



## **TECHNICAL MEMORANDUM 7-5**

### **California Endangered Species Act-Listed Plants**

# Yuba River Development Project FERC Project No. 2246

September 2012

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TECHNICAL MEMORANDUM 7-5

## EXECUTIVE SUMMARY

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In 2012, Yuba County Water Agency (YCWA or Licensee) conducted botanical surveys for plant species listed as threatened or endangered under the State of California's Endangered Species Act (CESA) for the Yuba River Development Project (Project).

Surveys were conducted in conjunction with other botanical Relicensing studies, including Special-Status Plants (Study 5.1); federal Endangered Species Act (ESA)-Listed Plants (Interim Study 7.1); and ESA-Listed Wildlife - Valley Elderberry Longhorn Beetle Study (Interim Study 7.4).

CESA-listed plant surveys began on March 26, 2012 and concluded July 29, 2012; 1,936 acres (ac) were surveyed. In conformance with the study plan, YCWA's botanical surveys followed California Department of Fish and Game's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2009a); they were floristic in nature, and were conducted by foot and boat.

No CESA-listed plant species were identified during YCWA's botanical Relicensing studies. In addition, no CESA-listed plants were identified as incidental observations during YCWA's other Relicensing studies performed from 2009 through 2012, and YCWA is unaware of any historic records of CESA-listed plants within the existing FERC Project Boundary. Further, based on a literature review, no CESA-listed plants have been reported to occur in the study area for YCWA's botanical Relicensing studies,<sup>1</sup> but three CESA-listed plant species, Stebbins' morning glory (*Calystegia stebbinsii*), Hartweg's golden sunburst (*Pseudobahia bahiifolia*), and Scadden Flat checkerbloom (*Sidalcea stipularis*), have a potential to occur within the Project Vicinity.<sup>2</sup> Based on life history information for these plant species and on-the-ground observations made during botanical Relicensing studies, all four species require conditions that are not present in the FERC Project Boundary.

The study was conducted according to the Federal Energy Regulatory Commission (FERC)-approved CESA-Listed Plants (Study 7.5) (YCWA 2011), with the exception of one variance. YCWA excluded from the study area 7.9 acres surrounding a known bald eagle (*Haliaeetus leucocephalus*) nest in compliance with the United States Department of the Interior, Fish and Wildlife Service's (USFWS) National Bald Eagle Management Guidelines (2007).

The study is complete.

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<sup>1</sup> The study area was the area within the existing FERC Project Boundary, including all Project facilities and features (e.g., dams, Project roads, powerhouses and reservoirs) and Project recreation areas. The study area also included a buffer of 100 feet extending upslope from the high-water mark of Project reservoirs and from the FERC Project Boundary around Project recreation facilities.

<sup>2</sup> For the purposes of this Relicensing, the Project Vicinity is defined as the area surrounding the Project in the order of a county or United States Geological Survey 1:24,000 topographic quadrangle.

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TECHNICAL MEMORANDUM 7-5

# CALIFORNIA ENDANGERED SPECIES ACT-LISTED PLANTS<sup>3</sup>

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Yuba County Water Agency's (YCWA or Licensee) continued operation and maintenance (O&M) of the Yuba River Development Project, Federal Energy Regulatory Commission (FERC or Commission) Project Number 2246 (Project) may have an adverse effect on plants listed under the State of California Endangered Species Act (CESA) as endangered (SE) or threatened (ST).

The study was conducted in conjunction with other botanical Relicensing studies, including Special-Status Plants<sup>4</sup> (Study 5.1); Endangered Species Act (ESA)-Listed Plants (Study 7.1); and, ESA-Listed Wildlife - Valley Elderberry Longhorn Beetle Study (Study 7.4). The results of those studies are provided in separate technical memoranda.

## 1.0 Goals and Objectives

The goal of this study was to provide information to determine whether continued Project O&M or recreational use of Project facilities may have a measurable, adverse effect on CESA-listed plant species.

The objective of this study was to gather the information necessary to perform this analysis.

## 2.0 Methods

The study was conducted in three steps: 1) define the study area; 2) gather data and information to prepare for the field effort, including known plant occurrences in the Project Vicinity;<sup>5</sup> and 3) conduct the surveys for the study area.

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<sup>3</sup> This technical memorandum presents the results for Study 7.5, CESA-listed Plants, which was included in YCWA's September 8, 2011 Revised Study Plan for Relicensing of the Yuba River Development Project, and approved by FERC in its September 30, 2011 Study Plan Determination. There were no modifications to Study 7.5 subsequent to FERC's September 30, 2011 Study Determination.

<sup>4</sup> For the purposes of this Relicensing, special-status plants are considered those plants that are: 1) found on National Forest Service (NFS) land managed by the Forest Service and formally listed on the Forest Service's List of Sensitive Plant Species for the Plumas National Forest (FSS-P) or the Tahoe National Forest (FSS-T); 2) found on the CDFG's list of California Rare (SR) species, listed under the Native Species Protection Act of 1977; 3) listed under the federal ESA as Proposed or a Candidate for listing as endangered or threatened; 4) listed under the CESA as proposed for listing; or 4) found on the California Native Plant Society (CNPS) Inventory of Rare Plants and formally listed as a CNPS 1, 2 3 or 4 plant (CNPS 1, CNPS 2, CNPS 3, CNPS 4).

<sup>5</sup> For the purposes of this Relicensing, the Project Vicinity is defined as the area surrounding the Project in the order of a county or United States Geological Survey 1:24,000 topographic quadrangle.

## **2.1 Study Area**

The study area was the area within the existing FERC Project Boundary, including all Project facilities and features (e.g., dams, Project roads, powerhouses and reservoirs) and Project recreation areas. The study area also included a buffer of 100 feet (ft) extending upslope from the high-water mark of Project reservoirs and from the FERC Project Boundary around Project recreation facilities. The total study area included 3,332 acres. A map of the study area is provided in Figure 2.1-1.

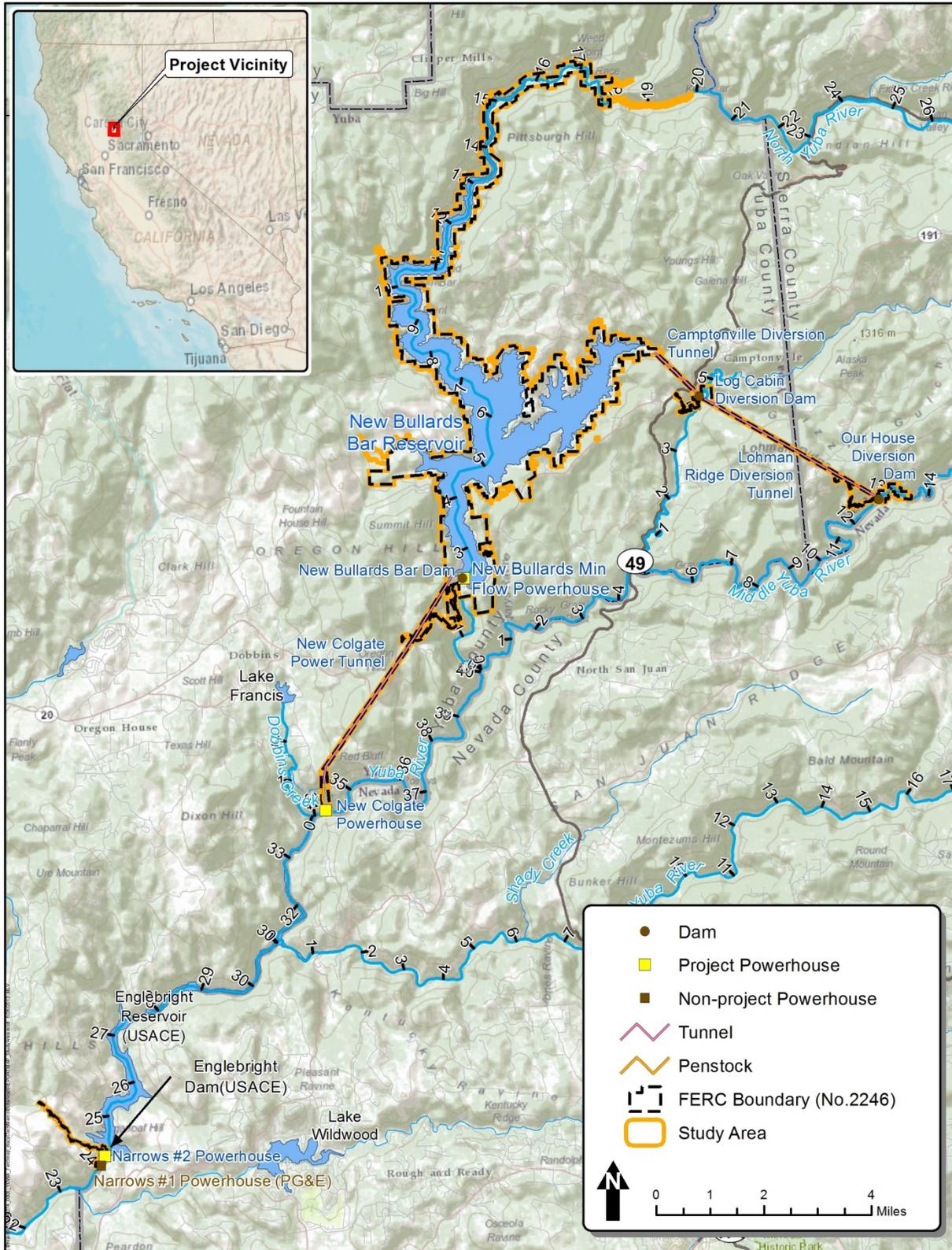


Figure 2.1-1. CESA-listed plants study area.

## 2.2 Gather Data and Prepare for Field Effort

A literature review was conducted prior to the fieldwork to: 1) identify all possible CESA-listed plants in the study area; 2) identify locations where CESA-plants were previously observed in the Project Vicinity; and 3) gather life history information for all potential CESA-listed species. In addition, YCWA: 1) generated an official list of CESA-listed species via the online request service available at the United States Department of Interior, Fish and Wildlife Service (USFWS) website (USFWS 2011);<sup>6</sup> 2) reviewed the California Native Plant Society (CNPS) database (CNPS 2012) within the nine United States Geological Survey quadrangle maps that overlap the study area; and, 3) searched for recorded occurrences of CESA-listed plants using queries on California Department of Fish and Game’s (CDFG) of the California Natural Diversity Database RareFind 4 (CDFG 2009b).

Based on these reviews, YCWA identified three CESA-listed plants that had a reasonable potential to occur within the study area: Scadden Flat checkerbloom (*Sidalcea stipularis*), Stebbins’ morning-glory (*Calystegia stebbinsii*), and Hartweg’s golden sunburst (*Pseudobahia bahiifolia*). All three are listed as SE by CESA. Table 2.2-1 provides some information regarding these plant species and life history information for each is provided below.

**Table 2.2-1. CESA-listed plant species<sup>7</sup> potentially occurring on YCWA’s Yuba River Development Project.**

Common Name/ Scientific Name	Status <sup>1</sup>	Flowering Period	Elevation Range (ft)	Habitat Requirements	Occurrence in Project Vicinity <sup>2</sup>
Stebbins’ morning- glory <i>Calystegia stebbinsii</i>	FE SE CNPS 1B	Apr-Jul	607-2,395	Chaparral, cismontane woodland	Unknown in Project Vicinity; present in Pilot Hill, Grass Valley, Lake Combie
Hartweg’s golden sunburst <i>Pseudobahia bahiifolia</i>	FE SE	Mar-Apr	50-500	Valley and foothill grassland, cismontane woodland	Unknown in Project Vicinity
Scadden Flat checkerbloom <i>Sidalcea stipularis</i>	SE CNPS 1B	Jul-Aug	2,297-2,395	Marshes and swamps (montane freshwater)	Unknown in Project Vicinity, present in Chicago Park, Grass Valley

<sup>1</sup> Special-status:  
 CNPS: California Native Plant Society listed species  
 1B: Species considered rare or endangered in California and elsewhere  
 FE: Federal Endangered Species  
 SE: California Endangered Species

<sup>2</sup> Occurrence in Project Vicinity: Some of the USGS topographic quadrangles are found entirely within the Project Vicinity and some are partially within the Project Vicinity. Results based on CNPS nine-quadrangle search.

<sup>6</sup> An official list of ESA-listed species generated from the USFWS’s online request service is included as Attachment 7-5B.

<sup>7</sup> Two CESA-listed plant species, Stebbins’ morning glory and Hartweg’s golden sunburst, are also included on the Federal Endangered species list and are included in Technical Memorandum 7.1, ESA-Listed Plants.

### **Stebbins' Morning-glory (FE, SE)**



On October 18, 1996, the USFWS listed Stebbin's morning-glory as endangered under the ESA (Federal Register 61:54346). No Critical Habitat has been designated for this species. USFWS issued a Recovery Plan for Gabbro Soil Plants of the Central Sierra Nevada Foothills for Stebbins' morning-glory and five other plant species (USFWS 2002). A 5-year review process was initiated in 2009. Stebbins' morning-glory is listed as endangered under the CESA, but is not formally listed as a sensitive species by the United States Department of Agriculture, Forest Service (Forest Service).

Stebbins' morning-glory is a leafy herbaceous perennial (i.e., a plant persisting or living for several years with a period of growth each year) with trailing to climbing stems. The leaves of Stebbins' morning-glory are 0.2 – 2 inches (in) long and palmately lobed into seven to nine narrow lobes. Its creamy yellow flowers, which are sometimes tinged with pink, are bell shaped and grow up to about 1.5 in long (Brummit 2012).

Stebbins' morning-glory occurs in chaparral habitats. Five small occurrences are known in the Grass Valley quadrangle, southwest of Grass Valley; four are near McCourtney Road and one is near Ponderosa Way (CDFG 2009b). In addition, Wilson (1986) reported other occurrences discontinuously scattered within two population centers in the northern and southern portions of the Pine Hill formation. Both the Grass Valley and Pine Hill occurrences are in gabbro or serpentine soils.

### **Scadden Flat checkerbloom (SE)<sup>8</sup>**



In January 1982, CDFG listed Scadden Flat checkerbloom as endangered under the CESA (CDFG 2012). Scadden Flat checkerbloom is not formally listed as a sensitive species by the Forest Service.

Scadden Flat checkerbloom is a perennial plant of 1-2 ft tall, has simple, unlobed leaves grow along the stem to the terminal flower stalk. Pink flowers are about 0.5 inches (in) in width and fruits are smooth, segmented berry-like capsules (Howell and True 2012).

Scadden Flat checkerbloom is known from only two occurrences near Grass Valley. The plants bloom from July through August and grow at elevations of approximately 2,300 to 2,400 ft within marshes and swamp habitats (CNPS 2012).

<sup>8</sup> Photo found at: <<http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi/Home>>

### Hartweg's golden sunburst (FE, SE)<sup>9</sup>



On February 6, 1997, the USFWS listed Hartweg's golden sunburst as endangered under the ESA (Federal Register 62:5542). No Critical Habitat has been designated for this species. No Recovery Plan for Hartweg's golden sunburst has been developed. A 5-year review for the species was completed by USFWS in December 2007 with no change in designation recommended (USFWS 2010). Hartweg's golden sunburst is listed as endangered under CESA, but is not formally listed as a sensitive species by the Forest Service.

Hartweg's golden sunburst occurs in open grasslands and grasslands at the margins of blue oak (*Quercus douglasii*) woodland, primarily on shallow, well-drained, fine-textured soils, nearly always on the north or northeast facing of mima mounds. These are mounds of earth roughly 1 to 6 ft high and 10 to 100 ft in diameter at the base, interspersed with basins that may pond water in the rainy season. The species is found only in the Central Valley of California. Historically, the range of the species may have extended from Yuba County south to Fresno County, a range of 200 mi. Within this range, the species was only locally abundant. Today, there are 16 populations on the eastern edge of the San Joaquin Valley. Remaining populations are concentrated in the Friant region of Fresno and Madera counties and the La Grange region in Stanislaus County (USFWS 2010).

## 2.3 Botanical Surveys

YCWA performed botanical surveys on 1,936 ac between March 26 and July 29, 2012. Surveys were performed by several teams of qualified botanists, working simultaneously throughout the study area. Surveys were comprehensive over all safely accessible portions of the study area using systematic field techniques to ensure thorough coverage, with additional efforts focused in habitats with a higher probability of supporting CESA-listed plants (e.g., rocky, canyon walls). Surveys were floristic in nature and followed CDFG's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2009a). Plants were identified using:

- Field Guide to the Sedges of the Pacific Northwest (Wilson et al. 2008)
- Jepson Manual of Higher Plants of California (Hickman ed. 1993)
- Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et al. 2012)
- Wildflowers of the Sierra Nevada and the Central Valley (Blackwell 1999)
- Selected Plants of Northern California and Adjacent Nevada (Oswald 2002)

<sup>9</sup> Photo found at: <<http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi/Home>>.

### **3.0 Results**

A total of 1,936 acres within the 3,332-acre, study area were surveyed; 1,396 acres were not surveyed because of unsafe terrain. Attachment 7-5C shows the unsafe areas that were not surveyed.

Although 688 plant species<sup>10</sup> were found during botanical Relicensing studies, no occurrences of CESA-listed plants were located. In addition, YCWA's field teams performing other Relicensing studies from 2009 through 2012 did not record any incidental observations of CESA-listed plant species. No maps of CESA-listed species were developed for the study area, and no consultation with Project O&M staff was required.

### **4.0 Discussion**

No CESA-listed plants were located during YCWA's studies. YCWA is unaware of other botanical surveys in the study area.

YCWA identified three CESA-listed plants with the potential to occur in the existing FERC Project Boundary – Stebbins' morning glory, Scadden Flat checkerbloom, and Hartweg's golden sunburst. These plants were not found during YCWA's botanical Relicensing studies. Based on life history information gathered through the literature search and on-the-ground observations made during botanical Relicensing studies, all four species require conditions that are not present in the FERC Project Boundary.

Stebbins' morning-glory is known to occur in chaparral habitats, which occur in scattered areas throughout the FERC Project Boundary. However, Stebbins morning-glory is only known to occur on gabbro and serpentine soils (CDFG 2009b and Wilson 1986); no gabbro and serpentine habitats are known to exist in the FERC Project Boundary.

Scadden Flat checkerbloom requires marshes and swamps habitat (Howell and True 2012) that are rare or not present within the FERC Project Boundary.

Hartweg's golden sunburst has been found, almost exclusively, on mima mounds. No mima mounds are known to exist in the FERC Project Boundary.

### **5.0 Study-Specific Collaboration and Consultation**

The FERC-approved study did not require study-specific consultation.

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<sup>10</sup> A complete list of all plant species found during floristic surveys performed in support of the Yuba River Development Project Relicensing is included in Attachment 7-5A.

## **6.0 Variations from FERC-Approved Study**

This study was conducted according to the FERC-approved CESA-Listed Plants Study (Study 7.5) with one variance. A small portion of study area was excluded from survey for the protection of a known bald eagle (*Haliaeetus leucocephalus*) nest. To comply with the USDOJ, USFWS National Bald Eagle Management Guidelines (2007), botanical Relicensing surveys excluded a 330-foot buffer (7.9 ac) around a known bald eagle nest during breeding activities [United States Forest Service limited operating period is January 1 – August 31 (Masquelier 2000)].

## **7.0 Attachments to This Technical Memorandum**

This technical memorandum includes the following attachments:

- |                 |  |
|-----------------|--|
| Attachment 7-5A | Botanical Species List [1 Adobe pdf file: 116 KB; 18 pages formatted to print double sided on 8 ½ x 11 paper]                                  |
| Attachment 7-5B | USFWS Query -Yuba River Development Project [1 Adobe pdf file: 112 KB; 16 pages formatted to print double sided on 8 ½ x 11 paper]             |
| Attachment 7-5C | CESA-Listed Plants Inaccessible Study Area: Figures 1 - 8 [1 Adobe pdf file: 19 MB; 12 pages formatted to print single sided on 11 x 17 paper] |

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**Technical Memorandum 7-5**  
**California Endangered Species Act-Listed Plants**

**Attachment 7-5A**  
**Botanical Species List**

**Yuba River Development Project**  
**FERC Project No. 2246**

September 2012

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**Table 7.5A-1. Yuba River Development Project Botanical Species List**

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
<b>Aceraceae</b>	<i>Acer macrophyllum</i>	X	X	New Colgate Powerhouse
<b>Amaryllidaceae</b>	<i>Narcissus jonquilla</i>		X	New Colgate Powerhouse
<b>Anacardiaceae</b>	<i>Rhus trilobata</i>		X	Narrows #2 Powerhouse
	<i>Toxicodendron diversilobum</i>	X	X	Our House Diversion Dam
<b>Apiaceae</b>	<i>Angelica californica</i>	X		New Bullards Bar Reservoir (West)
	<i>Anthriscus caucalis</i>	X	X	Narrows #2 Powerhouse
	<i>Conium maculatum</i>		X	New Colgate Powerhouse
	<i>Daucus carota</i>	X	X	New Colgate Powerhouse
	<i>Daucus pusillus</i>	X	X	Narrows #2 Powerhouse
	<i>Eryngium castrense</i>		X	Narrows #2 Powerhouse
	<i>Lomatium californicum</i>		X	Narrows #2 Powerhouse
	<i>Lomatium marginatum</i>		X	Narrows #2 Powerhouse
	<i>Lomatium marginatum var. marginatum</i>		X	Log Cabin Dam
	<i>Lomatium utriculatum</i>	X	X	Narrows #2 Powerhouse
	<i>Osmorhiza brachypoda</i>	X		New Bullards Bar Reservoir (West)
	<i>Osmorhiza chilensis</i>	X	X	New Bullards Bar Reservoir
	<i>Osmorhiza occidentalis</i>		X	Log Cabin Dam
	<i>Perideridia lemmonii</i>	X		New Bullards Bar Reservoir
	<i>Perideridia oregana</i>	X		North Yuba River Arm
	<i>Sanicula bipinnata</i>	X	X	Narrows #2 Powerhouse
	<i>Sanicula bipinnatifida</i>	X	X	Narrows #2 Powerhouse
	<i>Sanicula crassicaulis</i>	X	X	Narrows #2 Powerhouse
	<i>Sanicula tuberosa</i>	X	X	Narrows #2 Powerhouse
	<i>Tauschia hartwegii</i>	X	X	Narrows #2 Powerhouse
	<i>Tauschia kelloggii</i>	X		Log Cabin Dam
	<i>Torilis arvensis</i>	X	X	Narrows #2 Powerhouse
	<i>Yabea microcarpa</i>		X	Log Cabin Dam
<b>Apocynaceae</b>	<i>Apocynum androsaemifolium</i>	X	X	New Bullards Bar Reservoir (West)
	<i>Apocynum cannabinum</i>	X		North Yuba River Arm
	<i>Vinca major</i>		X	New Colgate Powerhouse

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
Araliaceae	<i>Aralia californica</i>	X		New Bullards Bar Reservoir
	<i>Hedera helix</i>		X	Log Cabin Dam
Aristolochiaceae	<i>Aristolochia californica</i>	X	X	Narrows #2 Powerhouse
	<i>Asarum hartwegii</i>	X	X	Log Cabin Dam
	<i>Asclepias cordifolia</i>	X		New Bullards Bar Reservoir (West)
	<i>Asclepias fascicularis</i>		X	New Bullards Bar Reservoir
	<i>Asclepias speciosa</i>		X	New Bullards Bar Reservoir
Asteraceae	<i>Achillea millefolium</i>	X	X	Narrows #2 Powerhouse
	<i>Achyrrachaena mollis</i>		X	New Colgate Powerhouse
	<i>Adenocaulon bicolor</i>	X	X	Log Cabin Dam
	<i>Agoseris grandiflora</i>	X	X	New Bullards Bar Reservoir (East)
	<i>Agoseris heterophylla</i>	X	X	Narrows #2 Powerhouse
	<i>Agoseris retrorsa</i>	X	X	New Bullards Bar Reservoir
	<i>Anaphalis margaritacea</i>	X	X	New Colgate Powerhouse
	<i>Antennaria geyeri</i>	X		New Bullards Bar Reservoir (East)
	<i>Artemisia douglasiana</i>	X	X	New Colgate Powerhouse
	<i>Aster eatonii</i>	X		New Bullards Bar Reservoir
	<i>Aster oregonensis</i>	X		New Bullards Bar Reservoir East
	<i>Aster radulinus</i>	X		New Bullards Bar Reservoir
	<i>Baccharis pilularis</i>	X	X	Narrows #2 Powerhouse
	<i>Brickellia californica</i>	X	X	Our House Diversion Dam
	<i>Calycadenia multiglandulosa</i>	X		North Yuba River Arm
	<i>Carduus pycnocephalus</i>	X	X	Narrows #2 Powerhouse
	<i>Centaurea melitensis</i>	X	X	Narrows #2 Powerhouse
	<i>Centaurea solstitialis</i>	X	X	Narrows #2 Powerhouse
	<i>Chamomilla suaveolens</i>	X	X	New Colgate Powerhouse
<i>Chrodrilla juncea</i>	X	X	Narrows #2 Powerhouse	
<i>Chrysanthemum leucanthemum</i>	X		New Bullards Bar Reservoir	
<i>Cichorium intybus</i>	X		New Bullards Bar Reservoir	
<i>Cirsium occidentale var. venustum</i>	X	X	New Colgate Powerhouse	
<i>Cirsium vulgare</i>	X	X	Narrows #2 Powerhouse	

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Conyza bonariensis</i>	X	X	New Bullards Bar Reservoir
	<i>Conyza canadensis</i>	X	X	New Colgate Powerhouse
	<i>Coreopsis grandiflora</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Crepis capillaris</i>	X		New Bullards Bar Reservoir
	<i>Ericameria bloomeri</i>		X	Log Cabin Dam
	<i>Ericameria arborescens</i>	X		New Colgate Powerhouse
	<i>Erigeron foliosus var. hartwegii</i>	X		New Bullards Bar Reservoir Access Road
	<i>Erigeron inornatus var. inornatus</i>	X		New Bullards Bar Reservoir (East)
	<i>Eriophyllum lanatum</i>	X	X	Narrows #2 Powerhouse
	<i>Eriophyllum lanatum var. croceum</i>	X		New Bullards Bar Reservoir
	<i>Eriophyllum lanatum var. grandiflorum</i>		X	New Bullards Bar Reservoir
	<i>Eurybia radulina</i>	X		New Bullards Bar Reservoir
	<i>Euthamia occidentalis</i>	X		New Bullards Bar Reservoir
	<i>Filago gallica</i>	X	X	Narrows #2 Powerhouse
	<i>Gnaphalium canescens ssp. beneolens</i>	X	X	New Colgate Powerhouse
	<i>Gnaphalium luteo-album</i>	X	X	Narrows #2 Powerhouse
	<i>Gnaphalium palustre</i>	X		New Bullards Bar Reservoir
	<i>Gnaphalium stramineum</i>	X		New Bullards Bar Reservoir
	<i>Grindelia hirsutula var. davayi</i>		X	Narrows #2 Powerhouse
	<i>Helenium bigelovii</i>	X		North Yuba River Arm
	<i>Helianthella californica var. nevadensis</i>	X		New Bullards Bar Reservoir
	<i>Hemizonia fitchii</i>		X	New Colgate Powerhouse
	<i>Heterotheca grandiflora</i>	X		New Bullards Bar Reservoir (East)
	<i>Heterotheca oregona var. compacta</i>	X		North Yuba River Arm
	<i>Heterotheca oregona var. rudis</i>	X		North Yuba River Arm
	<i>Hieracium albiflorum</i>	X	X	New Bullards Bar Reservoir
	<i>Hyphochaeris glabra</i>	X	X	Narrows #2 Powerhouse
	<i>Hypochaeris radicata</i>	X	X	Narrows #2 Powerhouse
	<i>Lactuca saligna</i>	X		New Bullards Bar Reservoir
	<i>Lactuca serriola</i>	X	X	Narrows #2 Powerhouse
	<i>Leontodon taraxacoides ssp. longirostris</i>		X	Narrows #2 Powerhouse

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Leucanthemum vulgare</i>	X		New Bullards Bar Reservoir
	<i>Madia citriodora</i>		X	Narrows #2 Powerhouse
	<i>Madia elegans ssp. densifolia</i>	X		New Bullards Bar Reservoir
	<i>Madia elegans ssp. vernalis</i>	X	X	New Bullards Bar Reservoir
	<i>Madia gracilis</i>	X	X	New Bullards Bar Reservoir
	<i>Madia madioides</i>	X		New Bullards Bar Reservoir
	<i>Madia minima</i>	X		North Yuba River Arm
	<i>Micropus californicus</i>		X	Narrows #2 Powerhouse
	<i>Psilocarphus tenellus var. tenellus</i>	X		New Bullards Bar Reservoir
	<i>Rudbeckia californica</i>	X		North Yuba River Arm
	<i>Senecio intergerrimus</i>	X		New Bullards Bar Reservoir (East)
	<i>Senecio vulgaris</i>	X	X	Narrows #2 Powerhouse
	<i>Silybum marianum</i>		X	Narrows #2 Powerhouse
	<i>Solidago californica</i>	X	X	Narrows #2 Powerhouse
	<i>Solidago canadensis ssp. elongata</i>	X		New Bullards Bar Reservoir
	<i>Soliva sessilis</i>	X	X	Narrows #2 Powerhouse
	<i>Sonchus asper ssp. asper</i>	X	X	Narrows #2 Powerhouse
	<i>Sonchus oleraceus</i>	X		New Bullards Bar Reservoir
	<i>Stephanomeria paniculata</i>	X		New Bullards Bar Reservoir
	<i>Stephanomeria virgata ssp. pleurocarpa</i>	X	X	New Colgate Powerhouse
	<i>Tanacetum parthenium</i>	X		
	<i>Tanacetum vulgare</i>	X		New Bullards Bar Reservoir
	<i>Taraxacum officinale</i>	X	X	New Colgate Powerhouse
	<i>Tragopogon dubius</i>		X	New Colgate Powerhouse
	<i>Uropappus lindleyi</i>	X	X	Narrows #2 Powerhouse
	<i>Wyethia angustifolium</i>	X		New Bullards Bar Reservoir
	<i>Xanthium strumarium</i>	X	X	New Colgate Powerhouse
<b>Berberidaceae</b>	<i>Berberis aquifolium</i>	X	X	Log Cabin Dam
	<i>Berberis aquifolium var. dictyota</i>		X	Our House Diversion Dam
	<i>Berberis nervosa</i>	X		New Bullards Bar Reservoir
<b>Betulaceae</b>	<i>Alnus rhombifolia</i>	X	X	New Colgate Powerhouse

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Corylus cornuta var. californica</i>	X	X	New Bullards Bar Reservoir
<b>Blechnaceae</b>	<i>Woodwardia fimbriata</i>	X	X	New Colgate Powerhouse
<b>Boraginaceae</b>	<i>Amsinckia intermedia</i>	X	X	Narrows #2 Powerhouse
	<i>Amsinckia menziesii var. intermedia</i>	X	X	Narrows #2 Powerhouse
	<i>Amsinckia menziesii var. menziesii</i>	X	X	Narrows #2 Powerhouse
	<i>Cryptantha affinis</i>	X		New Bullards Bar Reservoir
	<i>Cryptantha flaccida</i>	X		North Yuba River Arm
	<i>Cynoglossum grande</i>	X	X	Narrows #2 Powerhouse
	<i>Myosotis laxa</i>	X		New Bullards Bar Reservoir
	<i>Plagiobothrys nothofulvus</i>	X	X	Narrows #2 Powerhouse
<b>Brassicaceae</b>	<i>Arabis glabra var. glabra</i>	X	X	New Bullards Bar Reservoir
	<i>Athysanus pusillus</i>	X	X	Our House Diversion Dam
	<i>Barbarea orthoceras</i>		X	Log Cabin Dam
	<i>Brassica nigra</i>	X		New Bullards Bar Reservoir (East)
	<i>Brassica rapa</i>		X	New Colgate Powerhouse
	<i>Cardamine californica</i>	X	X	Our House Diversion Dam
	<i>Cardamine oligosperma</i>	X	X	Narrows #2 Powerhouse
	<i>Cardamine pachystigma var. pachystigma</i>	X	X	New Bullards Bar Reservoir
	<i>Descurainia sophia</i>	X		North Yuba River Arm
	<i>Draba verna</i>	X	X	Log Cabin Dam
	<i>Erysimum capitatum</i>	X	X	New Bullards Bar Reservoir
	<i>Erysimum capitatum ssp. capitatum</i>	X		New Bullards Bar Reservoir
	<i>Hirschfeldia incana</i>	X	X	New Colgate Powerhouse
	<i>Lepidium campestre</i>		X	Log Cabin Dam
	<i>Raphanus raphanistrum</i>		X	Narrows #2 Powerhouse
	<i>Rorippa curvisiliqua</i>	X		New Bullards Bar Reservoir
	<i>Rorippa nasturtium-aquaticum</i>	X		New Bullards Bar Reservoir
	<i>Rorippa palustris</i>		X	Log Cabin Dam
	<i>Sisymbrium officinale</i>		X	Our House Diversion Dam
	<i>Streptanthus polygaloides</i>	X		New Bullards Bar Reservoir
	<i>Streptanthus tortuosus var. suffrutescens</i>	X	X	North Yuba River Arm

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Thysanocarpus curvipes</i>	X	X	Narrows #2 Powerhouse
<b>Calycanthaceae</b>	<i>Calycanthus occidentalis</i>	X	X	Narrows #2 Powerhouse
<b>Campanulaceae</b>	<i>Campanula prenanthoides</i>	X		New Bullards Bar Reservoir (East)
	<i>Githopsis diffusa</i>	X		New Bullards Bar Reservoir
	<i>Githopsis specularioides</i>	X		New Bullards Bar Reservoir
	<i>Heterocodon rariflorum</i>	X		New Bullards Bar Reservoir (East)
<b>Caprifoliaceae</b>	<i>Lonicera ciliosa</i>	X	X	Our House Diversion Dam
	<i>Lonicera hispidula</i>	X	X	Narrows #2 Powerhouse
	<i>Lonicera interrupta</i>		X	Log Cabin Dam
	<i>Lonicera involucrata</i> var. <i>involucrata</i>	X		New Bullards Bar Reservoir
	<i>Sambucus mexicana</i>		X	Narrows #2 Powerhouse
	<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	X	X	Narrows #2 Powerhouse
	<i>Symphoricarpos mollis</i>		X	Narrows #2 Powerhouse
<b>Caryophyllaceae</b>	<i>Cerastium fontanum</i>	X	X	New Bullards Bar Reservoir
	<i>Cerastium glomeratum</i>	X	X	Narrows #2 Powerhouse
	<i>Lychnis coronaria</i>	X		North Yuba River Arm
	<i>Minuartia douglasii</i>	X		North Yuba River Arm
	<i>Moehringia macrophylla</i>	X		New Bullards Bar Reservoir (East)
	<i>Petrorhagia prolifera</i>	X	X	Narrows #2 Powerhouse
	<i>Saponaria officinalis</i>		X	Our House Diversion Dam
	<i>Scleranthus annuus</i>		X	Narrows #2 Powerhouse
	<i>Silene antirrhina</i>	X		New Bullards Bar Reservoir
	<i>Silene bridgesii</i>	X		New Bullards Bar Reservoir
	<i>Silene californica</i>	X		New Bullards Bar Reservoir (East)
	<i>Silene campanulata</i>		X	New Bullards Bar Reservoir
	<i>Silene campanulata</i> ssp. <i>glandulosa</i>	X		New Bullards Bar Reservoir
	<i>Silene gallica</i>		X	Our House Diversion Dam
	<i>Spergula arvensis</i>		X	Narrows #2 Powerhouse
	<i>Spergularia rubra</i>		X	Log Cabin Dam
	<i>Stellaria longipes</i> var. <i>longipes</i>	X		New Bullards Bar Reservoir
	<i>Stellaria media</i>	X	X	Narrows #2 Powerhouse

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Stellaria pallida</i>	X		New Bullards Bar Reservoir
	<i>Velezia rigida</i>		X	Our House Diversion Dam
<b>Celastraceae</b>	<i>Pachystima myrsinites</i>	X		New Bullards Bar Reservoir
<b>Chenopodiaceae</b>	<i>Chenopodium album</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Chenopodium pumilio</i>	X		North Yuba River Arm
	<i>Chenopodium ambrosoides</i>			North Yuba River Arm
<b>Convolvulaceae</b>	<i>Calystegia malacophylla</i>	X		New Bullards Bar Reservoir (East)
	<i>Calystegia malacophylla ssp. malacophylla</i>	X		New Bullards Bar Reservoir
	<i>Calystegia occidentalis ssp. occidentalis</i>	X	X	New Bullards Bar Reservoir
	<i>Convolvulus arvensis</i>	X	X	Narrows #2 Powerhouse
<b>Cornaceae</b>	<i>Cornus nuttallii</i>	X	X	New Bullards Bar Reservoir
	<i>Cornus sessilis</i>		X	Log Cabin Dam
	<i>Cornus sericea ssp. sericea</i>	X		New Bullards Bar Reservoir
<b>Crassulaceae</b>	<i>Crassula connata</i>		X	Narrows #2 Powerhouse
	<i>Crassula tillaea</i>		X	Narrows #2 Powerhouse
	<i>Dudleya cymosa</i>	X	X	Narrows #2 Powerhouse
	<i>Parvisedum pumilum</i>	X		New Bullards Bar Reservoir
	<i>Sedum spathulifolium</i>	X	X	New Bullards Bar Reservoir
<b>Cucurbitaceae</b>	<i>Marah fabaceus</i>	X	X	Narrows #2 Powerhouse
	<i>Marah horridus</i>		X	New Colgate Powerhouse
	<i>Marah watsonii</i>	X	X	Log Cabin Dam
<b>Cupressaceae</b>	<i>Calocedrus decurrens</i>	X	X	New Bullards Bar Reservoir
	<i>Sequoiadendron giganteum</i>	X		New Bullards Bar Reservoir
<b>Cyperaceae</b>	<i>Carex angustata</i>	X	X	Our House Diversion Dam
	<i>Carex barbarae</i>	X		New Bullards Bar Reservoir
	<i>Carex bolanderi</i>	X		New Bullards Bar Reservoir
	<i>Carex deweyana</i>	X		New Bullards Bar Reservoir
	<i>Carex fracta</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Carex hirtissima</i>	X	X	New Bullards Bar Reservoir
	<i>Carex lenticularis var. impressa</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Carex multicaulis</i>	X	X	New Bullards Bar Reservoir (East)

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Carex nebrascensis</i>		X	New Colgate Powerhouse
	<i>Carex nudata</i>	X		New Bullards Bar Reservoir
	<i>Cyperus eragrostis</i>		X	New Colgate Powerhouse
	<i>Eleocharis acicularis</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Scirpus congdonii</i>		X	Log Cabin Dam
	<i>Scirpus microcarpus</i>	X	X	New Colgate Powerhouse
<b>Dennstaedtiaceae</b>	<i>Pteridium aquilinum var. pubescens</i>	X	X	New Bullards Bar Reservoir
<b>Dryopteridaceae</b>	<i>Athyrium filix-femina</i>	X		New Bullards Bar Reservoir (East)
	<i>Cystopteris fragilis</i>		X	Our House Diversion Dam
	<i>Dryopteris arguta</i>	X		New Bullards Bar Reservoir
	<i>Polystichum imbricans ssp. curtum</i>	X		New Bullards Bar Reservoir
	<i>Polystichum imbricans ssp. imbricans</i>	X	X	New Bullards Bar Reservoir
	<i>Polystichum munitum</i>	X	X	New Bullards Bar Reservoir
<b>Equisetaceae</b>	<i>Equisetum arvense</i>	X	X	New Bullards Bar Reservoir (West)
	<i>Equisetum hyemale ssp. affine</i>	X		New Bullards Bar Reservoir
	<i>Equisetum laevigatum</i>	X		New Bullards Bar Reservoir (East)
<b>Ericaceae</b>	<i>Allotropa virgata</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Arbutus menziesii</i>	X	X	Narrows #2 Powerhouse
	<i>Arctostaphylos nevadensis</i>	X		New Bullards Bar Reservoir
	<i>Arctostaphylos viscida</i>	X	X	Narrows #2 Powerhouse
	<i>Chimaphila menziesii</i>	X		New Bullards Bar Reservoir (West)
	<i>Chimaphila umbellata</i>	X		New Bullards Bar Reservoir (East)
	<i>Rhododendron occidentale</i>	X	X	New Bullards Bar Reservoir
	<i>Vaccinium parvifolium</i>	X		North Yuba River Arm
<b>Euphorbiaceae</b>	<i>Chamaesyce maculata</i>	X		New Bullards Bar Reservoir
	<i>Chamaesyce serpyllifolia ssp. serpyllifolia</i>	X		New Bullards Bar Reservoir
	<i>Eremocarpus setigerus</i>	X	X	Narrows #2 Powerhouse
	<i>Euphorbia crenulata</i>	X		New Bullards Bar Reservoir
	<i>Euphorbia peplus</i>	X	X	Narrows #2 Powerhouse
<b>Fabaceae</b>	<i>Cercis occidentalis</i>	X	X	New Bullards Bar Reservoir
	<i>Cytisus scoparius</i>	X	X	New Colgate Powerhouse

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Genista monspessulana</i>	X	X	New Colgate Powerhouse
	<i>Lathyrus latifolius</i>	X	X	New Colgate Powerhouse
	<i>Lathyrus nevadensis</i> var. <i>nevadensis</i>	X		New Bullards Bar Reservoir
	<i>Lathyrus sulphureus</i>	X	X	New Bullards Bar Reservoir
	<i>Lotus grandiflorus</i> var. <i>macranthus</i>	X		New Bullards Bar Reservoir
	<i>Lotus humistratus</i>		X	New Colgate Powerhouse
	<i>Lotus incanus</i>	X		New Bullards Bar Reservoir
	<i>Lotus micranthus</i>	X	X	Narrows #2 Powerhouse
	<i>Lotus nevadensis</i>	X		New Bullards Bar Reservoir
	<i>Lotus nevadensis</i> var. <i>nevadensis</i>	X	X	New Bullards Bar Reservoir
	<i>Lotus oblongifolius</i> var. <i>oblongifolius</i>		X	Log Cabin Dam
	<i>Lotus purshianus</i>	X	X	New Colgate Powerhouse
	<i>Lotus scoparius</i> var. <i>scoparius</i>	X		New Bullards Bar Reservoir
	<i>Lotus stipularis</i>	X		New Bullards Bar Reservoir
	<i>Lotus wrangelianus</i>	X	X	Narrows #2 Powerhouse
	<i>Lupinus albifrons</i>	X	X	New Colgate Powerhouse
	<i>Lupinus arbustus</i>	X		New Bullards Bar Reservoir
	<i>Lupinus benthamii</i>		X	Log Cabin Dam
	<i>Lupinus bicolor</i>	X	X	Narrows #2 Powerhouse
	<i>Lupinus formosus</i> var. <i>robustus</i>	X		New Bullards Bar Reservoir
	<i>Lupinus grayi</i>	X		New Bullards Bar Reservoir
	<i>Lupinus latifolius</i>	X		New Bullards Bar Reservoir
	<i>Lupinus latifolius</i> var. <i>columbianus</i>	X		New Bullards Bar Reservoir (West)
	<i>Lupinus microcarpus</i> var. <i>densiflorus</i>		X	New Bullards Bar Reservoir
	<i>Lupinus nanus</i>	X	X	Narrows #2 Powerhouse
	<i>Lupinus polyphyllus</i> var. <i>burkei</i>	X	X	New Bullards Bar Reservoir
	<i>Lupinus stiversii</i>	X	X	New Bullards Bar Reservoir
	<i>Medicago arabica</i>	X	X	Narrows #2 Powerhouse
	<i>Medicago lupulina</i>	X		New Bullards Bar Reservoir
	<i>Medicago polymorpha</i>		X	Log Cabin Dam
	<i>Melilotus albus</i>	X	X	New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Melilotus officinalis</i>	X	X	New Colgate Powerhouse
	<i>Robinia pseudoacacia</i>	X		North Yuba River Arm
	<i>Trifolium albopurpureum</i> var. <i>dichotomum</i>	X		New Bullards Bar Reservoir
	<i>Trifolium campestre</i>	X		New Bullards Bar Reservoir
	<i>Trifolium ciliolatum</i>	X	X	New Bullards Bar Reservoir
	<i>Trifolium dubium</i>		X	Narrows #2 Powerhouse
	<i>Trifolium glomeratum</i>		X	Log Cabin Dam
	<i>Trifolium hirtum</i>	X	X	Narrows #2 Powerhouse
	<i>Trifolium microcephalum</i>	X		New Bullards Bar Reservoir
	<i>Trifolium pratense</i>		X	New Colgate Powerhouse
	<i>Trifolium repens</i>		X	New Colgate Powerhouse
	<i>Trifolium subterraneum</i>		X	Narrows #2 Powerhouse
	<i>Trifolium variegatum</i>	X		New Bullards Bar Reservoir
	<i>Trifolium willdenovii</i>	X	X	New Bullards Bar Reservoir
	<i>Trifolium wormskioldii</i>	X		New Bullards Bar Reservoir
	<i>Vicia americana</i>	X		New Bullards Bar Reservoir
	<i>Vicia americana</i> var. <i>americana</i>	X		New Bullards Bar Reservoir (West)
	<i>Vicia sativa</i> ssp. <i>nigra</i>		X	Narrows #2 Powerhouse
	<i>Vicia sativa</i> ssp. <i>sativa</i>		X	Narrows #2 Powerhouse
	<i>Vicia villosa</i>		X	New Colgate Powerhouse
<b>Fagaceae</b>	<i>Lithocarpus densiflora</i>	X	X	New Bullards Bar Reservoir
	<i>Quercus alba</i>	X		New Bullards Bar Reservoir
	<i>Quercus chrysolepis</i>	X	X	New Colgate Powerhouse
	<i>Quercus douglasii</i>	X	X	Narrows #2 Powerhouse
	<i>Quercus kelloggii</i>	X	X	Narrows #2 Powerhouse
	<i>Quercus wislizeni</i>	X	X	Narrows #2 Powerhouse
<b>Garryaceae</b>	<i>Garrya fremontii</i>	X		New Bullards Bar Reservoir (East)
<b>Gentianaceae</b>	<i>Centaurium erythraea</i>		X	New Colgate Powerhouse
	<i>Centaurium venustum</i>		X	Our House Diversion Dam
	<i>Cicendia quadrangularis</i>	X		New Bullards Bar Reservoir (Colgate Tunnel)
<b>Geraniaceae</b>	<i>Erodium botrys</i>	X	X	Narrows #2 Powerhouse

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Erodium brachycarpum</i>	X	X	Narrows #2 Powerhouse
	<i>Erodium cicutarium</i>	X	X	Narrows #2 Powerhouse
	<i>Geranium carolinianum</i>	X		New Bullards Bar Reservoir
	<i>Geranium dissectum</i>	X	X	New Bullards Bar Reservoir
	<i>Geranium molle</i>	X	X	Narrows #2 Powerhouse
<b>Grossulariaceae</b>	<i>Ribes nevadense</i>	X		New Bullards Bar Reservoir
	<i>Ribes roezlii</i>		X	Our House Diversion Dam
	<i>Ribes roezlii</i> var. <i>roezlii</i>	X	X	New Bullards Bar Reservoir
	<i>Ribes viscosissimum</i>		X	Log Cabin Dam
<b>Hippocastanaceae</b>	<i>Aesculus californica</i>		X	Narrows #2 Powerhouse
<b>Hydrophyllaceae</b>	<i>Draperia systyla</i>	X		New Bullards Bar Reservoir
	<i>Eriodictyon californicum</i>	X	X	Narrows #2 Powerhouse
	<i>Hydrophyllum occidentale</i>	X		New Bullards Bar Reservoir (East)
	<i>Nemophila heterophylla</i>	X	X	New Colgate Powerhouse
	<i>Nemophila parviflora</i> var. <i>austiniae</i>		X	Narrows #2 Powerhouse
	<i>Nemophila pedunculata</i>	X		New Bullards Bar Reservoir (East)
	<i>Phacelia cicutaria</i>	X	X	Narrows #2 Powerhouse
	<i>Phacelia heterophylla</i> ssp. <i>virgata</i>	X	X	New Colgate Powerhouse
	<i>Phacelia imbricata</i> ssp. <i>imbricata</i>	X		North Yuba River Arm
	<i>Phacelia tanacetifolia</i>		X	Narrows #2 Powerhouse
	<i>Phacelia vallicola</i>	X		New Bullards Bar Reservoir
<b>Hypericaceae</b>	<i>Hypericum anagaloides</i>		X	
	<i>Hypericum concinnum</i>	X		New Bullards Bar Reservoir
	<i>Hypericum formosum</i> var. <i>scouleri</i>	X		New Bullards Bar Reservoir
	<i>Hypericum perforatum</i>	X	X	Narrows #2 Powerhouse
<b>Iridaceae</b>	<i>Crocasmia lucifer</i>		X	New Colgate Powerhouse
	<i>Iris hartwegii</i> ssp. <i>hartwegii</i>	X	X	New Bullards Bar Reservoir (Recreation Area)
	<i>Iris macrosiphon</i>		X	New Colgate Powerhouse
	<i>Sisyrinchium bellum</i>		X	New Colgate Powerhouse
<b>Juncaceae</b>	<i>Juncus balticus</i>	X	X	New Bullards Bar Reservoir (West)
	<i>Juncus bufonius</i> var. <i>bufonius</i>	X	X	New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Juncus bufonius var. congestus</i>	X		New Bullards Bar Reservoir
	<i>Juncus covillei var. obtusatus</i>	X		New Bullards Bar Reservoir
	<i>Juncus effusus</i>	X	X	New Colgate Powerhouse
	<i>Juncus effusus var. exiguus</i>	X		New Bullards Bar Reservoir
	<i>Juncus effusus var. pacificus</i>	X		New Bullards Bar Reservoir
	<i>Juncus occidentalis</i>	X		New Bullards Bar Reservoir (West)
	<i>Juncus patens</i>	X		North Yuba Arm
	<i>Juncus tenuis</i>	X		New Bullards Bar Reservoir
	<i>Juncus xiphioides</i>	X		North Yuba River Arm
	<i>Luzula comosa</i>	X		New Bullards Bar Reservoir
	<i>Luzula comosa var. comosa</i>	X	X	Log Cabin Dam
	<i>Luzula subsessilis</i>		X	Log Cabin Dam
<b>Lamiaceae</b>	<i>Lamium amplexicaule</i>		X	New Colgate Powerhouse
	<i>Marrubium vulgare</i>		X	Log Cabin Dam
	<i>Melissa officinalis</i>		X	Log Cabin Dam
	<i>Mentha arvensis</i>	X		North Yuba River Arm
	<i>Mentha pulegium</i>	X		New Bullards Bar Reservoir (West)
	<i>Monardella lanceolata</i>	X	X	New Bullards Bar Reservoir
	<i>Monardella sheltonii</i>		X	Narrows #2 Powerhouse
	<i>Prunella vulgaris</i>	X	X	Our House Diversion Dam
	<i>Prunella vulgaris var. lanceolata</i>		X	Log Cabin Dam
	<i>Scutellaria californica</i>	X		New Bullards Bar Reservoir
	<i>Scutellaria tuberosa</i>	X		New Bullards Bar Reservoir (West)
	<i>Stachys ajugoides</i>	X	X	Log Cabin Dam
	<i>Stachys ajugoides var rigida</i>		X	Narrows #2 Powerhouse
<b>Lauraceae</b>	<i>Umbellularia californica</i>	X	X	New Colgate Powerhouse
<b>Liliaceae</b>	<i>Allium campanulatum</i>	X		North Yuba River Arm
	<i>Allium membranaceum</i>	X	X	New Bullards Bar Reservoir
	<i>Allium peninsulare var. peninsulare</i>		X	Narrows #2 Powerhouse
	<i>Brodiaea coronaria ssp. coronaria</i>	X		New Bullards Bar Reservoir
	<i>Brodiaea elegans ssp. elegans</i>	X	X	New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Calochortus albus</i>	X	X	Narrows #2 Powerhouse
	<i>Calochortus monophyllus</i>	X	X	Log Cabin Dam
	<i>Chlorogalum pomeridianum</i> var. <i>pomeridianum</i>	X	X	Narrows #2 Powerhouse
	<i>Dichelostemma capitatum</i>	X	X	Narrows #2 Powerhouse
	<i>Dichelostemma capitatum</i> ssp. <i>capitatum</i>		X	Narrows #2 Powerhouse
	<i>Dichelostemma multiflorum</i>	X	X	New Bullards Bar Reservoir
	<i>Dichelostemma volubile</i>	X	X	Narrows #2 Powerhouse
	<i>Disporum hookeri</i>	X		New Bullards Bar Reservoir
	<i>Fritillaria eastwoodiae</i> **	X		New Bullards Bar Reservoir
	<i>Fritillaria recurva</i>	X	X	New Bullards Bar Reservoir (East)
	<i>Lilium parvum</i>	X		North Yuba River Arm
	<i>Lilium humboldtii</i> ssp. <i>humboldtii</i> **	X	X	Our House Diversion Dam
	<i>Smilacina racemosa</i>	X	X	New Bullards Bar Reservoir (East)
	<i>Trillium albidum</i>	X		New Bullards Bar Reservoir (West)
	<i>Triteleia bridgesii</i>	X		New Bullards Bar Reservoir
	<i>Triteleia hyacinthina</i>	X	X	North Yuba River Arm
	<i>Triteleia ixioides</i> ssp. <i>scabra</i>	X		New Bullards Bar Reservoir
	<i>Triteleia laxa</i>	X	X	New Bullards Bar Reservoir
	<i>Erythronium multiscapoideum</i>	X	X	Narrows #2 Powerhouse
<b>Limnanthaceae</b>	<i>Limnanthes alba</i> ssp. <i>versicolor</i>	X		North Yuba River Arm
<b>Linaceae</b>	<i>Linum bienne</i>		X	Narrows #2 Powerhouse
<b>Loasaceae</b>	<i>Mentzelia dispersa</i>		X	Our House Diversion Dam
<b>Lythraceae</b>	<i>Lythrum hyssopifolia</i>	X		New Bullards Bar Reservoir
<b>Malvaceae</b>	<i>Malva neglecta</i>		X	New Colgate Powerhouse
	<i>Sidalcea glaucescens</i>	X		New Bullards Bar Reservoir
	<i>Sidalcea malviflora</i> ssp. <i>asprella</i>	X	X	New Bullards Bar Reservoir
<b>Monotropaceae</b>	<i>Pleuricospora fimbriolata</i>	X		New Bullards Bar Reservoir
<b>Moraceae</b>	<i>Ficus carica</i>		X	New Colgate Powerhouse
<b>Oleaceae</b>	<i>Fraxinus dipetala</i>	X		New Bullards Bar Reservoir
<b>Onagraceae</b>	<i>Circaea alpina</i> ssp. <i>pacifica</i>	X		New Bullards Bar Reservoir (West)
	<i>Clarkia biloba</i> ssp. <i>brandegeae</i> **		X	Our House Diversion Dam

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Clarkia purpurea ssp. quadrivulnera</i>	X	X	Narrows #2 Powerhouse, New Colgate, Log Cabin, Our House
	<i>Clarkia rhomboidea</i>	X	X	New Bullards Bar Reservoir
	<i>Clarkia unguiculata</i>		X	New Colgate Powerhouse
	<i>Epilobium angustifolium ssp. circumvagum</i>	X		New Bullards Bar Reservoir
	<i>Epilobium brachycarpum</i>	X	X	New Bullards Bar Reservoir
	<i>Epilobium canum</i>	X		North Yuba River Arm
	<i>Epilobium canum ssp. angustifolium</i>	X		New Bullards Bar Reservoir
	<i>Epilobium ciliatum</i>		X	Narrows #2 Powerhouse
	<i>Epilobium ciliatum ssp. ciliatum</i>	X	X	Narrows #2 Powerhouse
	<i>Epilobium ciliatum ssp. glandulosum</i>	X		New Bullards Bar Reservoir
	<i>Epilobium foliosum</i>	X		New Bullards Bar Reservoir
	<i>Epilobium glaberrimum ssp. glaberrimum</i>	X		North Yuba River Arm
	<i>Epilobium minutum</i>	X	X	New Bullards Bar Reservoir
<b>Orchidaceae</b>	<i>Cephalanthera austiniiae</i>	X		New Bullards Bar Reservoir
	<i>Corallorhiza maculata</i>	X		New Bullards Bar Reservoir
	<i>Cypripedium fasciculatum</i>	X		New Bullards Bar Reservoir (East)
	<i>Epipactis gigantea</i>	X		North Yuba River Arm
	<i>Goodyera oblongifolia</i>	X	X	New Bullards Bar Reservoir (East)
	<i>Piperia elongata</i>	X	X	New Bullards Bar Reservoir
	<i>Piperia transversa</i>	X		Our House Diversion Dam
	<i>Spiranthes porrifolia</i>	X		North Yuba River Arm
<b>Orobanchaceae</b>	<i>Orobanche uniflora</i>	X	X	New Bullards Bar Reservoir
<b>Papaveraceae</b>	<i>Dicentra formosa</i>	X		New Bullards Bar Reservoir
	<i>Eschscholzia caespitosa</i>	X	X	Narrows #2 Powerhouse
	<i>Eschscholzia californica</i>		X	Narrows #2 Powerhouse
	<i>Eschscholzia lobbii</i>		X	Our House Diversion Dam
<b>Philadelphaceae</b>	<i>Philadelphus lewisii</i>	X	X	New Colgate Powerhouse
<b>Phytolaccaceae</b>	<i>Phytolacca americana</i> var. <i>americana</i>	X		New Bullards Bar Reservoir
<b>Pinaceae</b>	<i>Abies concolor</i>	X	X	New Bullards Bar Reservoir
	<i>Pinus halepensis</i>	X		New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Pinus lambertiana</i>	X	X	New Bullards Bar Reservoir
	<i>Pinus ponderosa</i>	X	X	New Colgate Powerhouse
	<i>Pinus sabiniana</i>		X	Narrows #2 Powerhouse
	<i>Pseudotsuga menziesii</i>	X	X	New Bullards Bar Reservoir
<b>Plantaginaceae</b>	<i>Plantago erecta</i>		X	Narrows #2 Powerhouse
	<i>Plantago lanceolata</i>	X	X	Narrows #2 Powerhouse
	<i>Plantago mason</i>		X	Log Cabin Dam
<b>Poaceae</b>	<i>Achnatherum lettermanii</i>	X		New Bullards Bar Reservoir
	<i>Achnatherum nelsonii ssp. dorei</i>	X		New Bullards Bar Reservoir
	<i>Aegilops triuncialis</i>	X	X	Narrows #2 Powerhouse
	<i>Agrostis capillaris</i>		X	Log Cabin Dam
	<i>Agrostis stolonifera</i>	X		New Bullards Bar Reservoir
	<i>Aira caryophylla</i>	X	X	Narrows #2 Powerhouse
	<i>Andropogon virginicus var. virginicus</i>	X	X	Narrows #2 Powerhouse
	<i>Arrhenatherum elatius</i>		X	Narrows #2 Powerhouse
	<i>Avena barbata</i>	X	X	Narrows #2 Powerhouse
	<i>Avena fatua</i>	X	X	Narrows #2 Powerhouse
	<i>Brachypodium distachyon</i>	X	X	Narrows #2 Powerhouse
	<i>Briza maxima</i>		X	Log Cabin Dam
	<i>Briza minor</i>	X	X	Narrows #2 Powerhouse
	<i>Bromus carinatus</i>	X	X	New Bullards Bar Reservoir
	<i>Bromus diandrus</i>	X	X	Narrows #2 Powerhouse
	<i>Bromus hordeaceus</i>	X	X	Narrows #2 Powerhouse
	<i>Bromus inermis</i>	X		New Bullards Bar Reservoir
	<i>Bromus japonicus</i>	X	X	Narrows #2 Powerhouse
	<i>Bromus laevipes</i>	X		North Yuba River Arm
	<i>Bromus madritensis</i>	X	X	Narrows #2 Powerhouse
	<i>Bromus madritensis ssp. madritensis</i>		X	Narrows #2 Powerhouse
	<i>Bromus madritensis ssp. rubens</i>		X	Narrows #2 Powerhouse
	<i>Bromus sterilis</i>	X		New Bullards Bar Reservoir
	<i>Bromus tectorum</i>	X		New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Cynodon dactylon</i>	X	X	Narrows #2 Powerhouse
	<i>Cynosurus echinatus</i>	X	X	Narrows #2 Powerhouse
	<i>Dactylis glomerata</i>	X	X	Narrows #2 Powerhouse
	<i>Danthonia californica</i>	X		
	<i>Deschampsia danthonioides</i>	X		New Bullards Bar Reservoir
	<i>Deschampsia elongata</i>	X	X	New Bullards Bar Reservoir
	<i>Elymus elymoides</i>	X	X	Narrows #2 Powerhouse
	<i>Elymus elymoides ssp. californicus</i>		X	New Colgate Powerhouse
	<i>Elymus glaucus</i>		X	Narrows #2 Powerhouse
	<i>Elymus trachycaulus ssp. trachycaulus</i>	X		New Bullards Bar Reservoir
	<i>Elytrigia intermedia</i>		X	Our House Diversion Dam
	<i>Festuca idahoensis</i>	X		New Bullards Bar Reservoir
	<i>Festuca occidentalis</i>	X	X	New Bullards Bar Reservoir
	<i>Gastridium ventricosum</i>		X	New Colgate Powerhouse
	<i>Glyceria elata</i>	X		New Bullards Bar Reservoir
	<i>Holcus lanatus</i>	X	X	Narrows #2 Powerhouse
	<i>Hordeum marinum var. gussoneanum</i>	X	X	New Bullards Bar Reservoir
	<i>Hordeum murinum ssp. leporinum</i>	X	X	Log Cabin Dam
	<i>Hordeum murinum ssp. murinum</i>	X		New Bullards Bar Reservoir
	<i>Koeleria macrantha</i>	X		New Bullards Bar Reservoir
	<i>Lolium multiflorum</i>	X	X	Narrows #2 Powerhouse
	<i>Lolium perenne</i>		X	New Colgate Powerhouse
	<i>Melica aristata</i>	X		New Bullards Bar Reservoir
	<i>Melica bulbosa</i>	X		New Bullards Bar Reservoir
	<i>Melica californica</i>		X	Narrows #2 Powerhouse
	<i>Melica geyeri</i>	X		North Yuba River Arm
	<i>Melica torreyana</i>		X	New Colgate Powerhouse
	<i>Muhlenbergia rigens</i>	X	X	New Colgate Powerhouse
	<i>Nassella pulchra</i>		X	Narrows #2 Powerhouse
	<i>Panicum capillaris</i>	X	X	Log Cabin Dam
	<i>Paspalum dilatatum</i>		X	Narrows #2 Powerhouse

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Phalaris aquatica</i>		X	Narrows #2 Powerhouse
	<i>Phalaris arundinacea</i>	X		New Bullards Bar Reservoir
	<i>Poa annua</i>	X	X	Narrows #2 Powerhouse
	<i>Poa bulbosa</i>	X	X	Our House Diversion Dam
	<i>Poa howellii</i>	X		New Bullards Bar Reservoir
	<i>Poa pratensis</i>	X	X	New Bullards Bar Reservoir
	<i>Poa secunda</i>	X		New Bullards Bar Reservoir
	<i>Poa secunda ssp. secunda</i>	X		New Bullards Bar Reservoir
	<i>Polypogon interruptus</i>		X	
	<i>Polypogon maritimus</i>	X		
	<i>Polypogon monspeliensis</i>	X	X	
	<i>Sorghum halepense</i>	X		New Bullards Bar Reservoir Access Road
	<i>Taeniatherum caput-medusae</i>		X	Narrows #2 Powerhouse
	<i>Torreyochloa pallida var. pauciflora</i>	X		New Bullards Bar Reservoir
	<i>Triticum aestivum</i>	X		New Bullards Bar Reservoir
	<i>Vulpia bromoides</i>		X	Narrows #2 Powerhouse
	<i>Vulpia microstachys var. pauciflora</i>	X		New Bullards Bar Reservoir
	<i>Vulpia myuros</i>	X	X	Narrows #2 Powerhouse
	<i>Vulpia octoflora</i>	X		North Yuba River Arm
<b>Polemoniaceae</b>	<i>Allophyllum divaricatum</i>		X	Our House Diversion Dam
	<i>Collomia heterophylla</i>	X	X	New Colgate Powerhouse
	<i>Gilia capitata</i>	X	X	New Colgate Powerhouse
	<i>Linanthus bicolor</i>		X	Narrows #2 Powerhouse
	<i>Linanthus filipes</i>	X		New Bullards Bar Reservoir (East)
	<i>Microsteris gracilis</i>	X		New Bullards Bar Reservoir (West)
	<i>Navarretia intertexta ssp. intertexta</i>		X	Log Cabin Dam
	<i>Navarretia pubescens</i>	X		New Bullards Bar Reservoir
<b>Polygalaceae</b>	<i>Polygala cornuta var. cornuta</i>	X	X	Our House Diversion Dam
<b>Polygonaceae</b>	<i>Chorizanthe membranacea</i>	X	X	Narrows #2 Powerhouse
	<i>Eriogonum compositum var. compositum</i>	X		North Yuba River Arm
	<i>Eriogonum nudum</i>	X		New Bullards Bar Reservoir (East)

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Eriogonum nudum var. pubiflorum</i>		X	New Colgate Powerhouse
	<i>Eriogonum vimineum</i>		X	Our House Diversion Dam
	<i>Polygonum arenastrum</i>	X		New Bullards Bar Reservoir
	<i>Polygonum aviculare</i>		X	Our House Diversion Dam
	<i>Polygonum californicum</i>		X	Our House Diversion Dam
	<i>Polygonum douglasii ssp. spergulariiforme</i>	X		Log Cabin Dam
	<i>Pterostegia drymaroides</i>		X	New Colgate Powerhouse
	<i>Rumex acetosella</i>	X	X	New Bullards Bar Reservoir
	<i>Rumex crispus</i>	X	X	Narrows #2 Powerhouse
	<i>Rumex obtusifolius</i>	X	X	Log Cabin Dam
	<i>Rumex salicifolius var. triangulivalvis</i>	X		New Bullards Bar Reservoir
<b>Polypodiaceae</b>	<i>Polypodium calirhiza</i>	X	X	Narrows #2 Powerhouse
<b>Portulacaceae</b>	<i>Calandrinia ciliata</i>	X	X	Log Cabin Dam
	<i>Claytonia exigua ssp. exigua</i>	X		New Bullards Bar Reservoir (West)
	<i>Claytonia parviflora</i>	X	X	Narrows #2 Powerhouse
	<i>Claytonia perfoliata</i>	X	X	Narrows #2 Powerhouse
	<i>Claytonia rubra var. rubra</i>	X	X	New Bullards Bar Reservoir
	<i>Lewisia cantelovii</i> **	X		North Yuba River Arm
	<i>Montia parvifolia</i>	X		New Bullards Bar Reservoir
<b>Potamogetonaceae</b>	<i>Potamogeton natans</i>	X		New Bullards Bar Reservoir
<b>Primulaceae</b>	<i>Anagallis arvensis</i>	X	X	New Colgate Powerhouse
	<i>Dodecatheon hendersonii</i>	X	X	Narrows #2 Powerhouse
	<i>Trientalis latifolia</i>	X	X	New Bullards Bar Reservoir
<b>Pteridaceae</b>	<i>Adiantum capillus-veneris</i>	X	X	New Colgate Powerhouse
	<i>Aspidotis densa</i>	X	X	New Bullards Bar Reservoir
	<i>Cheilanthes gracillima</i>	X	X	Our House Diversion Dam
	<i>Pellaea andromedifolia</i>		X	New Colgate Powerhouse
	<i>Pellaea mucronata</i>	X	X	Narrows #2 Powerhouse
	<i>Pentagramma triangularis</i>		X	Narrows #2 Powerhouse
	<i>Pentagramma triangularis ssp. triangularis</i>	X	X	Narrows #2 Powerhouse
<b>Pyrolaceae</b>	<i>Pyrola picta</i>	X		New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
<b>Ranunculaceae</b>	<i>Actaea rubra</i>	X		New Bullards Bar Reservoir
	<i>Aquilegia formosa</i>	X		New Bullards Bar Reservoir (West)
	<i>Clematis lasiantha</i>	X	X	New Bullards Bar Reservoir
	<i>Clematis ligusticifolia</i>	X		New Bullards Bar Reservoir
	<i>Delphinium patens ssp. patens</i>	X	X	North Yuba River Arm
	<i>Delphinium variegatum ssp. variegatum</i>		X	Narrows #2 Powerhouse
	<i>Isopyrum occidentale</i>	X	X	New Bullards Bar Reservoir
	<i>Myosurus minimus</i>		X	Our House Diversion Dam
	<i>Ranunculus hebecarpus</i>		X	Narrows #2 Powerhouse
	<i>Ranunculus occidentalis var. occidentalis</i>	X	X	Narrows #2 Powerhouse
<b>Rhamnaceae</b>	<i>Ceanothus cuneatus</i>	X	X	Narrows #2 Powerhouse
	<i>Ceanothus cuneatus var. cuneatus</i>		X	Narrows #2 Powerhouse
	<i>Ceanothus integerrimus</i>	X	X	New Colgate Powerhouse
	<i>Ceanothus lemmonii</i>	X	X	Narrows #2 Powerhouse
	<i>Ceanothus prostratus</i>	X		New Bullards Bar Reservoir (East)
	<i>Ceanothus velutinus</i>	X		New Bullards Bar Reservoir
	<i>Rhamnus ilicifolia</i>	X	X	New Bullards Bar Reservoir
	<i>Rhamnus purshiana</i>		X	Our House Diversion Dam
	<i>Rhamnus rubra</i>		X	Log Cabin Dam
	<i>Rhamnus tomentella ssp. tomentella</i>	X	X	Narrows #2 Powerhouse
<b>Rosaceae</b>	<i>Amelanchier alnifolia</i>	X		North Yuba River Arm
	<i>Cercocarpus betuloides</i>	X	X	Our House Diversion Dam
	<i>Chamaebatia foliolosa</i>	X	X	New Bullards Bar Reservoir
	<i>Crataegus laevigata</i>	X		New Bullards Bar Reservoir
	<i>Fragaria vesca</i>		X	Log Cabin Dam
	<i>Fragaria virginiana</i>	X		New Bullards Bar Reservoir
	<i>Heteromeles arbutifolia</i>	X	X	Narrows #2 Powerhouse
	<i>Holodiscus microphyllus var. glabrescens</i>	X		North Yuba River Arm
	<i>Horkelia tridentata</i>	X		New Bullards Bar Reservoir (East)
	<i>Horkelia tridentata ssp. tridentata</i>	X		New Bullards Bar Reservoir (East)
	<i>Malus sylvestris</i>	X		New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Physocarpus capitatus</i>	X		North Yuba River Arm
	<i>Potentilla glandulosa ssp. glandulosa</i>	X	X	New Bullards Bar Reservoir
	<i>Prunus cerasifera</i>	X		New Bullards Bar Reservoir
	<i>Prunus subcordata</i>	X		North Yuba River Arm
	<i>Prunus virginiana var. demissa</i>		X	Log Cabin Dam
	<i>Pyracantha koidzumii</i>		X	New Colgate Powerhouse
	<i>Rosa eglanteria</i>	X		New Bullards Bar Reservoir
	<i>Rosa gymnocarpa</i>	X		New Bullards Bar Reservoir
	<i>Rosa spithamea</i>	X		New Bullards Bar Reservoir
	<i>Rosa woodsii var. ultramontana</i>	X		New Bullards Bar Reservoir
	<i>Rosa x odorata</i>		X	New Colgate Powerhouse
	<i>Rubus discolor</i>	X	X	Narrows #2 Powerhouse
	<i>Rubus laciniatus</i>		X	Our House Diversion Dam
	<i>Rubus leucodermis</i>	X	X	New Bullards Bar Reservoir
	<i>Rubus parviflorus</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Rubus ursinus</i>	X	X	New Bullards Bar Reservoir
	<i>Sanguisorba minor ssp. muricata</i>	X	X	New Colgate Powerhouse
<b>Rubiaceae</b>	<i>Cephalanthus occidentalis var. californicus</i>		X	Our House Diversion Dam
	<i>Galium aparine</i>	X	X	Narrows #2 Powerhouse
	<i>Galium parisiense</i>	X		New Bullards Bar Reservoir (East)
	<i>Galium porrigens var. tenue</i>	X	X	Narrows #2 Powerhouse
	<i>Galium trifidum var. pacificum</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Gallium triflorum</i>	X	X	Log Cabin Dam
	<i>Galium trifolium</i>	X		New Bullards Bar Reservoir
	<i>Sherardia arvensis</i>		X	Narrows #2 Powerhouse
<b>Salicaceae</b>	<i>Populus balsamifera ssp. trichocarpa</i>	X		New Bullards Bar Reservoir
	<i>Populus fremontii</i>	X		New Bullards Bar Reservoir
	<i>Salix goodingii</i>	X	X	New Bullards Bar Reservoir
	<i>Salix exigua</i>	X	X	New Colgate Powerhouse
	<i>Salix laevigata</i>	X		New Bullards Bar Reservoir (West)
	<i>Salix lasiolepis</i>	X		New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Salix lucida ssp. lasiandra</i>	X		New Bullards Bar Reservoir
<b>Saxifragaceae</b>	<i>Boykinia occidentalis</i>	X		North Yuba River Arm, Slate Creek
	<i>Boykinia major</i>	X		New Bullards Bar Reservoir
	<i>Darmera peltata</i>	X		New Bullards Bar Reservoir
	<i>Heuchera micrantha var. erubescens</i>	X		New Bullards Bar Reservoir
	<i>Lithophragma bolanderi</i>	X	X	Narrows #2 Powerhouse
	<i>Lithophragma campanulatum</i>	X		New Bullards Bar Reservoir
	<i>Lithophragma parviflorum</i>	X		New Bullards Bar Reservoir
	<i>Saxifraga californica</i>		X	Our House Diversion Dam
	<i>Saxifraga fallax</i>	X		New Bullards Bar Reservoir (West)
	<i>Saxifraga integrifolia</i>	X	X	Narrows #2 Powerhouse
	<i>Tellima grandiflora</i>	X		New Bullards Bar Reservoir
<b>Scrophulariaceae</b>	<i>Antirrhinum vexillo-calyculatum ssp. intermedium</i>	X		New Bullards Bar Reservoir Access Road
	<i>Castilleja affinis ssp. affinis</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Castilleja applegatei</i>	X	X	New Bullards Bar Reservoir
	<i>Castilleja attenuata</i>	X		New Bullards Bar Reservoir
	<i>Collinsia heterophylla</i>	X	X	New Bullards Bar Reservoir
	<i>Collinsia tinctoria</i>	X	X	New Bullards Bar Reservoir
	<i>Cordylanthus tenuis ssp. tenuis</i>	X		New Bullards Bar Reservoir
	<i>Digitalis purpurea</i>	X		New Bullards Bar Reservoir (Recreation Area)
	<i>Keckiella breviflora</i>	X	X	Narrows #2 Powerhouse
	<i>Mimulus aurantiacus</i>	X	X	Narrows #2 Powerhouse
	<i>Mimulus aurantiacus var. grandiflorus</i>		X	Narrows #2 Powerhouse
	<i>Mimulus bifidus ssp. bifidus</i>	X		New Bullards Bar Reservoir
	<i>Mimulus cardinalis</i>	X	X	New Bullards Bar Reservoir
	<i>Mimulus floribundus</i>		X	New Bullards Bar Reservoir
	<i>Mimulus guttatus</i>	X	X	Narrows #2 Powerhouse
	<i>Mimulus kelloggii</i>	X	X	New Bullards Bar Reservoir (East)
	<i>Mimulus layneae</i>	X		New Bullards Bar Reservoir
	<i>Mimulus lewisii</i>	X	X	Log Cabin Dam
	<i>Mimulus moschatus</i>	X		North Yuba River Arm

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Mimulus pulsiferae</i>	X		New Bullards Bar Reservoir
	<i>Mimulus torreyi</i>	X	X	North Yuba River Arm
	<i>Pedicularis densiflora</i>	X	X	Log Cabin Dam
	<i>Penstemon azureus</i> var. <i>azureus</i>	X		New Bullards Bar Reservoir
	<i>Penstemon heterophyllus</i>	X	X	New Colgate Powerhouse
	<i>Penstemon heterophyllus</i> var. <i>purdyi</i>		X	Log Cabin Dam
	<i>Penstemon newberryi</i> var. <i>newberryi</i>	X		North Yuba River Arm
	<i>Scrophularia californica</i> ssp. <i>floribunda</i>		X	New Colgate Powerhouse
	<i>Verbascum blattaria</i>	X		New Bullards Bar Reservoir (East)
	<i>Verbascum thapsus</i>	X	X	Narrows #2 Powerhouse
	<i>Veronica americana</i>	X		New Bullards Bar Reservoir
	<i>Veronica arvensis</i>	X		New Bullards Bar Reservoir (Colgate Tunnel)
<b>Selaginellaceae</b>	<i>Selaginella wallacei</i>		X	Narrows #2 Powerhouse
<b>Simaroubaceae</b>	<i>Ailanthus altissima</i>		X	New Colgate Powerhouse
<b>Solanaceae</b>	<i>Datura wrightii</i>		X	New Colgate Powerhouse
	<i>Nicotiana acuminata</i> var. <i>multiflora</i>	X		New Bullards Bar Reservoir
	<i>Physalis acutifolia</i>	X		New Bullards Bar Reservoir
	<i>Solanum americanum</i>	X		New Bullards Bar Reservoir
	<i>Solanum parishii</i>	X		New Bullards Bar Reservoir (Colgate Tunnel)
	<i>Solanum xanti</i>		X	New Colgate Powerhouse
<b>Styracaceae</b>	<i>Styrax officinalis</i> var. <i>rediviva</i>	X		New Bullards Bar Reservoir
<b>Taxaceae</b>	<i>Taxus brevifolia</i>	X		New Bullards Bar Reservoir
<b>Typhaceae</b>	<i>Typha domingensis</i>		X	Narrows #2 Powerhouse
	<i>Typha latifolia</i>		X	Narrows #2 Powerhouse
<b>Urticaceae</b>	<i>Urtica dioica</i> ssp. <i>holosericea</i>	X		New Bullards Bar Reservoir
<b>Valerianaceae</b>	<i>Plectritis ciliosa</i> ssp. <i>insignis</i>	X		New Colgate Powerhouse
	<i>Plectritis congesta</i> ssp. <i>brachystemon</i>		X	Narrows #2 Powerhouse
	<i>Plectritis macrocera</i>		X	Narrows #2 Powerhouse
<b>Verbenaceae</b>	<i>Verbena bonariensis</i>	X	X	Narrows #2 Powerhouse
	<i>Verbena lasiostachys</i> var. <i>scabrida</i>	X		Slate Creek
<b>Violaceae</b>	<i>Viola adunca</i>	X		New Bullards Bar Reservoir

Family <sup>a</sup>	Species Name <sup>b</sup>	General Location		Additional Location Description
		New Bullards Bar Reservoir	Other Project Features <sup>c</sup>	
	<i>Viola glabella</i>	X		North Yuba River Arm
	<i>Viola lobata</i>	X	X	New Bullards Bar Reservoir
	<i>Viola lobata ssp. lobata</i>	X		New Bullards Bar Reservoir
	<i>Viola sheltonii</i>	X	X	New Bullards Bar Reservoir
<b>Viscaceae</b>	<i>Arceuthobium occidentale</i>		X	Narrows #2 Powerhouse
	<i>Phoradendron villosum</i>	X	X	Narrows #2 Powerhouse
<b>Vitaceae</b>	<i>Vitis californica</i>	X	X	Narrows #2 Powerhouse
	<i>Vitis vinifera</i>	X		New Bullards Bar Reservoir (Colgate Tunnel)

<sup>a</sup>Family and species name is based on the Jepson manual of higher plants of California (1993)

<sup>b</sup>Non-italicized names = non-native species, \*\* = special-status species

<sup>c</sup>Areas near Englebright, New Bullards Bar, Log Cabin Diversion, and Our House Dams; and, New Colgate Powerhouse

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**Technical Memorandum 7-5**

**California Endangered Species Act-Listed Plants**

**Attachment 7-5B**

**USFWS Query: Yuba River Development Project**

**Yuba River Development Project**  
**FERC Project No. 2246**

September 2012

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**U.S. Fish & Wildlife Service**  
**Sacramento Fish & Wildlife Office**

**Federal Endangered and Threatened Species that Occur in  
or may be Affected by Projects in the Counties and/or  
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 120624052734

Database Last Updated: September 18, 2011

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Quad Lists

**GRASS VALLEY (542A)**

Listed Species

Invertebrates

*Desmocerus californicus dimorphus*  
valley elderberry longhorn beetle (T)

Fish

*Hypomesus transpacificus*  
delta smelt (T)

*Oncorhynchus mykiss*  
Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*  
Central Valley spring-run chinook salmon (T) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

*Rana draytonii*  
California red-legged frog (T)

Plants

*Calystegia stebbinsii*  
Stebbins's morning-glory (E)

*Fremontodendron californicum ssp. decumbens*  
Pine Hill flannelbush (E)

**ROUGH AND READY (542B)**

Listed Species

Invertebrates

*Desmocerus californicus dimorphus*  
valley elderberry longhorn beetle (T)

Fish

*Hypomesus transpacificus*  
delta smelt (T)

*Oncorhynchus mykiss*  
Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*  
Central Valley spring-run chinook salmon (T) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

*Rana draytonii*

California red-legged frog (T)

## WOLF (542C)

### Listed Species

#### Invertebrates

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

#### Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Rana draytonii*

California red-legged frog (T)

## SMARTVILLE (543A)

### Listed Species

#### Invertebrates

*Branchinecta lynchi*

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

#### Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

Critical Habitat, Central Valley spring-run chinook (X) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Rana draytonii*

California red-legged frog (T)

#### Reptiles

*Thamnophis gigas*

giant garter snake (T)

## BROWNS VALLEY (543B)

### Listed Species

#### Invertebrates

*Branchinecta conservatio*

Conservancy fairy shrimp (E)

*Branchinecta lynchi*

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

*Lepidurus packardi*

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

Critical Habitat, Central Valley spring-run chinook (X) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Reptiles

*Thamnophis gigas*

giant garter snake (T)

## Candidate Species

## Birds

*Coccyzus americanus occidentalis*

Western yellow-billed cuckoo (C)

## WHEATLAND (543C)

## Listed Species

## Invertebrates

*Branchinecta conservatio*

Conservancy fairy shrimp (E)

*Branchinecta lynchi*

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

*Lepidurus packardi*

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Reptiles

*Thamnophis gigas*

giant garter snake (T)

## Candidate Species

## Birds

*Coccyzus americanus occidentalis*

Western yellow-billed cuckoo (C)

## CAMP FAR WEST (543D)

## Listed Species

## Invertebrates

*Branchinecta lynchi*

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

*Lepidurus packardii*

vernal pool tadpole shrimp (E)

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Reptiles

*Thamnophis gigas*

giant garter snake (T)

## PIKE (557B)

## Listed Species

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Candidate Species

## Mammals

*Martes pennanti*

fisher (C)

## NORTH BLOOMFIELD (557C)

## Listed Species

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

Critical habitat, California red-legged frog (X)

## Candidate Species

## Mammals

*Martes pennanti*

fisher (C)

## CAMPTONVILLE (558A)

## Listed Species

## Invertebrates

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Candidate Species

## Mammals

*Martes pennanti*

fisher (C)

## CHALLENGE (558B)

### Listed Species

#### Invertebrates

*Desmocerus californicus dimorphus*  
valley elderberry longhorn beetle (T)

#### Fish

*Hypomesus transpacificus*  
delta smelt (T)

*Oncorhynchus mykiss*  
Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*  
Central Valley spring-run chinook salmon (T) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Rana draytonii*  
California red-legged frog (T)  
Critical habitat, California red-legged frog (X)

#### Plants

*Senecio layneae*  
Layne's butterweed (=ragwort) (T)

### Candidate Species

#### Mammals

*Martes pennanti*  
fisher (C)

## FRENCH CORRAL (558C)

### Listed Species

#### Invertebrates

*Desmocerus californicus dimorphus*  
valley elderberry longhorn beetle (T)

#### Fish

*Hypomesus transpacificus*  
delta smelt (T)

*Oncorhynchus mykiss*  
Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*  
Central Valley spring-run chinook salmon (T) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Rana draytonii*  
California red-legged frog (T)

## NEVADA CITY (558D)

### Listed Species

#### Invertebrates

*Desmocerus californicus dimorphus*  
valley elderberry longhorn beetle (T)

## Fish

*Hypomesus transpacificus*  
delta smelt (T)

*Oncorhynchus mykiss*  
Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*  
Central Valley spring-run chinook salmon (T) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*  
California red-legged frog (T)  
Critical habitat, California red-legged frog (X)

## Candidate Species

### Mammals

*Martes pennanti*  
fisher (C)

## RACKERBY (559A)

### Listed Species

#### Invertebrates

*Branchinecta lynchi*  
vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*  
valley elderberry longhorn beetle (T)

#### Fish

*Hypomesus transpacificus*  
delta smelt (T)

*Oncorhynchus mykiss*  
Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*  
Central Valley spring-run chinook salmon (T) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Rana draytonii*  
California red-legged frog (T)

#### Plants

*Senecio layneae*  
Layne's butterweed (=ragwort) (T)

## BANGOR (559B)

### Listed Species

#### Invertebrates

*Branchinecta lynchi*  
vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

*Lepidurus packardi*

vernal pool tadpole shrimp (E)

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Reptiles

*Thamnophis gigas*

giant garter snake (T)

## LOMA RICA (559C)

### Listed Species

#### Invertebrates

*Branchinecta lynchi*

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

*Lepidurus packardi*

vernal pool tadpole shrimp (E)

#### Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Rana draytonii*

California red-legged frog (T)

#### Reptiles

*Thamnophis gigas*

giant garter snake (T)

### Candidate Species

#### Birds

*Coccyzus americanus occidentalis*

Western yellow-billed cuckoo (C)

## OREGON HOUSE (559D)

## Listed Species

## Invertebrates

*Branchinecta lynchi*

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

Critical Habitat, Central Valley spring-run chinook (X) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Reptiles

*Thamnophis gigas*

giant garter snake (T)

## LA PORTE (573B)

## Listed Species

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Candidate Species

## Amphibians

*Rana muscosa*

mountain yellow-legged frog (C)

## Mammals

*Martes pennanti*

fisher (C)

## GOODYEARS BAR (573C)

## Listed Species

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Candidate Species

## Mammals

*Martes pennanti*

fisher (C)

## AMERICAN HOUSE (574A)

## Listed Species

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Candidate Species

## Amphibians

*Rana muscosa*

mountain yellow-legged frog (C)

## Mammals

*Martes pennanti*

fisher (C)

## CASCADE (574B)

## Listed Species

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Candidate Species

## Amphibians

*Rana muscosa*

mountain yellow-legged frog (C)

## Mammals

*Martes pennanti*

fisher (C)

## CLIPPER MILLS (574C)

### Listed Species

#### Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Rana draytonii*

California red-legged frog (T)

#### Plants

*Senecio layneae*

Layne's butterweed (=ragwort) (T)

### Candidate Species

#### Amphibians

*Rana muscosa*

mountain yellow-legged frog (C)

#### Mammals

*Martes pennanti*

fisher (C)

## STRAWBERRY VALLEY (574D)

### Listed Species

#### Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

#### Amphibians

*Rana draytonii*

California red-legged frog (T)

### Candidate Species

#### Mammals

*Martes pennanti*

fisher (C)

## BRUSH CREEK (575A)

### Listed Species

#### Invertebrates

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

Critical habitat, California red-legged frog (X)

## Candidate Species

## Amphibians

*Rana muscosa*

mountain yellow-legged frog (C)

## Mammals

*Martes pennanti*

fisher (C)

## FORBESTOWN (575D)

## Listed Species

## Invertebrates

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

## Fish

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Rana draytonii*

California red-legged frog (T)

## Candidate Species

## Amphibians

*Rana muscosa*

mountain yellow-legged frog (C)

## Mammals

*Martes pennanti*

fisher (C)

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**County Lists**

## Yuba County

## Listed Species

## Invertebrates

*Branchinecta conservatio*

Conservancy fairy shrimp (E)

*Branchinecta lynchi*

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

*Lepidurus packardi*

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

## Fish

*Acipenser medirostris*

green sturgeon (T) (NMFS)

*Hypomesus transpacificus*

delta smelt (T)

*Oncorhynchus mykiss*

Central Valley steelhead (T) (NMFS)

Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)

Critical Habitat, Central Valley spring-run chinook (X) (NMFS)

winter-run chinook salmon, Sacramento River (E) (NMFS)

## Amphibians

*Ambystoma californiense*

California tiger salamander, central population (T)

*Rana draytonii*

California red-legged frog (T)

Critical habitat, California red-legged frog (X)

## Reptiles

*Thamnophis gigas*

giant garter snake (T)

## Plants

*Pseudobahia bahiifolia*

Hartweg's golden sunburst (E)

*Senecio layneae*

Layne's butterweed (=ragwort) (T)

## Candidate Species

### Amphibians

*Rana muscosa*  
mountain yellow-legged frog (C)

### Birds

*Coccyzus americanus occidentalis*  
Western yellow-billed cuckoo (C)

### Mammals

*Martes pennanti*  
fisher (C)

## Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.

*Critical Habitat* - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

## Important Information About Your Species List

### How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

### Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

## Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

## Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

## Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

## Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

## Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts.

[More info](#)

## Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

## Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be September 22, 2012.