

Appendix B

Biological Resources Documentation

U.S. Fish and Wildlife Service List of Threatened and Endangered Species

California Natural Diversity Database Summary

California Native Plant Society Summary

ENPLAN Summary Report: Potential for Special-Status Species to Occur on the Project Site

List of Vascular Plants Observed



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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In Reply Refer To:

02/04/2025 18:46:22 UTC

Project Code: 2025-0004687

Project Name: City of Mt. Shasta Spring Hill Water Supply and Storage Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Yreka Fish And Wildlife Office

1829 South Oregon Street

Yreka, CA 96097-3446

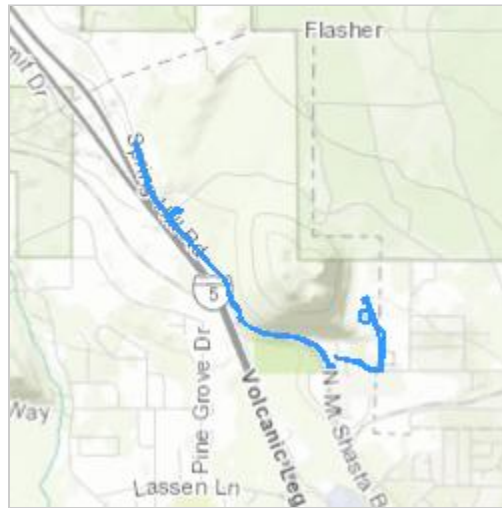
(530) 842-5763

PROJECT SUMMARY

Project Code: 2025-0004687
Project Name: City of Mt. Shasta Spring Hill Water Supply and Storage Project
Project Type: Water Supply Facility - Maintenance / Modification
Project Description: The City of Mt. Shasta (City) is proposing to eliminate existing pressure deficiencies in the Big Lakes area, improve fire flows, increase City-wide storage, and provide water supply reliability and resilience.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.32949205,-122.3181322947232,14z>



Counties: Siskiyou County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
<p>Gray Wolf <i>Canis lupus</i></p> <p>Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.</p> <p>There is final critical habitat for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/4488</p>	Endangered
<p>North American Wolverine <i>Gulo gulo luscus</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> Species may be present based on transient occurrence as it moves through or too suitable habitat. Effects should be considered to species and projects should consult with the Service, however, depending on the project, consultation may not be necessary. <p>Species profile: https://ecos.fws.gov/ecp/species/5123</p>	Threatened

BIRDS

NAME	STATUS
<p>California Condor <i>Gymnogyps californianus</i></p> <p>Population: Pacific Northwest NEP</p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/8193</p>	Experimental Population, Non- Essential
<p>Northern Spotted Owl <i>Strix occidentalis caurina</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/1123</p>	Threatened
<p>Yellow-billed Cuckoo <i>Coccyzus americanus</i></p> <p>Population: Western U.S. DPS</p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/3911</p>	Threatened

REPTILES

NAME	STATUS
<p>Northwestern Pond Turtle <i>Actinemys marmorata</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/1111</p>	Proposed Threatened

INSECTS

NAME	STATUS
<p>Franklin's Bumble Bee <i>Bombus franklini</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/7022</p>	Endangered

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

CRUSTACEANS

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Shannon Crowley
Address: 3179 Bechelli Lane Suite 100
City: Redding
State: CA
Zip: 96002
Email: scrowley@enplan.com
Phone: 5302210440

TABLE 1
Rarefind (CNDDDB) Report Summary
City of Mt. Shasta Spring Hill Water Supply and Storage Project
Five-Mile Radius of Project Area
 March 2025

Listed Element	Quadrangle ¹						Status ²
	CMS	HO	MC	ME	MS	WE	
ANIMALS							
American goshawk			•				SSSC
Bald eagle				•			FD, SE, SFP
Bank swallow	•						ST
Cascades frog	•			•		•	SCE, SSSC
Fisher	•			•			SSSC
Foothill yellow-legged frog – North Coast DPS	•			•			SSSC
Franklin’s bumble bee			•				FE, SCE
Gray-headed pika		•					None
Great blue heron	•						None
Long-eared myotis					•		None
North American porcupine	•	•				•	None
Obscure bumble bee	•				•		None
Osprey	•			•			WL
Pacific marten			•				None
Sierra Nevada red fox – southern Cascades DPS			•		•		ST
Silver-haired bat	•					•	None
Suckley’s cuckoo bumble bee	•						FPE, SCE
Western bumble bee	•						SCE
Western mastiff bat	•						SCE
Western yellow-billed cuckoo	•						FT, SE
Yellow rail	•						SSSC
PLANTS							
Aleppo avens	•						2B.2
Baker’s globe mallow	•						4.2
Broad-nerved hump moss	•						2B.2
Gasquet rose	•						1B.3
Marsh skullcap	•						2B.2
northern adder’s tongue	•						2B.2
Oregon fireweed				•			1B.2
Pacific fuzzwort	•			•			4.3
Pallid bird’s-beak	•	•		•			1B.2
Rattlesnake fern	•		•				2B.2
Shasta chaenactis	•						1B.3
Siskiyou clover	•						1B.1
Snow fleabane daisy		•					2B.3
Subalpine aster	•			•			2B.3
Three-ranked hump moss	•						4.2
Trinity buckwheat				•			1B.2, SE
Woodnymph	•						2B.2
Woolly balsamroot	•						1B.2

Highlighting denotes the quadrangle in which project site is located

¹Quadrangle Code

CMS = City of Mount Shasta

HO = Hotlum

MC = McCloud

ME = Mount Eddy

MS = Mt. Shasta

WE = Weed

²STATUS CODES

Federal

FE Federally Listed – Endangered

FT Federally Listed – Threatened

FC Federal Candidate Species

FPE Federal Proposed Endangered

FD Federally Delisted

State

SFP State Fully Protected

SE State Listed – Endangered

ST State Listed – Threatened

SC State Candidate Species

SCE State Candidate Endangered

SSSC State Species of Special Concern

WL Watch List

Rare Plant Rank

1A Plants Presumed Extinct in California

1B Plants Rare, Threatened or Endangered in California and Elsewhere

2 Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere

3 Plants About Which We Need More Information (*A Review List*)

(generally not considered special-status, unless unusual circumstances warrant)

4 Plants of Limited Distribution (*A Watch List*)

(generally not considered special-status, unless unusual circumstances warrant)

TABLE 2
California Native Plant Society
Inventory of Rare and Endangered Plants
U.S. Geological Survey's 7.5-minute Quadrangle: City of Mount Shasta

Common Name	Scientific Name	CA Rare Plant Rank	Blooming Period	State Listing Status	Federal Listing Status
Aleppo avens	<i>Geum aleppicum</i>	2B.2	Jun-Aug	None	None
Baker's globe mallow	<i>Iliamna bakeri</i>	4.2	Jun-Sep	None	None
Broad-nerved hump moss	<i>Meesia uliginosa</i>	2B.2	Jul-Oct	None	None
California lady's-slipper	<i>Cypripedium californicum</i>	4.2	Apr-Aug(Sep)	None	None
California pitcherplant	<i>Darlingtonia californica</i>	4.2	Apr-Aug	None	None
Clustered lady's-slipper	<i>Cypripedium fasciculatum</i>	4.2	Mar-Aug	None	None
Gasquet rose	<i>Rosa gymnocarpa</i> var. <i>serpentina</i>	1B.3	Apr-Jun(Aug)	None	None
Marsh claytonia	<i>Claytonia palustris</i>	4.3	May-Oct	None	None
Marsh skullcap	<i>Scutellaria galericulata</i>	2B.2	Jun-Sep	None	None
Northern adder's-tongue	<i>Ophioglossum pusillum</i>	2B.2	Jul	None	None
Oregon fireweed	<i>Epilobium oregonum</i>	1B.2	Jun-Sep	None	None
Pacific fuzzwort	<i>Ptilidium californicum</i>	4.3	May-Aug	None	None
Pallid bird's-beak	<i>Cordylanthus tenuis</i> ssp. <i>pallescens</i>	1B.2	Jul-Sep	None	None
Rattlesnake fern	<i>Botrypus virginianus</i>	2B.2	Jun-Sep	None	None
Rosy orthocarpus	<i>Orthocarpus bracteosus</i>	2B.2	Jun-Sep	None	None
Rough harebell	<i>Campanula scabrella</i>	4.3	Aug-Sep	None	None
Shasta chaenactis	<i>Chaenactis suffrutescens</i>	1B.3	May-Sep	None	None
Siskiyou clover	<i>Trifolium siskiyouense</i>	1B.1	Jun-Jul	None	None
Slender cottongrass	<i>Eriophorum gracile</i>	4.3	May-Sep	None	None
Subalpine aster	<i>Eurybia merita</i>	2B.3	N/A	None	None
Three-ranked hump moss	<i>Meesia triquetra</i>	4.2	Jul	None	None
Woodnymph	<i>Moneses uniflora</i>	2B.2	May-Aug	None	None
Woolly balsamroot	<i>Balsamorhiza lanata</i>	1B.2	Apr-Jun	None	None

Rare Plant Rank	
1A	Plants Presumed Extinct in California
1B	Plants Rare, Threatened or Endangered in California and Elsewhere
2	Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
3	Plants About Which We Need More Information – A Review List (generally not considered special-status, unless unusual circumstances warrant)
4	Plants of Limited Distribution – A Watch List (generally not considered special-status, unless unusual circumstances warrant)
Rare Plant Threat Rank	
0.1	Seriously Threatened in California
0.2	Fairly Threatened in California
0.3	Not Very Threatened in California

Source: *California Native Plant Society, Rare Plant Program. 2025. Inventory of Rare and Endangered Plants of California (online edition, v9.5.1).* <http://www.rareplants.cnps.org>. Accessed March 2025.

Status Codes			
<i>Federal</i>		<i>State</i>	
FE	Federally Listed – Endangered	SFP	State Full Protected
FT	Federally Listed – Threatened	SR	State Rare
FC	Federal Candidate	SE	State Listed – Endangered
FP	Federal Proposed	ST	State Listed – Threatened
FD	Federal Delisted	SC	State Candidate
FSC	Federal Species of Concern	SD	State Delisted
FBCC	Federal Bird of Conservation Concern	SSSC	State Species of Special Concern
		WL	Watch List

TABLE 3
Potential for Federal and State Special-Status Species to Occur on the Project Site
March 2025

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
PLANTS							
Aleppo avens	<i>Geum aleppicum</i>	2B.2	Aleppo avens, an herbaceous perennial, grows in meadows within Great Basin scrub and lower montane coniferous forest. The species is reported between 1,400 and 5,000 feet in elevation. The flowering period is June through August.	No	No	No	No suitable habitat for Aleppo avens is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Broad-nerved hump moss	<i>Meesia uliginosa</i>	2B.2	Broad-nerved hump moss habitats include bogs and fens; meadows and seeps; subalpine coniferous forest; and upper montane coniferous forest. The species is found between 4,200 and 9,200 feet in elevation. The flowering period is July through October.	No	No	No	No suitable habitat for broad-nerved hump moss is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Gasquet rose	<i>Rosa gymnocarpa</i> var. <i>serpentina</i>	1B.3	Gasquet rose, a rhizomatous shrub, occurs on serpentine soils in chaparral and cismontane woodlands. Within these vegetation communities, it may occur along streams, roadsides, ridges, and openings. The species is reported between 1,200 and 4,700 feet in elevation. The flowering period is April through June.	No	No	No	No suitable habitat for Gasquet rose is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Marsh skullcap	<i>Scutellaria galericulata</i>	2B.2	Marsh skullcap is a perennial member of the mint family. It occurs in meadows, along streambanks and in other wet places at elevations of 3,000 to 7,000 feet. The flowering period is June through September.	No	No	No	No suitable habitat for marsh skullcap is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Northern adder's-tongue	<i>Ophioglossum pusillum</i>	2B.2	Northern adder's tongue occurs along marsh and swamp edges, in meadows and seeps, in low pastures, and grassy roadside ditches. The species is reported between 3,200 and 6,600 feet in elevation. The identification period is July through September.	No	No	No	No suitable habitat for northern adder's-tongue is present on the project site. The species was not observed during the botanical survey and is not expected to be present.

TABLE 3
Potential for Federal and State Special-Status Species to Occur on the Project Site
March 2025

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Oregon fireweed	<i>Epilobium oreganum</i>	1B.2	Oregon fireweed is associated with springs, bogs, fens, and meadows in montane coniferous forest. The species sometimes occurs on serpentine soils. The species is reported between 1,600 and 7,400 feet in elevation. The flowering period is June through September.	No	No	No	No suitable habitat for Oregon fireweed is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Pallid bird's-beak	<i>Cordylanthus tenuis</i> ssp. <i>pallescens</i>	1B.2	Pallid bird's-beak occurs on open volcanic alluvium within lower montane coniferous forest. The species is reported between 2,200 and 5,400 feet in elevation. The flowering period is August through September.	Yes	No	No	Suitable habitat for pallid bird's-beak is present throughout much of the project site. However, the species was not observed during the botanical survey and is not expected to be present.
Rattlesnake fern	<i>Botrypus virginianus</i>	2B.2	Rattlesnake fern is a perennial herb that occurs in bogs, ferns, lower montane coniferous forests, meadows, seeps, and riparian forests. The species is reported between 2,300 and 4,500 feet in elevation. The identification period is June through September.	No	No	No	No suitable habitat for rattlesnake fern is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Rosy orthocarpus	<i>Orthocarpus bracteosus</i>	2B.2	Rosy orthocarpus is an annual herb that occurs in moist meadows. The species is found between 1,640 and 6,562 feet in elevation. The flowering period is June through August.	No	No	No	No suitable habitat for rosy orthocarpus is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Shasta chaenactis	<i>Chaenactis suffrutescens</i>	1B.3	Shasta chaenactis is a perennial herb that occurs in upper and lower montane coniferous forests, typically in sandy or serpentine soils. Shasta chaenactis occurs on rocky open slopes, cobbly river terraces, and along roadcuts. The species is reported between 2,400 and 9,200 feet in elevation. The flowering period is May through September.	Yes	No	No	Potentially suitable habitat for Shasta chaenactis is present on the project site, primarily along roadcuts. However, the species was not observed during the botanical survey and is not expected to be present.

TABLE 3
Potential for Federal and State Special-Status Species to Occur on the Project Site
March 2025

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Siskiyou clover	<i>Trifolium siskiyouense</i>	1B.1	Siskiyou clover is a perennial herb that generally occurs in mountain meadows, seeps, or along streambanks between 2,800 and 4,900 feet in elevation. The species has been reported in southern Oregon and northern California but has not been documented in Oregon since 1926 or in California since 1935. Flowering occurs in June and July.	No	No	No	No suitable habitat for Siskiyou clover is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Snow fleabane daisy	<i>Erigeron nivalis</i>	2B.3	Snow fleabane daisy, a perennial herb, occurs in alpine boulder and rock fields, on rocky volcanic substrates, and in association with meadows and seeps. The species is reported between 5,600 and 9,600 feet in elevation. The flowering period is July and August.	No	No	No	No suitable habitat for snow fleabane daisy is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Subalpine aster	<i>Eurybia merita</i>	2B.3	Subalpine aster, a perennial herb, occurs on moist soils in upper montane coniferous forest. The species generally occurs above 6,000 feet in elevation. The flowering period is July and August.	No	No	No	No suitable habitat for subalpine aster is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Trinity buckwheat	<i>Eriogonum alpinum</i>	1B.2, SE	Trinity buckwheat occurs on rocky soils and scree slopes in open and windswept areas on serpentine substrates within upper montane coniferous forest, subalpine coniferous forest, and alpine boulder and rock fields. The species occurs between 7,200 and 9,500 feet in elevation. The flowering period is June through September.	No	No	No	No suitable habitat for Trinity buckwheat is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
Woodnymph	<i>Moneses uniflora</i>	2B.2	Woodnymph is a perennial rhizomatous herb that occurs in broad-leaved upland forest and North Coast coniferous forest. The species is reported between 300 and 3,600 feet in elevation. The flowering period is May through August.	No	No	No	No suitable habitat for woodnymph is present on the project site. The species was not observed during the botanical survey and is not expected to be present.

**TABLE 3
Potential for Federal and State Special-Status Species to Occur on the Project Site
March 2025**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Woolly balsamroot	<i>Balsamorhiza lanata</i>	1B.2	Woolly balsamroot occurs in open areas and grassy slopes in cismontane woodland in Siskiyou County. The species is reported between 2,600 and 6,300 feet in elevation. The flowering period is April through June.	No	No	No	No suitable habitat for woolly balsamroot is present on the project site. The species was not observed during the botanical survey and is not expected to be present.
AMPHIBIANS							
Cascades frog	<i>Rana cascadae</i>	SCE, SSSC	In the southern Cascades of Northern California, the Cascades frog is typically found above 5,000 feet in elevation. Cascades frogs inhabit alpine lakes, inlet and outlet streams to mountain lakes, ponds, and meadows. Standing water is required for reproduction. Breeding occurs between March and mid-August. Eggs are deposited in shallow water features with silty, sandy, or gravelly substrates. Adults are typically found in open, sunny areas along shorelines that provide basking and foraging opportunities; they can occasionally move between basins by crossing over mountain ridges.	No	No	No	No suitable habitat for Cascades frog is present on the project site. The species would not be present.
Foothill yellow-legged frog -North Coast DPS	<i>Rana boylei</i> pop.1	SSSC	Foothill yellow-legged frogs are typically found in shallow, partly-shaded, perennial streams in areas with riffles and rocky substrates. This frog needs at least some cobble-sized substrate for egg-laying. Foothill yellow-legged frogs generally prefer low- to moderate-gradient streams, especially for breeding and egg-laying, although juvenile and adult frogs may utilize moderate- to steep-gradient streams during summer and early fall.	No	No	No	No suitable habitat for foothill yellow-legged frogs is present on the project site. The species would not be present.

TABLE 3
Potential for Federal and State Special-Status Species to Occur on the Project Site
March 2025

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
BIRDS							
American goshawk	<i>Accipiter atricapillus</i>	SSSC	American goshawks generally nest on north-facing slopes near water in old-growth coniferous and deciduous forests. Goshawks re-use old nests and maintain alternate nest sites.	No	No	No	No suitable habitat for American goshawk is present on the project site. The species is not expected to nest in or adjacent to the project area.
Bald eagle	<i>Haliaeetus leucocephalus</i>	FD, SE, SFP	Bald eagles nest in large, old-growth trees or snags in mixed stands near open bodies of water. Adults tend to use the same breeding areas year after year and often use the same nest, though a breeding area may include one or more alternate nests. Bald eagles usually do not begin nesting if human disturbance is evident. In California, the bald eagle nesting season is from February through July.	No	No	No	No suitable habitat for bald eagle is present on the project site. The species is not expected to nest in or adjacent to the project area.
Bank swallow	<i>Riparia riparia</i>	ST	Bank swallows require vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, or the ocean for nesting. In California, the bank swallow nesting season is from February through August.	No	No	No	No suitable habitat for bank swallow is present on the project site. The species is not expected to nest in or adjacent to the project area.
California condor	<i>Gymnogyps californianus</i>	EPNE, SE, SFP	The California condor is a permanent resident of the semi-arid, rugged mountain ranges surrounding the southern San Joaquin Valley, including the Coast Range from Santa Clara County south to Los Angeles County, the Traverse Ranges, Tehachapi Mountains, and southern Sierra Nevada. Condors roost on cliffs, large trees, and snags. Nesting habitat includes caves, crevices, behind rock slabs, or on large ledges on high sandstone cliffs. An experimental population (Pacific Northwest NEP) has recently been established in Humboldt County and is currently designated the status Experimental Population, Non-Essential.	No	No	No	No suitable habitat for California condor is present on the project site. The species is not expected to nest in or adjacent to the project area.

**TABLE 3
Potential for Federal and State Special-Status Species to Occur on the Project Site
March 2025**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Northern spotted owl	<i>Strix occidentalis caurina</i>	FT, ST	Northern spotted owls inhabit dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir forests from sea level to approximately 7,600 feet in elevation. Northern spotted owls typically nest in tree cavities, the broken tops of trees, or in snags. The nesting season is March through June.	No	No	No	The site supports an open-canopy forest with no old growth. No suitable habitat for northern spotted owl is present on the project site. The northern spotted owl is not expected to nest in or adjacent to the project area.
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FT, SE	Western yellow-billed cuckoos inhabit and nest in extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, and which abut slow-moving watercourses, backwaters, or seeps. Willows are almost always a dominant component of the vegetation. In the Sacramento Valley, the western yellow-billed cuckoo also utilizes adjacent orchards, especially of walnut, for nesting.	No	No	No	No suitable habitat for western yellow-billed cuckoo is present on the project site. The species is not expected to nest in or adjacent to the project area.
Yellow rail	<i>Coturnicops noveboracensis</i>	SSSC	Yellow rails inhabit dense, grassy marshes, wet meadows, fens, and seeps. In summer, yellow rails nest in shallow marshes and large wet meadows dominated by sedges and grasses. In winter, they inhabit coastal salt marsh, especially drier areas with dense stands of spartina. Their nest is a shallow cup of sedges and grasses in a shallow part of a marsh, on damp soil or over water less than six inches deep. The yellow rail is one of the most secretive birds in North America. Yellow rails are highly elusive and are rarely seen.	No	No	No	No suitable habitat yellow rail is present on the project site. The species is not expected to nest in or adjacent to the project area.
CRUSTACEANS							
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE	Conservancy fairy shrimp inhabit large, cool-water vernal pools with moderately turbid water.	No	No	No	No suitable habitat for conservancy fairy shrimp is present on the project site. The species would not occur on the project site.

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March 2025**

COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT	Vernal pool fairy shrimp inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump or basalt-flow depression pools.	No	No	No	No suitable habitat for vernal pool fairy shrimp is present on the project site. The species would not occur on the project site.
Vernal pool tadpole shrimp	<i>Lepidurus packardi</i>	FE	Vernal pool tadpole shrimp occur in vernal pools in California's Central Valley and in the surrounding foothills.	No	No	No	No suitable habitat for vernal pool tadpole shrimp is present on the project site. The species would not occur on the project site.
REPTILES							
Northwestern pond turtle	<i>Actinemys marmorata</i>	FPT	The northwestern pond turtle associates with permanent or nearly permanent water in a variety of habitats. This turtle is typically found in quiet water environments. Pond turtles require basking sites such as partially submerged logs, rocks, or open mud banks, and suitable (sandy banks or grassy open fields) upland habitat for egg-laying. Nesting and courtship occur during spring. Nests are generally constructed within 500 feet of a waterbody, but some nests have been found up to 1,200 feet away. Pond turtles leave aquatic sites in the fall and overwinter in uplands nearby. Pond turtles return to aquatic sites in spring.	No	No	No	No suitable habitat for northwestern pond turtle is present on or near the project site. The species would not occur on the project site.

TABLE 3
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COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
INSECTS							
Franklin's bumble bee	<i>Bombus franklini</i>	FE, SCE	Franklin's bumble bee has a very limited geographic distribution. The species may be found in Douglas, Josephine, and Jackson counties in Oregon, and in Siskiyou and Trinity counties in California. This species inhabits open grassy coastal prairies and Coast Range meadows from 540 feet to above 7,800 feet in elevation. Important food plants include <i>Lupinus</i> , <i>Agastache</i> , <i>Monardella</i> , and <i>Vicia</i> . The flight season is from mid-May to the end of September. The nesting biology of this species is unknown, but it probably nests in abandoned rodent burrows. Very little is known about overwintering sites utilized by the species. Generally, bumble bees overwinter in soft, disturbed soil, or under leaf litter or other debris.	No	No	No	Neither iNaturalist nor Bumble Bee Watch identify any reported occurrences of Franklin's bumble bee in California. According to CDFW and CNDDDB records, Franklin's bumble bee was last seen in California in 1998, and in Oregon in 2006. It is considered possibly extinct in many locations. Due to a lack of abundant floral resources in the project area, the species is not expected to be present.
Monarch butterfly	<i>Danaus plexippus</i>	FPT	Monarch butterflies are reliant on milkweed species for development and survival. Adults migrate from their overwintering sites on the California Coast, Baja California, and to some extent the central Mexico mountains in February and March and reach the northern limit of their North America range in California, Oregon, Washington, Idaho, and Nevada, in early to mid-June. Eggs are laid singly on milkweed plants within their breeding range. Once hatched, larva reach the adult stage in 20 to 35 days; adults live 2 to 5 weeks. Several generations can be produced within one season, with the last generation beginning migration to their overwintering range in August and September where they live between 6 and 9 months before migrating north.	Yes	No	Pot.	Suitable breeding habitat for monarch butterfly is present on the project site. Dozens of milkweed plants were observed during the botanical survey along Spring Hill Road in or adjacent to the proposed new water line corridor.

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COMMON NAME	SCIENTIFIC NAME	STATUS	GENERAL HABITAT DESCRIPTION	HABITAT PRESENT (Y/N)	CRITICAL HABITAT PRESENT (Y/N)	SPECIES PRESENT (Y/N/POT.)	RATIONALE/COMMENTS
Suckley's cuckoo bumble bee	<i>Bombus suckleyi</i>	FPE, SCE	In California, Suckley's cuckoo bumble bees are limited to the Klamath Mountains. The bee is a social parasite that has only been documented to reproduce successfully in colonies of western bumble bees. Females emerge in late May, forage primarily on species of composites, and search for a suitable host bumble bee nest. Very little is known about overwintering sites utilized by the species, although generally, bumble bee females overwinter in soft, disturbed soil or under leaf litter or other debris.	No	No	No	Suckley's cuckoo bumble bee is a social parasite of western bumble bee. According to CNDDDB records, the last reported occurrence of Suckley's cuckoo bumble bee in Siskiyou County was in 1958 in the general area of the City of Mt. Shasta; however, the exact location is unknown. As stated below, due to a lack of floral resources in the project area, it is not expected that western bumble bee would be present. Therefore, Suckley's cuckoo bumble bee likewise would not be present.
Western bumble bee	<i>Bombus occidentalis</i>	SCE	Western bumble bees are found in meadows and grasslands with abundant floral resources. In California, the species is largely confined to high-elevation sites in the Sierra Nevada and scattered sites on the coast. The flight period is generally from early February to late November. Nests are primarily in underground cavities on open west-southwest slopes bordered by trees, although a few aboveground nests have been reported. Very little is known about overwintering site; however, the species has been reported in overwintering sites that were two inches deep in a "steep west slope of the mound of earth."	No	No	No	iNaturalist records show that western bumble bee was reported in August 2022 near the southwest bank of Lake Siskiyou, ~3 miles southwest of the study area. Bumble Bee Watch records show that the species was observed ~4 miles east of the project area in July 2024. Due to a lack of floral resources in the project site, the species is not expected to be present.

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MAMMALS							
Fisher	<i>Pekania pennanti</i>	SSSC	Fishers inhabit mixed-conifer forests dominated by Douglas-fir, although they also are encountered frequently in higher elevation fir and pine forests, and mixed evergreen/broadleaf forests. Suitable habitat for fishers consists of large areas of mature, dense forest stands with snags and greater than 50 percent canopy closure. Fishers den in cavities in large trees, snags, logs, rocky areas, or shelters provided by slash or brush piles. Fishers are very sensitive to human activities. Den sites are most often found in areas with no human disturbance.	Yes	No	No	The water tank site includes mixed-conifer forest habitat; however, most of the understory has been cleared, resulting in an open conifer forest. The mixed-conifer forest is best developed along North Mt. Shasta Boulevard near the base of Spring Hill; however, due to the level of human disturbance, the fisher would not den in this area. Therefore, the species is not expected to be present.

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Gray wolf	<i>Canis lupus</i>	FE, SE	Gray wolves are habitat generalists and populations can be found in any type of habitat in the Northern Hemisphere from about 20° latitude to the polar ice pack. Key components of preferred wolf habitat include a year-round abundance of natural prey, secluded denning and rendezvous sites, and sufficient space with minimal human disturbance. Den sites are often near water, and are usually elevated to detect approaching enemies. Wolf packs establish and defend territories that may range from 20 to 400 square miles. Wolves travel over large areas to hunt, and may cover as much as 30 miles in a day. Young wolves may disperse several hundred miles to seek out a mate or to establish their own pack.	No	No	No	According to CDFW, there were seven confirmed gray wolf packs in California in 2025, including one, the Whaleback Pack, in eastern Siskiyou County. Continued dispersal of wolves into California is expected. Although gray wolves could potentially stray near the project area, gray wolves would not be expected to stray onto or den in the project site due to the level of human disturbance in the area.
North American wolverine	<i>Gulo gulo luscus</i>	FT, SFP, ST	Wolverines are dependent on areas in high mountains, near the tree-line, where conditions are cold year-round and snow cover persists well into the month of May. Female wolverines use birthing dens that are excavated in snow. Persistent, stable snow greater than 1.5 meters deep appears to be a requirement for birthing dens. Birthing dens consist of tunnels that contain well-used runways and bed sites and may naturally incorporate shrubs, rocks, and downed logs as part of their structure. Birthing dens may occur on rocky sites, such as north-facing boulder talus or subalpine cirques. Wolverines are very sensitive to human activities and often abandon den sites in response to human disturbance.	No	No	No	No suitable habitat for North American wolverine is present on the project site. Thus, the North American wolverine is not expected to be present.

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Sierra Nevada red fox – southern Cascades DPS	<i>Vulpes vulpes necator</i> pop. 1	ST	The Sierra Nevada red fox inhabits remote mountainous areas where encounters with humans are rare. Preferred habitat appears to be red fir and lodgepole pine forests in the subalpine and alpine zones of the Sierra Nevada. This species may hunt in forest openings, meadows, and barren rocky areas associated with its high elevation habitats.	No	No	No	No suitable habitat for Sierra Nevada red fox is present on the project site. Thus, the Sierra Nevada red fox is not expected to be present.
Spotted bat	<i>Euderma maculatum</i>	SSSC	Spotted bats inhabit grasslands, mixed coniferous forests, and deserts. Spotted bats typically roost in cliff crevices, but may also roost in caves, and manmade structures. Roosts usually occur near suitable foraging areas (i.e., open water, meadows, riparian habitat, and forest openings).	Yes	No	Pot.	The project site supports foraging habitat but minimal roosting habitat for bats. CNDDDB records show the closest occurrence is roughly 1.6 miles southeast of the project site. The species has the potential to be present in the water tank site.
Western mastiff bat	<i>Eumops perotis californicus</i>	SSSC	The western mastiff bat is the largest native bat in the continental United States. This bat occurs in a variety of open, semi-arid to arid habitats, including coniferous forests, deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban areas. The western mastiff bat typically roosts in crevices in rocky canyons and cliffs where the canyon or cliff face is vertical or nearly vertical. The species may also roost in trees, tunnels, buildings, or other manmade structures. Suitable roost sites feature an unobstructed drop-off of at least 6.5 feet to provide takeoff or launching area for flight, with no obstructions.	Yes	No	Pot.	The project site features open, semi-arid coniferous forest, chaparral, and urban habitats. The on-site trees at the water tank site provide potential roosting habitat for western mastiff bats; therefore, the species may potentially roost in or adjacent to the water tank site.

¹ Status Codes

Federal:

FE Federally Listed – Endangered
FT Federally Listed – Threatened
FC Federal Candidate Species
FP Federal Proposed Species
FPT Federal Proposed – Threatened
FD Federal Delisted
EPNE Experimental Population – Non-Essential

State:

SFP State Fully Protected
SR State Rare
SE State Listed - Endangered
ST State Listed - Threatened
SC State Candidate Species
SCE State Candidate Endangered
SSSC State Species of Special Concern
WL State Watch List

Rare Plant Rank

1A Plants Presumed Extinct in California
1B Plants Rare, Threatened or Endangered in California and Elsewhere
2A Presumed Extirpated in California, but More Common Elsewhere
2B Rare or Endangered in California, but More Common Elsewhere

Rare Plant Threat Rank

0.1 Seriously Threatened in California
0.2 Fairly Threatened in California
0.3 Not Very Threatened in California

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Mt. Shasta Spring Hill Water Supply and Storage Project
May 3, May 23, and July 21, 2023; and August 27, 2024

Apiaceae

Anthriscus caucalis
Foeniculum vulgare

Apocynaceae

Apocynum androsaemifolium
Asclepias speciosa

Aristolochiaceae

Asarum hartwegii

Asteraceae

Achillea millefolium
Agoseris grandiflora
Ambrosia artemisiifolia
Artemisia sp.
Carthamus tinctorius
Centaurea cyanus
Centaurea solstitialis
Centaurea stoebe subsp. *australis*
Cichorium intybus
Cirsium sp.
Cirsium vulgare
Ericameria nauseosa
Erigeron canadensis
Erigeron inornatus var. *inornatus*
Eriophyllum confertiflorum
Grindelia camporum
Hemizonella minima
Hieracium albiflorum
Hypochaeris radicata
Lactuca serriola
Pseudognaphalium thermale
Tanacetum parthenium
Taraxacum officinale
Tragopogon dubius

Boraginaceae

Cryptantha torreyana

Brassicaceae

Alyssum alyssoides
Draba verna
Hirschfeldia incana
Isatis tinctoria
Lepidium campestre

Caprifoliaceae

Lonicera interrupta
Symphoricarpos mollis

Caryophyllaceae

Saponaria officinalis

Celastraceae

Paxistima myrsinites

Chenopodiaceae

Carrot Family

Bur-chervil
Fennel

Dogbane Family

Bitter dogbane
Showy milkweed

Pipevine Family

Hartweg's wild ginger

Sunflower Family

Common yarrow
Giant mountain dandelion
Common ragweed
Sagebrush
Safflower
Bachelor's button
Yellow star thistle
Spotted knapweed
Chicory
Thistle
Bull thistle
Rubber rabbitbrush
Horseweed
California rayless fleabane
Golden-yarrow
Gumweed
Opposite leaved tarweed
White-flowered hawkweed
Rough cat's ear
Prickly lettuce
Small-headed cudweed
Feverfew
Common dandelion
Yellow salsify

Borage Family

Torrey's cryptantha

Mustard Family

Pale alyssum
Whitlow grass
Shortpod mustard
Dyer's-wood
English peppergrass

Honeysuckle Family

Chaparral honeysuckle
Trailing snowberry

Pink Family

Bouncing bet

Staff-tree Family

Oregon boxwood

Goosefoot Family

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Mt. Shasta Spring Hill Water Supply and Storage Project

Chenopodium sp.

Dysphania botrys

Goosefoot

Jerusalem oak

Cupressaceae

Calocedrus decurrens

Cypress Family

Incense-cedar

Dennstaedtiaceae

Pteridium aquilinum var. *pubescens*

Bracken Family

Bracken fern

Ericaceae

Arctostaphylos patula

Heath Family

Green-leaved manzanita

Euphorbiaceae

Croton setigerus

Euphorbia maculata

Euphorbia serpyllifolia subsp. *serpyllifolia*

Triadica sebifera

Spurge Family

Dove weed

Spotted spurge

Thymeleaf sandmat

Chinese tallowtree

Fabaceae

Acmispon americanus

Acmispon decumbens var. *decumbens*

Cercis occidentalis

Cytisus scoparius

Hosackia crassifolia

Lathyrus latifolius

Lotus corniculatus

Medicago lupulina

Medicago sativa

Melilotus albus

Robinia pseudoacacia

Trifolium hirtum

Legume Family

Spanish lotus

Sierra Nevada lotus

Western redbud

Scotch broom

Big deervetch

Perennial sweet pea

Birdsfoot trefoil

Black medick

Alfalfa

White sweetclover

Black locust

Rose clover

Fagaceae

Chrysolepis sempervirens

Quercus chrysolepis

Quercus kelloggii

Oak Family

Bush chiquapin

Canyon live oak

California black oak

Geraniaceae

Erodium cicutarium

Geranium Family

Red-stemmed filaree

Grossulariaceae

Ribes roezlii var. *roezlii*

Gooseberry Family

Sierra gooseberry

Hydrophyllaceae

Phacelia sp.

Phacelia heterophylla subsp. *virgata*

Waterleaf Family

Phacelia

Vari-leaf phacelia

Hypericaceae

Hypericum perforatum

St. John's-wort Family

Klamath weed

Juglandaceae

Juglans hindsii

Walnut Family

Northern California black walnut

Lamiaceae

Marrubium vulgare

Origanum vulgare ssp. *hirtum*

Mint Family

Horehound

Oregano

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Mt. Shasta Spring Hill Water Supply and Storage Project

Linaceae

Linum lewisii var. *lewisii*

Loasaceae

Mentzelia laevicaulis

Montiaceae

Calyptidium monospermum

Claytonia rubra

Onagraceae

Clarkia sp.

Epilobium brachycarpum

Gayophytum diffusum subsp. *parviflorum*

Oenothera sp.

Papaveraceae

Eschscholzia californica

Pinaceae

Pinus lambertiana

Pinus ponderosa

Pseudotsuga menziesii var. *menziesii*

Plantaginaceae

Penstemon sp.

Penstemon deustus

Plantago lanceolata

Poaceae

Arrhenatherum elatius

Bromus diandrus

Bromus sitchensis var. *carinatus*

Bromus tectorum

Cynodon dactylon

Dactylis glomerata

Elymus elymoides var. *californicus*

Elymus glaucus

Elymus lanceolatus subsp. *lanceolatus*

Eragrostis curvula

Eragrostis minor

Festuca myuros

Poa bulbosa

Poa compressa

Secale cereale

Stipa occidentalis

Triticum aestivum

Polemoniaceae

Collomia grandiflora

Microsteris gracilis

Polygalaceae

Rhinotropis cornuta var. *cornuta*

Flax Family

Western blue flax

Loasa Family

Smoothstem blazingstar

Miner's Lettuce Family

One-seeded pussypaws

Miner's lettuce

Evening-Primrose Family

Clarkia

Tall annual willowherb

Small-flowered groundsmoke

Evening primrose

Poppy Family

California poppy

Pine Family

Sugar pine

Ponderosa pine

Douglas-fir

Plantain Family

Beard-tongue

Hot-rock beard-tongue

English plantain

Grass Family

Tall oatgrass

Ripgut grass

California brome

Downy brome

Bermuda grass

Orchard grass

Squirreltail

Blue wild rye

Northern wheatgrass

Weeping lovegrass

Low lovegrass

Foxtail fescue

Bulbous bluegrass

Canadian bluegrass

Rye

Western needlegrass

Wheat

Phlox Family

Large-flowered collomia

Slender phlox

Milkwort Family

Sierra milkwort

CHECKLIST OF VASCULAR PLANT SPECIES OBSERVED

Mt. Shasta Spring Hill Water Supply and Storage Project

Polygonaceae

Eriogonum fasciculatum var. *foliosum*
Eriogonum nudum
Fallopia convolvulus
Polygonum aviculare
Rumex acetosella

Rhamnaceae

Ceanothus cordulatus
Ceanothus prostratus
Ceanothus velutinus
Frangula sp.

Rosaceae

Horkelia tridentata
Poterium sanguisorba
Prunus emarginata
Prunus persica
Purshia tridentata
Rubus parviflorus
Rubus ursinus

Rubiaceae

Galium aparine

Ruscaceae

Maianthemum sp.

Salicaceae

Populus balsamifera subsp. *trichocarpa*
Populus fremontii subsp. *fremontii*

Sapindaceae

Acer negundo

Scrophulariaceae

Verbascum thapsus

Simaroubaceae

Ailanthus altissima

Solanaceae

Nicotiana attenuata

Verbenaceae

Verbena lasiostachys var. *scabrida*

Viburnaceae

Sambucus nigra subsp. *caerulea*

Buckwheat Family

California buckwheat
Naked buckwheat
Black bindweed
Common knotweed
Sheep sorrel

Buckthorn Family

Whitethorn ceanothus
Squaw carpet
Tobacco brush, snowbrush
Coffeeberry

Rose Family

Three-toothed horkelia
Garden burnet
Bitter cherry
Peach
Antelope bush
Thimbleberry
California blackberry

Madder Family

Cleavers

Butcher's Broom Family

False Solomon's-seal

Willow Family

Black cottonwood
Fremont cottonwood

Soapberry Family

Box elder

Snapdragon Family

Woolly mullein

Quassia Family

Tree of heaven

Nightshade Family

Coyote tobacco

Vervain Family

Western verbena

Elderberry Family

Blue elderberry