Federal Government  
 FPE = Proposed for Listing as Endangered  
 FPT = Proposed for Listing as Threatened  
 FC = Candidate for Federal Listing  
 FSC = Federal Species of Concern (former Category 2  
 Candidate)  
 FC3c = Species removed from listing

California Native Plant Society (CNPS)  
 List 1A = Plants presumed extinct in California  
 List 1B = Plants rare, threatened, or endangered in  
 California and elsewhere  
 List 2 = Plants rare, threatened, or endangered in  
 California but more common  
 List 3 = Plants about which more information is needed  
 List 4 = Plants of limited distribution

State Categories (California Department of Fish and Game)

CE = Listed as Endangered by the State of California  
 CT = Listed as Threatened by the State of California  
 CR = Listed as Rare by the State of California

- a CDFG, 1998.
- b Corelli, T., 1991.
- c Environmental Science Associates, 1998.
- d Environmental Science Associates, 1994.
- e Oberlander, G. T., 1953.
- f The Nature Conservancy, 1990.
- g California Native Plant Society, 2000.
- h National Park Service, 2000.

High Potential = Species expected to occur and meets all habitats as defined in list.

Moderate Potential = Habitat only marginally suitable or suitable but not within species geographic range.

Low Potential = Habitat does not meet species requirements as currently understood in the scientific community.

-- = No listing status; NK = Not known, information unavailable.

SOURCE: Environmental Science Associates, 1994, 1998; CDFG, 1998; CNPS, 1998

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Hickman, 1993; The Nature Conservancy, 1990; Corelli, 1991; and Oberlander, 1953). Seven of these species have formal listings as endangered or threatened under the California Endangered Species Act or Federal Endangered Species Act. These species include San Mateo thornmint, fountain thistle, San Mateo woolly sunflower, Marin dwarf flax, white-rayed pentachaeta, San Bruno Mountain manzanita, and Hickman's cinquefoil. All the species have been observed within the Watershed, except Hinkman's cinquefoil, which has a moderate potential to occur.