

## Santa Clara County Endangered Species

The federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) are important for our Defensible Space Chipping Programs.

The following attachments can be used to determine the endangered species in each grant area or other parts of Santa Clara County:

1. Santa Clara County Quad Map – use this map to see the quadrants (quads) that cover Santa Clara County and to choose the area of interest. These quad names are used in the other attachments.
2. Santa Clara County Endangered Species by Quad – use this to see which endangered species are in each quad.
3. Santa Clara County Endangered Species and their Associated Habitats – use this for more on the habitats for each species.

Below are habitat descriptions and recommendations for chipping and clearing activities where threatened or endangered species may exist.

**Species Color Code:** Amphibian, Bird, Fish, Mammal, Reptile, Insect, Crustacean/Mollusk, Plant

**Freshwater Wetlands** – Includes ponds, streams, lakes and surrounding habitat. Adjacent habitat can be grasslands, oak savannah, riparian, or forest habitat. Species may require water for some part of their life cycle and use upland habitat for other activities. ***Avoid chipping and clearing activities near streams or wetland areas.***

- Species: California tiger salamander, California red-legged frog, bank swallow, least Bell's vireo, Coho Salmon, Steelhead, vernal pool tadpole shrimp, Contra Costa goldfields, San Francisco garter snake

**Saltwater Marsh** – Includes coastal estuaries, and man made salt ponds like the Don Edwards Wildlife Refuge and Coastal areas in Santa Cruz. Species require some salinity and utilize plant habitat or water habitat. ***Likelihood of conducting chipping or clearing projects in these areas is low. Chipping and clearing should be avoided in these areas.***

- Species: California black rail, California clapper rail, western snowy plover, California least tern, salt-marsh harvest mouse, California seablite, San Francisco garter snake

**Valley Grassland** – Primarily composed of annual grasses. ***If clearing and chipping in these areas, be aware of the species at risk and avoid clearing endangered plants or damaging animal habitat.***

- Species: California tiger salamander, California red-legged frog, San Joaquin kit fox, San Francisco garter snake, Ohlone tiger beetle, Bay checkerspot butterfly, fountain thistle, Contra Costa goldfields, Santa Clara Valley dudleya, showy rancheria clover, Coyote ceanothus, Tiburon paintbrush, San Mateo thorn-mint, Marin western flax, white-rayed pentachaeta. Santa Cruz tarplant, San Francisco popcorn-flower, Scotts Valley spineflower, Scotts Valley polygonum, Monterey spineflower

**Chaparral** – Composed primarily of densely packed shrubs, often very little tree cover. ***Areas with suspected endangered species should be avoided for clearing and chipping.***

- Species: San Joaquin kit fox, fountain thistle, Coyote ceanothus, San Mateo thorn-mint, Marin western flax, Santa Cruz wallflower, Monterey spineflower, robust spineflower

**Woodlands** – Habitat is composed of hardwood, conifer, and shrub species. Can be associated with streams or not. May be composed of dense or sparse vegetation.

***Areas with suspected endangered species should be avoided for clearing and chipping.***

- Species: California tiger salamander, California red-legged frog, least Bell's vireo, Santa Clara Valley dudleya, San Mateo woolly sunflower, Santa Cruz wallflower, Ben Lomond spineflower, Monterey spineflower

**Freshwater Streams/Tributaries** – Many streams and tributaries are considered habitat for endangered Coho Salmon and Steelhead Trout populations. ***Any chipping activities should be avoided near creeks, streams, and tributaries.***

- Species: Coho Salmon, Steelhead

**Vernal Pools** – Vernal pools are depressions of shallow hardpan soils. The hardpan soils lead to a collection of water that pools during the wet season and dries up during the dry season. This unique habitat leads to specially adapted species that are often rare or endangered. ***Any clearing should be avoided in vernal pools.***

- Species: vernal pool tadpole shrimp, Contra Costa goldfields

**Sandhill Soils** – Sandy soils primarily in the Sandhills of Santa Cruz County. ***Avoid clearing and chipping in areas with known or suspected endangered species.***

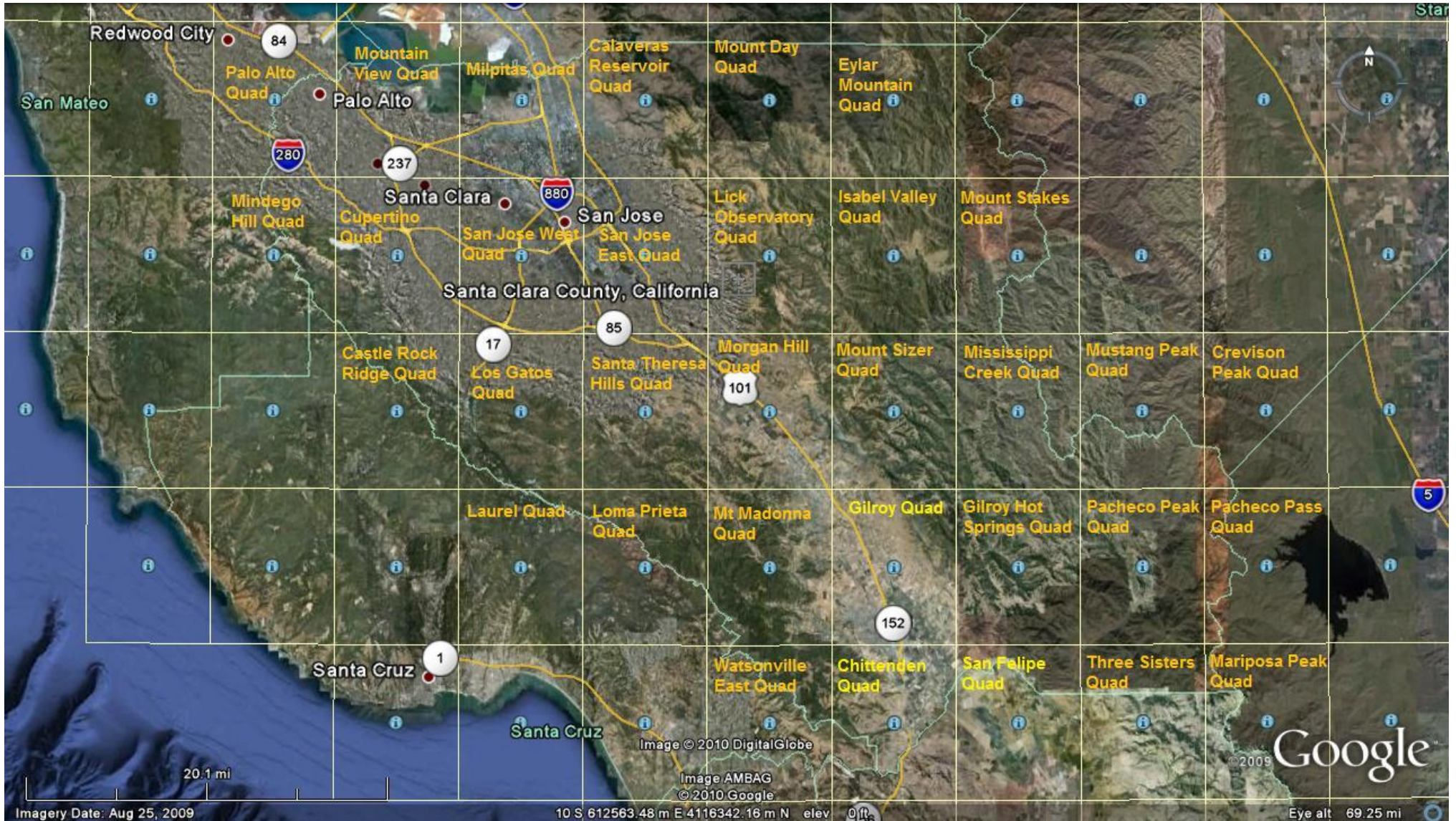
- Species: Zayante band-winged grasshopper, Ben Lomond spineflower

**Serpentine Soil** – Serpentine soils are high in heavy metals, which is a harsh environment. Species are specially adapted to these soil types and thus are often endangered or rare. ***Serpentine should be evaluated for endangered species and clearing/chipping activities should be avoided in those areas.***

- Species: Bay checkerspot butterfly, fountain thistle, Metcalf Canyon jewel-flower, Santa Clara Valley dudleya, showy rancheria clover, Coyote ceanothus, Tiburon paintbrush, San Mateo thorn-mint, Marin western flax, San Mateo woolly sunflower



# Santa Clara County Quad Map







**Santa Clara County  
Endangered Species  
by Quad**

**Species** \* Amphibian, Bird, Fish,  
Mammal, Reptile, Insect,  
Crustacean/Mollusk, Plant

			Quad:														
	Common Name	Listing Status*	Mississippi Creek	Mustang Peak	Crevison Peak	Laurel	Loma Prieta	Mt. Madonna	Gilroy	Gilroy Hot Springs	Pacheco Peak	Pacheco Pass	Watsonville East	Chittenden	San Felipe	Three Sisters	Mariposa Peak
<i>Ambystoma californiense</i>	California tiger salamander	F-E, CA-Th, DFG-SSC						X	X	X	X	X		X	X		
<i>Rana draytonii</i>	California red-legged frog	F-E, DFG-SSC	X	X		X	X	X	X	X	X	X	X	X	X	X	X
<i>Falco peregrinus anatum</i>	American peregrine falcon	F-Delist, CA-Delist															
<i>Laterallus jamaicensis coturniculus</i>	California black rail	CA-Th, DFG-FP															
<i>Rallus longirostris obsoletus</i>	California clapper rail	F-E, CA-E, DFG-FP															
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	F-Th, DFG-SSC															
<i>Sternula antillarum browni</i>	California least tern	F-E, CA-E, DFG-FP															
<i>Riparia riparia</i>	bank swallow	CA-Th												X			
<i>Vireo bellii pusillus</i>	least Bell's vireo	F-E, CA-E							X					X			
<i>Oncorhynchus kisutch</i>	Coho Salmon	F-E, CA-E				X											
<i>Oncorhynchus mykiss irideus</i>	Steelhead	F-Th				X	X	X	X					X			
<i>Lepidurus packardi</i>	vernal pool tadpole shrimp	F-E															
<i>Reithrodontomys raviventris</i>	salt-marsh harvest mouse	F-E, CA-E, DFG-FP															
<i>Vulpes macrotis nutica</i>	San Joaquin kit fox	F-E, CA-Th								X	X					X	X
<i>Thamnophis sirtalis tetrataenia</i>	San Francisco garter snake	F-E, CA-E, DFG-FP															
<i>Cicindela ohlone</i>	Ohlone tiger beetle	F-E				X											
<i>Euphydryas editha bayensis</i>	Bay checkerspot butterfly	F-Th						X	X								
<i>Trimerotropis infantilis</i>	Zayante band-winged grasshopper	F-E				X											
<i>Cirsium fontinale</i> var. <i>fontinale</i>	fountain thistle	F-E, CA-E															
<i>Lasthenia conjugens</i>	Contra Costa goldfields	F-E															
<i>Streptanthus albidus</i> ssp. <i>albidus</i>	Metcalf Canyon jewel-flower	F-E															
<i>Suaeda californica</i>	California seablite	F-E															
<i>Dudleya setchellii</i>	Santa Clara Valley dudleya	F-E	X					X	X	X							
<i>Trifolium amoenum</i>	showy rancheria clover	F-E							X					X			
<i>Chorizanthe robusta</i> var. <i>robusta</i>	robust spineflower	F-E				X											
<i>Ceanothus ferrisiae</i>	Coyote ceanothus	F-E					X										
<i>Castilleja affinis</i> ssp. <i>neglecta</i>	Tiburon paintbrush	F-E, CA-Th															
<i>Acanthomintha duttonii</i>	San Mateo thorn-mint	F-E, CA-E															
<i>Hesperolinon congestum</i>	Marin western flax	F-Th, CA-Th															
<i>Eriophyllum latilobum</i>	San Mateo woolly sunflower	F-E, CA-E															
<i>Pentachaeta bellidiflora</i>	white-rayed pentachaeta	F-E, CA-E				X											
<i>Erysimum teretifolium</i>	Santa Cruz wallflower	F-E, CA-E				X											
<i>Chorizanthe pungens</i> var. <i>hartwegiana</i>	Ben Lomond spineflower	F-E				X											
<i>Holocarpha macradenia</i>	Santa Cruz tarplant	F-Th, CA-E				X							X				
<i>Plagiobothrys diffusus</i>	San Francisco popcorn-flower	CA-E				X											
<i>Chorizanthe robusta</i> var. <i>hartwegii</i>	Scotts Valley spineflower	F-E				X											
<i>Polygonum hickmanii</i>	Scotts Valley polygonum	F-E, CA-E				X											
<i>Chorizanthe pungens</i> var. <i>pungens</i>	Monterey spineflower	F-Th					X						X				

## SANTA CLARA COUNTY ENDANGERED SPECIES AND THEIR ASSOCIATED HABITATS

### Amphibians

*Ambystoma californiense* (California tiger salamander) – Habitat is grassland, oak savannah, with a water source for early life stages

*Rana draytonii* (California red-legged frog) – Habitat is permanent ponds or forest streams with plant cover in woodlands, forests or grasslands. Commonly found in lowlands or foothills.

### Birds

*Falco peregrinus anatum* (American peregrine falcon) – (delisted) Uses cliffs for nesting and open areas for foraging, city buildings can be used as nest sites

*Laterallus jamaicensis coturniculus* (California black rail) – Habitat is saltwater, brackish water, or freshwater marshes. Very secretive and rarely seen or heard

*Rallus longirostris obsoletus* (California clapper rail) – Habitat is salt or brackish water marshes in the SF Bay area

*Charadrius alexandrinus nivosus* (western snowy plover) – Nesting habitat is barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, and river bars

*Sterna antillarum browni* (California least tern) – Habitat is primarily unfrequented sandy beaches near estuaries and coastal inlets. Breeding from April-August

*Riparia riparia* (bank swallow) – Open habitat with nesting areas of sand, gravel or dirt near a water source.

*Vireo bellii pusillus* (least Bell's vireo) – Dense shrubs and small trees near rivers and streams

### Fish

*Oncorhynchus kisutch* (Coho Salmon) – Streams and freshwater tributaries

*Oncorhynchus mykiss irideus* (Steelhead) – Streams and freshwater tributaries

### Crustacean/Mollusk

*Lepidurus packardii* (vernal pool tadpole shrimp) – Habitat is vernal pools (periodically filled ponds)

## Mammals

***Reithrodontomys raviventris* (salt-marsh harvest mouse)** – Habitat is salt water marshes in the SF Bay area, specifically areas with pickleweed (*Salicornia virginica*)

***Vulpes macrotis mutica* (San Joaquin kit fox)** – Habitat is annual grassland or mixed shrub/grassland

## Reptiles

***Thamnophis sirtalis tetrataenia* (San Francisco garter snake)** – Prefers grasslands or wetlands near ponds, marshes and sloughs

## Insects

***Cicindela ohlone* (Ohlone tiger beetle)** – Santa Cruz County coastal terraces with native grasslands

***Euphydryas editha bayensis* (Bay checkerspot butterfly)** – Serpentine soils with dwarf plantago (*Plantago erecta*) and Indian paintbrush or purple owl's clover (*Castilleja exserta* spp. *exserta*)

***Trimerotropis infantilis* (Zayante band-winged grasshopper)** – Zayante sand hills of Santa Cruz County

## Plants

***Cirsium fontinale* var. *fontinale* (fountain thistle)** – Endemic to serpentine soils, found in grasslands, chaparral, and riparian areas

***Lasthenia conjugens* (Contra Costa goldfields)** – vernal pools in valley grasslands, wetland riparian, or freshwater wetlands

***Streptanthus albidus* ssp. *albidus* (Metcalf Canyon jewel-flower)** – This species can be found in the Lower Soda Spring Canyon. It is restricted to Serpentine outcrops with little soil development often surrounded by grasslands.

***Suaeda californica* (California seablite)** – Coastal salt marsh and wetland riparian habitat

***Dudleya setchellii* (Santa Clara Valley dudleya)** – This species is restricted to rocky outcrops and serpentine woodlands or grasslands in New Almaden Quicksilver Park.

***Trifolium amoenum* (showy rancheria clover)** – coastal scrub and valley foothill grasslands, tolerant of serpentine

***Chorizanthe robusta* var. *robusta* (robust spineflower)** – Coastal dunes and scrub, also found in coastal chaparral

***Ceanothus ferrisiae* (Coyote ceanothus)** – Serpentine soils in chaparral and valley grassland

***Castilleja affinis ssp. neglecta* (Tiburon paintbrush)** – serpentine soils in valley grassland

***Acanthomintha duttonii* (San Mateo thorn-mint)** – serpentine soils in chaparral and valley grassland habitat

***Hesperolinon congestum* (Marin western flax)** – serpentine soils in chaparral and valley grassland habitat

***Eriophyllum latilobum* (San Mateo woolly sunflower)** – Primarily in San Mateo County, restricted to Serpentine soils, often found along road cuts

***Pentachaeta bellidiflora* (white-rayed pentachaeta)** – habitat is valley grassland, primarily in San Mateo and Santa Cruz Counties

***Erysimum teretifolium* (Santa Cruz wallflower)** – habitat is chaparral and yellow pine forest, likely restricted to Santa Cruz County

***Chorizanthe pungens var. hartwegiana* (Ben Lomond spineflower)** – Habitat is yellow pine forest likely in sandhills soil

***Holocarpha macradenia* (Santa Cruz tarplant)** – Habitat is coastal prairie or valley grassland

***Plagiobothrys diffusus* (San Francisco popcorn-flower)** – Habitat is coastal prairie or valley grassland

***Chorizanthe robusta var. hartwegii* (Scotts Valley spineflower)** – Habitat is Valley Grassland meadows, can be found in wetland areas

***Polygonum hickmanii* (Scotts Valley polygonum)** – Habitat is valley and foothill grassland

***Chorizanthe pungens var. pungens* (Monterey spineflower)** – Habitat is chaparral, woodlands, dunes, coastal scrub, and valley grasslands