

## MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) was formulated based on the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the **Portola Valley Housing and Safety Elements Update and Conforming General Plan and Zoning Code Amendments** in the Town of Portola Valley. This MMRP complies with Section 15097 of the *CEQA Guidelines*, which requires that the Lead Agency “adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.” The MMRP lists mitigation measures recommended in the IS/MND and identifies mitigation monitoring requirements.

The MMRP table below presents the mitigation measures identified in the IS/MND necessary to mitigate potentially significant impacts. Each mitigation measure is numbered according to the topical section to which it pertains in the IS/MND. As an example, Mitigation Measure AIR-1 is the first mitigation measure identified in the IS/MND in *Section III.C, Air Quality*.

The first column of the MMRP table identifies the mitigation measure. The second column identifies implementation action and responsibility, while the third column identifies the monitoring schedule or timing, and the fourth column names the party responsible for monitoring and the required monitoring action. The fifth column provides a place to record compliance with monitor dates and initials. These last columns will be used by the Town of Portola Valley to ensure that individual mitigation measures are monitored.

Mitigation Measures	Implementation Responsibility/Action	Timing	Monitoring Responsibility/Action	Date Completed/ Signature
<b>A. AESTHETICS</b>				
<i>Implementation of the project would not result in any significant aesthetics impacts.</i>				
<b>B. AGRICULTURE AND FORESTRY RESOURCES</b>				
<i>Implementation of the project would not result in any significant agriculture and forestry resources impacts.</i>				
<b>C. AIR QUALITY</b>				
<p><b>AIR-1: Dust Control Program.</b> During project construction, the contractor shall implement a dust control program that includes the following measures recommended by the Bay Area Air Quality Management District (BAAQMD) and these measures shall be included in contract specifications for construction of the project:</p> <ul style="list-style-type: none"> <li>▪ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li> <li>▪ All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</li> <li>▪ All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</li> <li>▪ All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.</li> <li>▪ All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.</li> </ul>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Include the AIR-1 requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>▪ Fully implement all exhaust control measures required by AIR-1.</li> </ul>	<p>Ongoing throughout demolition, grading, trenching, and construction period.</p>	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>▪ Make regular, periodic visits to the project site to ensure that all dust control mitigation measures required by AIR-1 are being implemented.</li> </ul>	

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<ul style="list-style-type: none"> <li>▪ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</li> <li>▪ All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.</li> <li>▪ A publicly visible sign shall be posted with the telephone number and person to contact at the construction site regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations.</li> </ul>				
<p><b>AIR-2: Quantified Emissions.</b> Proposed projects that would exceed the current BAAQMD’s screening criteria for operational criteria air pollutant emissions shall retain a qualified air quality consultant to quantify criteria air pollutant emissions and identify measures, as needed, to reduce the project’s average daily emissions below 54 pounds per day for ROG, NOx, and PM2.5 and 82 pounds per day for PM10, and reduce the maximum annual emissions below 10 tons per year for ROG, NOx, and PM2.5 and 15 tons per year for PM10. Quantified emissions and identified reduction measures shall be submitted to the Town for review and approval prior to the issuance of building permits.</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Include the AIR-2 requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>▪ Retain a qualified air quality consultant to quantify criteria air pollutant emissions and identify measures, as needed, to reduce the project’s average daily emissions below the thresholds (as defined).</li> </ul>	<p>Prior to issuance of the first building permit.</p>	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>▪ Ensure an air quality consultant is retained by the contractor.</li> <li>▪ Review and approve the quantified emissions and reduction measures as submitted by the qualified air quality consultant.</li> </ul>	

Mitigation Measures	Implementation Responsibility/Action	Timing	Monitoring Responsibility/Action	Date Completed/ Signature
	<ul style="list-style-type: none"> <li>Have the qualified air quality consultant submit the quantified emissions and reduction measures to the Town for review and approval.</li> </ul>			
<b>D. BIOLOGICAL RESOURCES</b>				
<i>Implementation of the project would not result in any significant biological resources impacts. **Note the project is subject to the Town's standard biological restrictions contained in Tables 2-6 of Appendix D-1 (Special Status Species) attached as Exhibit A.</i>				
<b>E. CULTURAL RESOURCES</b>				
<p><b>CULT-1: Accidental Discovery of Cultural Resources.</b> If cultural material is discovered during ground-disturbing activities on the Ford Field housing site, all work must halt within 50 feet of the find until the qualified archaeologist can determine the significance. No soil shall be exported from within the 50-foot buffer around the find until a determination of significance is made. The qualified archaeologist will then also determine if continued archaeological monitoring, testing, or data recovery is warranted.</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>Include the CULT-1 requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>Halt all construction activity within 50 feet of the project site if cultural material is discovered until appropriate action has been taken in accordance with CULT-1.</li> </ul>	Ongoing throughout demolition, grading, trenching, and construction period.	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>Ensure that a qualified archaeologist is retained by the contractor.</li> </ul>	
<p><b>CULT-2: Accidental Discovery of Archaeological Resources.</b> If archaeological material is discovered during ground-disturbing activities on The Sequoias or the Glen Oaks housing sites, all work must halt within 50 feet of the find until the qualified archaeologist can determine the significance. No soil shall be exported from within the 50-foot buffer around the find until a determination of significance is made. The qualified archaeologist will then also determine if continued archaeological monitoring, testing, or data recovery is warranted.</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>Include the CULT-2 requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>Halt all construction activity within 50 feet of the project site if archaeological material is discovered until appropriate action has been taken in accordance with CULT-2.</li> </ul>	Ongoing throughout demolition, grading, trenching, and construction period.	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>Ensure that a qualified archaeologist is retained by the contractor.</li> </ul>	

Mitigation Measures	Implementation Responsibility/Action	Timing	Monitoring Responsibility/Action	Date Completed/Signature
<p><b>CULT-3a: Halt Construction Activity, Evaluate Find, and Implement Mitigation.</b> In the event that any previously unidentified cultural resource (historic/archaeological/paleontological/Native American) are uncovered during site preparation, excavation, or other construction activity, all such activity shall cease until these resources have been evaluated by a qualified consultant and specific measures can be implemented to protect these resources in accordance with sections 21083.2 and 21084.1 of the California Public Resources Code.</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Include the CULT-3a requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>▪ Halt all construction activity if cultural resources (as defined) are uncovered until appropriate action has been taken in accordance with CULT-3a.</li> </ul>	<p>Ongoing throughout demolition, grading, trenching, and construction period.</p>	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>▪ Ensure that a qualified consultant is retained by the contractor.</li> </ul>	
<p><b>CULT-3b: Halt Construction Activity, Evaluate Remains, and Take Appropriate Action in Coordination with Native American Heritage Commission.</b> In the event that any human remains are uncovered during site preparation, excavation, or other construction activity, all such activity shall cease until these resources have been evaluated by the County Coroner, and appropriate action taken in coordination with the Native American Heritage Commission, in accordance with section 7050.5 of the California Health and Safety Code or, if the remains are Native American, section 5097.98 of the California Public Resources Code.</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Include the CULT-3b requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>▪ Halt all construction activity if human remains are uncovered until appropriate action has been taken in accordance with CULT-3b.</li> </ul>	<p>Ongoing throughout demolition, grading, trenching, and construction period.</p>	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>▪ Initiate coordination with the County Coroner and Native American Heritage Commission, if required.</li> </ul>	

**F. ENERGY**

*Implementation of the project would not result in any significant energy impacts.*

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<b>G. GEOLOGY AND SOILS</b>				
<p><b>GEO-1: Paleontological Resources During Construction.</b> Should any paleontological resources be encountered during construction activities, all ground disturbing activities within 50 feet of the find shall be stopped, the Town shall be notified by the applicant, and a qualified paleontologist shall be contacted and retained to assess the situation per Society of Vertebrate Paleontology standards. The qualified paleontologist shall consult with agencies, as appropriate, and make recommendations for the treatment of the discovery if found to be significant. If construction activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, preparation of a technical report, and providing the fossil material and technical report to a paleontological repository, such as the University of California Museum of Paleontology. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the Town for review.</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Include the GEO-1 requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>▪ Fully implement all exhaust control measures required by GEO-1.</li> <li>▪ Contact a qualified paleontologist, if required.</li> </ul>	<p>Ongoing throughout demolition, grading, trenching, and construction period.</p>	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>▪ Ensure that a qualified paleontologist is retained by the contractor.</li> <li>▪ Review the technical report methods, findings, and recommendations, if required.</li> </ul>	
<b>H. GREENHOUSE GAS EMISSIONS</b>				
<p><b>GHG-1: Off-Street Electric Vehicle Requirements.</b> All developments shall demonstrate compliance with the off-street electric vehicle (EV) requirements in the most recently adopted version of CALGreen Tier 2 prior to the Town of Portola Valley issuing building occupancy permits. Alternatively, developments shall demonstrate consistency with a climate action plan adopted by the Town of Portola Valley that meets the criteria under State CEQA Guidelines Section 15183.5(b) and identifies</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Include the GHG-1 requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>▪ Comply with off-street EV requirements as outlined in the Town Building Code, which</li> </ul>	<p>Prior to issuance of the first building occupancy permit.</p>	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>▪ Ensure developments are consistent with the Town Building Code, which meets the CALGreen Tier 2 EV requirements.</li> </ul>	

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community-wide measures that can be implemented to achieve the statewide GHG emissions targets of 40 percent below 1990 levels by 2030 and support the State’s goal of achieving carbon neutrality by 2045.	meets the CalGreen Tier 2 EV requirements.			
<u>GHG-2: Implement GHG-1.</u>	See GHG-1.			

**I. HAZARDS AND HAZARDOUS MATERIALS**

<p><u>HAZ-1: Phase I Environmental Site Assessment (ESA).</u> The following requirements related to potential hazardous materials contamination would not apply to residential renovations/additions (due to the limited soil disturbance involved with such projects) or properties where past land uses have included only residential or undeveloped open space (i.e., no previous agricultural, industrial, commercial, or transportation related use) and where placement of undocumented fill material has not occurred. Evidence of such past land use must be demonstrated to the Town through historic aerial photos, maps, and/or building department records.</p> <p>Prior to the Town issuing demolition, grading, or building permits for a proposed redevelopment or development project that would disturb soil (except for residential renovations/additions), the project applicant shall prepare a Phase I Environmental Site Assessment (ESA) for the project site and shall submit the Phase I ESA to the Town for review. If any Recognized Environmental Conditions (RECs) or other environmental concerns are identified in the Phase I ESA, the project applicant shall prepare a Phase II ESA to evaluate the RECs or other environmental concerns and shall submit the Phase II ESA to the Town for review and approval. Phase I and II ESA reports shall be prepared by a qualified environmental</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Provide aerial photos, maps, and/or building department records for past land use to the Town.</li> <li>▪ Have the qualified environmental professional prepare a Phase I ESA.</li> <li>▪ Have the qualified environmental professional prepare a Phase II ESA, if required.</li> <li>▪ Prepare a Soil and Groundwater Management Plan, if required.</li> <li>▪ Take remedial actions at the project site, if required.</li> <li>▪ Implement any recommendations for additional investigation and/or remedial action planning identified in the Phase I and II ESAs and submit to the Town evidence of approvals from the appropriate federal, State, or regional oversight agency(ies) for any proposed remedial action plans.</li> <li>▪ Implement the recommendations of the third-party qualified environmental professional following their review of the Phase I and II ESAs, if required.</li> </ul>	<p>Prior to issuance of demolition, grading, or building permits.</p>	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>▪ Review the Phase I ESA.</li> <li>▪ Review the Phase II ESA, if required.</li> <li>▪ Select a third-party qualified environmental professional to review Phase I and II ESAs and proposed remedial action plans, if required.</li> </ul>
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Mitigation Measures	Implementation Responsibility/Action	Timing	Monitoring Responsibility/Action	Date Completed/Signature
<p>professional and include recommendations for further investigation or remedial action, as appropriate, for hazardous materials contamination. Remedial actions may include, but not necessarily be limited to, the preparation and implementation of a Soil and Groundwater Management Plan, removal of hazardous materials containers/features (e.g., underground or aboveground storage tanks, drums, piping, sumps/vaults), proper destruction of water supply wells, removal and off-site disposal of contaminated soil or groundwater, in-situ treatment of contaminated soil or groundwater, or engineering/institutional controls (e.g., capping of contaminated soil, installation of vapor intrusion mitigation systems, and establishing deed restrictions).</p> <p>Prior to the Town issuing demolition, grading, or building permits, the project applicant shall implement any recommendations for additional investigation and/or remedial action planning identified in the Phase I and II ESAs and submit to the Town evidence of approvals from the appropriate federal, State, or regional oversight agency(ies) for any proposed remedial action plans.</p>				
<p>Prior to the Town issuing a certificate of occupancy, the project applicant shall submit to the Town evidence of approvals from the appropriate federal, State, or regional oversight agency(ies) for the completion of remedial action. If the project applicant indicates that in their view regulatory agency oversight/approval is not required for the proposed project based on the findings of the Phase II ESA and/or the proposed remedial actions, then the Phase I and II ESAs and proposed remedial action plans shall be reviewed by a third-party</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Submit to the Town evidence of approvals from the appropriate federal, State, or regional oversight agency(ies) for the completion of remedial action, if required.</li> </ul>	<p>Prior to issuance of certificate of occupancy.</p>		



Mitigation Measures	Implementation Responsibility/Action	Timing	Monitoring Responsibility/Action	Date Completed/Signature
<p>qualified environmental professional selected by the Town and funded by the project applicant. The third-party qualified environmental professional shall either approve of the proposed investigation and/or remedial actions or provide recommendations for further investigation, additional/alternative remediation actions, and/or regulatory agency oversight for the project site. The project applicant shall implement the recommendations of the third-party qualified environmental professional prior to the Town issuing demolition, grading, or building permits.</p>				
<b>J. HYDROLOGY/WATER QUALITY</b>				
<i>Implementation of the project would not result in any significant hydrology/water quality impacts.</i>				
<b>K. LAND USE/PLANNING</b>				
<i>Implementation of the project would not result in any significant land use/planning impacts.</i>				
<b>L. MINERAL RESOURCES</b>				
<i>Implementation of the project would not result in any significant mineral resources impacts.</i>				
<b>M. NOISE</b>				
<p><b>NOISE-1: Screening-Level Vibration Analysis.</b> Where new development is proposed in the vicinity of vibration-sensitive receptors, require a screening level vibration analysis. If a screening-level analysis shows that the project has the potential to substantially disturb vibration-sensitive activities or result in damage to structures, then a qualified professional shall prepare a detailed vibration impact assessment to determine appropriate design standards and methods of construction to avoid potential vibration impacts, if feasible.</p>	<p>Project Sponsor:</p> <ul style="list-style-type: none"> <li>▪ Include the NOISE-1 requirements in the contract and performance standards for the project contractor.</li> </ul> <p>Project Contractor:</p> <ul style="list-style-type: none"> <li>▪ Conduct a screening-level vibration analysis.</li> <li>▪ Have a qualified professional prepare a detailed vibration impact assessment and submit to the Town.</li> </ul>	<p>Prior to issuance of demolition, grading, or building permits</p>	<p>Town of Portola Valley Planning &amp; Building Department:</p> <ul style="list-style-type: none"> <li>▪ Review the detailed vibration impact assessment, if required.</li> </ul>	

Mitigation Measures	Implementation Responsibility/Action	Timing	Monitoring Responsibility/Action	Date Completed/ Signature
<b>N. PARKS AND RECREATION</b>				
<i>Implementation of the project would not result in any significant parks and recreation impacts.</i>				
<b>O. POPULATION/HOUSING</b>				
<i>Implementation of the project would not result in any significant population/housing impacts.</i>				
<b>P. PUBLIC SERVICES</b>				
<i>Implementation of the project would not result in any significant public services impacts.</i>				
<b>Q. TRANSPORTATION</b>				
<i>Implementation of the project would not result in any significant transportation impacts.</i>				
<b>R. TRIBAL CULTURAL RESOURCES</b>				
<u>TRIBE-4: Implement CULT-3a and CULT-3b.</u> See CULT-3a and CULT-3b.				
<b>S. UTILITIES/SERVICE SYSTEMS</b>				
<i>Implementation of the project would not result in any significant utilities/service systems impacts.</i>				
<b>T. WILDFIRE</b>				
<i>Implementation of the project would not result in any significant wildfire impacts.</i>				
<b>U. MANDATORY FINDINGS OF SIGNIFICANCE</b>				
<i>Implementation of the project would not result in any mandatory findings of significance.</i>				

APPENDIX D-1  
**SPECIAL STATUS SPECIES**

**PORTOLA VALLEY HOUSING AND SAFETY ELEMENTS INITIAL STUDY**  
APPENDIX D-1: SPECIAL STATUS SPECIES

Table 2 Special-status Species of Current Concern in Portola Valley

Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association on Portola Valley vegetation map	Likelihood of Occurrence	Applicable Laws/ Regulations	Measures Required
<b>Mammals</b>					
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i> CSC	Generalist herbivores, they consume a wide variety of nuts and fruits, fungi, foliage and some herbaceous plants. Dusky-footed woodrats are highly arboreal; evergreen or live oaks and other thick-leaved trees and shrubs are important habitat components for this species. Houses typically are placed on the ground against or straddling a log or exposed roots of a standing tree and are often located in dense brush. Houses also are placed in the crotches and cavities of trees and in hollow logs. Known to occur in scrubby and forested habitat throughout the town.	Oak Woodland Mixed Evergreen Forest Redwood Forest Creeks/Riparian Urban Forest/Garden Chaparral Coastal scrub	High. Known to occur along Los Trancos Creek and Corte Madera Creek; expected in any habitat	CEQA CDFG Code 4150	Vegetation removal, including dead and downed debris, requires a survey for presence of SFDW and coordination with CDFG as necessary.
Pallid bat <i>Antrozous pallidus</i> CSC	Takes a wide variety of insects and arachnids, including beetles, orthopterans, homopterans, moths, spiders, scorpions, and Jerusalem crickets. Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Very sensitive to disturbance of roosting sites. Such sites are essential for metabolic economy, juvenile growth and as night roosts to consume prey. Known to occur to the north in the Jasper Ridge Biological Preserve.	Cliffs in association with Oak woodland Oak savanna Mixed evergreen forest Coastal scrub Redwood forest Urban Forest/Garden Aquatic (forage)	Low to moderate. Roosting sites are likely rare. The CNDDDB record is Woodside, 1960.	CEQA CDFG Code 4150	Prior to the removal of any tree that is 12-inches or more in diameter at breast height, a survey for perennial bat roosts is required. If present, tree removal must be coordinated with CDFG
Western red bat	Roosting habitat includes forests and woodlands; forage habitat includes grasslands, shrublands, open woodlands and forests, and croplands. Prefers to roost in woodland at the edge of forage habitat. Solitary roost, except maternal roost that is colonial. Eats a variety of insects, mainly moths, crickets, beetles, cicadas. Requires water.	Oak woodland Oak savanna Grassland (forage) Creeks/riparian Urban forest/garden Mixed evergreen forest Coastal scrub Aquatic (forage)	Low to moderate	CEQA CDFG Code 4150	Prior to the removal of any tree that is 12-inches or more in diameter at breast height, a survey for perennial bat roosts is required. If present, tree

Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association on Portola Valley vegetation map	Likelihood of Occurrence	Applicable Laws/Regulations	Measures Required
	Migrates; winter resident in the Bay Area.				removal must be coordinated with CDFG
American badger <i>Taxidea taxus</i> CSC	Uncommon but has a widespread range. Badgers prefer to live in dry, open grasslands, fields, and pastures. They are found from high alpine meadows to sea level. Prey includes pocket gophers, ground squirrels, moles, woodrats, deer mice, and voles. Known to occur within 5 miles to the northwest of the town center.	Oak savanna Grassland	Low to moderate. Observed near the Stanford golf course in 1981.	CEQA CDFG Code 4150	If project requires grading in open habitat the site should be surveyed by qualified biologist to determine presence/absence, if present consult w/ CDFG
Ringtail	Uncommon and highly secretive. Nocturnal. Dens in rock outcrops and tree hollows. Eats small mammals, birds, reptiles, amphibians, carrion, and nuts and berries. Has a home range as large as 336 acres.	Chaparral Oak woodland Creek/Riparian	Low. Has not been recorded in the CNDDDB, but suitable habitat exists in Portola Valley and it is within the species' range.	CEQA CDFG Code 4150	If project requires grading that will remove large rock outcrops, or requires the removal of trees greater than 12 inches in diameter breast height in suitable habitat, a survey by a qualified biologist is recommended
<b>Reptiles</b>					
San Francisco garter snake	Highly aquatic, found near densely vegetated freshwater ponds with adjacent open hillsides and rodent burrows. Prey includes pacific tree frog, California red-legged frog, and bullfrog. Disperses from aquatic habitat during the summer, and may occupy burrows in the fall.	Aquatic	Low; the closest known location is Crystal Springs Reservoir, however an intergrade form is found in Woodside, and it has not been determined	Federal ESA CDFG Code CEQA	If a project is within 500 feet of an aquatic feature, it is recommended that a survey be conducted by a qualified biologist to determine if federal permits are necessary

Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association on Portola Valley vegetation map	Likelihood of Occurrence	Applicable Laws/ Regulations	Measures Required
			whether it is more closely related to the SFGS or the more common garter snake.		
Western pond turtle <i>Actinemys marmorata</i> CSC	Normally associated with permanent ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams. Hatchlings may be subject to desiccation if exposed to hot, dry conditions. Requires basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks. Considered omnivorous, it feeds on aquatic plant material, beetles, and a variety of aquatic invertebrates as well as fishes, frogs, and even carrion. Known to occur in Searsville lake in Jasper ridge biological preserve.	Aquatic Creek/Riparian Grassland (burrow sites)	Low. A very small population inhabits San Francisquito Creek. Ponds in town could provide suitable habitat	CEQA	If the project is within 500 feet of a lake or pond, the site should be surveyed by a qualified biologist to determine impacts and recommend avoidance measures. If present, consult with CDFG
<b>Amphibians</b>					
California red-legged frog <i>Rana aurora draytoni</i> FT, CSC	Chiefly a pond frog that inhabits moist forests, woodlands, grasslands, and streamside – anywhere plants provide dense riparian cover. Generally found in or near water, but often disperses after rains. Highly variable. Adults take aquatic and terrestrial insects and crustaceans and snails, as well as worms, fish, tadpoles, smaller frogs, and small mammals. Known to occur in Searsville Lake in Jasper Ridge Biological Preserve.	Redwood Forest Mixed Evergreen Forest Creek/Riparian Forest Grasslands Aquatic Oak Savanna	Low to moderate. A small population inhabits San Francisquito and Los Trancos Creeks. Corte Madera Creek and ponds in town could provide breeding habitat.	FESA CEQA	If the project is within 500 feet of a lake or pond, the site should be surveyed by a qualified biologist to determine impacts and recommend avoidance measures. If present, consult with USFWS
California tiger salamander <i>Ambystoma californiense</i> FT,CSC	The California Tiger Salamander can grow to a length of about 8–10 inches (20–25 cm) and have black and have yellow or cream spots; larvae are greenish-grey in	Oak Woodland Grasslands Oak Savanna Aquatic	Very low. Only known population on the peninsula is at Lagunita	FESA CEQA	If the project is within 500 feet of a lake or pond, the site should be surveyed by a

Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association on Portola Valley vegetation map	Likelihood of Occurrence	Applicable Laws/ Regulations	Measures Required
	color. It depends on water for reproduction; therefore its habitat is limited to the vicinity of fishless vernal pools or similar water bodies. It occurs at elevations up to 1000 m (3200 ft). Known to occur at Stanford University near Lagunita.				qualified biologist to determine impacts and recommend avoidance measures. If present, consult with USFWS
<b>Fish</b>					
Rainbow trout/Steelhead <i>Oncorhynchus mykiss</i> FT,CSC	A salmonid species which is anadromous. They spend their life in both fresh and salt water, migrating from the ocean to their upstream spawning habitat. They can be found in creeks and streams. Steelhead habitat is listed as Federally threatened. Known to occur in San Francisquito creek to the northeast of the town center.	Aquatic (Creeks/Riparian )	High. Known to occur in San Francisquito and Los Trancos creeks; landlocked trout in Corte Madera Creek	FESA CEQA	Any project that affects the bed, bank or channel of a creek is subject to a streambed alteration agreement from CDFG and may also require approval from NOAA Fisheries and the U.S. Army Corps of Engineers. A biological survey would be required by these agencies.
<b>Birds</b>					
White-tailed Kite <i>Elanus leucurus</i> CDFG – fully protected species	Uses herbaceous lowlands with variable tree growth and dense population of Voles. Substantial groves of dense, broad-leafed deciduous trees used for nesting and roosting. Preys mostly on voles and other small, diurnal mammals, occasionally on birds, insects, reptiles, and amphibians. Forages in undisturbed, open grasslands, meadows, farmlands and emergent wetlands. Known to occur	Creeks/Riparian Oak Savanna Oak Woodland Mixed Evergreen Forest Grassland Urban Forest/Garden	High. This species is known from the area and is expected to occur in Portola Valley	CESA CEQA MBTA CDFG Code	Prior to the removal of any tree that is 10 inches or more in diameter at breast height, a survey for raptor nests is required. If present, tree removal must be coordinated with CDFG



Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association on Portola Valley vegetation map	Likelihood of Occurrence	Applicable Laws/Regulations	Measures Required
	throughout the town in all habitats mentioned here.				
Northern Harrier <i>Circus cyaneus</i> CSC	Mostly found in flat, or hummocky, open areas of tall, dense grasses, moist or dry shrubs, and edges for nesting, cover, and feeding. Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Feeds mostly on voles and other small mammals, birds, frogs, small reptiles, crustaceans, insects, and, rarely on fish. Known to occur in the grasslands within the city limits.	Grassland Aquatic Oak Savanna Urban Forest/Garden	High. Known from the area, and suitable habitat is present in Portola Valley	CEQA MBTA CDFG Code 3503	Prior to the removal of any tree that is 10 inches or more in diameter breast height, a survey for raptor nests is required. If present, tree removal must be coordinated with CDFG
Golden Eagle <i>Aquila chrysaetos</i> CDFG – fully protected species	Uses rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops. Eats mostly lagomorphs and rodents; also takes other mammals, birds, reptiles, and some carrion. Known to occur on Jasper Ridge biological preserve.	Oak Woodland Grassland Oak Savanna Mixed Evergreen Forest Redwood Forest Urban Forest/Garden	High. Known from the area, and expected to occur in Portola Valley	MBTA CESA CDFG Code	Prior to the removal of any tree that is 10 inches or more in diameter breast height, a survey for raptor nests is required. If present, tree removal must be coordinated with CDFG
Cooper's Hawk <i>Accipiter cooperii</i> DFG watch list	A medium-sized hawk that prefers dense canopied evergreen and deciduous and riparian forests. Its main prey item is birds. It is known to occur at Stanford, and is expected to occur in Portola Valley.	Mixed Evergreen Forest Urban Forest/Garden Creeks/Riparian Oak Woodland Redwood Forest	High. Known from Stanford and suitable habitat is present in Portola Valley.	MBTA CESA CDFG Code	Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for raptor nests is required. If present, tree removal must be coordinated with CDFG
Sharp-shinned Hawk <i>Accipiter</i>	A small hawk that prefers coniferous, mixed evergreen forests and riparian forest. It is a winter resident of the bay	Mixed Evergreen Forest Urban	High. Known to occur at Stanford and	MBTA CESA CDFG Code	Prior to the removal of any tree that is 12 inches or

Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association on Portola Valley vegetation map	Likelihood of Occurrence	Applicable Laws/ Regulations	Measures Required
<i>striatus</i> DFG watch list	area, and is not expected to breed here. It preys on birds. It is known to occur at Stanford, and is expected to occur in Portola Valley.	Forest/Garden Creeks/Riparian Oak Woodland Redwood forest	suitable habitat is present in Portola Valley. Unlikely that nesting will occur.		more in diameter breast height, a survey for raptor nests is required. If present, tree removal must be coordinated with CDFG
Burrowing Owl <i>Athene cucularia</i> CSC	A yearlong resident of open, dry grassland and desert habitats and in grass, herbaceous plant and open shrub stages of pinyon-juniper and ponderosa pine habitats. Eats mostly insects; also small mammals, reptiles, birds, and carrion. Uses rodent or other burrow for roosting and nesting cover. Known to occur at the Palo Alto Baylands and in the Stanford foothills near Felt Lake.	Grassland Oak Savanna	Low. Known from Stanford near Felt Lake, but suitable habitat in Portola Valley is limited.	MBTA CEQA CDFG Code 3503	If grading in grassland proposed, project needs a survey by qualified biologist to determine presence/absence, if present consult w/ CDFG
Long-eared Owl <i>Asio otus</i> CSC	Frequents dense, riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats. Eats mostly voles and other rodents, occasionally birds, including smaller owls, and other vertebrates.	Oak Woodland Oak Savanna Mixed Evergreen Forest Redwood Forest Creek/Riparian Grassland	Moderate. Suitable habitat is present; likely occurs in mountainous areas	CEQA MBTA CDFG Code 3503	Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for raptor nests is required. If present, tree removal must be coordinated with CDFG
Loggerhead Shrike <i>Lanius ludovicianus</i> CSC	A common resident and winter visitor in lowlands and foothills throughout California. Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Eats mostly large insects; also takes small birds, mammals, amphibians, reptiles, fish, carrion, and various other invertebrates. Known to occur on Jasper Ridge biological	Oak Savanna Oak Woodland Grassland Chaparral	Moderate. Suitable habitat occurs; known from Jasper Ridge, but CNDDB records are from more than 50 years ago.	CEQA MBTA CDFG Code 3503	Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use.

Common Name Scientific Name	Habitat Requirements	Vegetation Association on Portola Valley vegetation map	Likelihood of Occurrence	Applicable Laws/ Regulations	Measures Required
	preserve.				
Saltmarsh Common Yellowthroat <i>Geothlypis trichas</i> CSC	Mostly breeds and winters in wet meadow, fresh emergent wetland, and saline emergent wetland habitats; also breeds in valley foothill riparian, and occasionally in desert riparian, annual grassland, and perennial grassland habitats. Eats insects, especially caterpillars and other larvae; also spiders and a few seeds.	Grassland Aquatic Creek/Riparian	Moderate to High. Known to occur at Searsville Lake; could occur along Corte Madera Creek	CEQA CESA MBTA CDFG Code 3505	Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use.
Tricolored Blackbird <i>Agelaius tricolor</i> CSC	Common locally throughout Central Valley and in coastal districts from Sonoma Co. south. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Feeds in grassland and cropland habitats. Feeds mostly on insects and spiders.	Aquatic Grassland (forage) Oak Savanna (forage)	Low.	CEQA CESA MBTA CDFG Code 3503	Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use.
Yellow Warbler <i>Dendroica petechia</i> (CSC)	Usually found in riparian deciduous habitats in summer: cottonwoods, willows, alders, and other small trees and shrubs typical of low, open-canopy riparian woodland. Also breeds in montane shrubbery in open conifer forests. In migration, visits woodland, forest, and shrub habitats. Mostly eats insects and spiders.	Creek/Riparian Chaparral Redwood Forest Mixed Evergreen Forest	Moderate. Has been observed at Jasper Ridge	CEQA CESA MBTA CDFG Code 3503	Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use.
<b>Plants</b>					
Arcuate bush mallow <i>Malacothamnus arcuatus</i> CNPS 1B	Grows in gravelly alluvium in chaparral and grassland at low elevations. Also occurs on serpentine. Occurs at Edgewood Natural Preserve, Arastradero Preserve, and Jasper Ridge. Threatened by change in fire regime. Blooms April-September.	Chaparral Grassland	High. Known to occur in neighboring areas	CEQA	If the project requires vegetation removal on Obispo clay, Los Gatos loam, or Fagan loam, serpentine soils could be affected. A rare plant survey by a

Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association on Portola Valley vegetation map	Likelihood of Occurrence	Applicable Laws/ Regulations	Measures Required
					qualified biologist is necessary the plant(s) and avoided.
Gairdner's yampah <i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> CNPS 4	Perennial tuberous-rooted herb found in the moist soil of flats, meadows, streamsides, grasslands, pine groves. Blooms June-July.	Grassland (moist conditions) Creeks/Riparian forest	Low to moderate. Known from Teague Hill Open Space Preserve	CEQA	If vegetation association is to be removed, a rare plant survey by a qualified biologist is necessary. Avoid plant removal.
Michael's piperia <i>Piperia michaelii</i> CNPS 4	Perennial orchid found in dry sites in coastal scrub, woodland, mixed evergreen forest, closed-cone pine forest. Blooms May-September.	Coastal scrub Mixed Evergreen Forest	Moderate to high. Known to occur at Jasper Ridge	CEQA	If vegetation association is to be removed, a rare plant survey by a qualified biologist is necessary. Avoid plant removal.
Western leatherwood <i>Dirca occidentalis</i> CNPS 1B	Cool, moist slopes in foothill woodland and riparian habitat. Blooms January-April.	Creek/Riparian Oak Woodland Chaparral Mixed Evergreen Forest	High. Known to occur along Los Trancos Creek, Jasper Ridge, and Foothills Park	CEQA	If vegetation association is to be removed, a rare plant survey by a qualified biologist is necessary. Avoid plant removal.

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 CSC – California Species of Concern  
 FE – Federal endangered (listed by the federal government as an endangered species)  
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CDFG website: <http://www.dfg.ca.gov/wildlife/species/ssc/mammals.html>. List of CDFG Special-status Mammals Accessed May 9, 2008.

CDFG website: <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf> (listing status)  
 CDFG. April 2008. California Bird Species of Special Concern

**Table 3 Plants and Animals of Concern Historically Known to Occur within Five Miles of Town Center But Not Likely to Occur in Portola Valley (No Surveys Necessary)**

Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association
<b>Invertebrates</b>		
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i> (FT)	The bay checkerspot butterfly is a medium-sized butterfly with a wing span of slightly more than 2 inches. Larvae are dependent on host plants, mostly the dwarf plantain, while the adult butterflies survive on nectar from various plant species. This butterfly is found in serpentine grassland habitat. It historically occurred at Jasper Ridge and Edgewood Natural Preserve, but is currently only known from the hills around Coyote Valley, in south San Jose. There are no areas of serpentine grassland in Portola Valley large enough to support a population of bay checkerspot butterfly.	Grassland (serpentine) Oak Savanna (serpentine)
<b>Amphibians</b>		
Foothill yellow-legged frog ( <i>Rana boylei</i> ) (CSC)	A highly aquatic species found in or near rocky streams. Last recorded in the vicinity in 1906	Aquatic Riparian Forest
<b>Birds</b>		
Alameda song sparrow <i>Melospiza melodia pusillula</i> (CSC)	Resident of salt marshes bordering the south arm of San Francisco Bay. Last recorded in 1914 near Menlo Park. Suitable habitat for this species is not present in Portola Valley	Salt Marsh
Purple Martin <i>Progne subis</i> (CSC)	Uses valley foothill and montane hardwood, valley foothill and montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood. Found in a variety of open habitats during migration, including grassland, wet meadow, and fresh emergent wetland, usually near water. Feeds on insects. In the CNDDDB the most recent observation of this species in the area was over 50 years ago.	Redwood Forest Mixed Evergreen Forest Riparian Forest Grassland Aquatic Oak Woodland Oak Savanna
Bank Swallow <i>Riparia riparia</i> (ST)	Requires vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, and the ocean for nesting. Feeds primarily over grassland, shrubland, savannah, and open riparian areas during breeding season and over grassland, brushland, wetlands, and	Riparian Forest Grassland Oak Savanna

Common Name Scientific Name	Habitat Requirements	Vegetation Association
	cropland during migration. Feeds on a wide variety of aerial and terrestrial soft-bodied insects including flies, bees, and beetles. Suitable habitat for this species is very limited in Portola Valley; the most recent observation reported in the CNDDDB is more than 50 years ago.	Chaparral Aquatic
Yellow-breasted Chat <i>Icteria virens</i> (CSC)	Requires riparian thickets of willow and other brushy tangles near watercourses for cover. Eats insects and spiders; also berries and other fruits.	Aquatic Creek/Riparian Grassland Mixed Evergreen Forest
Grasshopper Sparrow <i>Ammodramus savannarum</i> (CSC)	Frequents dense, dry or well-drained grassland, especially native grassland with a mix of grasses and herbaceous plants for foraging and nesting. Uses scattered shrubs for singing perches. Feeds primarily on insects, especially Orthoptera; also eats other invertebrates and grass and herbaceous plant seeds. The last observation recorded for this species in the CNDDDB for the area is over 50 years ago.	Grassland Oak Savanna Oak Woodland
<b>Plants</b>		
Alkali milk-vetch <i>Astragalus tener</i> <i>var. tener</i> ) CNPS 1B	Alkali flats, vernal pools, playas, valley and foothill grasslands with adobe clay. This species is believed to be extirpated in Santa Clara County and has not been recorded in San Mateo County.	Grassland
Bent-flowered fiddleneck <i>Amsinckia lunaris</i> CNPS 1B	Annual herb found in cismontane woodland, valley and foothill grassland.	Mixed Evergreen Forest Grassland
Caper-fruited tropidocarpum <i>Tropidocarpum capparideum</i> CNPS 1B	Valley & foothill grassland; alkaline clay. Thought be extinct.	Grassland
Choris' popcorn flower <i>Plagiobothrys chorisianus</i> <i>var. chorisianus</i> ) CNPS 1B	Grows in grassland patches in chaparral and coastal scrub habitats. Nearest known observation is at Crystal Springs Reservoir, about 4.5 miles north of town limits, where it grows in a moist meadow with oaks and madrones.	Grassland Chaparral Coastal Scrub
Congdon's tarplant <i>Centromadia parryi</i> <i>ssp. congdonii</i> ) CNPS 1B	Annual herb found in alkali soils in valley and foothill grassland. Sumps and disturbed sites where water collects. Nearly extinct in the SF Bay Area.	Grassland
Crystal Springs Fountain thistle <i>Cirsium fontinale</i> <i>var. fontinale</i> ) FE, SE, CNPS 1B	Perennial herb found in ultramafic seeps and ravines in valley and foothill grassland. Known from only four occurrences near Crystal Springs Reservoir. No known habitat for this plant in Portola Valley.	Grassland
Davidson's bush mallow <i>Malacothamnus davidsonii</i> )	Sandy washes within coastal scrub, riparian woodland, or chaparral. Last seen in 1936.	Coastal Scrub Creek/Riparian Chaparral

Common Name Scientific Name	Habitat Requirements	Vegetation Association
CNPS 1B		
Crystal Springs lessingia ( <i>Lessingia arachnoidea</i> ) CNPS 1B	Annual herb found in coastal sage scrub, valley and foothill grassland, cismontane woodland. Grassy slopes on serpentine; sometimes on roadsides. Currently known only from areas near Crystal Springs Reservoir.	Coastal Scrub Grassland Mixed Evergreen Forest
Dudley's lousewort ( <i>Pedicularis dudleyi</i> ) CNPS 1B, State Rare	Perennial herb found in maritime chaparral, cismontane woodland, and North Coast coniferous forest. Known from fewer than 15 locations. Occurs at Edgewood County Park and Pescadero.	Chaparral Mixed Evergreen Forest Redwood Forest
Fragrant fritillary ( <i>Fritillaria liliacea</i> ) CNPS 1B	Perennial bulbiferous herb found in coastal scrub, valley and foothill grassland, coastal prairie. Often on serpentine; various soils reported though usually clay, in grassland.	Coastal Scrub Grassland
Franciscan onion ( <i>Allium peninsulare</i> var. <i>franciscanum</i> ) CNPS 1B	Perennial bulbiferous herb found in valley and foothill grassland and cismontane woodland. Often in serpentine, clay, or volcanic soils. Last seen on Jasper Ridge in 1968.	Grassland Mixed Evergreen Forest
Hillsborough chocolate lily ( <i>Fritillaria biflora</i> var. <i>ineziana</i> ) CNPS 1B	Perennial bulbiferous herb found in cismontane woodland and valley and foothill grassland with serpentine soils. Endemic to the Hillsborough area, and not expected to occur in Portola Valley	Grassland
Hoover's button-celery ( <i>Eryngium aristulatum</i> var. <i>hooveri</i> ) CNPS 1B	Vernal pools, alkaline depressions, roadside ditches and other wet places near the coast.	Aquatic
Kings Mountain manzanita ( <i>Arctostaphylos regismontana</i> ) CNPS 1B	Perennial evergreen shrub found on granite or sandstone outcrops in chaparral, coniferous and evergreen forests.	Chaparral Mixed Evergreen Forest Redwood Forest
Legenere ( <i>Legenere limosa</i> ) CNPS 1B	Annual herb found in wet areas, vernal pools. 1 – 880 meters. While the habitat where this plant was found still exists, the plant has not been seen since 1906.	Aquatic
Lost thistle ( <i>Cirsium praeteriens</i> ) CNPS 1A	Found in Palo Alto area at turn of 20 <sup>th</sup> Century, likely extirpated	Grassland
Marin western flax <i>Hesperolinon congestum</i> FT, ST, CNPS 1B	Annual herb found in chaparral, valley and foothill grassland. In serpentine barrens and in serpentine grassland and chaparral.	Chaparral Grassland

Common Name <i>Scientific Name</i>	Habitat Requirements	Vegetation Association
Point Reyé's birds-beak ( <i>Cordylanthus maritimus</i> ssp. <i>palustris</i> ) CNPS 1B.2	Known from coastal salt marsh habitat; thought to be extirpated in the local area. No suitable habitat in Portola Valley.	Salt marsh
Robust monardella ( <i>Monardella villosa</i> ssp. <i>globosa</i> ) CNPS 1B	Perennial rhizomatous herb found in openings in broadleaved upland forest, chaparral, cismontane woodland, valley and foothill grassland. Openings. 100-915 meters. Last seen in 1937 in the woods on Coal Mine Ridge, south of Portola Valley. Known from about ten occurrences, most not recently seen. The likelihood of presence in Portola Valley is extremely low.	Mixed Evergreen Forest Chaparral Grassland Oak savanna
Saline clover ( <i>Trifolium depauperatum</i> var. <i>hydrophilum</i> ) CNPS 1B	Annual herb found in mesic and alkaline areas of valley and foothill grasslands, vernal pools, and marshes and swamps. 0 – 300 meters. Recorded from the San Mateo quadrangle. Possibly extinct. Suitable habitat is not common in Portola Valley.	Grassland Aquatic
San Francisco campion <i>Silene verecunda</i> ssp. <i>verecunda</i> CNPS 1B	Perennial herb found in sandy areas of coastal scrub, valley & foothill grassland, coastal bluff scrub, chaparral, and coastal prairie.	Coastal scrub Grassland Chaparral
San Francisco collinsia <i>Collinsia multicolor</i> CNPS 1B	Moist shady woodland, associated with California buckeye, honeysuckle, ferns, coast live oak, poison oak. Known from Edgewood Natural Preserve.	Mixed Evergreen Forest Oak Woodland
San Mateo thorn-mint <i>Acanthomintha duttonii</i> FE, SE, CNPS 1B	Annual herb found in serpentine areas of chaparral, valley and foothill grassland, coastal scrub.	Grassland Chaparral
San Mateo woolly sunflower ( <i>Eriophyllum latilobum</i> ) FE, SE	Bushy yellow-flowered perennial found in oak woodlands and exposed grassland roadcuts with serpentine soils. Known from one roadcut location in Hillsborough. Very limited habitat in Portola Valley for this species.	Oak Woodland, grassy roadcut on serpentine



<b>Common Name</b> <b>Scientific Name</b>	<b>Habitat Requirements</b>	<b>Vegetation Association</b>
Santa Clara red ribbons <i>Clarkia concinna</i> <i>ssp. automixa</i> CNPS 4	Annual herb found in mesic shaded woodland and chaparral.	Oak woodland
Santa Cruz Mountains manzanita <i>Arctostaphylos andersonii</i> CNPS 1B	Broadleaved upland forest, chaparral, north coast coniferous forest. Open sites, redwood forest.	Redwood Forest Chaparral Mixed Evergreen Forest
Short-leaved evax <i>Hesperovax sparsiflora</i> var. <i>brevifolia</i> CNPS 2	Annual herb found in cismontane woodland, coastal prairie, coastal scrub, and valley foothill grassland often serpentine.	Mixed Evergreen Forest Coastal Scrub Grassland
Slender-leaved pondweed <i>Potamogeton filiformis</i> CNPS 2	Aquatic slender perennial herb found in marshes & swamps; shallow, clear water of lakes and drainage channels	Aquatic
White-flowered rein orchid <i>Piperia candida</i> CNPS 1B	Perennial herb found in broadleaved upland forest and coniferous forests, sometimes serpentine.	Redwood Forest
White-rayed pentachaeta <i>Pentachaeta bellidiflora</i> FE, SE, CNPS 1B	Annual herb found in valley & foothill grassland; open, dry, rocky slopes & grassy areas, often on soils derived from serpentine bedrock. 35 – 620 meters. Known only from one population at Edgewood Natural Preserve. Limited habitat available in Portola Valley	Grassland (serpentine)
Woolly-headed lessingia <i>Lessingia hololeuca</i> CNPS 3	Annual herb found in broadleaved upland forest, coastal scrub, lower montane coniferous forest, and valley and foothill grassland in clay or serpentine soils.	Coastal Scrub Grassland Mixed Evergreen Forest

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**Table 4 Communities of Special Concern**

Habitats	Description	Location
Serpentine bunchgrass	Dominants include the native perennial bunchgrasses; <i>Melica imperfecta</i> , <i>M. torreyana</i> , <i>Poa scabrella</i> , <i>Sitanion hystrix</i> , and <i>Stipa pulchra</i> . Locally, the grassland habitats can have a dominance of non-grass herbaceous plant species including the genera <i>Allium</i> , <i>Gilia</i> , <i>Layia</i> , <i>Lasthenia</i> , <i>Microceris</i> , <i>Phacelia</i> , <i>Plantago</i> and <i>Zygadenus</i>	Jasper Ridge Preserve south of San Francisquito Creek and west of Alpine Road. Pockets of this habitat could occur in Portola Valley; one such pocket is on Escobar and the Quilter Trail
Valley oak woodland	Valley oak is the dominant tree in the canopy. Associated with black oak, blue oak, California sycamore.	Small stands the Corte Madera Creek valley to the south and west of the town center, as well as in the Los Trancos Creek valley to the southeast of the town center.
Wetland	Generally are depressions that are seasonally saturated and contain plants that thrive in water.	Several ponds are located within Portola Valley.
Arroyo willow riparian	Arroyo willow is the dominant tree in the canopy. Associated with creeks, lakes, or other source of water.	Occasional stands along creeks, and around Searsville Lake

**Table 5 Bat Species Expected in Portola Valley**

Bat Species	Habits/Habitat Requirements
California myotis ( <i>Myotis californicus</i> )	Roosts alone or in groups typically in trees cavities, caves, and buildings. Found over water, in forests, at edges of forests, and in open areas. Pups usually born in July.
Mexican free-tailed ( <i>Tadarida brasiliensis</i> )	Colonial roosting typically in caves and building. Found in open areas, forests, over water and near buildings. A characteristic musty odor can be detected near their roosts. Pups born in the summer.
Western red ( <i>Lasiurus blossevillii</i> )	Roosts alone typically in the leaves of large trees and shrubs. Found in forests, over water, in open areas, and in buildings. Pups born May-June.
Yuma ( <i>Myotis yumanensis</i> )	Maternal roosts are colonial; males have solitary roosts. Uses buildings and caves for roosting. Found over water and near or in buildings. Pups born May-July.
Pallid ( <i>Antrozous pallidus</i> )	Roosts in colonies in buildings and rock crevices, caves, mines, rock piles, and tree cavities. Tend to choose roosts where they can easily retreat into tight crevices when disturbed. Can be heard in the roost; roost has a faint skunk-like smell. Summer and winter roosting sites are the same, but the bats are more likely to roost singly or in pairs in the winter. Pups are born April-June. Found in or near buildings, rock crevices, mines, and tree cavities. Catches its prey on the ground or on leaves. Prey includes cicadas, katydids, scorpions, centipedes, beetles, grasshoppers, moths.
Big brown ( <i>Eptesicus fuscus</i> )	Daytime roosts are in dark places, usually in buildings or trees. Night roosts include buildings. Females form maternity colonies, while males remain solitary. Females

Bat Species	Habits/Habitat Requirements
	return to the same summer roost in March or April. Pups born in spring or early summer. Feeds on insects in meadows, over water, among trees, and in the urban environment.
Long-eared myotis ( <i>Myotis evotis</i> )	Roosts both singly and in maternity colonies in abandoned buildings, hollow trees, niches under bark, caves, mines, cliff crevices. Forages around treetops and over water in forested areas. Pups born June-July.
Fringed myotis ( <i>Myotis thysanodes</i> )	Females roost in colonies, males usually roost alone. Roost in caves, mines, rock crevices, buildings. Forages along streams and in forested areas. Pups born June-July.
Long-legged ( <i>Myotis volans</i> )	In the summer, roosts in colonies in buildings, crack, crevices, and in loose and peeling tree bark. In the winter, roosts in caves and mines. Forages for insects over water, in forests, over open habitat and near cliffs. Pups born spring/summer.
Hoary ( <i>Lasiurus cinereus</i> )	A solitary bat that roosts in the foliage of trees, usually 7-20 feet above the ground and leafed above but open below. Roost trees are usually at the edge of a clearing. Markings blend well with tree bark. Regularly makes a chattering sound during flight audible to human ears. Forages at treetop levels in open areas, over streams, and may also be attracted to insects at outdoor lights. Pups born May-July.
Silver-haired ( <i>Lasiomycteris noctivagans</i> )	Roosts singly or in small groups in wooded areas. Prefers hollows, cracks and crevices of trees. Sometimes found roosting in old woodpecker holes and beneath rocks. Roosts usually between 3 and 16 feet above the ground. Forages over ponds and streams, and above treetop level in woodland. Has been observed to fly the same pattern each night. Migratory; during migration they can be found in open sheds, garages and outbuildings, lumber piles. On hibernation grounds they hibernate in trees, buildings, rock crevices, caves. Pups born June-July.

Williams et al. 2002 Beginner's Guide to Bats

**Table 6 List of Special-status Species and Prescriptions for Each Habitat Type**

Species by Habitat Type	Governing Regulations	Prescription
<b>Chaparral</b>		
San Francisco dusky-footed woodrat Ringtail Loggerhead shrike Yellow warbler Arcuate bush mallow (serpentine) Western leatherwood Nesting birds	Migratory Bird Treaty Act CDFG Code 3503 CEQA FESA for federally listed plant species	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal and grading require a survey for rare plant species, particularly if the project requires vegetation removal on Obispo clay, Los Gatos loam, or Fagan loam. 3. Vegetation removal, including dead and downed debris, requires a survey for presence of San Francisco dusky-footed woodrat and coordination with CDFG as necessary.
<b>Coastal Scrub</b>		
San Francisco dusky-footed woodrat Bats (including pallid bat and red bat) Michael's piperia Nesting birds	Migratory Bird Treaty Act CDFG Code 3503, 4150 CEQA FESA for federally listed plant species	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal and grading require a survey for rare plant species, particularly if the project requires vegetation removal on Obispo clay, Los Gatos loam, or Fagan loam. 3. Vegetation removal, including dead and downed

Species by Habitat Type	Governing Regulations	Prescription
		debris, requires a survey for presence of San Francisco dusky-footed woodrat and coordination with CDFG as necessary. 4. Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for perennial bat roosts is required. If present, tree removal must be coordinated with CDFG
<b>Grassland</b>		
Western red bat (forage) American badger California red-legged frog (burrows used during part of life cycle) California tiger salamander (burrows used) Western pond turtle (burrows used) White-tailed kite (forage, not nesting) Northern harrier (forage, not nesting) Golden eagle (forage, not nesting) Burrowing owl Long-eared owl (forage, not nesting) Loggerhead shrike Ground nesting birds (e.g. Meadowlark, killdeer) Saltmarsh common yellowthroat (forage, not nesting) Tri-colored blackbird (forage) Arcuate bush mallow Gairdner's yampah	Migratory Bird Treaty Act CDFG Code 3503, 4150 CEQA FESA for federally listed species	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal and grading require a survey for rare plant species, particularly if the project requires vegetation removal on Obispo clay, Los Gatos loam, or Fagan loam. 3. Grading requires a pre-construction survey for American badger and burrowing owl by a qualified biologist. 4. If the project is within 500 feet of a lake, pond or creek, a biological survey is required to determine impacts to California red-legged frog, California tiger salamander, and Western pond turtle and whether permits are required from the USFWS/CDFG.
<b>Mixed Evergreen Forest</b>		
Bats (including pallid bat and red bat) California red-legged frog (aquatic and upland) San Francisco dusky-footed woodrat White-tailed kite (nesting) Golden eagle (nesting) Long-eared owl (nesting) Cooper's hawk Sharp-shinned hawk (roost) Yellow warbler (nesting) Michael's piperia Western leatherwood Nesting birds	Migratory Bird Treaty Act Bald and Golden Eagle Protection Act CDFG Code 3503, 4150 CEQA	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal and grading require a survey for rare plant species, particularly if the project requires vegetation removal on Obispo clay, Los Gatos loam, or Fagan loam. 3. If the project is within 500 feet of a lake, pond or creek, a biological survey is required to determine impacts to California red-legged frog, California tiger salamander, and Western pond turtle and whether permits are required from the USFWS/CDFG. 4. Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for perennial bat roosts and raptor nests by a qualified biologist is required. If present, removal cannot continue without CDFG guidance.
<b>Oak Savanna</b>		
Bats (including pallid bat and red bat) American badger California red-legged frog California tiger salamander White-tailed kite Northern harrier	Migratory Bird Treaty Act Bald and Golden Eagle Protection Act CDFG Code 3503, 4150 CEQA	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal and grading require a survey for rare plant species. 3. Vegetation removal, including dead and downed

Species by Habitat Type	Governing Regulations	Prescription
Golden eagle Burrowing owl Long-eared owl Loggerhead shrike Tricolored blackbird Nesting birds		debris, requires a survey for presence of San Francisco dusky-footed woodrat and coordination with CDFG as necessary. 4. Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for perennial bat roosts and raptor nests by a qualified biologist is required. If present, removal cannot continue without CDFG guidance. 5. Grading requires a pre-construction survey for American badger and burrowing owl by a qualified biologist.
<b>Oak Woodland</b>		
San Francisco dusky-footed woodrat Bats (including pallid bat and red bat) Ringtail California tiger salamander White-tailed kite Cooper's hawk Sharp-shinned hawk (roost) Golden eagle Long-eared owl Loggerhead shrike Western leatherwood Nesting birds	Migratory Bird Treaty Act Bald and Golden Eagle Protection Act CDFG Code 3503, 4150 CEQA	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal and grading require a survey for rare plant species and American badger. 3. Vegetation removal, including dead and downed debris, requires a survey for presence of San Francisco dusky-footed woodrat and coordination with CDFG as necessary. 4. Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for perennial bat roosts and raptor nests by a qualified biologist is required. If present, removal cannot continue without CDFG guidance.
<b>Redwood Forest</b>		
San Francisco dusky-footed woodrat Bats (including pallid bat) California red-legged frog (upland refugia) Golden eagle Long-eared owl Cooper's hawk Sharp-shinned hawk Yellow warbler Nesting birds	Migratory Bird Treaty Act Bald and Golden Eagle Protection Act CDFG Code 3503, 4150 CEQA	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal and grading require a survey for rare plant species. 3. Vegetation removal, including dead and downed debris, requires a survey for presence of San Francisco dusky-footed woodrat and coordination with CDFG as necessary. 4. Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for perennial bat roosts and raptor nests by a qualified biologist is required. If present, removal cannot continue without CDFG guidance.
<b>Urban Forest/Garden</b>		
San Francisco dusky-footed woodrat Bats (including pallid bat and red bat) White-tailed kite Northern harrier Golden eagle Cooper's hawk Sharp-shinned hawk (roost) Nesting birds	Migratory Bird Treaty Act Bald and Golden Eagle Protection Act CDFG Code 3503, 4150 CEQA	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal, including dead and downed debris, requires a survey for presence of San Francisco dusky-footed woodrat and coordination with CDFG as necessary. 3. Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for perennial bat roosts and raptor nests by a qualified

Species by Habitat Type	Governing Regulations	Prescription
		biologist is required. If present, removal cannot continue without CDFG guidance.
<b>Vineyard</b>		
Nesting birds	Migratory Bird Treaty Act CDFG Code 3503	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use.
<b>Creeks/Riparian Forest</b>		
San Francisco dusky-footed woodrat Ringtail Bats Western pond turtle California red-legged frog Rainbow trout/steelhead White-tailed kite Sharp-shinned hawk (roost) Cooper's hawk Long-eared owl Saltmarsh common yellowthroat Yellow warbler Gairdner's yampah Western leatherwood Nesting birds	Migratory Bird Treaty Act CDFG Code 3503, 4150 ESA CESA Clean Water Act CEQA	1. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 2. Vegetation removal, including dead and downed debris, requires a survey for presence of San Francisco dusky-footed woodrat and coordination with CDFG as necessary. 3. Vegetation removal and grading require a survey for rare plant species. 4. Activities will require a Streambed Alteration Agreement from the California Department of Fish and Game if bed, bank or channel is disturbed. 5. Activities that affect the bed, bank or channel or result in fill may also require a permit from the U.S. Army Corps of Engineers and US NOAA Fisheries. 6. Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for perennial bat roosts and raptor nests by a qualified biologist is required. If present, removal cannot continue without CDFG guidance. 7. Vegetation removal or grading within 500 feet of this habitat type should be preceded by a survey for Western pond turtle, CRLF, CTS by a qualified biologist.
<b>Aquatic</b>		
Western pond turtle California red-legged frog California tiger salamander San Francisco garter snake Rainbow trout/steelhead Northern harrier Saltmarsh Common yellowthroat Bats	Migratory Bird Treaty Act CDFG Code 3503, 4150 ESA CESA Clean Water Act CEQA	1. Activities that affect an aquatic habitat may be subject to additional permits from the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, the U.S. Fish and Wildlife Service and the California Department of Fish and Game. 2. Vegetation removal from February 15 to August 31 requires a survey for nesting birds and avoiding removal of nests in active use. 3. Prior to the removal of any tree that is 12 inches or more in diameter breast height, a survey for perennial bat roosts and raptor nests by a qualified biologist is required. If present, removal cannot continue without CDFG guidance.



# Summary Table Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Query Criteria:** Quad<span style='color: Red'> IS </span>(La Honda (3712233)<span style='color: Red'> OR </span>Woodside (3712243)<span style='color: Red'> OR </span>Palo Alto (3712242)<span style='color: Red'> OR </span>Mindego Hill (3712232))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Acanthomintha duttonii</i> San Mateo thorn-mint	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_UCBG-UC Botanical Garden at Berkeley	170 600	5 S:3	0	1	0	1	1	0	2	1	2	0	1
<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	G2T1 S1	Threatened None	AFS_VU-Vulnerable IUCN_NT-Near Threatened	0 0	14 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Allium peninsulare var. franciscanum</i> Franciscan onion	G5T2 S2	None None	Rare Plant Rank - 1B.2	170 670	25 S:11	2	2	1	0	0	6	2	9	11	0	0
<i>Ambystoma californiense pop. 1</i> California tiger salamander - central California DPS	G2G3T3 S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	40 400	1265 S:5	0	1	0	0	3	1	4	1	2	1	2
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCBG-UC Botanical Garden at Berkeley SB_UCSC-UC Santa Cruz		93 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Aneides niger</i> Santa Cruz black salamander	G3 S3	None None	CDFW_SSC-Species of Special Concern	340 1,873	78 S:7	0	0	0	0	0	7	6	1	7	0	0
<i>Antrozous pallidus</i> pallid bat	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	70 420	420 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Arctostaphylos andersonii</i> Anderson's manzanita	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCSC-UC Santa Cruz	950 1,622	64 S:3	0	0	0	2	0	1	1	2	3	0	0



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### California Natural Diversity Database



Name (Scientific/Common)	CNDDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Arctostaphylos regismontana</i> Kings Mountain manzanita	G2 S2	None None	Rare Plant Rank - 1B.2	586 2,300	17 S:14	1	3	3	3	0	4	6	8	14	0	0
<i>Asio otus</i> long-eared owl	G5 S3?	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	2,000 2,000	56 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i> coastal marsh milk-vetch	G2T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley	500 500	24 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	713 2,253	2011 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Bombus caliginosus</i> obscure bumble bee	G2G3 S1S2	None None	IUCN_VU-Vulnerable	75 500	181 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Bombus crotchii</i> Crotch bumble bee	G2 S1S2	None None		100 100	437 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus occidentalis</i> western bumble bee	G2G3 S1	None None	USFS_S-Sensitive	15 400	306 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Brachyramphus marmoratus</i> marbled murrelet	G3 S2	Threatened Endangered	CDF_S-Sensitive IUCN_EN-Endangered NABCI_RWL-Red Watch List	200 800	110 S:11	0	0	0	0	0	11	6	5	11	0	0
<i>Calicina minor</i> Edgewood blind harvestman	G1 S1	None None		560 560	2 S:1	0	0	0	0	0	1	1	0	1	0	0





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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Centromadia parryi ssp. congdonii</i> Congdon's tarplant	G3T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	2 2	98 S:1	0	0	1	0	0	0	1	0	1	0	0
<i>Charadrius nivosus nivosus</i> western snowy plover	G3T3 S2	Threatened None	CDFW_SSC-Species of Special Concern NABCI_RWL-Red Watch List	0 5	138 S:2	0	1	0	0	1	0	1	1	1	1	0
<i>Cirsium fontinale var. fontinale</i> fountain thistle	G2T1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	150 600	5 S:4	0	0	3	0	1	0	2	2	3	1	0
<i>Cirsium praeteriens</i> lost thistle	GX SX	None None	Rare Plant Rank - 1A	50 50	1 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Clarkia concinna ssp. automixa</i> Santa Clara red ribbons	G5?T3 S3	None None	Rare Plant Rank - 4.3	1,500 2,750	20 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Collinsia corymbosa</i> round-headed Chinese-houses	G1 S1	None None	Rare Plant Rank - 1B.2		13 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Collinsia multicolor</i> San Francisco collinsia	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCSC-UC Santa Cruz	100 560	36 S:3	0	2	0	0	0	1	1	2	3	0	0
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	160 2,250	635 S:9	0	0	0	0	0	9	5	4	9	0	0



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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Coturnicops noveboracensis</i> yellow rail	G4 S1S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	8 18	45 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Dicamptodon ensatus</i> California giant salamander	G2G3 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	300 2,400	234 S:17	1	1	0	0	0	15	11	6	17	0	0
<i>Dipodomys venustus venustus</i> Santa Cruz kangaroo rat	G4T1 S1	None None		20 600	29 S:3	0	0	0	0	3	0	3	0	0	3	0
<i>Dirca occidentalis</i> western leatherwood	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	150 2,165	90 S:26	6	7	1	0	0	12	3	23	26	0	0
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	100 949	1404 S:7	0	4	1	0	0	2	3	4	7	0	0
<i>Eriophyllum latilobum</i> San Mateo woolly sunflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	2,000 2,000	8 S:2	0	0	0	0	1	1	2	0	1	1	0
<i>Eryngium aristulatum var. hooveri</i> Hoover's button-celery	G5T1 S1	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	80 80	16 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	G2 S2	None None	Rare Plant Rank - 1B.2	525 625	19 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	G5T1 S1	Threatened None		500 640	30 S:3	0	1	0	0	2	0	2	1	1	1	1
<i>Falco peregrinus anatum</i> American peregrine falcon	G4T4 S3S4	Delisted Delisted	CDF_S-Sensitive CDFW_FP-Fully Protected	1,871 1,871	73 S:1	0	0	0	0	0	1	0	1	1	0	0



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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Fissidens pauperculus</i> minute pocket moss	G3? S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	250 250	22 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Fritillaria liliacea</i> fragrant fritillary	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	520 720	82 S:4	0	3	0	0	0	1	2	2	4	0	0
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	G5T3 S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	4 360	112 S:5	0	1	0	0	0	4	4	1	5	0	0
<i>Haliaeetus leucocephalus</i> bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive	430 430	332 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Hesperolinon congestum</i> Marin western flax	G1 S1	Threatened Threatened	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley	200 700	27 S:5	0	3	1	0	1	0	1	4	4	1	0
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	G2? S2?	None None		280 280	13 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lasiurus cinereus</i> hoary bat	G3G4 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		238 S:6	0	0	0	0	0	6	6	0	6	0	0
<i>Laterallus jamaicensis coturniculus</i> California black rail	G3T1 S1	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List	5 5	303 S:1	0	1	0	0	0	0	0	1	1	0	0



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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Legenere limosa</i> legenere	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_UCBG-UC Botanical Garden at Berkeley	1,200 1,200	83 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lessingia arachnoidea</i> Crystal Springs lessingia	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	440 550	11 S:2	0	0	1	0	0	1	1	1	2	0	0
<i>Linderiella occidentalis</i> California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	110 110	508 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Malacothamnus arcuatus</i> arcuate bush-mallow	G2Q S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden	300 2,400	37 S:12	0	1	1	1	0	9	3	9	12	0	0
<i>Melospiza melodia pusillula</i> Alameda song sparrow	G5T2T3 S2S3	None None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	4 70	38 S:6	0	3	0	0	0	3	3	3	6	0	0
<i>Microcina edgewoodensis</i> Edgewood Park micro-blind harvestman	G1 S1	None None		600 600	1 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Monolopia gracilens</i> woodland woollythreads	G3 S3	None None	Rare Plant Rank - 1B.2	400 1,850	68 S:12	0	1	0	0	1	10	6	6	11	1	0
<i>N. Central Coast Calif. Roach/Stickleback/Steelhead Stream</i> N. Central Coast Calif. Roach/Stickleback/Steelhead Stream	GNR SNR	None None		200 200	2 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	G5T2T3 S2S3	None None	CDFW_SSC-Species of Special Concern	215 460	42 S:4	0	1	2	0	0	1	1	3	4	0	0
<i>North Central Coast Steelhead/Sculpin Stream</i> North Central Coast Steelhead/Sculpin Stream	GNR SNR	None None		160 160	1 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Northern Coastal Salt Marsh</i> Northern Coastal Salt Marsh	G3 S3.2	None None		10 10	53 S:2	0	1	0	0	0	1	2	0	2	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Oncorhynchus mykiss irideus pop. 8</i> steelhead - central California coast DPS	G5T2T3Q S2S3	Threatened None	AFS_TH-Threatened	200 1,200	44 S:4	0	2	0	0	0	2	3	1	4	0	0
<i>Pedicularis dudleyi</i> Dudley's lousewort	G2 S2	None Rare	Rare Plant Rank - 1B.2 SB_UCSC-UC Santa Cruz USFS_S-Sensitive	500 500	7 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_UCBG-UC Botanical Garden at Berkeley	520 520	14 S:2	1	0	0	0	0	1	1	1	2	0	0
<i>Piperia candida</i> white-flowered rein orchid	G3 S3	None None	Rare Plant Rank - 1B.2	500 500	222 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Plagiobothrys chorisianus var. chorisianus</i> Choris' popcornflower	G3T1Q S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_UCSC-UC Santa Cruz	400 2,300	42 S:8	0	3	1	0	0	4	3	5	8	0	0
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	G3T1 S1	Endangered Endangered	CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	1 4	99 S:3	1	1	1	0	0	0	0	3	3	0	0
<i>Rana boylei</i> foothill yellow-legged frog	G3 S3	None Endangered	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	80 1,053	2478 S:12	0	1	0	0	6	5	12	0	6	2	4
<i>Rana draytonii</i> California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	30 1,880	1671 S:32	2	13	4	2	2	9	9	23	30	1	1
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	G1G2 S1S2	Endangered Endangered	CDFW_FP-Fully Protected IUCN_EN-Endangered	0 0	144 S:3	0	1	2	0	0	0	3	0	3	0	0
<i>Sagittaria sanfordii</i> Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	185 185	143 S:1	0	0	0	0	0	1	0	1	1	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Senecio aphanactis</i> chaparral ragwort	G3 S2	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	640 1,200	98 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Serpentine Bunchgrass</i> Serpentine Bunchgrass	G2 S2.2	None None		720 5,800	22 S:2	1	0	0	0	0	1	2	0	2	0	0
<i>Silene verecunda ssp. verecunda</i> San Francisco campion	G5T1 S1	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCSC-UC Santa Cruz	600 600	20 S:1	0	0	0	0	1	0	1	0	0	1	0
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	G5T1 S1	None None	CDFW_SSC-Species of Special Concern	2 2	12 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Speyeria adiate adiate</i> unsilvered fritillary	G1G2T1 S1	None None		2,300 2,300	2 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Speyeria zerene myrtleae</i> Myrtle's silverspot butterfly	G5T1 S1	Endangered None		28 28	17 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Spirinchus thaleichthys</i> longfin smelt	G5 S1	Candidate Threatened		0 20	46 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Sternula antillarum browni</i> California least tern	G4T2T3Q S2	Endangered Endangered	CDFW_FP-Fully Protected NABCI_RWL-Red Watch List	1 1	75 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Stuckenia filiformis ssp. alpina</i> northern slender pondweed	G5T5 S2S3	None None	Rare Plant Rank - 2B.2	50 50	21 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Taricha rivularis</i> red-bellied newt	G2 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	1,800 2,000	136 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	70 2,542	594 S:22	0	0	0	0	0	22	3	19	22	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Thamnophis sirtalis tetrataenia</i> San Francisco gartersnake	G5T2Q S2	Endangered Endangered	CDFW_FP-Fully Protected	65 2,030	66 S:17	2	6	2	0	0	7	11	6	17	0	0
<i>Trifolium amoenum</i> two-fork clover	G1 S1	Endangered None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley SB_USDA-US Dept of Agriculture		26 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Trifolium buckwestiorum</i> Santa Cruz clover	G2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden SB_UCSC-UC Santa Cruz SB_USDA-US Dept of Agriculture		64 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Usnea longissima</i> Methuselah's beard lichen	G4 S4	None None	Rare Plant Rank - 4.2 BLM_S-Sensitive	590 2,040	206 S:2	0	0	0	0	2	0	2	0	0	1	1
<i>Valley Oak Woodland</i> Valley Oak Woodland	G3 S2.1	None None		40 40	91 S:1	0	0	0	0	0	1	1	0	1	0	0