



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
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**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



Governor's Office of Planning & Research

**JUL 26 2022**

July 22, 2022

## STATE CLEARINGHOUSE

Ms. Jessica Martinez-McKinney  
City of Santa Cruz Water Department  
212 Locust Street, Suite C  
Santa Cruz, CA 95060  
[jmartinezmckinney@cityofsantacruz.com](mailto:jmartinezmckinney@cityofsantacruz.com)

Subject: Graham Hill Water Treatment Plant Facility Improvements Project, Notice of Preparation of a Draft Environmental Impact Report, SCH No. 2022060566, Santa Cruz County

Dear Ms. Martinez-McKinney:

The California Department of Fish and Wildlife (CDFW) reviewed the Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) from the City of Santa Cruz Water Department (City) for the Graham Hill Water Treatment Plant Facility Improvements Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

CDFW is providing the City, as the lead agency, with specific detail about the scope and content of the environmental information related to CDFW's area of statutory responsibility that must be included in the EIR (Cal. Code Regs., tit. 14, § 15082, subd. (b)).

### CDFW ROLE

CDFW is a **Trustee Agency** with responsibility under CEQA pursuant to CEQA Guidelines § 15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a **Responsible Agency** if a project would require discretionary approval, such as permits issued under the California Endangered Species Act (CESA) or Native Plant Protection Act (NPPA), a Lake and Streambed Alteration (LSA) Agreement, or other provisions of the Fish and Game Code that afford protection to the state's fish and wildlife trust resources.

### PROJECT DESCRIPTION AND LOCATION

The Project consists of improvements to the Graham Hill Water Treatment Plant Facility which would include the following: 1) construction of new water treatment and related processes to replace or augment the existing treatment systems; 2) construction of new and upgraded buildings such as a new administrative building, new maintenance

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<sup>1</sup> CEQA is codified in the California Public Resources Code in Section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with Section 15000.

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building, and other building improvements; 3) infrastructure and site improvements such as storm water management improvements; and 4) demolition of some existing buildings and water treatment facilities. The Project is currently in the design phase, and Project construction is expected over a four-year period from 2024 through 2028.

The Project is located at the City's existing Graham Hill Water Treatment Plant at 715 Graham Hill Road in Santa Cruz, CA 95060, Assessor's Parcel Number (APN) 060-141-05. The Project also includes two staging areas, one located at the northern intersection of Graham Hill Road and Mt. Hermon Road, in Felton, CA at APN 071-201-43, and the other located 1941 Ocean Street Extension at APN 008-031-16.

The CEQA Guidelines require that the EIR incorporate a full project description, including reasonably foreseeable future phases of the Project, that contains sufficient information to evaluate and review the Project's environmental impact (CEQA Guidelines, §§ 15124 & 15378). Please include a complete description of the following Project components in the Project description, as applicable:

- Footprints of permanent Project features and temporarily impacted areas, such as staging areas and access routes.
- Area and plans for any proposed buildings/structures, ground disturbing activities, fencing, paving, stationary machinery, landscaping, and stormwater systems.
- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise, traffic generation, and other features.
- Construction schedule, activities, equipment, and crew sizes.

## REGULATORY REQUIREMENTS

### California Endangered Species Act and Native Plant Protection Act

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in take<sup>2</sup> of plants or animals listed under CESA or NPPA, either during construction or over the life of the Project. If the Project will impact CESA or NPPA listed species, including but not limited to those identified in **Attachment 1: Special-Status Species from the CNDDDB within a 5-mile Radius of the Project Site**, early consultation with CDFW is encouraged, as significant modification to the Project and mitigation measures may be required to obtain an ITP.

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<sup>2</sup> Take is defined in Fish and Game Code section 86 as hunt, pursue, catch, capture, or kill, or attempt any of those activities.

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Issuance of an ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program.

CEQA requires a Mandatory Finding of Significance if a Project is likely to substantially restrict the range or reduce the population of a threatened or endangered species (Pub. Resources Code, §§ 21001, subd. (c), 21083; CEQA Guidelines, §§ 15380, 15064, & 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with CESA.

### **Lake and Streambed Alteration**

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et seq., for Project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank (including associated riparian or wetland resources); or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, drainage ditches, washes, watercourses with a subsurface flow, and floodplains are generally subject to notification requirements. In addition, infrastructure installed beneath such aquatic features, such as through hydraulic directional drilling, is also generally subject to notification requirements. **The Project site is adjacent to the San Lorenzo River. Any impacts to San Lorenzo River or associated riparian habitat would likely require an LSA Notification.** CDFW, as a responsible agency under CEQA, will consider the EIR for the Project. CDFW may not execute a final LSA Agreement until it has complied with CEQA as the responsible agency.

### **Nesting Birds**

CDFW has authority over actions that may disturb or destroy active nest sites or take birds. Fish and Game Code sections 3503, 3503.5, and 3513 protect birds, their eggs, and nests. Migratory birds are also protected under the federal Migratory Bird Treaty Act.

### **Fully Protected Species**

Fully Protected species, including those listed in **Attachment 1**, may not be taken or possessed at any time (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

### **ENVIRONMENTAL SETTING**

A site-specific analysis prepared by a qualified biologist should provide sufficient information regarding the environmental setting ("baseline") to understand the Project's,

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and its alternative's (if applicable), potentially significant impacts on the environment (CEQA Guidelines, §§ 15125 & 15360).

CDFW recommends that a site-specific analysis provide baseline habitat assessments for special-status plant, fish, and wildlife species located and potentially located within the Project area and surrounding lands, including but not limited to all rare, threatened, or endangered species (CEQA Guidelines, § 15380). These documents should describe aquatic habitats, such as wetlands, vernal pools, and/or waters of the U.S. or State, and any sensitive natural communities<sup>3</sup> or riparian habitat occurring on or adjacent to the Project site, and any stream or wetland set back distances the city or county may require. Fully protected, threatened or endangered, and other special-status species and sensitive natural communities that are known to occur, or have the potential to occur in or near the Project area, include but are not limited to, those listed in **Attachment 1**.

Habitat descriptions and the potential for species occurrence should include information from multiple sources, such as aerial imagery; historical and recent survey data; field reconnaissance; scientific literature and reports; the U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Consultation System; findings from positive occurrence databases such as the California Natural Diversity Database (CNDDDB); the California Aquatic Resource Inventory (CARI); and sensitive natural community information available through the Vegetation Classification and Mapping Program (VegCAMP). Based on the data and information from the habitat assessment, site-specific analysis should adequately assess which special-status species are likely to occur on or near the Project site, and whether they could be impacted by the Project.

CDFW recommends that prior to Project implementation, surveys be conducted for special-status species with potential to occur, following recommended survey protocols<sup>4</sup> if available.

Botanical surveys<sup>5</sup> for special-status plant species, including those with a California Rare Plant Rank<sup>6</sup>, must be conducted during the appropriate season, including the blooming period for all species potentially impacted by the Project within the Project area and adjacent habitats that may be indirectly impacted by, for example, changes to hydrology, and require the identification of reference populations. More than one year of surveys may be necessary given environmental conditions.

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<sup>3</sup> For sensitive natural communities see <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities>

<sup>4</sup> Survey and monitoring protocols and guidelines are available at <https://wildlife.ca.gov/Conservation/Survey-Protocols>.

<sup>5</sup> Please refer to CDFW protocols for surveying and evaluating impacts to rare plants, and survey report requirements at <https://wildlife.ca.gov/Conservation/Plants>

<sup>6</sup> <http://www.cnps.org/cnps/rareplants/inventory/>

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## IMPACT ANALYSIS AND MITIGATION MEASURES

A site-specific analysis should discuss all direct and indirect impacts (temporary and permanent), including reasonably foreseeable impacts, that may occur with implementation of the Project (CEQA Guidelines, §§ 15126, 15126.2, & 15358). This includes evaluating and describing impacts such as:

- Encroachments into riparian habitats, drainage ditches, wetlands, or other sensitive areas.
- Potential for impacts to special-status species or sensitive natural communities.
- Loss or modification of breeding, nesting, dispersal, and foraging habitat, including vegetation removal, alteration of soils and hydrology, and removal of habitat structural features (e.g., snags, rock outcrops, overhanging banks).
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic, or human presence.
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features.

A site-specific analysis should also identify reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the Project's contribution to the impact (CEQA Guidelines, § 15355). Although a project's impacts may be less-than-significant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact, e.g., reduction of habitat for a special-status species, should be considered cumulatively considerable.

Based on the comprehensive analysis of the direct, indirect, and cumulative impacts of the Project, the CEQA Guidelines direct the Lead Agency to consider and describe all feasible mitigation measures to avoid potentially significant impacts in the EIR, which CDFW recommends is supported by a site-specific analysis, and mitigate potentially significant impacts of the Project on the environment (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.4 & 15370). This includes a discussion of impact avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with CDFW, USFWS, and the National Marine Fisheries Service. Project-specific measures should be incorporated as enforceable Project conditions to reduce impacts to biological resources to less-than-significant levels.

Fully protected species such as those listed in **Attachment 1**, may not be taken or possessed at any time (Fish & G. Code, §§ 3511, 4700, 5050, & 5515). Therefore, the

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EIR supported by a site-specific analysis should include measures to ensure complete avoidance of these species.

## **COMMENTS AND RECOMMENDATIONS**

CDFW offers the following comments and recommendations to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on biological resources.

### **COMMENT 1: Impervious surfaces**

**Issue:** The Project could increase impervious surfaces at the Project site with the addition of roads and buildings. Impervious surfaces, stormwater systems, and storm drain outfalls have the potential to significantly affect fish and wildlife resources by altering the hydrograph of natural streamflow patterns via concentrated run-off.

**Evidence the impact would be significant:** Urbanization (e.g., impervious surfaces, stormwater systems, storm drain outfalls) can modify natural streamflow patterns by increasing the magnitude and frequency of high flow events and storm flows (Hollis 1975, Konrad and Booth 2005).

**Recommendations to minimize significant impacts:** CDFW recommends that storm runoff be dispersed rather than concentrated to a stormwater outfall or other receiving waters. CDFW recommends implementation of low impact development (LID) and the use of bioswales and bioretention features to intercept storm runoff. CDFW also recommends incorporating permeable surfaces throughout the Project to allow stormwater to percolate in the ground and prevent stream hydromodification (see [https://www.usgs.gov/science/evaluating-potential-benefits-permeable-pavement-quantity-and-quality-stormwater-runoff?qt-science\\_center\\_objects=0#qt-science\\_center\\_objects](https://www.usgs.gov/science/evaluating-potential-benefits-permeable-pavement-quantity-and-quality-stormwater-runoff?qt-science_center_objects=0#qt-science_center_objects))

### **COMMENT 2: Artificial Lighting**

**Issue:** With the addition of buildings on the site, the Project has the potential to increase artificial lighting. Artificial lighting often results in light pollution, which has the potential to significantly and adversely affect fish and wildlife.

**Evidence the impact would be significant:** Night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication such as bird song (Miller, 2006), determining when to begin foraging (Stone et al., 2009), behavior thermoregulation (Beiswenger, 1977), and migration (Longcore and Rich, 2004).

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**Recommendations to minimize significant impacts:** CDFW recommends eliminating all non-essential artificial lighting. If artificial lighting is necessary, CDFW recommends avoiding or limiting the use of artificial lights during the hours of dawn and dusk, when many wildlife species are most active. CDFW also recommends that outdoor lighting be shielded, cast downward, and does not spill over onto other properties or upwards into the night sky (see the International Dark-Sky Association standards at <http://darksky.org/>) and limited to warm light colors with an output temperature of 2700 kelvin or less.

### **COMMENT 3: Riparian Setbacks**

**Issue:** With the development of new buildings and infrastructure near the San Lorenzo River, the Project has the potential to encroach into the riparian zone. Encroachment in the riparian zone can negatively impact sensitive riparian species and can lead to increased pollutants and deleterious materials entering the stream.

**Evidence the impact would be significant:** An estimated 2 to 7 percent of California's riparian habitat remains intact and has not been converted to other land uses (Katibah 1984, Dawdy 1989). Riparian buffers help keep pollutants from entering adjacent waters through a combination of processes including dilution, sequestration by plants and microbes, biodegradation, chemical degradation, volatilization, and entrapment within soil particles. Narrow riparian buffers are considerably less effective in minimizing the effects of adjacent development than wider buffers (Castelle et al. 1992, Brosofske et al. 1997, Dong et al. 1998, Kiffney et al. 2003, Moore et al. 2005). Riparian trees and vegetation, and associated floodplains, provide many essential benefits to stream and aquatic species habitat (Moyle 2002, CDFW 2007), including thermal protection, cover, and large woody debris. Development adjacent to the riparian zone can result in fragmentation of riparian habitat and decreases in native species abundance and biodiversity (Davies et al. 2001, Hansen et al. 2005, CDFW 2007).

**Recommendation:** CDFW recommends that the Project establish and the EIR incorporate a riparian buffer zone to limit development and vegetation clearing to outside of the riparian area. CDFW is available to coordinate with the City to determine appropriate site-specific riparian buffers to reduce impacts to sensitive species and riparian habitat to less-than-significant. At a minimum, CDFW recommends a 50-foot riparian buffer as measured from the top of streambank to the nearest Project infrastructure.

### **ENVIRONMENTAL DATA**

CEQA requires that information developed in EIRs and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly,

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please report any special-status species and natural communities detected during Project surveys to CNDDDB. The CNDDDB online field survey form and other methods for submitting data can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Plantsand-Animals>.

## FILING FEES

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish & G. Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

## CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist the City in identifying and mitigating Project impacts on biological resources. If you have any questions, please contact Ms. Serena Stumpf, Environmental Scientist, at (707) 337-1364 or [Serena.Stumpf@wildlife.ca.gov](mailto:Serena.Stumpf@wildlife.ca.gov); or Mr. Wesley Stokes, Senior Environmental Scientist (Supervisory), at [Wesley.Stokes@wildlife.ca.gov](mailto:Wesley.Stokes@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
Erin Chappell  
Regional Manager  
Bay Delta Region

Attachment 1: Special-Status Species from the CNDDDB within a 5-mile radius of the Project Site

ec: State Clearinghouse (SCH No. 2022060566)

## REFERENCES

- Beiswenger, R. E. 1977. Diet patterns of aggregative behavior in tadpoles of *Bufo americanus*, in relation to light and temperature. *Ecology* 58:98–108.
- Brosofske, K.D., J. Chen, R.J. Naiman, and J.F. Franklin. 1997. Harvesting effects on microclimatic gradients from small streams to uplands in western Washington. *Ecological Applications* 7:1188-1200.



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Castelle, A.J., C. Conolly, M. Emers, E.D. Metz, S. Meyer, M. Witter, S. Mauermann, T. Erickson, and S.S. Cooke. 1992. Wetlands buffers use and effectiveness. Adolfson Associates, Inc., Shorelands and Coastal Zone Management Program, Washington Department of Ecology, Olympia, WA. Pub. No. 92-10.

CDFW 2007. California wildlife: conservation challenges. California Department of Fish and Game, Sacramento, CA.

Davies, K.F., C. Gascon, and C.R. Margules. 2001. Habitat fragmentation: consequences, management, and future research priorities. Pages 81-97 in: M.E. Soule and G. H. Orians, (eds.) Conservation Biology: Research Priorities for the Next Decade. Island Press, Washington, DC.

Dawdy, D.R. 1989. Feasibility of mapping riparian forests under natural conditions in California. pages 63-68 in: Proceedings of the California Riparian Systems Conference. GTR PSW-110. Davis, CA.

Dong, J., J. Chen, Brosofske, K.D., and R.J. Naiman, 1998. Modeling air temperature gradients across managed small streams in western Washington. Journal of Environmental Management 53:309-321.

Hansen, A. J., R. L. Knight, J. M. Marzluff, S. Powell, K. Brown, P. A. Gude, and K. Jones. 2005. Effects of exurban development on biodiversity patterns, mechanisms, and research needs. Ecological Applications 15:1893-1905.

Hollis, G. 1975. The effect of urbanization on floods of different recurrence interval. Water Resources Research 11:431-435.

Katibah, E.F. 1984. A brief history of riparian forests in the Central Valley of California. Pages 23-29 in: R.E. Warner and K.M. Hendrix (eds) California riparian systems: ecology, conservation and productive management. University of California Press, Berkeley, CA.

Kiffney, P. M., J. S. Richardson, and J. P. Bull. 2003. Responses of periphyton and insects to experimental manipulation of riparian buffer width along forest streams. Journal of Applied Ecology 40:1060-1076.

Konrad, C.P. and D.B. Booth. 2005. Hydrologic changes in urban streams and their ecological significance, paper presented at American Fisheries Society Symposium, American Fisheries Society

Longcore, T., and C. Rich. 2004. Ecological light pollution - Review. Frontiers in Ecology and the Environment 2:191-198.

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Miller, M. W. 2006. Apparent effects of light pollution on singing behavior of American robins. *The Condor* 108:130–139.

Moore, R. D., D. L. Spittlehouse, and A. Story. 2005. Riparian microclimate and stream temperature response to forest harvesting: a review. *Journal of the American Water Resources Association* 41:813-834.

Moyle P.B. (2002). *Inland fishes of California*. University of California Press. Berkeley, CA.

Stone, E. L., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. *Current Biology* 19:1123–1127. Elsevier Ltd.

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**Attachment 1: Special-Status Species from the CNDDDB within a 5-mile Radius of the Project Site**

Scientific Name	Common Name	Status
<b>Birds</b>		
<i>Agelaius tricolor</i>	tricolored blackbird	ST
<i>Athene cunicularia</i>	burrowing owl	SSC
<i>Charadrius nivosus nivosus</i>	western snowy plover	FT, SSC
<i>Coturnicops noveboracensis</i>	yellow rail	SSC
<i>Cypseloides niger</i>	black swift	SSC
<i>Elanus leucurus</i>	white-tailed kite	FP
<i>Laterallus jamaicensis coturniculus</i>	California black rail	SE
<b>Fish</b>		
<i>Eucyclogobius newberryi</i>	tidewater goby	FE
<i>Oncorhynchus mykiss irideus</i> pop. 8	steelhead - central California coast DPS	FT
<i>Oncorhynchus kisutch</i> pop. 4	coho salmon - central California coast ESU	FE, SE
<b>Amphibians</b>		
<i>Aneides niger</i>	Santa Cruz black salamander	SSC
<i>Dicamptodon ensatus</i>	California giant salamander	SSC
<i>Rana boylei</i>	foothill yellow-legged frog	SE
<i>Rana draytonii</i>	California red-legged frog	FT, SSC
<b>Mammals</b>		
<i>Antrozous pallidus</i>	pallid bat	SSC

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Scientific Name	Common Name	Status
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC
<i>Dipodomys venustus venustus</i>	Santa Cruz kangaroo rat	S1 <sup>7</sup>
<i>Taxidea taxus</i>	American badger	SSC
<b>Reptiles</b>		
<i>Emys marmorata</i>	western pond turtle	SSC
<b>Invertebrates</b>		
<i>Adela oplerella</i>	Opler's longhorn moth	S2
<i>Bombus caliginosus</i>	obscure bumble bee	ICP
<i>Bombus occidentalis</i>	western bumble bee	ICP
<i>Cicindela ohlone</i>	Ohlone tiger beetle	FE
<i>Danaus plexippus</i> pop. 1	monarch - California overwintering population	FC, ICP
<i>Euphilotes enoptes smithi</i>	Smith's blue butterfly	FE
<i>Polyphylla barbata</i>	Mount Hermon June beetle	FE
<i>Trimerotropis infantilis</i>	Zayante band-winged grasshopper	FE
<b>Plants</b>		
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	CRPR <sup>8</sup> 1B.2
<i>Arctostaphylos andersonii</i>	Anderson's manzanita	CRPR 1B.2

<sup>7</sup> The state rank (S-rank) refers to the imperilment status only within California's state boundaries. S1 = Critically Imperiled; S2 = Imperiled; and S3 = Vulnerable. More information on conservation status ranks is available in CDFW's *Special Animals List* (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>).

<sup>8</sup> CRPR 1B plants are considered rare, threatened, or endangered in California and elsewhere. Further information on CRPR ranks is available in CDFW's *Special Vascular Plants, Bryophytes, and Lichens List* (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>) and on the California Native Plant Society website (<https://www.cnps.org/rare-plants/cnps-rare-plant-ranks>).

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Scientific Name	Common Name	Status
<i>Arctostaphylos silvicola</i>	Bonny Doon manzanita	CRPR 1B.2
<i>Arenaria paludicola</i>	marsh sandwort	FE, SE
<i>Campanula californica</i>	swamp harebell	CRPR 1B.2
<i>Carex saliniformis</i>	deceiving sedge	CRPR 1B.2
<i>Chorizanthe pungens</i> var. <i>hartwegiana</i>	Ben Lomond spineflower	FE, CRPR 1B.1
<i>Chorizanthe robusta</i> var. <i>hartwegii</i>	Scotts Valley spineflower	FE, CRPR 1B.1
<i>Chorizanthe robusta</i> var. <i>robusta</i>	robust spineflower	FE, CRPR 1B.1
<i>Dacryophyllum falcifolium</i>	tear drop moss	CRPR 1B.3
<i>Eriogonum nudum</i> var. <i>decurrens</i>	Ben Lomond buckwheat	CRPR 1B.1
<i>Erysimum teretifolium</i>	Santa Cruz wallflower	FE, SE
<i>Fissidens pauperculus</i>	minute pocket moss	CRPR 1B.2
<i>Holocarpha macradenia</i>	Santa Cruz tarplant	FT, SE
<i>Horkelia cuneata</i> var. <i>sericea</i>	Kellogg's horkelia	CRPR 1B.1
<i>Monardella sinuata</i> ssp. <i>nigrescens</i>	northern curly-leaved monardella	CRPR 1B.2
<i>Plagiobothrys diffusus</i>	San Francisco popcornflower	SE
<i>Polygonum hickmanii</i>	Scotts Valley polygonum	SE
<i>Trifolium buckwestiorum</i>	Santa Cruz clover	CRPR 1B.1

FE = federally listed as endangered under the Endangered Species Act (ESA); FT = federally listed as threatened under ESA; FC = candidate for federal listing under ESA; SE = state listed as endangered under CESA; ST = state listed as threatened under CESA; CE = candidate for state listing as threatened or endangered; FP = state fully protected under Fish and Game Code; SSC = state species of special concern; ICP = state invertebrate of conservation priority; CRPR = California rare plant rank