

---

**TABLE OF CONTENTS**

---

|   | Page   |
|---|--------|
| 7.6 Botanical and Wildlife Resources Affected Environment ..... | 7.6-1  |
| 7.6.1 Information Sources .....                                 | 7.6-1  |
| 7.6.2 Vegetation Communities and Wildlife Habitats .....        | 7.6-2  |
| 7.6.3 Special-status Plants .....                               | 7.6-2  |
| 7.6.3.1 Upland Special-status Plant Species .....               | 7.6-3  |
| 7.6.4 Special-status Wildlife .....                             | 7.6-6  |
| 7.6.4.1 Special-status Bird Species .....                       | 7.6-7  |
| 7.6.4.2 Special-status Mammals .....                            | 7.6-10 |
| 7.6.4.3 Noxious Weeds .....                                     | 7.6-14 |

## **List of Tables**

- Table 7.6-1. Vegetation Communities and Wildlife Habitats in the Vicinity of the MFP.
- Table 7.6-2. Special-status Plant Species in the Vicinity of the MFP.
- Table 7.6-3. Stebbins' Phacelia in the Vicinity of the MFP.
- Table 7.6-4. Routine Maintenance Activities at Project Facilities and Features and Project Recreation Facilities where Stebbins' Phacelia is Present.
- Table 7.6-5. Location of Stebbin's Phacelia Populations in the Vicinity of Hell Hole Reservoir.
- Table 7.6-6. Special-status Wildlife Species in the Vicinity of the MFP.
- Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features.
- Table 7.6-8. Game Species of the Middle Fork American Watershed.
- Table 7.6-9. MFP Target Noxious Weeds List.

## **List of Figures**

- Figure 7.6-1. Timing of Bald Eagle Reproductive Activities and Associated Sensitivity Levels.

## **List of Maps**

- Maps 7.6-1. Location of Special-Status Plant Populations in the Vicinity of the MFP.
- Maps 7.6-1a–f. Location of Stebbins' Phacelia at MFP Facilities and Features and Recreation Facilities and Features.
- Map 7.6-2. Bald Eagle Nests and Night Roosts in the Vicinity of the MFP.
- Map 7.6-3. Location of Osprey in the Vicinity of the MFP.
- Map 7.6-4. Northern Goshawk PACs and Nest Trees Present in the Middle Fork American River Watershed.
- Map 7.6-5. California Spotted Owl PACs, Nest Trees, and Home Range Core Areas Present in the Middle Fork American River Watershed.
- Map 7.6-6a. Blue Canyon Mule Deer Herd Important Habitats and Migration Patterns in the Vicinity of the Middle Fork American River Watershed.
- Map 7.6-6b. Pacific Mule Deer Herd Important Habitats and Migration Patterns in the Middle Fork American River Watershed.
- Maps 7.6-7a–e. Location of Priority Noxious Weeds in the Vicinity of the MFP.

## **7.6 BOTANICAL AND WILDLIFE RESOURCES AFFECTED ENVIRONMENT**

This section describes the botanical and wildlife resources in the vicinity of the Middle Fork American River Project (MFP or Project). This includes identification of vegetation communities and wildlife habitats; federally listed rare, threatened, and endangered plant or wildlife species; other special-status plants and wildlife; game species; and noxious weeds. Information on federally listed threatened and endangered aquatic species is included in Section 7.5 – Fish and Aquatics Resources Affected Environment.

### **7.6.1 Information Sources**

Information on botanical and wildlife resources is based on review of relevant information, extensive agency and stakeholder consultation, and field surveys conducted as part of the MFP relicensing process. A summary of agency and stakeholder consultation is provided in Section 14.0 – Consultation Documentation and in the Biological Assessment/Biological Evaluation (BA/BE) (PCWA 2010a; Supporting Document [SD] C). Detailed descriptions of the MFP field survey methods and study results, including comprehensive maps of the location of terrestrial resources are provided in the following Technical Study Reports (TSR):

- TERR 1 – Vegetation Communities and Wildlife Habitat TSR (TERR 1 – TSR) (PCWA 2010b; SD B);
- TERR 2 – Special-status Plants TSR (TERR 2 – TSR) (PCWA 2010c; SD B).
- TERR 3 – Noxious Weeds TSR (TERR 3 – TSR) (PCWA 2010d; SD B);
- TERR 4 – Special-status Wildlife TSR (TERR 4 – TSR) (PCWA 2010e; SD B);
- TERR 5 – Bald Eagle TSR (TERR 5 – TSR) (PCWA 2010f; SD B); and
- TERR 6 – Special-Status Bats TSR (TERR 6 – TSR) (PCWA 2010g; SD B).

Extensive field surveys were conducted as part of the MFP relicensing process to document the location of terrestrial resources and their habitats in the vicinity of the MFP. These field surveys included completion of the following:

- Vegetation Communities & Wildlife Habitat Mapping;
- Avian Point Count and Area Search Surveys;
- Terrestrial Visual Encounter Surveys (TVES);
- Special-status Plants Surveys;
- Bald Eagle Wintering and Nesting Surveys;
- Northern Goshawk Surveys;

- Osprey Nest Surveys;
- Special-status Bats Surveys; and
- Noxious Weeds Surveys.

Provided below is a description of the affected environment for the MFP. This includes a summary of vegetation communities and wildlife habitats and a description of special-status plant and wildlife species known or potentially present in the vicinity of the MFP. Information on rare, threatened or endangered plant or wildlife species is also included. Refer to Section 7.5 – Fish and Aquatic Resources Affected Environment for information on threatened or endangered aquatics species. A description of noxious weeds present in the vicinity of the MFP is also provided.

### 7.6.2 Vegetation Communities and Wildlife Habitats

At total of 24 vegetation communities/12 wildlife habitats are present in the vicinity of the MFP. Vegetation communities/wildlife habitats are based on the Classification and Assessment with LANDSAT of Visible Ecological Groupings (CalVeg) data for the Eldorado and Tahoe National Forests (ENF and TNF) (USDA-FS 2000) and California Wildlife Habitat Relationships (CWHR) habitats (CDFG 2010). Within the vicinity of the Project, vegetation communities and wildlife habitats varied with increases in elevation. The higher elevations around French Meadows and Hell Hole reservoirs primarily have two mixed conifer communities—one dominated by white fir (*Abies concolor*) and the other dominated by sugar pine (*Pinus lambertiana*) and Jeffery pine (*Pinus jeffreyi*). These mixed conifer communities transition into stands dominated by Ponderosa pine (*Pinus ponderosa*) and Douglas-fir (*Pseudotsuga menziesii*) in the mid-elevations near Middle Fork Interbay. At the lower elevations near Ralston Afterbay and Oxbow Powerhouse, the surrounding habitat is dominated by canyon live oak (*Quercus chrysolepis*) woodland. Refer to Table 7.6-1 for a complete list of vegetation communities/wildlife habitats present in the vicinity of the MFP, as well as the acreage of each wildlife habitat type. Detailed information and vegetation community maps are provided in TERR 1 – TSR (PCWA 2010b; SD B), and maps and descriptions of wildlife habitats are provided in TERR 4 – TSR (PCWA 2010e; SD B). Additional information on the location of riparian habitat is described in Section 7.8 – Riparian Resources Affected Environment and AQ 10 – Riparian Resources (AQ 10 – TSR) (PCWA 2010h; SD B).

### 7.6.3 Special-status Plants

For the purposes of this document, special-status plants are defined as any plant granted protection by a federal, state, or local agency. This includes:

- Federally listed plant species granted status by United States Fish and Wildlife Service (USFWS) under the Federal Endangered Species Act (ESA) include threatened (FT) and endangered (FE), and candidates for listing as threatened (CFT) or endangered (CFE);

- Plant species designated by United States Department of Agriculture-Forest Service (USDA-FS) as Forest Service Sensitive (FSS) for the ENF and TNF;
- State of California listed species, which are granted status by the California Department of Fish and Game (CDFG) under the California Endangered Species Act (CESA) include threatened (ST), endangered (SE), or candidates for listing under CESA; and
- Plant species addressed under the California Environmental Quality Act (CEQA). These include rare plant species (CR) and species included on California Native Plant Society (CNPS) Lists 1B (rare, threatened, or endangered in California and elsewhere), and 2 (rare in California but more common elsewhere).

The following section summarizes special-status plants known or potentially occurring in the vicinity of the MFP based on a literature and data review and on field surveys completed as part of MFP relicensing. Refer to Table 7.6-2 for the status of each species, a summary of life history requirements, and information on their presence in the vicinity of the MFP. Additional information on special-status plant species is provided in TERR 2 – TSR (PCWA 2010c; SD B).

#### **7.6.3.1 Upland Special-status Plant Species**

Four upland FSS plants—Brandegee’s clarkia (*Clarkia biloba* ssp. *brandegeeeae* (FSS, CNPS 1B.2)), Butte County fritillary (*Fritillaria eastwoodiae* (FSS, CNPS 3.2)), saw-toothed lewisia (*Lewisia serrata* (FSS, CNPS 1B.1)), and Stebbins’ phacelia (*Phacelia stebbinsii* (FSS, CNPS 1B.2))—have been documented in the vicinity of the MFP.

Populations of all four plants have been documented in CNDDDB (2010) and USDA-FS data (2006) in upland (i.e., non-riparian) areas in the steep, rocky river canyons within 200 feet of bypass rivers and streams and along the peaking reach. Refer to Map 7.6-1 for the location of these plants along the bypass reaches and the peaking reach.

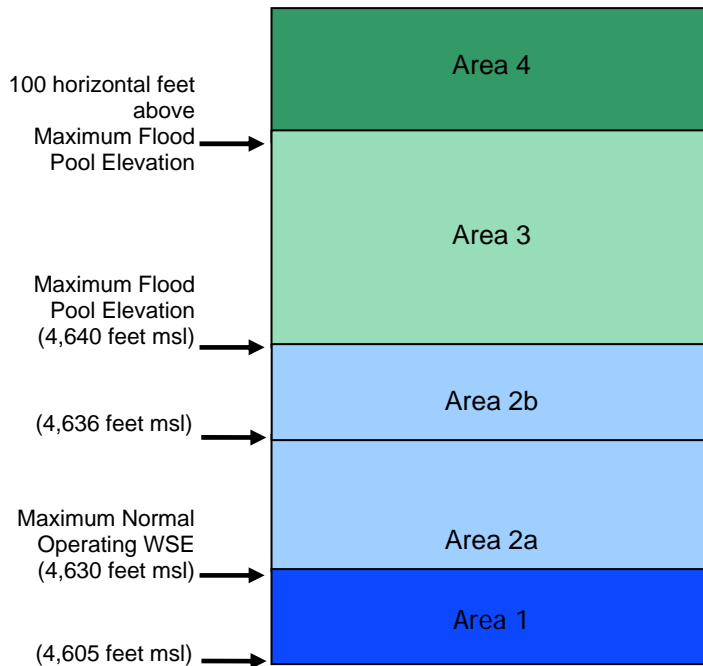
In addition, Stebbins’ phacelia was also identified within the study area around Project facilities during special-status plant surveys conducted for the relicensing of the MFP. In general, Stebbins’ phacelia populations were found above approximately 2,500 feet above mean seal level (msl) within chaparral and oak woodland habitats with well-drained, rocky, granitic soils or in cracks in large granite outcroppings. Appropriate habitat for Stebbins’ phacelia was especially prevalent along the shoreline of Hell Hole Reservoir, where 44 populations (estimated to include approximately 2.4 to 4.7 million individuals) were identified during special-status plant surveys conducted for the relicensing. Three other populations were also identified, two near Brushy Canyon (including approximately 200 individuals), and one near French Meadows Reservoir, consisting of one individual. During follow-up surveys conducted at new or existing gaging stations and trails to be added to the MFP, two additional Stebbins’ phacelia populations, consisting of a total of four individuals, were documented in the vicinity of the Rubicon River Gage at Ellicott Bridge. In addition, a population of Stebbins’ phacelia previously reported in the vicinity of Duncan Creek Diversion Pool was later

determined (during follow-up surveys conducted in August 2010) to be a common species of phacelia.

A description of this plant, including preferred habitat and life history, is included in the BA/BE (PCWA 2010a; SD C) developed for the MFP. Maps of Stebbins' phacelia populations in the vicinity of the MFP are provided in Maps 7.6-1a through 7.6-1e. Refer to Table 7.6-3 for a list of each Stebbins' phacelia population identified in the vicinity of the Project and the estimated size and number of individuals in each population. Table 7.6-4 provides the location of the population in proximity to routine operation and maintenance activities, as well as staging and construction areas associated with the modification of existing facilities or construction of new facilities. Additional information on and photographs of Stebbins' phacelia are provided in TERR 2 – TSR (PCWA 2010c; SD B).

A number of Stebbins' phacelia populations are located along the shoreline and within the existing flood pool of Hell Hole Reservoir. A schematic of specific elevations around Hell Hole Reservoir associated with the existing Project (No-Action Alternative) is provided below. Refer to Table 7.6-5 for a list of Stebbins' phacelia populations within different elevation ranges at Hell Hole Reservoir, including the area (in square feet and acres) and estimated number of individuals. These elevation ranges include:

- **Area 1** includes those portions of special-status plant populations occurring at or below the current maximum normal operating water surface elevation (WSE) of 4,630 feet msl down to approximately 4,605 feet msl;
- **Area 2a** includes those portions of special-status plant populations occurring from the maximum normal operating WSE (4,630 feet msl) to 4,636 feet msl;
- **Area 2b** includes those portions of special-status plant populations occurring from 4,636 feet msl to the maximum flood pool elevation at 4,640 feet msl;
- **Area 3** includes those portions of special-status plant populations occurring from the maximum flood pool elevation (4,640 feet msl) to the upper limit of the study area; and
- **Area 4** includes those portions of the special-status plant populations intersecting Areas 1, 2, and/or 3 that extend beyond Area 3.



Under current operations, approximately 0.4 acre of habitat that support an estimated 9,000 to 18,000 Stebbins' phacelia individuals are located between reservoir elevation 4,605 feet msl and 4,630 feet msl (Area 1). Refer to Appendix C1c for an analysis of WSE's in Area 1 under existing conditions.

Approximately 2 acres of habitat that support an estimated 53,000 to 106,000 individuals are located within the current maximum normal operating WSE (4,630 feet msl to 4,636 feet msl) (Area 2a). Based on an analysis of reservoir elevation data, under existing conditions, plants in Area 2a are inundated during seven of the ten wet water years (for an average duration of 43 days per year), three of the six above normal water years (for an average duration of 14 days per year), one of the six below normal water years (for an average of 7 days per year), zero of the five dry water years, and zero of the six critically dry water years.

Approximately 5 acres of habitat, supporting an estimated 117,000 to 234,000 individuals, are located between the current maximum normal operating WSE and the maximum flood pool elevation (between 4,636 feet msl and 4,640 feet msl) (Area 2b). Under current operations, areas above 4,636 feet msl are typically not inundated between April and August, during any water year types.

An additional 45.78 acres of habitat supporting an estimated 997,000 to 1,994,000 individuals exist within the study area of the Proposed Action (100 horizontal feet above current maximum flood pool elevation) (Area 3).

Refer to Table 7.6-5 and Maps 7.6-1d and 7.6-1e for a summary of the location and extent of Stebbins' phacelia populations around Hell Hole Reservoir.

## Riparian Special-status Plant Species

Several special-status plants and mosses may occur in riparian habitats along bypass and peaking reaches associated with the MFP. However, special-status plant surveys were not conducted in these areas because it was determined in consultation with the resource agencies during study plan development that operations and maintenance of the MFP would not affect these areas. Special-status riparian plants and mosses potentially present include:

- Upswept moonwort (*Botrychium ascendens*) (FSS, CNPS 2.3);
- Common moonwort (*Botrychium lunaria*) (FSS, CNPS 2.3);
- Mingan moonwort (*Botrychium minganense*) (FSS, CNPS 2.2);
- Clustered lady's slipper (*Cypripedium fasciculatum*) (FSS, CNPS 4.2);
- Oregon fireweed (*Epilobium howelii*) (CNPS 1B.2); and
- Brook pocket moss (*Fissidens aphelotaxifolius*) (FSS, CNPS 2.2).

### 7.6.4 Special-status Wildlife

For the purposes of this document, special-status wildlife species are defined to include animals granted protection by a federal, state, or local agency. This includes:

- Federally listed wildlife species granted status by USFWS under the Federal ESA include threatened (FT) and endangered (FE), and candidates for listing as threatened (CFT) or endangered (CFE);
- Wildlife species designated by USDA-FS as FSS for the ENF and TNF and Region 5 Management Indicator Species (MIS);
- State of California listed species, which are granted status by the CDFG under the CESA include threatened (ST), endangered (SE), or candidates for listing under CESA; and
- Other special-status resources considered in this document include USFWS Birds of Conservation Concern (BCC), and California Species of Special Concern (CSC), and California Fully Protected Species (CFPS).

USDA-FS has also designated management areas for selected species that occur in the MFP. These include Riparian Conservation Areas (RCAs) (addressed in Section 8.8 – Riparian Resources Environmental Effects), willow flycatcher habitats, Protected Activity Centers (PACs) for northern goshawk and California spotted owl, Home Range Core Areas (HRCAs) for California spotted owl; and Forest Carnivore Den Sites for American marten and Pacific fisher.



A total of 17 special-status wildlife species are known to occur in the vicinity of the MFP, and 20 special-status wildlife may potentially occur in the vicinity of the MFP based on a literature and data review and field surveys completed as part of MFP relicensing. The status and location of these species within the MFP is summarized below and organized to facilitate the impacts discussion provided in Section 8.6 – Botanical and Wildlife Resources Environmental Effects.

Refer to Table 7.6-6 for the status of each species, a summary of life history requirements, and information on their presence in the vicinity of the MFP. Detailed information and a map of the location of each species is provided in TERR 4 – TSR (PCWA 2010e; SD B); TERR 5 – TSR (PCWA 2010f; SD B); and TERR 6 – TSR (PCWA 2010g; SD B). Refer to the BA/BE (PCWA 2010a; SD C) developed for the MFP for a brief description of the life history and habitat requirements, as well as pertinent USFWS biological opinions, recovery plans, or critical habitat designations for each federally listed species.

#### **7.6.4.1 Special-status Bird Species**

##### **Bald Eagle**

Bald eagle (*Haliaeetus leucocephalus* [FSS, FD, SE, CFP]) is the only federal or state listed wildlife species known to occur in the MFP vicinity. Project reservoirs and bypass reaches associated with the MFP provide aquatic foraging habitat for bald eagles. Large trees provide potential nesting or roosting structures. Bald eagles were observed in flight at Hell Hole Reservoir as well as at several locations along the Middle Fork American River and the Rubicon River. One active bald eagle nest is present near the confluence of Rubicon River and Hell Hole Reservoir. Refer to Figure 7.6-1 for an overview of bald eagle breeding chronology and sensitivity to human activities. Three bald eagle winter night roosts are present along the shoreline of Hell Hole Reservoir. Detailed bald eagle life history and habitat information is included in the BA/BE (PCWA 2010a; SD C) developed for the MFP. Refer to the TERR 5 – TSR (PCWA 2010f; SD B) for detailed survey methods and results. Table 7.6-7 and Map 7.6-2 provide the location of bald eagle roosts and nests in relation to Project facilities and features, Project recreation facilities and features, and proposed new facilities.

Following the delisting of bald eagles by USFWS on June 28, 2007, USFWS issued the National Bald Eagle Management Guidelines (USFWS 2007) to provide recommendations for protection of bald eagles on private and public lands. The Guidelines recommend that certain activities be restricted within 660 feet of bald eagle nests, and also provide general guidelines for modifying activities in the vicinity of bald eagle roosts. In addition, during the development of the Bald Eagle Management Plan (BEMP) (PCWA 2010i; SD A) for the MFP, resource agencies requested that a 0.25-mile activity buffer around the bald eagle nest used for Project impact analyses. The bald eagle nest and roosts are located within 0.25 mile only one MFP Project facility, Hell Hole Reservoir. All other facilities are located more than 0.25 mile from the nest and roosts.

## Other Aquatic Foraging Birds

MFP reservoirs and bypass and peaking reaches associated with the MFP provide aquatic foraging habitat for a number of special-status birds such as bald eagle (above), American white pelican (*Pelecanus erythrorhynchos*) [CSC], harlequin duck (*Histrioniuus histrionicus* [CSC]), and Vaux's swift (*Chaetura vauxi* [CSC]). Refer to Table 7.6-6 for the habitat requirements and status of these species. American white pelicans, which are a migrant species in the MFP, were documented foraging in the vicinity of Hell Hole Reservoir during MFP relicensing studies. Vaux's swifts, which were seen foraging over French Meadows Reservoir during relicensing studies, could potentially breed in forest habitat in the MFP. Harlequin ducks breed along swift, shallow rivers of the Sierra Nevada, and could potentially occur in the MFP. However, there are no current records for this species in the MFP.

Osprey (*Pandion haliaetus*), although not a special-status species, was surveyed for as part of the MFP relicensing studies (TERR 4 – TSR [(PCWA 2010e; SD B])). Ospreys are known to forage in large and medium Project reservoirs, and there are eight active nests including five nests at French Meadows Reservoir and three at Hell Hole Reservoir. Refer to TERR 4 – TSR (PCWA 2010e; SD B) for detailed survey methods and results. Table 7.6-7 and Map 7.6-3 provide the location of osprey nests in relation to Project facilities and features, Project recreation facilities and features, and proposed new facilities.

## Other Raptors

In addition to bald eagles and osprey, a number of special-status raptors are known to occur in the vicinity of the MFP, including golden eagle (*Aquila chrysaetos* [CFP]), northern goshawk (*Accipiter gentilis* [FSS, CSC]), and California spotted owl (*Strix occidentalis occidentalis* [FSS, MIS, BCC, CSC]). Special-status raptors potentially occurring in the vicinity of the MFP include flammulated owl (*Otus flammeolus* [BCC]), great gray owl (*Strix nebulosa* [FSS, SE]), and American peregrine falcon (*Falco peregrinus anatum* [FD, FSS, BCC, SE]). Refer to Table 7.6-6 for a list of each special-status raptor and a summary of its status, habitat requirements, and potential for occurrence in the vicinity of the MFP.

USDA-FS data show a number of California spotted owl and northern goshawk nest sites, PACs, and HRCAs in the vicinity of MFP facilities. Additional information on nest sites, PACs, and HRCAs is provided below.

### NORTHERN GOSHAWK

The USDA-FS has designated Protected Activity Centers (PACs) for northern goshawk (*Accipiter gentilis* [FSS, CSC]) in mixed conifer forests in the vicinity of the MFP. Forest habitat for northern goshawks is characterized by trees in the dominant and co-dominant crown classes averaging at least 24-inches diameter at breast height (dbh) and at least 70% tree canopy cover.

USDA-FS has defined desired conditions for northern goshawk PACs based on the Sierra Nevada Forest Plan Amendment (SNFPA) – Final Supplemental Environmental Impact Statement (EIS) (USDA-FS 2004). PACs are designated surrounding all known and newly discovered northern goshawk breeding territories on national forest lands based on the location of the most recently documented nest site and the location(s) of alternate nests. If the actual nest site is not located, the PAC designation is based on the location of territorial adult birds or recently fledged juvenile goshawks during the fledgling dependency period (USDA-FS 2004). In addition, USDA-FS desired conditions state that the PAC should include either “the best available 200-acres of forested habitat in the largest continuous patches,” or the largest possible patches of habitat within 0.5 mile of one another.

A description of northern goshawks including preferred habitat and life history, is included in the BA/BE (PCWA 2010a; SD C) developed for the MFP. Refer to the TERR 4 – TSR (PCWA 2010e; SD B) for detailed survey methods and results. Table 7.6-7 and Map 7.6-4 provide the location of northern goshawk PACs and nests in relation to Project facilities and features, Project recreation facilities and features, and proposed new facilities.

#### *CALIFORNIA SPOTTED OWL*

The USDA-FS has identified PACs and HRCAs for California spotted owl in mixed conifer forests in the vicinity of the MFP. Forest habitat for California spotted owl is characterized by two or more tree canopy layers; trees in the dominant and co-dominant crown classes averaging 24-inches dbh or greater; and at least 70% tree canopy cover (including hardwoods).

USDA-FS has defined desired conditions for California spotted owl PACs based on the SNFPA – Final Supplemental EIS (USDA-FS 2004). PACs for territorial California spotted owl in national forest lands are based on one of the following: the location of the most recent documented nest site or the most recent known roost site when a nest location remains unknown, or a central point based on repeated daytime detections, when neither nest or roost locations are known (USDA-FS 2004). Aerial photography interpretation and field verification are used as needed to delineate PACs. In addition, USDA-FS desired conditions state that each PAC should encompass “the best available 300 acres of habitat in as compact a unit as possible.”

In addition to PACs, HRCAs were established surrounding each territorial California spotted owl activity center detected after 1986. The size of the HRCA is calculated as 20% of the area of the sum of average breeding pair home range size (for each forest) plus one standard error. The HRCA includes the PAC as well as the best available California spotted owl habitat in the closest proximity (within 1.5 miles) to the activity center (USDA-FS 2001).

A description of California spotted owls, including preferred habitat and life history, is included in the BA/BE (PCWA 2010a; SD C) developed for the MFP. Refer to TERR 4 – TSR (PCWA 2010e; SD B) for detailed survey methods and results. Table 7.6-7 and

Map 7.6-5 provide the location of PACs, HRCAs, and nests in relation to Project facilities and features, Project recreation facilities and features, and proposed new facilities.

#### *RIPARIAN-NESTING SONGBIRDS*

Three riparian-nesting songbirds are known to occur or may potentially occur in riparian habitat along Project reservoirs and bypass and peaking reaches associated with the MFP:

- Willow flycatcher (*Empidonax traillii brewsteri* [FSS, BCC, SE]);
- Yellow warbler (*Dendroica petechia brewsteri* [MIS, CSC]); and
- Yellow-breasted chat (*Icteria virens* [CSC]).

Yellow warbler and yellow-breasted chat were detected in riparian areas the vicinity of MFP reservoirs (i.e., Ralston Afterbay, French Meadows, and Hell Hole) during surveys conducted for the relicensing. USDA-FS specifically defines willow flycatcher habitat (i.e., willow flycatcher planning areas) as wet or moist meadows supporting woody vegetation, particularly willows (USDA-FS 2004), with meadows 15 acres in size or greater given management emphasis. Only one area of habitat meeting this definition has been identified in the vicinity of the MFP, located approximately 3.5 miles to northeast of Hell Hole Reservoir.

#### **Other Birds**

In addition to raptors, riparian-nesting songbirds, and aquatic-foraging birds addressed previously in this section, several other special-status bird species may potentially occur in the vicinity of the MFP. These are birds that forage and/or breed in forested habitats in the vicinity of the MFP, and include sooty (blue) grouse (*Dendragapus obscurus* [MIS]), mountain quail (*Oreortyx pictus* [MIS]), calliope hummingbird (*Stellula calliope* [BCC]), Lewis' woodpecker (*Melanerpes lewis* [BCC]), Williamson's sapsucker (*Sphyrapicus thyroideus* [BCC]), hairy woodpecker (*Picoides villosus* [MIS]), black-backed woodpecker (*Picoides arcticus* [MIS]), olive-sided flycatcher (*Contopus cooperi* [BCC, CSC]), fox sparrow (*Passerella iliaca* [MIS]), and Cassin's finch (*Carpodacus cassinii* [BCC]). Refer to Table 7.6-6 for a list of each bird species and a summary of its status, habitat requirements, and potential for occurrence in the vicinity of the MFP.

#### **7.6.4.2 Special-status Mammals**

##### **Special-status Bats**

Three special-status bat species were detected during surveys conducted for TERR 6 – TSR (PCWA 2010g; SD B). These include:

- Pallid bat (*Antrozous pallidus*) (FSS, CSC);

- Western red bat (*Lasiurus blossevillii*) (FSS, CSC); and
- Townsend's big-eared bat (*Coynorhinus townsendii*) (FSS, CSC).

Two other special-status bats, spotted bat (*Euderma maculatum* [SC]) and greater western mastiff bat (*Eumops perotis californicus* [CSC]) may potentially occur in the vicinity of the MFP.

Pallid bats, spotted bats, and greater western mastiff bats roost primarily in cliffs, caves, and rock crevices. Western red bats roost solitarily under tree foliage, while Townsend's big-eared bats prefer man-made structures, such as mines and buildings. There are no documented special-status bat roosts in Project facilities and features or Project recreation facilities and features.

Open water habitats in the vicinity of the MFP (i.e., reservoirs and stream reaches) provide aquatic foraging habitat for special-status bat species. During relicensing studies for the MFP, pallid bats were detected foraging over French Meadows Reservoir, Middle Fork Interbay, Ralston Afterbay, and Duncan Creek and North Fork Long Canyon Creek diversion pools. Western red bats were detected foraging over all Project reservoirs and diversion pools; and Townsend's big-eared bats were detected foraging over French Meadows Reservoir, Hell Hole Reservoir, Ralston Afterbay, and North Fork Long Canyon Creek Diversion Pool.

A description of pallid bat, Western red bat, and Townsend's big-eared bat, including preferred habitat and life history, is included in the BA/BE (PCWA 2010a; SD C) developed for the MFP.

### **Special-status Mesocarnivores**

Three special-status mesocarnivores could potentially occur in the vicinity of the MFP. These include:

- American marten (*Martes americana*) (FSS, MIS);
- Pacific fisher (*Martes pennanti pacifica* [FC, FSS, candidate for listing as threatened under CESA [SCT], CSC]); and
- California wolverine (*Gulo gulo luteus*) (FSS, ST, CFP).

The USDA-FS has established buffer areas to protect breeding mesocarnivores, including American marten and Pacific fisher, on national forest lands (USDA-FS 2004). These buffers are delineated based on the location of natal (birthing) and maternal (kit-rearing) dens and include 100- and 700-acre buffers (respectively) consisting of the highest quality habitat in a compact arrangement surrounding the den sites. Habitat for these species includes dense mixed conifer-fir forests with mature trees (greater than 24-inches dbh).

While potential forest habitat for these species is present in the vicinity of the MFP, there are no documented mesocarnivore dens and no USDA-FS buffer areas near the MFP. A description of special-status mesocarnivores, including preferred habitat and life history, is included in the BA/BE (PCWA 2010a; SD C) developed for the MFP.

## Game Species

Twenty game species occur in the vicinity of the MFP. Table 7.6-8 provides a list of these species, including resident and migratory game birds, game mammals (including fur-bearing mammals) potentially occurring in the vicinity of the MFP. Table 7.6-8 also includes a summary of habitat requirements and hunting regulations. The game species listed in Table 7.6-8 are common breeders and foragers primarily in forested habitats of the MFP. Eight of these species were observed during surveys conducted for the TERR 4 – TSR (PCWA 2010e; SD B), primarily in forested areas in the vicinity of French Meadows and Hell Hole reservoirs. These species are:

- Blue grouse (*Dendragapus obscurus*) (MIS);
- Mountain quail (*Oreotyx pictus*) (MIS);
- Band-tailed pigeon (*Columba fasciata*);
- Coyote (*Canis latrans*);
- Gray fox (*Urocyon cinereoargenteus*);
- Black bear (*Ursus americanus*);
- Mountain lion (*Felis rufus*) (Specially Protected Mammal); and
- Mule deer (*Odocoileus hemionus*) (MIS).

Mule deer are among the most visible and widespread game species in California, and two deer herds, the Blue Canyon mule deer herd and the Pacific mule deer herd are present in the Watershed. A State Game Refuge (Fish and Game Code §10825), intended primarily to protect habitat used by the Blue Canyon mule deer herd, extends from the west end of French Meadows Reservoir to the northwest portion of the Granite Chief Wilderness. The following habitat areas are important to mule deer in the Watershed:

- Summer range, which is characterized as upper elevation habitat that provides cover and foraging and fawning habitat, includes moist meadows, brush-fields, seeps and springs, and riparian areas.
  - Critical summer range is a subset of summer range that consists of areas believed to be especially critical to the life cycle of migratory deer.

- Critical fawning areas include those portions of summer range believed to be crucial for species persistence and reproduction.
- Winter range is characterized as lower elevation habitat that provides foraging and cover. Subsets of winter range include:
  - Critical winter range, which includes areas believed to be especially critical to the life cycle of migratory deer; and
  - Key winter range, defined as the portion of the yearlong range where deer congregate in response to food and/or cover during severe winter weather conditions.
- Intermediate range includes portions of the range located between summer and winter ranges that are used during migration. Summer and intermediate range often overlap depending upon annual climatic variation, and so are discussed together where applicable.
- Holding areas are where large numbers of deer congregate prior to migration.

For the Blue Canyon mule deer herd, fawning areas are located along the north shore of Hell Hole Reservoir, approximately 0.5 mile east of French Meadows Powerhouse. Critical summer range habitat is present in the areas surrounding upper Hell Hole Reservoir and French Meadows Reservoir. Critical winter range habitat is present at Middle Fork Interbay and along Brushy Canyon Adit Road. Mule deer holding areas are present along the northwest shore of Hell Hole Reservoir. Migration routes are present in the vicinity of Hell Hole Reservoir and French Meadows Reservoir.

For the Pacific mule deer herd, only critical summer range habitat is present in the vicinity of the MFP. Critical summer range habitat for the Pacific mule deer herd is located in the areas surrounding Hell Hole Reservoir. Table 7.6-7 and Maps 7.6-6a and 7.6-6b provide the location of mule deer habitats in relation to Project facilities and features, Project roads and trails, Project recreation facilities and features, and proposed new facilities.

### **Other Special-Status Mammals**

In addition to bats, mesocarnivores, and game species addressed above, several other special-status mammals may potentially occur in the vicinity of the MFP. These are mammals that forage and/or breed in forested habitats within the MFP, and include Sierra Nevada mountain beaver or sewellel (*Aplodontia rufa californica* [CSC]), ringtail (*Bassariscus astutus* [CFP]), and northern flying squirrel (*Glaucomys sabrinus* [MIS]). Ringtail are known to occur in the vicinity of the MFP based on incidental reports from Placer County Water Agency (PCWA) personnel.

Refer to Table 7.6-6 for a list of each species and a summary of its status, habitat requirements, and potential for occurrence in the MFP.

### 7.6.4.3 Noxious Weeds

Noxious weeds are common and widespread in the vicinity of the MFP, with the greatest number and highest densities occurring near the lower-elevation Project facilities (i.e., Ralston Afterbay and Middle Fork Interbay). The number and density of noxious weeds generally decreases in the vicinity of the higher-elevation, more remote facilities such as French Meadows and Hell Hole reservoirs. Noxious weed species are present in the vicinity of Project facilities and features, as well as along bypass reaches and the peaking reach where no routine maintenance activities are implemented. Two target noxious weed species, cheatgrass (*Bromus tectorum*) and Klamathweed (*Hypericum perforatum*), are particularly widespread throughout the American River watershed. Refer to the TERR 3 – TSR (PCWA 2010d; SD B) for detailed information on noxious weed populations within the MFP.

Priority noxious weeds (i.e., non-native or invasive plants) are those noxious weed species which ENF and TNF are focusing their forest-wide weed management efforts. Table 7.6-9 provides a list ENF and TNF priority noxious weed species that are present in the vicinity of the MFP. There are a total of 1,758.5 acres of target noxious weed species in the vicinity of the MFP. Maps 7.6-7a–e provide the location of noxious weeds and MFP facilities Project facilities and features, Project roads and trails, Project recreation facilities and features, and proposed new facilities.

#### LITERATURE CITED

- California Department of Fish and Game (CDFG). 2010. California Wildlife Habitat Relationships (CWHR). Available online at <http://www.dfg.ca.gov/biogeodata/cwhr/>
- Placer County Water Agency (PCWA). 2010a. Draft BA/BE. Available in PCWA's Application for New License – Supporting Document C.
- \_\_\_\_\_. 2010b. TERR 1 – Vegetation Communities and Wildlife Habitat Technical Study Report. Available in PCWA's Application for New License – Supporting Document B.
- \_\_\_\_\_. 2010c. TERR 2 – Special-Status Plants Technical Study Report. Available in PCWA's Application for New License – Supporting Document B.
- \_\_\_\_\_. 2010d. TERR 3 – Noxious Weeds Technical Study Report. Available in PCWA's Application for New License – Supporting Document B.
- \_\_\_\_\_. 2010e. TERR 4 – Special-Status Wildlife Technical Study Report. Available in PCWA's Application for New License – Supporting Document B.
- \_\_\_\_\_. 2010f. TERR 5 – Bald Eagle Technical Study Report. Available in PCWA's Application for New License – Supporting Document B.



- \_\_\_\_\_. 2010g. TERR 6 – Special-Status Bats Technical Study Report. Available in PCWA’s Application for New License – Supporting Document B.
- \_\_\_\_\_. 2010h. AQ 10 – Riparian Resources Technical Study Report. Available in PCWA’s Application for New License – Supporting Document B.
- \_\_\_\_\_. 2010. Bald Eagle Management Plan. Available in PCWA’s Application for New License – Supporting Document A.
- United States Department of Agriculture - Forest Service (USDA-FS). 2001. Threatened, Endangered, and Forest Service Sensitive Species Database for the Terrestrial Species of the Sierra National Forest. Electronic database. Updated 2002.
- \_\_\_\_\_. 2004. Sierra National Forest Plan Amendment (SNFPA) - Final Supplemental Environmental Impact Statement (EIS) - Record of Decision. Pacific Southwest Region. R5-MB-046. January 2004.
- United States Department of Agriculture-Forest Service (USDA-FS). 2000. California Region 5 CalVeg data and vegetation density data. Accessed August 2006 at <http://www.fs.fed.us/r5/rsl/projects/frdb/>.
- United States Fish and Wildlife Service (USFWS). 2007. National Bald Eagle Management Guidelines. May 2007.

## **TABLES**

**Table 7.6-1. Vegetation Communities and Wildlife Habitats in the Vicinity of the MFP.**

| <b>Vegetation Community<sup>1</sup></b> | <b>Wildlife Habitat<sup>2</sup></b> | <b>Acreage in the MFP</b> |
|---|-------------------------------------|---------------------------|
| Annual Grasses/Forbs                    | Annual Grass                        | 2                         |
| Barren                                  | Barren                              | 53                        |
| Gray Pine                               | Blue Oak–Foothill Pine              | 2                         |
| Douglas-Fir–Pine                        | Douglas-Fir                         | 160                       |
| Pacific Douglas-Fir                     |                                     |                           |
| Huckleberry Oak                         | Montane Chaparral                   | 178                       |
| Lower Montane Mixed Chaparral           |                                     |                           |
| Upper Montane Mixed Chaparral           |                                     |                           |
| Black Oak                               | Montane Hardwood                    | 277                       |
| Canyon Live Oak                         |                                     |                           |
| Interior Live Oak                       |                                     |                           |
| Interior Mixed Hardwoods                |                                     |                           |
| Montane Mixed Hardwoods                 |                                     |                           |
| Mountain (Thinleaf) Alder               | Montane Riparian                    | 23                        |
| Cottonwood–Alder                        |                                     |                           |
| Mixed Riparian Hardwoods                |                                     |                           |
| White Alder                             |                                     |                           |
| Willow                                  |                                     |                           |
| Willow–Alder                            |                                     |                           |
| Ponderosa Pine                          | Ponderosa Pine                      | 24                        |
| Mixed Conifer–Fir                       | Sierran Mixed Conifer               | 776                       |
| Mixed Conifer–Pine                      |                                     |                           |
| White Fir                               | White Fir                           | 20                        |
| N/A                                     | Urban                               | 105                       |
| N/A                                     | Water (Riverine and Lacustrine)     | 2,532                     |
| <b>TOTAL ACREAGE</b>                    |                                     | <b>4,150</b>              |

<sup>1</sup>Vegetation community classification is based on the Classification and Assessment with LANDSAT of Visible Ecological Groupings (CalVeg) (USDA-FS 2000).

<sup>2</sup>Wildlife habitat classification is based on California Wildlife Habitat Relationships (CWHR) (CDFG 2010).

**Table 7.6-2. Special-status Plant Species in the Vicinity of the MFP.**

| Scientific Name  | Common Name                   | Federal Status   | State Status | CNPS List | Blooming Period/Fertile | Habitat  | Occurrence Notes   |
|--|-------------------------------|------------------|--------------|-----------|-------------------------|--|--|
| <b>Special-status Plants Known to Occur Within the MFP during the Term of the New License</b>        |                               |                  |              |           |                         |  |  |
| <i>Clarkia biloba</i> ssp. <i>brandegeae</i>   | Brandegee's clarkia           | FSS <sup>2</sup> | –            | 1B.2      | May–July                | Chaparral, cismontane woodland, often roadcuts. From 950 to 3,200 feet in elevation.   | Known to occur in the vicinity of the MFP. Documented by CNDDDB in rocky, upland areas along the MFAR river canyon.  |
| <i>Fritillaria eastwoodiae</i>   | Butte County fritillary       | FSS <sup>2</sup> | –            | 3.2       | March–May               | Chaparral, cismontane woodland, lower montane coniferous forest (openings), wet and dry slopes red clay or sandy loam. From 100 to 5,000 feet in elevation.  | Known to occur in the vicinity of the MFP. Documented by CNDDDB in rocky, upland areas along the MFAR.   |
| <i>Lewisia serrata</i>   | Saw-toothed lewisia           | FSS <sup>3</sup> | –            | 1B.1      | May–June                | Broad-leaved upland forest, lower montane coniferous forest, and riparian forest on mesic steep, nearly vertical cliffs and inner gorges. From 2,800 to 4,800 feet in elevation.   | Known to occur in the vicinity of the MFP. Documented by USDA-FS and CNDDDB in rocky, upland areas along Long Canyon Creek.  |
| <i>Phacelia stebbinsii</i>   | Stebbins' phacelia            | FSS <sup>3</sup> | –            | 1B.2      | June–July               | Cismontane woodland and lower montane coniferous forest, and meadows and seeps. Found on dry, open rocky sites (bedrock outcrops, rubble, or talus) on ledges and moderate or steep slopes as well as inner gorges and near seeps on ENF and TNF. From 2,000 to 7,050 feet in elevation. | Known to occur in the vicinity of the MFP.<br>A total of 49 populations (112 acres) were documented during the TERR 2 – Special-Status Plants surveys (PCWA 2009) and subsequent surveys at new gaging stations to be added to the MFP. Known populations include: <ul style="list-style-type: none"> <li>▪ Two small populations in the vicinity of Brushy Creek (approximately 200 individuals)</li> <li>▪ Four individuals in the vicinity of the Rubicon River at Ellicott Bridge</li> <li>▪ 1 individuals in the vicinity of French Meadows Reservoir</li> <li>▪ 44 populations in the vicinity of Hell Hole Reservoir (approximately 2.4 to 4.7 million individuals)</li> </ul> Additional populations are documented by USDA-FS and CNDDDB in rocky, upland areas along the Rubicon River, Long Canyon Creek, and Duncan Creek. |
| <b>Special-status Plants Potentially Occurring Within the MFP during the Term of the New License</b> |                               |                  |              |           |                         |  |  |
| <i>Allium tribracteatum</i>  | Three-bracted onion           | FSS              | –            | 1B.2      | April–August            | Chaparral, lower montane coniferous forest and upper montane coniferous forest. From 3,600 to 9,800 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Arctostaphylos nissenana</i>  | Nissenan manzanita            | FSS              | –            | 1B.2      | February–March          | Open, rocky ridges and acidic shale and slate soils in chaparral and closed-cone coniferous forests. Found in almost pure colonies on hard shale substrate primarily where other shrubs and trees are absent. From 1,450 to 3,600 feet in elevation.                                     | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Astragalus webberi</i>  | Webber's milk-vetch           | FSS              | –            | 1B.2      | May–July                | Lower montane coniferous forest. From 2,400 to 3,700 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Campylopodiella stenocarpa</i>  | Flagella-like atractylocarpus | –                | –            | 2.2       | N/A                     | Cismontane woodlands. From 300 to 1,600 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |

**Table 7.6-2. Special-status Plant Species in the Vicinity of the MFP (continued).**

| Scientific Name  | Common Name                        | Federal Status | State Status | CNPS List | Blooming Period/Fertile | Habitat   | Occurrence Notes   |
|--|------------------------------------|----------------|--------------|-----------|-------------------------|---|--|
| <b>Special-status Plants Potentially Occurring Within the MFP during the Term of the New License (continued)</b> |                                    |                |              |           |                         |   |  |
| <i>Chlorogalum grandiflorum</i>  | Red Hills soaproot                 | –              | –            | 1B.2      | May–June                | Cismontane woodland, chaparral, and lower montane coniferous forests on serpentine or gabbro soils. From 850 to 3,500 feet in elevation.                                      | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. Several populations of Red Hills soaproot are documented by CNDDDB in the vicinity of the MFP. These populations occur along PG&E powerline rights-of-way on the rocky ledge above the river canyon near Ralston Afterbay and near the confluence of the Rubicon River and Long Canyon Creek. These populations will not be affected by the Proposed Action (i.e., routine operation and maintenance of the MFP). |
| <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>  | Big-scale balsamroot               | FSS            | –            | 1B.2      | March–June              | Chaparral, cismontane woodland, valley and foothill grassland, and vernal moist meadows on sandstone, serpentine, or basalt outcrops. From 300 to 4,600 feet in elevation.    | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Botrychium ascendens</i>  | Upswept moonwort                   | FSS            | –            | 2.3       | Fertile July–August     | Lower montane coniferous forests near streams, grassy fields, meadows and seeps. From 4,800 to 7,300 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. However, this species may occur along Project streams and bypass reaches.   |
| <i>Botrychium crenulatum</i>   | Scalloped moonwort                 | FSS            | –            | 2.2       | Fertile June–July       | Lower and upper montane coniferous forests, bogs, fens, and moist meadows. From 4,900 to 10,800 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Botrychium lunaria</i>  | Common moonwort                    | FSS            | –            | 2.3       | August                  | Meadows and seeps, moist riparian areas, subalpine coniferous forest and upper montane coniferous forest. From 7,500 to 11,000 feet elevation.                                | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. However, this species may occur along Project streams and bypass reaches.   |
| <i>Botrychium minganense</i>   | Mingan moonwort                    | FSS            | –            | 2.2       | July–September          | Mesic areas in lower and upper montane coniferous forest, moist riparian areas, and meadows and seeps. From 4,000 to 6,700 feet in elevation                                  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. However, this species may occur along Project streams and bypass reaches.   |
| <i>Botrychium montanum</i>   | Mountain moonwort (western goblin) | FSS            | –            | 2.1       | July–September          | Lower and upper montane coniferous forests, and meadows and seeps. From 4,500 to 7,000 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Bruchia bolanderi</i>   | Bolander's bruchia                 | FSS            | –            | 2.2       | N/A                     | Lower and upper montane coniferous forest, meadows, seeps, and fens in damp soils. From 4,000 to 9,500 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Calochortus clavatus</i> var. <i>avius</i>  | Pleasant Valley mariposa lily      | FSS            | –            | 1B.2      | March–June              | In openings, often south-facing slopes and ridgetops, of lower montane coniferous forests with Josephine silt loam and volcanic soils. From 1,000 to 6,300 feet in elevation. | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |

**Table 7.6-2. Special-status Plant Species in the Vicinity of the MFP (continued).**

| Scientific Name  | Common Name              | Federal Status | State Status | CNPS List | Blooming Period/Fertile | Habitat   | Occurrence Notes   |
|--|--------------------------|----------------|--------------|-----------|-------------------------|---|--|
| <b>Special-status Plants Potentially Occurring Within the MFP during the Term of the New License (continued)</b> |                          |                |              |           |                         |   |  |
| <i>Cypripedium fasciculatum</i>  | Clustered lady's-slipper | FSS            | –            | 4.2       | March–August            | Lower montane coniferous forest, serpentine seeps and streambanks. From 500 to 7,200 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. However, this species may occur along Project streams and bypass reaches. |
| <i>Cypripedium montanum</i>  | Mountain lady's-slipper  | FSS            | –            | 4.2       | March–August            | Broad-leaved upland and lower montane coniferous forests in moist areas or on dry shaded slopes with northern aspects and loam soils. From 600 to 7,500 feet in elevation.                | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Epilobium howellii</i>  | Subalpine fireweed       | FSS            | –            | 4.3       | July–August             | Mesic areas in subalpine coniferous forest, wet meadows, fens, and mossy seeps. From 6,000 to 9,000 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Epilobium oreganum</i>  | Oregon fireweed          |                | –            | 1B.2      | June–September          | Bogs, fens, meadows, small streams and ditches in lower and upper montane coniferous forests. From 1,600 to 8,500 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. However, this species may occur along Project streams and bypass reaches. |
| <i>Erigeron miser</i>  | Starved fleabane         | FSS            | –            | 1B.3      | June–October            | Upper montane coniferous forest, rocky soils. From 6,000 to 8,600 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Eriogonum tripodum</i>  | Tripod buckwheat         | FSS            | –            | 4.2       | May–July                | Chaparral, cismontane woodlands, often on serpentine outcroppings. From 650 to 5,250 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Eriogonum umbellatum</i> var. <i>torreyanum</i>   | Donner Pass buckwheat    | FSS            | –            | 1B.2      | July–September          | Upper montane coniferous forests, chaparral, and meadows. Volcanic and rocky soils. From 6,000 to 8,000 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Fissidens aphelotaxifolius</i>  | Brook pocket-moss        | FSS            | –            | 2.2       | N/A                     | Lower and upper montane coniferous forest, rock, stream channels and waterfalls. From 6,500 to 7,200 feet in elevation  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. However, this species may occur along Project streams and bypass reaches. |
| <i>Helodium blandowii</i>  | Blandow's bog-moss       | FSS            | –            | 2.3       | N/A                     | Meadows, seeps, fens, and subalpine coniferous forest; damp soil. From 6,500 to 8,900 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Horkelia parryi</i>   | Parry's horkelia         | FSS            | –            | 1B.2      | April–June              | Chaparral, cismontane woodland on stony, disturbed sites with slightly acidic soils. From 250 to 3,600 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |
| <i>Ivesia aperta</i> var. <i>aperta</i>  | Sierra Valley mousetail  | FSS            | –            | 1B.2      | June–September          | Great Basin scrub, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland, vernal pools - vernal mesic, usually volcanic. From 4,500 to 7,500 feet in elevation. | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys.   |

**Table 7.6-2. Special-status Plant Species in the Vicinity of the MFP (continued).**

| Scientific Name  | Common Name  | Federal Status | State Status | CNPS List | Blooming Period/Fertile | Habitat   | Occurrence Notes   |
|--|--|----------------|--------------|-----------|-------------------------|---|--|
| <b>Special-status Plants Potentially Occurring Within the MFP during the Term of the New License (continued)</b> |  |                |              |           |                         |   |  |
| <i>Ivesia aperta</i> var. <i>canina</i>  | Dog Valley mousetail                                 | FSS            | –            | 1B.1      | June–August             | Openings in lower montane coniferous forests and in meadows and seeps. Volcanic and rocky soils. From 4,500 to 7,500 feet in elevation.               | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Ivesia sericoleuca</i>  | Plumas mousetail                                     | FSS            | –            | 1B.2      | May–September           | Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools. From 4,500 to 7,500 feet in elevation.                       | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Ivesia webberi</i>  | Webber's mousetail                                   | FC<br>FSS      |              | 1B.1      | May–July                | Great Basin scrub, lower montane coniferous forest, in sandy or gravelly soils. From 4,500 to 7,500 feet in elevation.                                | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Lewisia cantelovii</i>  | Cantelow's lewisia                                   | FSS            | –            | 1B.2      | May–October             | Broadleaf upland, chaparral, cismontane woodlands, and lower montane coniferous forests. From 1,000 to 4,500 feet in elevation                        | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Lewisia kelloggii</i> ssp. <i>Hutchisonii</i>   | Hutchison's lewisia (subspecies <i>hutchisonii</i> ) | FSS            | –            | 3.3       | July–August             | Decomposed granite and slate soils (volcanic soils), at the north sides of passes and ridge-tops from 5,200 to 7,000 feet in elevation.               | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Lewisia kelloggii</i> ssp. <i>Kelloggii</i>   | Hutchison's lewisia (subspecies <i>kelloggii</i> )   | FSS            | –            | –         | July–August             | Upper montane coniferous forest, rocky open ridges and granitic and volcanic balds. From 5,000 to 9,000 feet in elevation.                            | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Lupinus dalesiae</i>  | Quincy lupine  | FSS            | –            | 4.2       | May–August              | Lower and upper montane coniferous forests. From 3,000 to 8,000 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Meesia triquetra</i>  | Three-ranked hump moss                               | FSS            | –            | 4.2       | N/A                     | In acidic montane meadows. From 4,250 to 9,700 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Meesia uliginosa</i>  | Broad-nerved hump moss                               | FSS            | –            | 2.2       | N/A                     | Bogs, fens, and rock fissures, upper montane and subalpine coniferous forests, meadows and seeps in damp soil. From 4,250 to 9,500 feet in elevation. | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Mielichhoferia elongata</i>   | Elongate copper-moss                                 | FSS            |              | 2.2       | N/A                     | Cismontane woodland, rock with copper/heavy metals. From 1,500 and 4,250 feet in elevation  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Monardella folletii</i>   | Follett's mountainbalm                               | FSS            | –            | 1B.2      | June–September          | Lower montane coniferous forests in rocky, serpentine soils. From 1,650 to 6,550 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |

**Table 7.6-2. Special-status Plant Species in the Vicinity of the MFP (continued).**

| Scientific Name  | Common Name                | Federal Status | State Status | CNPS List | Blooming Period/Fertile | Habitat  | Occurrence Notes   |
|--|----------------------------|----------------|--------------|-----------|-------------------------|--|--|
| <b>Special-status Plants Potentially Occurring Within the MFP during the Term of the New License (continued)</b> |                            |                |              |           |                         |  |  |
| <i>Navarretia prolifera</i> ssp. <i>lutea</i>  | Yellow bur navarretia      | FSS            | –            | 4.3       | May–July                | Chaparral, cismontane woodland. Dry rocky flats, often on Ledmount soils. Often on lava caps or other openings, rocky ridgelines, saddles, and eroding ephemeral drainages. From 2,300 to 5,000 feet in elevation. | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Ophioglossum pusillum</i>   | Northern adder's tongue    | –              | –            | 2.2       | July                    | Margins of marshes and swamps and mesic areas of Valley and foothill grasslands. From 3,280 to 6,500 feet in elevation   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Packera layneae</i> ( <i>Senecio layneae</i> )  | Layne's ragwort            | FT<br>FSS      | SR           | 1B.2      | April–July              | Chaparral and cismontane woodland on rocky, gabbroic, serpentine or ultramafic soils. From 650 to 3,400 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Peltigera hydrothyria</i> ( <i>Hydrothyria venosa</i> )   | Veined water lichen        | FSS            | –            | –         | N/A                     | Aquatic, in spring-fed streams with clear, cold water. From 1,150 to 7,000 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Penstemon personatus</i>  | Close-throated beardtongue | FSS            | –            | 1B.2      | June–September          | Chaparral and upper and lower montane coniferous forests. From 3,400 to 7,000 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Pyrrocoma lucida</i>  | Sticky goldenweed          | FSS            | –            | 1B.2      | July–October            | Great Basin scrub, lower montane coniferous forest, and meadows and seeps. May grow in alkaline clays. From 2,250 to 6,250 feet in elevation.  | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Rorippa subumbellata</i>  | Tahoe yellow cress         | FC             | SE           | 1B.1      | May–September           | Lower montane coniferous forests, meadows and seeps, sandy (granitic) lake margins. From 6,050 to 6,250 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Scutellaria galericulata</i>  | Marsh skullcap             | –              | –            | 2.2       | June–September          | Lower montane coniferous forest, marshes and swamps, meadows and seeps. From 0 to 6,900 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <i>Tauschia howelli</i>  | Howell's tauschia          | FSS            | –            | 1B.3      | June–August             | Subalpine /upper montane coniferous forest, granitic, gravelly soils. From 5,500 to 8,500 feet in elevation.   | The MFP is within the known geographic and elevation range of this species.<br>This species was not observed during the TERR 2 special-status plant surveys. |
| <b>Special-status Plants Unlikely to Occur Within the MFP during the Term of the New License</b>                 |                            |                |              |           |                         |  |  |
| <i>Arabis rigidissima</i> var. <i>demota</i>   | Trinity Mountain rockcress | FSS            | –            | 1B.2      | August                  | Broad-leaved upland forest, and upper montane coniferous forest in rocky soils. From 7,500 to 8,500 feet in elevation.   | FERC Project boundaries are outside the known elevation range of this species.   |
| <i>Draba asterophora</i> var. <i>asterophora</i>   | Lake Tahoe draba           | FSS            | –            | 1B.2      | July–August             | Subalpine coniferous forest and alpine boulder and rock fields in the high Sierra Nevada. From 8,000 to 11,500 feet in elevation.  | FERC Project boundaries are outside the known elevation range of this species.   |
| <i>Draba asterophora</i> var. <i>macrocarpa</i>  | Cup Lake draba             | FSS            | –            | 1B.1      | July–August             | Subalpine coniferous forests and rock crevices. From 8,000 to 9,000 feet in elevation.   | FERC Project boundaries are outside the known elevation range of this species.   |



**Table 7.6-2. Special-status Plant Species in the Vicinity of the MFP (continued).**

| Scientific Name  | Common Name            | Federal Status | State Status | CNPS List | Blooming Period/Fertile | Habitat  | Occurrence Notes   |
|--|------------------------|----------------|--------------|-----------|-------------------------|--|--|
| <b>Special-status Plants Unlikely to Occur Within the MFP during the Term of the New License (continued)</b> |                        |                |              |           |                         |  |  |
| <i>Lewisia longipetala</i>   | Long-petaled lewisia   | FSS            | –            | 1B.3      | July–August             | Alpine boulder and rock fields and subalpine coniferous forests, crevices in granitic rock. From 8,000 to 9,600 feet in elevation.       | FERC Project boundaries are outside the known elevation range of this species.   |
| <i>Lomatium stebbinsii</i>   | Stebbins' lomatium     | –              | –            | 1B.1      | March–May               | Chaparral, lower montane coniferous forests, and yellow pine forests. Volcanic or gravelly soils. From 3,750 to 5,850 feet in elevation. | FERC Project boundaries are outside the known geographic range of this species. Known from the Stanislaus National Forest, per S. Durham (ENF botanist). |
| <i>Sphaeralcea munroana</i>  | Munroe's desert mallow | –              | –            | 2.2       | May–June                | Great Basin scrub, about 6,000 feet in elevation.  | No appropriate habitat within FERC Project boundaries. Known only from Squaw Creek in Placer County only, to the north of the watershed.                 |

## LEGEND:

## Federal Status

|     |   |                          |
|-----|---|--------------------------|
| FT  | = | Federal Threatened       |
| FE  | = | Federal Endangered       |
| FC  | = | Federal Candidate        |
| FSS | = | Forest Service Sensitive |

## State Status

|    |   |                              |
|----|---|------------------------------|
| SR | = | listed by California as Rare |
| ST | = | California Threatened        |
| SE | = | California Endangered        |

CNPS Status (California Native Plant Society)

|     |   |   |
|-----|---|---|
| 1B  | = | rare, threatened or endangered in California and elsewhere.   |
| 2   | = | rare in California but more common elsewhere.   |
| 3   | = | need more information   |
| 4   | = | plants of limited distribution; a watch list.   |
| __1 | = | Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat) |
| __2 | = | Fairly endangered in California (20-80% occurrences threatened)   |
| __3 | = | Not very endangered in California (<20% of occurrences threatened or no current threats known)              |

**Table 7.6-3. Stebbins' Phacelia in the Vicinity of the MFP.**

| Scientific Name             | Common Name        | Polygon Identification Number <sup>1</sup> | Area <sup>2</sup> |       | Number of Individuals (estimated) <sup>3</sup> |
|-----------------------------|--------------------|--|-------------------|-------|--|
|                             |                    |  | Square Feet       | Acres |  |
| <b>Brushy Canyon Area</b>   |                    |  |                   |       |  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | BC01                                       | 11,236            | 0.26  | 150  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | BC02                                       | 26,703            | 0.61  | 40   |
| <b>Ellicott Bridge Area</b> |                    |  |                   |       |  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | EB01                                       | —                 | —     | 3  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | EB02                                       | —                 | —     | 1  |
| <b>French Meadows Area</b>  |                    |  |                   |       |  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | FM01                                       | —                 | —     | 1  |
| <b>Hell Hole Area</b>       |                    |  |                   |       |  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH01                                       | 25                | —     | 2  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH02                                       | 250               | —     | 5  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH03                                       | 600               | 0.012 | 25   |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH04                                       | 4                 | —     | 5  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH05                                       | 25                | —     | 5  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH06                                       | 50                | —     | 5  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH07                                       | 35,038            | 0.80  | 17,500-35,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH08                                       | 65,082            | 1.5   | 33,000-65,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH09                                       | 126,886           | 2.9   | 63,000-127,000                                 |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH10                                       | 304,335           | 7.0   | 152,000-304,000                                |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH14                                       | 93,831            | 2.2   | 47,000-94,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH15                                       | 49,849            | 1.1   | 25,000-50,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH17                                       | 3,902             | 0.09  | 2,000-4,000                                    |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH18                                       | 1,813             | 0.04  | 1,000-2,000                                    |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH19                                       | 21,313            | 0.49  | 11,000-21,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH21                                       | 14,375            | 0.33  | 7,000-14,000                                   |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH22                                       | 62,334            | 1.4   | 31,000-62,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH23                                       | 23,824            | 0.55  | 12,000-24,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH24                                       | 244,131           | 5.6   | 122,000-244,000                                |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH25                                       | 19,457            | 0.45  | 10,000-19,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH26                                       | 71,357            | 1.6   | 36,000-71,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH27                                       | 93,382            | 2.1   | 47,000-93,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH28                                       | 167,013           | 3.8   | 83,000-167,000                                 |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH29                                       | 423,790           | 9.7   | 212,000-424,000                                |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH30                                       | 358,404           | 8.2   | 179,000-358,000                                |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH31                                       | 246,920           | 5.7   | 123,000-247,000                                |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH32                                       | 82,348            | 1.9   | 41,000-82,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH33                                       | 50,889            | 1.2   | 25,000-51,000                                  |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH34                                       | 399,123           | 9.2   | 200,000-399,000                                |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH35                                       | 439,293           | 10    | 220,000-439,000                                |
| <i>Phacelia stebbinsii</i>  | Stebbins' phacelia | HH36                                       | 11,224            | 0.26  | 6,000-11,000                                   |

**Table 7.6-3. Stebbins' Phacelia in the Vicinity of the MFP (continued).**

| Scientific Name                   | Common Name        | Polygon Identification Number <sup>1</sup> | Area <sup>2</sup> |              | Number of Individuals (estimated) <sup>3</sup> |
|-----------------------------------|--------------------|--|-------------------|--------------|--|
|                                   |                    |  | Square Feet       | Acres        |  |
| <b>Hell Hole Area (continued)</b> |                    |  |                   |              |  |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH37                                       | 1,413             | 0.03         | 500–1,000                                      |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH38                                       | 160,315           | 3.7          | 80,000–160,000                                 |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH39                                       | 17,919            | 0.41         | 9,000–18,000                                   |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH40                                       | 27,979            | 0.64         | 14,000–28,000                                  |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH41                                       | 891,483           | 20           | 446,000–891,000                                |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH42                                       | 36,557            | 0.84         | 18,000–37,000                                  |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH43                                       | 17,561            | 0.40         | 9,000–18,000                                   |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH44                                       | 89,308            | 2.1          | 45,000–89,000                                  |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH45                                       | 48,850            | 1.1          | 24,000–49,000                                  |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH46                                       | 36,949            | 0.85         | 18,000–37,000                                  |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH47                                       | 95,286            | 2.2          | 48,000–95,000                                  |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH51                                       | 7,348             | 0.17         | 4,000–7,000                                    |
| <i>Phacelia stebbinsii</i>        | Stebbins' phacelia | HH52                                       | 11,585            | 0.27         | 6,000–12,000                                   |
| <b>Totals:</b>                    |                    | <b>49 populations</b>                      | <b>4,891,359</b>  | <b>111.7</b> | <b>2,427,000–4,849,000</b>                     |

<sup>1</sup>Refer to Map TERR 2-2a through 2-2e for the location of each population within the study area. Only those populations associated with Project facilities and features are included.

<sup>2</sup>If the population extended beyond the survey area, the entire extent of the population is included.

<sup>3</sup>Number of individuals for polygons HH8 through HH52 was estimated assuming a density of 0.5 to 1.0 individuals per square foot. Numbers are rounded to the nearest thousand.

**Table 7.6-4. Routine Maintenance Activities at Project Facilities and Features and Project Recreation Facilities where Stebbins' Phacelia is Present.**

| Project Facilities and Features /<br>Project Recreation Facilities and Features Located Adjacent to Stebbins' Phacelia Populations   | Vegetation Management     |                       |               |               | Pest Management                      |                                      |                                  |                             | Sediment Management          |                        |                            |                              |                       |                   | Transportation System Management |                      | Recreation Facility Maintenance |                   |
|--|---------------------------|-----------------------|---------------|---------------|--------------------------------------|--------------------------------------|----------------------------------|-----------------------------|------------------------------|------------------------|----------------------------|------------------------------|-----------------------|-------------------|----------------------------------|----------------------|---------------------------------|-------------------|
|  | Trimming by Hand          | Trimming w/ Equipment | Herbicide Use | Fungicide Use | Noxious Weed Management <sup>1</sup> | Physical Rodent Control (snap traps) | Over-the-Counter Rodenticide Use | Rodenticide Use - Fumigants | Small Diversions             |                        |                            | Medium Reservoirs            |                       |                   | Annual Maintenance               | Periodic Maintenance | Annual Maintenance              | Heavy Maintenance |
|  |                           |                       |               |               |                                      |                                      |                                  |                             | Physical Removal w/Equipment | Interim Sediment Mgmt. | Contingency Sediment Mgmt. | Physical Removal w/Equipment | Sediment Augmentation | Sediment Disposal |                                  |                      |                                 |                   |
| <b>Dams, Reservoirs, and Diversion Pools</b>   |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Large Dams</b>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 2 populations (10,000 to 19,000 individuals) at Hell Hole Dam and Outlet Works (modified)  | A                         |                       | A             |               | X                                    |                                      |                                  | X                           |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Large Reservoirs</b>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 1 population (1 individual) at French Meadows Reservoir  | No Activities Implemented |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 33 populations (XX individuals) at Hell Hole Reservoir   | No Activities Implemented |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Water Conveyance Systems</b>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Removable Sections and Portals</b>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 1 population (1 individual) at Duncan Creek - Middle Fork Tunnel Portal  | A                         |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Intakes and Gatehouses</b>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 1 population (33,000 to 65,000 individuals) at Hell Hole - Middle Fork Tunnel Gatehouse  | A                         |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Gaging Stations</b>   |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Stream Gages and Weirs</b>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 2 populations (4 individuals) at Rubicon River Gage at Ellicott Bridge (existing, added to MFP)  | A                         |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Project Communication Lines and Powerlines</b>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 4 populations (221,000 to 440,000 individuals) at French Meadows Powerhouse and Switchyard to Hell Hole - Middle Fork Tunnel Gatehouse, Dormitory Facility, Operator's Cottages, and Hell Hole Powerhouse Communication Line/Powerline | A                         |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| <b>Project Roads</b>   |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 2 populations (3,000 to 6,000 individuals) at French Meadows - Hell Hole Tunnel Portal Road  | A                         | A                     |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   | X                                | X                    |                                 |                   |
| 3 populations (188,000 to 375,000 individuals) at French Meadows Powerhouse Road   | A                         | A                     |               |               | X                                    |                                      |                                  |                             |                              |                        |                            |                              |                       |                   | X                                | X                    |                                 |                   |
| 6 populations (47 individuals) at Hell Hole Dam Spillway Discharge Channel Road  | A                         | A                     |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   | X                                | X                    |                                 |                   |
| <b>Project Trails</b>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 2 populations (4 individuals) at Rubicon River Gage at Ellicott Bridge Trail (existing, added to MFP)  | A                         |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   | X                                | X                    |                                 |                   |
| <b>Project Recreation Facilities</b>   |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 1 population (63,000 to 127,000 individuals) at Hell Hole Campground (reduced)   | A                         |                       |               | I             |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      | X                               | X                 |
| <del>1 population (86,500 to 172,000 individuals) at Upper Hell Hole Campground (removed)</del>  |                           |                       |               |               |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      | X                               | X                 |
| 1 population (47,000 to 94,000 individuals) at Hell Hole Vista   | A                         |                       |               | I             |                                      |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      | X                               | X                 |
| 1 population (17,500 to 35,000 individuals) at Hell Hole Boat Ramp (enhanced)  | A                         |                       |               |               | X                                    |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      |                                 |                   |
| 1 population (17,500 to 35,000 individuals) at Hell Hole General Parking Area and Hell Hole Boat Ramp Parking Area   | A                         |                       |               |               | X                                    |                                      |                                  |                             |                              |                        |                            |                              |                       |                   |                                  |                      | X                               | X                 |

**Table 7.6-5. Location of Stebbin's Phacelia Populations in the Vicinity of Hell Hole Reservoir.****Area 1**

Includes those portions of special-status plant populations occurring at or below the current maximum normal operating WSE of 4,630 feet msl down to approximately 4,605 feet msl

| Species                    |                    | Population Number <sup>1</sup> | Area <sup>2</sup> |             | Number of Individuals <sup>3</sup> |
|----------------------------|--------------------|--------------------------------|-------------------|-------------|------------------------------------|
| Scientific Name            | Common Name        |                                | Square Feet       | Acres       |                                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH39                           | 17,910            | 0.41        | 9,000 – 18,000                     |
| <b>Total:</b>              |                    |                                | <b>17,910</b>     | <b>0.41</b> | <b>9,000 – 18,000</b>              |

**Area 2a**

Includes those portions of special-status plant populations occurring from the maximum normal operating WSE (4,630 feet msl) to 4,636 feet msl

| Species                    |                    | Population Number <sup>1</sup> | Area <sup>2</sup> |            | Number of Individuals <sup>3</sup> |
|----------------------------|--------------------|--------------------------------|-------------------|------------|------------------------------------|
| Scientific Name            | Common Name        |                                | Square Feet       | Acres      |                                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH08                           | 17                | –          | 8 – 17                             |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH10                           | 3,404             | 0.08       | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH15                           | 393               | 0.01       | 200 – 400                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH19                           | 737               | 0.02       | 350 – 700                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH21                           | 922               | 0.02       | 450 – 900                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH22                           | 1,921             | 0.04       | 1,000 – 2,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH23                           | 356               | 0.01       | 200 – 400                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH24                           | 9,139             | 0.21       | 4,500 – 9,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH25                           | 9,476             | 0.22       | 4,500 – 9,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH26                           | 1,780             | 0.04       | 1,000 – 2,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH27                           | 208               | 0.00       | 100 – 200                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH28                           | 2,630             | 0.06       | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH29                           | 70                | –          | 35 – 70                            |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH30                           | 3,117             | 0.07       | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH31                           | 3,257             | 0.07       | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH32                           | 3,708             | 0.09       | 2,000 – 4,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH33                           | 441               | 0.01       | 200 – 400                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH34                           | 150               | –          | 100 – 200                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH35                           | 788               | 0.02       | 400 – 800                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH36                           | 4,822             | 0.11       | 2,500 – 5,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH37                           | 1,129             | 0.03       | 500 – 1,000                        |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH38                           | 2,049             | 0.05       | 1,000 – 2,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH39                           | 9                 | –          | 4 – 9                              |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH40                           | 412               | 0.01       | 200 – 400                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH41                           | 3,574             | 0.08       | 2,000 – 4,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH42                           | 13,417            | 0.31       | 6,500 – 13,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH43                           | 5,275             | 0.12       | 2,500 – 5,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH45                           | 10,251            | 0.24       | 5,000 – 10,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH46                           | 14,225            | 0.33       | 7,000 – 14,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH47                           | 10,049            | 0.23       | 5,000 – 10,000                     |
| <b>Total:</b>              |                    |                                | <b>107,727</b>    | <b>2.0</b> | <b>53,000 – 106,000</b>            |

**Table 7.6-5. Location of Stebbin's Phacelia Populations in the Vicinity of Hell Hole Reservoir (continued).****Area 2b**

Includes those portions of special-status plant populations occurring from 4,636 feet msl to the maximum flood pool elevation at 4,640 feet msl

| Species                    |                    | Population Number <sup>1</sup> | Area <sup>2</sup> |            | Number of Individuals <sup>3</sup> |
|----------------------------|--------------------|--------------------------------|-------------------|------------|------------------------------------|
| Scientific Name            | Common Name        |                                | Square Feet       | Acres      |                                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH08                           | 4,909             | 0.11       | 2,500 – 5,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH10                           | 8,552             | 0.20       | 4,500 – 9,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH15                           | 4,878             | 0.11       | 2,500 – 5,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH19                           | 4,206             | 0.10       | 2,000 – 4,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH21                           | 3,723             | 0.09       | 2,000 – 4,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH22                           | 6,264             | 0.14       | 3,000 – 6,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH23                           | 4,012             | 0.09       | 2,000 – 4,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH24                           | 26,984            | 0.62       | 13,500 – 27,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH25                           | 9,972             | 0.23       | 5,000 – 10,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH26                           | 9,967             | 0.23       | 5,000 – 10,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH27                           | 6,002             | 0.14       | 3,000 – 6,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH28                           | 3,737             | 0.09       | 2,000 – 4,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH29                           | 1,081             | 0.02       | 500 – 1,000                        |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH30                           | 12,509            | 0.29       | 6,500 – 13,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH31                           | 6,734             | 0.15       | 3,500 – 7,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH32                           | 8,806             | 0.20       | 4,500 – 9,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH33                           | 2,924             | 0.07       | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH34                           | 3,265             | 0.07       | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH35                           | 3,690             | 0.08       | 18,500 – 37,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH36                           | 2,943             | 0.07       | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH37                           | 279               | 0.01       | 150 – 300                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH38                           | 1,829             | 0.04       | 1,000 – 2,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH40                           | 1,576             | 0.04       | 1,000 – 2,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH41                           | 11,247            | 0.26       | 5,500 – 11,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH42                           | 9,671             | 0.22       | 5,000 – 10,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH43                           | 5,816             | 0.13       | 3,000 – 6,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH45                           | 9,872             | 0.23       | 5,000 – 10,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH46                           | 10,567            | 0.24       | 5,500 – 11,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH47                           | 12,272            | 0.28       | 6,000 – 12,000                     |
| <b>Total:</b>              |                    |                                | <b>198,290</b>    | <b>5.0</b> | <b>117,000 – 234,000</b>           |

**Table 7.6-5. Location of Stebbin's Phacelia Populations in the Vicinity of Hell Hole Reservoir (continued).****Area 3**

Includes those portions of special-status plant populations occurring from the maximum flood pool elevation (4,640 feet msl) to the upper limit of the study area

| Species                    |                    | Population Number <sup>1</sup> | Area <sup>2</sup> |              | Number of Individuals <sup>3</sup> |
|----------------------------|--------------------|--------------------------------|-------------------|--------------|------------------------------------|
| Scientific Name            | Common Name        |                                | Square Feet       | Acres        |                                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH08                           | 60,155            | 1.38         | 30,000 – 60,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH10                           | 157,092           | 3.61         | 78,500 – 157,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH15                           | 36,009            | 0.83         | 18,000 – 36,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH19                           | 16,370            | 0.38         | 8,000 – 16,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH21                           | 9,693             | 0.22         | 5,000 – 10,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH22                           | 53,958            | 1.24         | 27,000 – 54,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH23                           | 19,372            | 0.44         | 9,500 – 19,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH24                           | 133,628           | 3.07         | 67,000 – 134,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH25                           | 9                 | 0.00         | 5 – 9                              |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH26                           | 58,783            | 1.35         | 29,500 – 59,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH27                           | 86,712            | 1.99         | 43,500 – 87,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH28                           | 81,216            | 1.86         | 40,500 – 81,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH29                           | 104,403           | 2.40         | 52,000 – 104,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH30                           | 157,382           | 3.61         | 78,500 – 157,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH31                           | 184,850           | 4.24         | 92,500 – 185,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH32                           | 64,727            | 1.49         | 32,500 – 65,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH33                           | 45,630            | 1.05         | 23,000 – 46,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH34                           | 206,916           | 4.75         | 103,500 – 207,000                  |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH35                           | 135,118           | 3.10         | 67,500 – 135,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH36                           | 3,388             | 0.08         | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH38                           | 37,041            | 0.85         | 18,500 – 37,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH40                           | 25,917            | 0.59         | 13,000 – 26,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH41                           | 169,159           | 3.88         | 84,500 – 169,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH42                           | 13,468            | 0.31         | 6,500 – 13,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH43                           | 6,470             | 0.15         | 3,000 – 6,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH44                           | 7,269             | 0.17         | 3,500 – 7,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH45                           | 25,295            | 0.58         | 12,500 – 25,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH46                           | 12,157            | 0.28         | 6,000 – 12,000                     |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH47                           | 67,556            | 1.55         | 34,000 – 68,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH51                           | 5,672             | 0.13         | 2,800 – 5,600                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH52                           | 8,848             | 0.20         | 4,500 – 9,000                      |
| <b>Total:</b>              |                    |                                | <b>1,994,262</b>  | <b>45.78</b> | <b>997,000 – 1,994,000</b>         |

**Table 7.6-5. Location of Stebbin's Phacelia Populations in the Vicinity of Hell Hole Reservoir (continued).****Area 4**

Includes those portions of the special-status plant populations intersecting Areas 1, 2, and/or 3 that extend beyond Area 3.

| Species                    |                    | Population Number <sup>1</sup> | Area <sup>2</sup> |              | Number of Individuals <sup>3</sup> |
|----------------------------|--------------------|--------------------------------|-------------------|--------------|------------------------------------|
| Scientific Name            | Common Name        |                                | Square Feet       | Acres        |                                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH10                           | 135,286           | 3.1          | 67,500 – 135,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH15                           | 8,569             | 0.2          | 4,500 – 9,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH21                           | 37                | 0.00         | 18 – 37                            |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH22                           | 191               | 0.00         | 95 – 191                           |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH24                           | 74,379            | 1.71         | 37,000 – 74,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH23                           | 84                | 0.00         | 42 – 84                            |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH26                           | 826               | 0.02         | 413 – 826                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH27                           | 460               | 0.01         | 230 – 460                          |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH28                           | 79,429            | 1.82         | 40,000 – 80,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH29                           | 318,235           | 7.31         | 159,000 – 318,000                  |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH41                           | 707,499           | 16.24        | 354,000 – 707,000                  |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH40                           | 74                | 0.00         | 37 – 74                            |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH30                           | 185,394           | 4.26         | 92,500 – 185,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH31                           | 52,078            | 1.20         | 26,000 – 52,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH32                           | 5,108             | 0.12         | 2,500 – 5,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH33                           | 1,895             | 0.04         | 1,000 – 2,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH35                           | 299,696           | 6.88         | 150,000 – 300,000                  |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH34                           | 188,789           | 4.33         | 94,000 – 188,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH38                           | 119,396           | 2.74         | 59,500 – 119,000                   |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH44                           | 82,039            | 1.88         | 41,000 – 82,000                    |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH45                           | 3,432             | 0.08         | 1,500 – 3,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH47                           | 5,409             | 0.12         | 2,500 – 5,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH51                           | 1,676             | 0.04         | 1,000 – 2,000                      |
| <i>Phacelia stebbinsii</i> | Stebbins' phacelia | HH52                           | 2,737             | 0.06         | 1,500 – 3,000                      |
| <b>Total:</b>              |                    |                                | <b>2,272,717</b>  | <b>52.17</b> | <b>1,136,500 – 2,273,000</b>       |

<sup>1</sup>Refer to Maps 7.6-1d through e for the location of each population within the study area. Only those populations associated with Project facilities and features are included.

<sup>2</sup>Includes only the portion of the population that falls between the specified elevations.

<sup>3</sup>Numbers of individuals for polygons HH7 through HH52 were estimated assuming a density of 0.5 to 1.0 individuals per square foot. Numbers are rounded to the nearest thousand.



**Table 7.6-6. Special-status Wildlife Species in the Vicinity of the MFP.**

| Scientific Name  | Common Name            | Federal Status                | State Status | Habitat  | Occurrence Notes  |
|--|------------------------|-------------------------------|--------------|--|---|
| <b>Special-status Wildlife Known to Occur in the Vicinity of the MFP</b> |                        |                               |              |  |   |
| <i>Dendragapus obscurus</i>  | sooty (blue) grouse    | MIS                           | —            | Occurs in open, medium to mature-aged stands of fir, Douglas-fir, and other conifer habitats, interspersed with medium to large openings, and available water. Found in the Sierra Nevada up to 11,000 feet in elevation.  | Known to occur within the study area. Detected in snag located along the north shore of Hell Hole Reservoir.  |
| <i>Oreortyx pictus</i>   | mountain quail         | MIS                           | —            | Typically found in most major montane habitats California from mid- to high-elevations. Found seasonally in open, brushy stands of conifer and deciduous forest and woodland, and chaparral.   | Known to occur within the study area. Detected at numerous locations along Hell Hole Reservoir.   |
| <i>Pelecanus erythrorhynchos</i>   | American white pelican | —                             | CSC          | In California, now nests only at large lakes in Klamath Basin, especially Clear Lake National Wildlife Refuge. It is common to abundant on nesting grounds April to August (sometimes March to September). Migrant flocks pass overhead almost any month, but mainly in spring and fall throughout the state, especially in southern California. | Known to occur within the study area. Seven individuals were detected flying over Hell Hole Reservoir.  |
| <i>Accipiter gentilis</i>  | northern goshawk       | FSS                           | CSC          | Prefers middle to high elevation, mature, dense conifer forests for foraging and nesting. Casual in foothills during winter, northern deserts in pinion-juniper woodland, and low elevation riparian habitats.   | Known to occur within the study area. Detected at South Fork Long Canyon Diversion Dam. Northern goshawk nests and associated PACs intersect with FERC Project boundaries at the following locations: French Meadows Reservoir; Duncan Creek Diversion Dam; South Fork Long Canyon Diversion Dam; Brushy Canyon Adit and Access Road; Middle Fork-Ralston Tunnel  |
| <i>Aquila chrysaetos</i>   | golden eagle           | —                             | CFP          | Grasslands and early successional stages of forest and shrub habitats for foraging up to 11,500 feet. Secluded cliffs with overhanging ledges or large trees in open areas with unobstructed views for nesting.  | Known to occur within the study area. Detected during TERR 5 bald eagle surveys approximately 1 mile downstream of Middle Fork Interbay. Known from the Tahoe National Forest.  |
| <i>Haliaeetus leucocephalus</i>  | bald eagle             | FD<br>(7/10/08)<br>FSS<br>BCC | SE<br>CFP    | Local winter migrant to various California lakes. Most of the breeding population is restricted to more northern counties. Regular winter migrants to the region. Usually not found at high elevations in the Sierra.  | Known to occur within the study area. Numerous bald eagle detections were made at Hell Hole Reservoir during TERR 5 bald eagle surveys, including one nest sight at the upper end of Hell Hole Reservoir. Also detected during TERR 5 surveys along the MFAR, the Rubicon River, and Ralston Afterbay. Records for this species include Hell Hole Reservoir; Ralston Afterbay; MFAR approximately 3 miles downstream of the Ralston Afterbay Dam; Gerle Creek Divide Reservoir; Rubicon River approximately 2 miles downstream of the confluence with the South Fork Rubicon River; Pilot Creek near its confluence with the Rubicon River; and Otter Creek near its confluence with the MFAR. In addition, a bald eagle was observed in the summer of 2006 at Hell Hole Reservoir (Ransom pers. comm., 2007) |
| <i>Pandion haliaetus</i> <sup>1</sup>                                    | osprey                 | —                             | —            | Breeds in northern California, associated strictly with large fish-bearing waters, primarily in ponderosa pine and mixed conifer habitats.   | Known to occur within the study area. Active nests detected during nest surveys along the north shore of upper and lower Hell Hole Reservoir, south shore Hell Hole Reservoir, north shore French Meadows Reservoir, near French Meadows Dam, and 3 miles downstream of French Meadows Reservoir. Individuals detected at Hell Hole Reservoir, French Meadows Reservoir, and Big Meadows Campground.  |
| <i>Strix occidentalis occidentalis</i>                                   | California spotted owl | FSS<br>MIS<br>BCC             | CSC          | Resides in dense, old growth, multi-layered mixed conifer, redwood, Douglas-fir, and oak woodland habitats, from sea level up to approximately 7,600 feet.   | Known to occur within study area. California spotted owl nests and associated PACs intersect with FERC Project boundaries at the following locations: French Meadows Reservoir; North and South Fork Long Canyon Diversion Dams; Middle Fork Interbay; French Meadows- Hell Hole Tunnel; Hell Hole-Middle Fork Tunnel; Interbay Dam Road; Brushy Canyon Adit and Access Road; Middle Fork-Ralston Tunnel.   |
| <i>Chaetura vauxi</i>  | Vaux's swift           | —                             | CSC          | Prefers redwood and Douglas-fir habitats with nest sites in large, hollow trees and snags, especially tall, burned-out stubs. Forages over moist terrain and habitats, preferring rivers and lakes.  | Known to occur within the study area. A large flock was detected at French Meadows Reservoir.   |
| <i>Picoides villosus</i>   | hairy woodpecker       | MIS                           | —            | Inhabits mixed conifer and riparian deciduous habitats from sea level to 9,000 feet in elevation.  | Known to occur within the study area. Detected at Hell Hole Reservoir, South Fork Long Canyon Diversion Dam, and French Meadows Reservoir.  |
| <i>Contopus cooperi</i>  | olive-sided flycatcher | BCC                           | CSC          | Uncommon to common, summer resident in a wide variety of forest and woodland habitats below 9,000 feet throughout California exclusive of the deserts, the Central Valley, and other lowland valleys and basins. Nesting habitats include mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir, and lodgepole pine forests.    | Known to occur within the study area. Detected at French Meadows Reservoir.   |

**Table 7.6-6. Special-status Wildlife Species in the Vicinity of the MFP (continued).**

| Scientific Name  | Common Name               | Federal Status | State Status | Habitat  | Occurrence Notes   |
|--|---------------------------|----------------|--------------|--|--|
| <b>Special-status Wildlife Known to Occur in the Vicinity of the MFP (continued)</b> |                           |                |              |  |  |
| <i>Dendroica petechia brewsteri</i>  | yellow warbler            | MIS            | CSC          | Breeds in riparian woodlands from coastal and desert lowlands up to 8,000 feet in the Sierra Nevada. Also breeds in montane chaparral, open ponderosa pine, and mixed conifer habitats with substantial amounts of brush.  | Known to occur within study area. Detected at Hell Hole Reservoir and French Meadows Reservoir.  |
| <i>Icteria virens</i>  | yellow-breasted chat      | —              | CSC          | Uncommon summer resident and migrant in coastal California and in foothills of the Sierra Nevada, up to approximately 4,800 feet in valley foothill riparian habitat. Also occurs east of the Sierra Nevada in desert riparian habitats, along coast of northern California east to Cascades, locally south of Mendocino Co. In southern California, breeds locally on the coast and very locally inland. Nests in dense shrubs along streams or rivers. | Known to occur within study area. Detected at Ralston Picnic Area.   |
| <i>Antrozous pallidus</i>  | pallid bat                | FSS            | CSC          | Inhabits grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. Typically roosts in caves, crevices, or mines. Requires open habitat for foraging.  | Known to occur within study area. Detected during TERR 6 special-status bat surveys at French Meadows Dam and Outlet Works, Ralston Afterbay Dam, Middle Fork Interbay Dam, North Fork Long Canyon Diversion Dam, and French Meadows Powerhouse and Penstock and Butterfly Valve House.. Data from W. Clevenger's 2003 study includes occurrences of this species in the Vicinity of French Meadows Reservoir and on Duncan Creek upstream of the Duncan Creek Diversion (Clevenger 2005). |
| <i>Corynorhinus townsendii</i>   | Townsend's big-eared bat  | FSS            | CSC          | Found in all but alpine and subalpine habitats; most abundant in mesic habitats. Requires caves, mines, tunnels, buildings, or other man-made structures for roosting. This species is extremely sensitive to disturbance and may abandon a roost if disturbed.  | Known to occur within study area. Detected during TERR 6 special-status bat surveys at French Meadows Dam and Outlet Works, Ralston Afterbay Dam, North Fork Long Canyon Diversion Dam, French Meadows Powerhouse and Penstock and Butterfly Valve House, and the upper end of Hell Hole Reservoir.  |
| <i>Lasiurus blossevillii</i>   | Western red bat           | FSS            | CSC          | Occurs from British Columbia to South America. In California, occurs from Shasta County to the Mexican border west of the Sierra crest. Roosts solitarily in foliage in forests and woodlands from sea level up through mixed coniferous forest. In California known to roost in cottonwood and willow.  | Known to occur within study area. Detected during TERR 6 special-status bat surveys at French Meadows Dam and Outlet Works, Ralston Afterbay Dam, Middle Fork Interbay Dam, North and South Fork Long Canyon Diversion Dams, French Meadows Powerhouse and Penstock and Butterfly Valve House, and the upper end of Hell Hole Reservoir.   |
| <i>Bassariscus astutus</i>   | ringtail                  | —              | CFP          | Found in most forest and shrub habitats in close association with rock and/or riparian areas, usually not more than .6 miles from water. Dens in hollow trees, snags, or other cavities.   | Known to occur in the study area from incidental observations of PCWA field personnel.   |
| <i>Odocoileus hemionus</i>   | mule deer                 | MIS            | —            | Common to abundant, yearlong resident or elevational migrant with a widespread distribution through most of California, except in deserts and intensively farmed areas without cover. Prefers a mosaic of various-aged vegetation that provides woody cover, meadow and shrubby openings, and free water.  | Known to occur within study area. Detected at Hell Hole Reservoir and French Meadows Reservoir.  |
| <b>Special-status Wildlife Potentially Occurring in the Vicinity of the MFP</b>      |                           |                |              |  |  |
| <i>Histrionicus histrionicus</i>   | harlequin duck            | —              | CSC          | Historic breeding grounds include west slope of the Sierra Nevada along shores of swift, shallow rivers.   | Potential (rare) migrant or resident in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Falco peregrinus anatum</i>   | American peregrine falcon | FD<br>BCC      | SE<br>CFP    | Very uncommon breeding resident and uncommon as a migrant. Breeds in woodlands, forests, coastal habitats, and riparian areas near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, or mounds. Active nesting sites are known along the coast, in the Sierra Nevada, and in the mountains of northern California. Migrants occur along the coast and the western Sierra Nevada in spring and fall.                                  | Potential resident in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Otus flammeolus</i>   | flamulated owl            | BCC            | —            | Generally associated with montane forested habitats with brushy understory. Uses woodpecker holes or natural tree cavities for nest sites. Known from northeastern California and the northern Sierra Nevada.  | Potential summer (breeding) resident in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Strix nebulosa</i>  | great gray owl            | FSS            | SE           | Nests in old-growth coniferous forests and forages in montane meadows. Distribution includes high elevations of the Sierra Nevada and Cascade Ranges from 4,500 to 7,500 feet.   | Potential migrant in appropriate habitat. Great gray owls are not known to breed in the Vicinity of study area boundaries. Breeding populations in California are concentrated in Del Norte, Humboldt, Siskiyou, and Modoc counties, with smaller, isolated breeding populations also occurring in the central Sierra Nevada. The nearest CNDDDB record is 30 miles south near Leoni Meadows in the ENF (CNDDDB 2007).   |

**Table 7.6-6. Special-status Wildlife Species in the Vicinity of the MFP (continued).**

| Scientific Name   | Common Name                              | Federal Status | State Status | Habitat  | Occurrence Notes  |
|---|--|----------------|--------------|--|---|
| <b>Special-Status Terrestrial Wildlife Potentially Occurring in the Vicinity of the MFP (continued)</b> |  |                |              |  |   |
| <i>Cypseloides niger</i>  | black swift                              | BCC            | CSC          | Nests in moist crevices or caves, or on cliffs near waterfalls in deep canyons. Forages widely over many habitats; seems to avoid arid regions.  | Potential summer (breeding) resident in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species. Known to occur in the watershed. A CNDDDB report for this species includes Grouse Creek, a tributary to the North Fork of the Middle Fork American River (CNDDDB 2007). |
| <i>Stellula calliope</i>  | calliope hummingbird                     | BCC            | —            | Summer breeder in mixed brushland, forest edges and openings. Nests are typically built in conifers, near cones or knots.  | Potential migrant or summer resident in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.   |
| <i>Melanerpes lewis</i>   | Lewis' woodpecker                        | BCC            | —            | Permanent resident, or migratory resident in the uppermost reaches of its range. Inhabits Ponderosa pine forests at higher elevations, while riparian woodlands dominated by cottonwoods are preferred at lower elevations.  | Potential migrant or resident in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Sphyrapicus thyroideus</i>   | Williamson's sapsucker                   | BCC            | —            | Found in ponderosa pine forests and open coniferous forests in the Sierra Nevada and Cascades mountain ranges in California.   | Potential year-round resident in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Picoides arcticus</i>  | black-backed woodpecker                  | MIS            | —            | Found predominantly in fir and lodgepole pine forest habitats from 6,000 to 9,500 feet in elevation. Typically forages in snags, dying or insect-infested trees. Prefers relatively large trees for foraging and nest site.  | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Empidonax traillii (brewsteri)</i>   | willow flycatcher                        | FSS<br>BCC     | SE           | Wet meadow and montane riparian habitats from 2,000 to 8,000 feet. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.   | Potential summer (breeding) resident in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.   |
| <i>Passerella iliaca</i>  | fox sparrow                              | MIS            | —            | Breeds commonly in mountains of California, in dense montane chaparral and brushy understory of other wooded, montane habitats. Less common in winter east of Cascade Range and Sierra Nevada than elsewhere in state. Found in winter in dense brush habitats, including understories of open forests, throughout foothills and lowlands, except in southern deserts.   | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Carpodacus cassinii</i>  | Cassin's finch                           | BCC            | —            | Resident of higher mountain ranges in California in tall, open coniferous forests, with nearby wet meadows and grassy openings for foraging.   | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Euderma maculatum</i>  | spotted bat                              | —              | CSC          | Habitats range from arid deserts and grasslands through mixed conifer forests up to 10,600 feet. Prefers sites with adequate roosting habitat, such as cliffs. Often limited by the availability of cliff habitat. Feeds over water and along marshes.   | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species. Known to occur in the watershed. Data from W. Clevenger's 2003 study includes an occurrence of this species in the TNF. No GPS information is available for this record (Clevenger 2005).          |
| <i>Eumops perotis californicus</i>  | greater western mastiff bat              | —              | CSC          | Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, chaparral, desert scrub, and urban areas. Typically roosts in caves, crevices, or other rock formations. Requires open areas for foraging. Found mostly below 4,000 feet in elevation in the lower and upper desert scrub near cliffs, preferring rugged canyons with abundant crevices. | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Aplodontia rufa californica</i>  | Sierra Nevada sewellel (mountain beaver) | —              | CSC          | Occurs in dense riparian and open brushy stages of most forest types. Deep, friable soils are required for burrowing along cool, moist microclimates. Live in burrows located in or near deep soils near streams and springs. Typical habitat in the Sierra is montane riparian.   | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species. Recorded occurrence east of Duncan Peak.   |
| <i>Glaucomys sabrinus</i>   | northern flying squirrel                 | MIS            | —            | Found in coniferous habitats from ponderosa pine through lodgepole pine forests and riparian-deciduous forests of the North Coast, Klamath, Cascade, Sierra Nevada Ranges, and the Warner Mountains from 5,000 to 8,000 feet in elevation.   | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species.  |
| <i>Gulo gulo luteus</i>   | California wolverine                     | FSS            | ST<br>CFP    | Mixed conifer, red fir, and lodgepole habitats, and probably sub-alpine conifer, alpine dwarf shrub, wet meadow, and montane riparian habitats. Occurs in the Sierra Nevada from 4,300 to 10,800 feet. Majority of recorded sightings are found above 8,000 feet elevation.  | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species. However, this species is extremely rare in California.   |
| <i>Martes americana (sierrae)</i>   | American marten (Sierra marten)          | FSS<br>MIS     | —            | Optimal habitats are various mixed evergreen forests with more than 40% crown closure and large trees and snags for den sites. Most commonly found in red fir and lodgepole pine forests between 4,000 and 10,600 feet elevation.  | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species. Known to occur within the watershed. A CNDDDB report (polygon) for this species includes portions of Duncan Creek Diversion Road.  |

**Table 7.6-6. Special-status Wildlife Species in the Vicinity of the MFP (continued).**

| Scientific Name   | Common Name                       | Federal Status | State Status | Habitat  | Occurrence Notes  |
|---|-----------------------------------|----------------|--------------|--|---|
| <b>Special-Status Terrestrial Wildlife Potentially Occurring in the Vicinity of the MFP (continued)</b> |                                   |                |              |  |   |
| <i>Martes pennanti (pacifica)</i>   | Pacific fisher                    | FC<br>FSS      | SCT<br>CSC   | Suitable habitat consists of large areas of mature, dense forest such as red fir, lodgepole pine, ponderosa pine, mixed conifer, and Jeffery pine forests with snags and greater than 50% canopy closure. Known from 4,000 to 8,000 ft elevations in the Sierra National Forest.   | May occur in appropriate habitat. Study area boundaries are within the known geographic and elevational range of this species. Two recorded occurrences in the Vicinity of French Meadows Reservoir, including one occurrence ~ 1 mile east of French Meadows Reservoir, near the Forest Service Station. However, this species is now thought to be absent from the central Sierra Nevada (Zielinski et al. 2005). |
| <b>Special-Status Terrestrial Wildlife Unlikely to Occur in the Vicinity of the MFP</b>                 |                                   |                |              |  |   |
| <i>Desmocerus californicus dimorphus</i>  | valley elderberry longhorn beetle | FT<br>FPD      | —            | Elderberry shrubs throughout the Central Valley and foothills below 3,000 feet elevation.  | Unlikely to occur. Elderberry shrubs were not detected in recent surveys conducted below 3,000 feet in elevation  |
| <i>Branta canadensis leucopareia</i>  | Aleutian Canada goose             | FD             | —            | (wintering) Winters on lakes and inland prairies. Forages on natural pasture or that cultivated to grain; loaf on lakes, reservoirs, ponds.  | Unlikely to occur. Study area boundaries are outside the known geographic and elevational range of this species.  |
| <i>Centrocercus urophasianus</i>  | greater sage-grouse               | MIS            | CSC          | Most commonly occurring in a combination of sagebrush, perennial grassland or wet meadow habitats, and water. Also found in bitterbrush and alkali desert scrub habitats. Found in northeastern California, ranging from the Oregon border along the east side of the Cascade Range and Sierra Nevada to northern Inyo County. | Unlikely to occur. Study area boundaries are outside the known geographic range of this species.  |
| <i>Buteo swainsoni</i>  | Swainson's hawk                   | FSS            | ST           | Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Riparian woodlands, juniper-sage flats, and oak woodlands for nesting. Grasslands and agricultural areas for foraging.  | Unlikely to occur. Study area boundaries are outside the known geographic range of this species.  |
| <i>Athene cunicularia hypugaea</i>  | western burrowing owl             | —              | CSC          | Year-long resident of open, dry grassland and desert habitats and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats up to 5,300 feet.  | Unlikely to occur. Study area boundaries are outside the known geographic and elevational range of this species.  |
| <i>Vulpes vulpes necator</i>  | Sierra Nevada red fox             | FSS            | ST           | Occurs throughout the Sierra Nevada at elevations above 7,000 feet in forests interspersed with meadows or alpine forests. Open areas are used for hunting, and forested habitats are used for cover and reproduction. Known from the higher elevations of the Sierra National Forest.   | Unlikely to occur. Study area boundaries are outside the known elevational range of this species.   |

## LEGEND:

Federal Status

FT = Federal Threatened  
 FE = Federal Endangered  
 FC = Federal Candidate  
 FPD = Federal Proposed for Delisting  
 FD = Delisted Species  
 FSS = Forest Service Sensitive  
 MIS = Management Indicator Species

State Status

SR = California Rare  
 ST = California Threatened  
 SE = California Endangered  
 SCT = Candidate for listing as California Threatened  
 SCE = Candidate for listing as California Endangered  
 CFP = California Fully Protected  
 CSC = California Species of Special Concern

<sup>1</sup>At the time the TERR 4 – TSP (PCWA 2010e; SD B) was developed in 2007, osprey were considered CSC by the CDFG. When CDFG revised the CSC bird list in 2008, osprey were no longer included. However, because osprey were included as a special-status species in the TERR 4 – TSP in agreement with the Terrestrial Working Group (TWG), they are regarded as such for the purposes of this report.

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features.**

| Project Facilities and Features                      | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |  |
| <b>Dams, Reservoirs, and Diversion Pools</b>         |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| <b>Large Dams</b>                                    |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| French Meadows Dam and Outlet Works (modified)       |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Hell Hole Dam and Outlet Works (modified)            |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| <b>Medium Dams</b>                                   |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Middle Fork Interbay Dam and Outlet Works (modified) |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Ralston Afterbay Dam and Outlet Works                |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| <b>Small Dams</b>                                    |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Duncan Creek Diversion Dam (modified)                |                              |                                     |                          |                       |                        |   | X                     | X                     |  |  |
| North Fork Long Canyon Diversion Dam (modified)      |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| South Fork Long Canyon Diversion Dam (modified)      |                              |                                     |                          |                       |                        | X   |                       | X                     |  |  |
| <b>Large Reservoirs</b>                              |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| French Meadows Reservoir                             |                              |                                     | X                        |                       |                        |   |                       |                       |  |  |
| Hell Hole Reservoir                                  | X                            | X                                   | X                        |                       |                        |   |                       |                       |  |  |
| <b>Medium Reservoirs</b>                             |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Middle Fork Interbay                                 |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Ralston Afterbay                                     |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| <b>Small Diversion Pools</b>                         |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Duncan Creek Diversion Pool (modified)               |                              |                                     |                          |                       |                        |   |                       | X                     |  |  |
| North Fork Long Canyon Diversion Pool (modified)     |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| South Fork Long Canyon Diversion Pool (modified)     |                              |                                     |                          |                       |                        | X   |                       | X                     |  |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features                      | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Water Conveyance Systems</b>                      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Tunnels</b>                                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek - Middle Fork Tunnel                    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows - Hell Hole Tunnel                    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole - Middle Fork Tunnel                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork - Ralston Tunnel                         |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston – Oxbow Tunnel                               |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Diversion Pipes and Drop Inlets</b>               |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Diversion Pipe and Drop Inlet |                              |                                     |                          |                       |                        | X   |                       |                       |  |
| South Fork Long Canyon Diversion Pipe and Drop Inlet |                              |                                     |                          |                       |                        | X   |                       | X                     |  |
| <b>Surge Shafts and Adits</b>                        |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Brushy Canyon Adit                                   |                              |                                     |                          |                       |                        | X   |                       | X                     |  |
| Hell Hole - Middle Fork Tunnel Surge Shaft and Tank  |                              |                                     |                          |                       |                        | X   |                       |                       |  |
| Middle Fork - Ralston Tunnel Surge Shaft and Tank    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Removable Sections and Portals</b>                |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek - Middle Fork Tunnel Portal             |                              |                                     | X                        |                       |                        |   |                       |                       |  |
| French Meadows - Hell Hole Tunnel Removable Section  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole - Middle Fork Tunnel Removable Section     |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork - Ralston Tunnel Removable Section       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Crossing Removable Section    |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features                              | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Water Conveyance Systems (continued)</b>                  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Intakes and Gatehouses</b>                                |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek - Middle Fork Tunnel Intake                     |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| French Meadows - Hell Hole Tunnel Gatehouse                  |                              |                                     | X                        |                       |                        |   |                       |                       |  |
| French Meadows - Hell Hole Tunnel Intake                     |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole - Middle Fork Tunnel Gatehouse                     |                              |                                     |                          |                       |                        |   |                       |                       | X  |
| Hell Hole - Middle Fork Tunnel Intake                        |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork - Ralston Tunnel Intake and Gatehouse            |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston - Oxbow Tunnel Intake                                |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Penstocks and Valve Houses</b>                            |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Powerhouse Penstock and Butterfly Valve House |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse Penstock and Butterfly Valve House    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Powerhouse Penstock and Butterfly Valve House        |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Powerhouses, Switchyards, and Substations</b>             |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Powerhouse and Switchyard                     |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Powerhouse   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Substation   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse and Upper and Lower Switchyards       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Powerhouse and Switchyard                            |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Oxbow Powerhouse and Switchyard                              |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Gaging Stations and Weirs</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Stream Gages and Weirs</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek Gage and Weir above Diversion Dam (USGS Gage and Weir No. 11427700) (interim) <sup>7</sup>        |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| Duncan Creek Gage and Weir below Diversion Dam (USGS Gage and Weir No. 11427750)                               |                              |                                     |                          |                       |                        |   | X                     |                       |  |
| Middle Fork American River Gage and Weir below French Meadows Dam (USGS Gage and Weir No. 11427500)            |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork American River Gages at French Meadows Dam Outlet Works (new) <sup>8</sup>                         |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Rubicon River Gage and Weir at Hell Hole Dam Spillway (new) <sup>8-2</sup>                                     |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Rubicon River Gage and Weir below Hell Hole Dam (USGS Gage and Weir No. 11428800) (interim) <sup>7</sup>       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Rubicon River Gages at Hell Hole Dam Outlet Works (new) <sup>8</sup>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Gage and Weir at Diversion Dam (USGS Gage and Weir No. 11433085) (interim) <sup>7</sup> |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Creek Gage and Weir below Diversion Dam (new) <sup>8</sup>                              |                              |                                     |                          |                       |                        |   |                       |                       |  |
| South Fork Long Canyon Gage and Weir at Diversion Dam (USGS Gage and Weir No. 11433065) (interim) <sup>7</sup> |                              |                                     |                          |                       |                        | X   |                       | X                     |  |
| South Fork Long Canyon Creek Gage and Weir below Diversion Dam (new) <sup>8</sup>                              |                              |                                     |                          |                       |                        | X   | X                     | X                     |  |
| Middle Fork American River Gage at Interbay Dam (USGS Gage No. 11427770) (interim) <sup>7</sup>                |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork American River Gage above Middle Fork Powerhouse (USGS Gage No. 11427760)                          |                              |                                     |                          |                       |                        |   |                       |                       |  |



**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Gaging Stations and Weirs (continued)</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Stream Gages and Weirs (continued)</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork American River Gage and Weir below Interbay Dam (new) <sup>8</sup>                             |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork American River Gage <del>below Oxbow Powerhouse</del> near Foresthill (USGS Gage No. 11433300) |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork American River Gage at Ralston Afterbay Dam Outlet Works (new) <sup>8</sup>                    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Rubicon River Gage above Ralston Powerhouse (USGS Gage No. 11433200) (existing, added to MFP) <sup>9</sup> |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork American River Gage above American River Pump Station (new) <sup>8</sup>                        |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Rubicon River Gage at Ellicott Bridge (existing, added to MFP) <sup>9</sup>                                |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Diversion Gages</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek Gage at Diversion Tunnel (new) <sup>8</sup>   |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| North Fork Long Canyon Gage at Diversion Dam (USGS Gage No. 11433080) (modified)                           |                              |                                     |                          |                       |                        |   |                       |                       |  |
| South Fork Long Canyon Gage at Diversion Dam (USGS Gage No. 11433060) (modified)                           |                              |                                     |                          |                       |                        | X   |                       | X                     |  |
| <b>Reservoir Gages</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Reservoir Gage (USGS Gage No. 11427400)   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Reservoir Staff Gage  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Reservoir Gage (USGS Gage No. 11428700)  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Reservoir Staff Gage   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Interbay Reservoir Gage  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Afterbay Reservoir Gage  |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Gaging Stations and Weirs (continued)</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Powerhouse Gages</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Powerhouse Gage (USGS Gage No. 11427200)  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse Gage (USGS Gage No. 11428600)   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Powerhouse Gage (USGS Gage No. 11427765)   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Oxbow Powerhouse Gage (USGS Gage No. 11433212)   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Oxbow Powerhouse Penstock Gage (new) <sup>8</sup>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Leakage Weirs</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Dam Leakage Weirs Nos. 1–6  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam Leakage Weir   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Project Communication Lines and Powerlines</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>French Meadows Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Dam Generator Building to French Meadows Dam Outlet Works Powerline   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Dam Generator Building to French Meadows Dam Spillway Gates Powerline   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Hell Hole Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Powerhouse to French Meadows Powerhouse Penstock and Butterfly Valve House Communication Line/Powerline   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Powerhouse and Switchyard to Hell Hole - Middle Fork Tunnel Gatehouse, Dormitory Facility, Operator's Cottages, and Hell Hole Powerhouse Communication Line/Powerline |                              |                                     |                          |                       |                        |   |                       |                       | X  |
| Dormitory and Cottages Water Supply Tank Powerline   |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Project Communication Lines and Powerlines (continued)</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Hell Hole Area (continued)</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Powerhouse to Rubicon River Gage and Weir below Hell Hole Dam Communication Line/Powerline   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam Spillway Crest Gates Control Building Communication Line/Powerline (new) <sup>8</sup>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Middle Fork Interbay Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse to Middle Fork Powerhouse Butterfly Valve House Communication Line/Powerline  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse Butterfly Valve House to Radio Repeater near Hell Hole - Middle Fork Tunnel Surge Tank (underground) Communication Line/Powerline |                              |                                     |                          |                       |                        | X   |                       |                       |  |
| Middle Fork Powerhouse to Middle Fork - Ralston Tunnel Intake and Gatehouse Communication Line/Powerline   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse to Middle Fork American River Gage above Middle Fork Powerhouse Communication Line/Powerline                                      |                              |                                     |                          |                       |                        |   | X                     |                       |  |
| <b>Ralston – Oxbow Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston - Oxbow Tunnel Intake to Ralston Powerhouse Communication Line   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Powerhouse to Ralston Powerhouse Butterfly Valve House Communication Line/Powerline  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Afterbay Dam Generator Building to Ralston - Oxbow Tunnel Intake Communication Line/Powerline  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Oxbow Powerhouse to Ralston Afterbay Dam Generator Building Communication Line/Powerline   |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Photovoltaic Poles and Powerlines</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Poles and Powerline to Duncan Creek Gage above Diversion Dam  |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| Photovoltaic Pole and Powerline at Duncan Creek Gage below Diversion Dam   |                              |                                     |                          |                       |                        |   | X                     |                       |  |
| Photovoltaic Pole and Powerline at Duncan Creek Gage at Diversion Tunnel (new) <sup>8</sup>                            |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| Photovoltaic Pole and Powerline at Middle Fork American River Gage below French Meadows Dam                            |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Pole and Powerline at Middle Fork American River Gage above Middle Fork Powerhouse                        |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Pole and Powerline at Middle Fork American River Gage and Weir below Interbay Dam (new) <sup>8</sup>      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Pole and Powerline at North Fork Long Canyon Gage at Diversion Dam  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Pole and Powerline at North Fork Long Canyon Gage and Weir below Diversion Dam (new) <sup>8</sup>         |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Pole and Powerline at South Fork Long Canyon Gage at Diversion Dam  |                              |                                     |                          |                       |                        | X   |                       | X                     |  |
| Photovoltaic Pole and Powerline at South Fork Long Canyon Gage and Weir below Diversion Dam (new) <sup>8</sup>         |                              |                                     |                          |                       |                        | X   | X                     | X                     |  |
| Photovoltaic Pole and Powerline at Rubicon River Gage above Ralston Powerhouse (existing, added to MFP) <sup>10</sup>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Pole and Powerline at Middle Fork American River Gage below Oxbow Powerhouse                              |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Pole and Powerline at North Fork American River Gage above American River Pump Station (new) <sup>8</sup> |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Photovoltaic Pole and Powerline at Rubicon River Gage at Ellicott Bridge (existing, added to MFP) <sup>10</sup>        |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Microwave Reflectors and Radio Towers</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Passive Microwave Reflector Station above Middle Fork Interbay                                   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Radio Communications Tower near French Meadows - Hell Hole Tunnel Gatehouse                      |                              |                                     | X                        |                       |                        |   |                       |                       |  |
| Radio Communications Tower and Repeater near Hell Hole - Middle Fork Tunnel Surge Shaft and Tank |                              |                                     |                          |                       |                        | X   |                       |                       |  |
| Passive Microwave Reflector Station above Ralston Afterbay                                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Disposal Areas</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Diversion Dam Sediment Disposal Area  |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| North Fork Long Canyon Crossing Sediment Disposal Area   |                              |                                     |                          |                       |                        | X   |                       |                       |  |
| Middle Fork Interbay Sediment Disposal Area  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Ridge Sediment Disposal Area   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Sediment Augmentation Areas</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Interbay Augmentation Areas (new)  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Junction Bar Augmentation Area (new)   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Indian Bar Augmentation Area (existing, added to MFP) <sup>10</sup>                              |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Ancillary Facilities</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Dam Generator Building  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Dam Staging Area  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Dormitory Facility   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Dormitory and Cottages Water Supply Tank   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Staging Areas  |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Ancillary Facilities (continued)</b>                                |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Operator Cottages and Shop   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam Spillway Crest Gates Control Building (new) <sup>8</sup> |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Afterbay Dam Generator Building                                |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Storage Building at Middle Fork - Ralston Tunnel Surge Shaft and Tank  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Project Fences</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Slope Fences</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Powerhouse Penstock Rock Fence                          |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Powerhouse Slope Fence                                  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Long Canyon Crossing Slope Fence                                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse Upper Switchyard Slope Fence                    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Interbay Dam Slope Fence                                   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Powerhouse Penstock and Butterfly Valve House Slope Fences     |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Powerhouse Slope Fence   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Oxbow Powerhouse Slope Fence   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Public Safety Fences</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Dormitory Facility Barrier Fence                                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam General Parking Area Barrier Fence                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Crossing Removable Section Barrier Fence        |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features                               | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|---|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|   | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Project Roads</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Duncan Creek Area</b>                                      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek Diversion Intake Road                            |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| Duncan Creek Diversion Dam Road                               |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| Duncan Creek Diversion Pool Road                              |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| <b>French Meadows Area</b>                                    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek - Middle Fork Tunnel Portal Road                 |                              |                                     | X                        |                       |                        |   |                       |                       |  |
| French Meadows - Hell Hole Tunnel Gatehouse Road              |                              |                                     | X                        |                       |                        |   | X                     |                       |  |
| French Meadows Dam Outlet Works and South Leakage Weir Road   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Dam Staging Area and Spillway West Access Road |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Spillway East Access Road                      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows Dam North Leakage Weir Road                    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Hell Hole Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam and Powerhouse Road                             |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Rubicon River Gage and Weir below Hell Hole Dam Road          |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam Leakage Weir Road                               |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam Spillway Northern Access Point Road             |                              |                                     |                          |                       |                        |   |                       |                       |  |
| French Meadows - Hell Hole Tunnel Portal Road                 |                              |                                     |                          |                       |                        |   |                       |                       | X  |
| French Meadows Powerhouse Road                                |                              |                                     | X                        |                       |                        |   |                       |                       | X  |
| Hell Hole - Middle Fork Tunnel Gatehouse Road                 |                              |                                     |                          |                       |                        |   |                       |                       | X  |
| Dormitory Facility Road                                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Operator Cottage and Shop Road                                |                              |                                     |                          |                       |                        |   |                       |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Project Roads (continued)</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Hell Hole Area (continued)</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Spur on North Side of Operator Cottage   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Spur on South Side of Operator Cottage   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam Spillway Discharge Channel Road Spur to Communication Line/Powerline |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam Spillway Discharge Channel Road                                      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Hell Hole Dam Spillway Gates Road (new) <sup>8</sup>                               |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Long Canyon Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Diversion North Road  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Diversion South Road  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Diversion Drop Inlet Road                                   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| South Fork Long Canyon Diversion and Drop Inlet Road                               |                              |                                     |                          |                       |                        | X   | X                     | X                     |  |
| South Fork Long Canyon Diversion and Drop Inlet Cutoff Road                        |                              |                                     |                          |                       |                        | X   | X                     | X                     |  |
| South Fork Long Canyon Diversion Drop Inlet Access Road                            |                              |                                     |                          |                       |                        | X   | X                     | X                     |  |
| North Fork Long Canyon Crossing Removable Section North Road and Parking Area      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Crossing Removable Section South Road                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Middle Fork Interbay Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Interbay Dam Road  |                              |                                     |                          | X                     |                        |   | X                     |                       |  |
| Middle Fork Interbay Dam to Powerhouse Road  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse Butterfly Valve House Road                                  |                              |                                     |                          |                       |                        |   |                       |                       | X  |



**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features   | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|---|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|   | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Project Roads (continued)</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Middle Fork Interbay Area (continued)</b>                                    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork Powerhouse Penstock and Butterfly Valve House Road                  |                              |                                     |                          |                       |                        |   | X                     |                       |  |
| Middle Fork Powerhouse Upper Switchyard Road                                    |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Ralston-Oxbow Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Brushy Canyon Adit Road   |                              |                                     |                          |                       |                        | X   |                       |                       |  |
| Ralston Powerhouse Butterfly Valve House Road                                   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Afterbay Dam and Access Road  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Indian Bar Access Road  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Oxbow Powerhouse Road   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston - Oxbow Tunnel Intake Road  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Afterbay Private Boat Ramp Road   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Afterbay Dam and Access Point Road                                      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ralston Afterbay Sediment Removal Access Point (converted) <sup>11</sup>        |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Project Trails</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Duncan Creek Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek Diversion Dam North Trail  |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| Duncan Creek Diversion Dam South Trail  |                              |                                     |                          |                       |                        |   |                       | X                     |  |
| Photovoltaic Poles and Powerline to Duncan Creek Gage above Diversion Dam Trail |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| Duncan Creek Gage and Weir above Diversion Trail                                |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| Duncan Creek Gage and Weir below Diversion Trail                                |                              |                                     |                          |                       |                        |   | X                     |                       |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features   | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|---|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|   | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Project Trails (continued)</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Hell Hole Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Rubicon River Gage at Ellicott Bridge Trail (existing, added to MFP) <sup>9</sup>         |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Long Canyon Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork Long Canyon Creek Gage and Weir below Diversion Dam Trail (new) <sup>8</sup>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| South Fork Long Canyon Creek Gage and Weir below Diversion Dam Trail (new) <sup>8</sup>   |                              |                                     |                          |                       |                        | X   | X                     | X                     |  |
| <b>Middle Fork Interbay Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork American River Gage above Middle Fork Powerhouse Trail                        |                              |                                     |                          |                       |                        |   | X                     |                       |  |
| Passive Microwave Reflector Station above Middle Fork Interbay Trail                      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Fork American River Gage and Weir below Interbay Dam Trail (new) <sup>8</sup>      |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Ralston Afterbay Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Passive Microwave Reflector Station above Ralston Afterbay Trail                          |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Rubicon River Gage above Ralston Powerhouse Trail (existing, added to MFP) <sup>9</sup>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| North Fork American River Gage above American River Pump Station Trail (new) <sup>8</sup> |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Project Recreation Facilities and Features</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Duncan Creek Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Duncan Creek Diversion Primitive Recreation Site (new)                                    |                              |                                     |                          |                       |                        |   | X                     | X                     |  |
| <b>French Meadows Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Ahart Campground (enhanced)   |                              |                                     |                          |                       |                        |   |                       |                       | X  |
| Coyote Group Campground   |                              |                                     |                          |                       |                        |   |                       |                       | X  |
| Poppy Campground (reduced)  |                              |                                     |                          |                       |                        | X   | X                     |                       | X  |
| French Meadows Campground   |                              |                                     |                          |                       |                        |   |                       |                       | X  |
| Gates Group Campground  |                              |                                     |                          |                       |                        |   |                       |                       | X  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features  | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |  |
|--|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|--|
|  | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |  |
| <b>Project Recreation Facilities and Features (continued)</b>                |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| <b>French Meadows Area (continued)</b>                                       |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Lewis Campground   |                              |                                     |                          |                       |                        |   |                       | X                     | X  |  |
| French Meadows Picnic Area   |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| French Meadows Boat Ramp (enhanced)  |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| French Meadows Dump Station  |                              |                                     |                          |                       |                        | X   |                       |                       | X  |  |
| McGuire Picnic Area and Beach (converted) <sup>12</sup>                      |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| McGuire Group Campground (new)   |                              |                                     |                          |                       |                        |   |                       |                       | X  |  |
| McGuire Boat Ramp and Associated Parking (modified)                          |                              |                                     |                          |                       |                        |   |                       |                       | X  |  |
| <b>Hell Hole Area</b>  |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Big Meadows Campground   |                              |                                     |                          |                       |                        | X   |                       |                       | X  |  |
| Hell Hole Campground (reduced)   |                              |                                     |                          |                       |                        |   |                       |                       | X  |  |
| Upper Hell Hole Campground (removed)   |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Hell Hole Vista  |                              |                                     |                          |                       |                        |   |                       |                       | X  |  |
| Hell Hole Boat Ramp (enhanced)   |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Hell Hole General Parking Area and Hell Hole Boat Ramp Parking Area          |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| <b>Ralston Afterbay Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Ralston Picnic Area (reduced)  |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Ralston Picnic Area Cartop Boat Ramp   |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Ralston Afterbay Sediment Removal Access Point Boat Ramp (new) <sup>13</sup> |                              |                                     |                          |                       |                        |   |                       |                       |  |  |
| Indian Bar Rafting Access and General Parking (enhanced)                     |                              |                                     |                          |                       |                        |   |                       |                       |  |  |

**Table 7.6-7. Raptor Nests and Roosts and USDA-FS Land Allocations and Important Habitat in Relation to Project Facilities and Features and Recreation Facilities and Features (continued).**

| Project Facilities and Features   | Raptor Nests and Roosts      |                                     |                          |                       |                        | USDA-FS Land Allocations and Important Habitats |                       |                       |  |
|---|------------------------------|-------------------------------------|--------------------------|-----------------------|------------------------|---|-----------------------|-----------------------|--|
|   | Bald Eagle Nest <sup>1</sup> | Bald Eagle Night Roost <sup>1</sup> | Osprey Nest <sup>2</sup> | CSO Nest <sup>3</sup> | NOGO Nest <sup>3</sup> | CSO PAC <sup>4</sup>                            | CSO HRCA <sup>5</sup> | NOGO PAC <sup>4</sup> | Important Mule Deer Habitat <sup>6</sup> |
| <b>Project Recreation Facilities and Features (continued)</b>                       |                              |                                     |                          |                       |                        |   |                       |                       |  |
| <b>Long Canyon Area</b>   |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Middle Meadows Group Campground   |                              |                                     |                          |                       |                        | X   | X                     | X                     |  |
| <b>Project Recreation Facility Water Supplies and Associated Maintenance Trails</b> |                              |                                     |                          |                       |                        |   |                       |                       |  |
| Dolly Creek Water Supply  |                              |                                     |                          |                       |                        | X   |                       | X                     | X  |
| French Meadows Campground Water Supply and Trail                                    |                              |                                     |                          |                       |                        |   | X                     |                       | X  |
| Big Meadows Campground Water Supply and Trail                                       |                              |                                     |                          |                       |                        | X   |                       |                       | X  |
| Middle Meadows Group Campground Water Supply and Trail                              |                              |                                     |                          |                       |                        | X   | X                     | X                     |  |

<sup>1</sup>Within ¼ mile of bald eagle nests or night roosts.

<sup>2</sup>Within 500 feet of osprey nests.

<sup>3</sup>Within 500 feet of a California spotted owl or northern goshawk nest.

<sup>4</sup>Within an established California spotted owl or northern goshawk protected activity center (PAC).

<sup>5</sup>Within an established California spotted owl home range core area (HRCA).

<sup>6</sup>Within a mule deer important habitat (fawning area, holding areas, and winter and summer critical ranges).

<sup>7</sup>Existing gage to remain in place until infrastructure modification is complete.

<sup>8</sup>This facility or feature will be constructed under the Proposed Action.

<sup>9</sup>Existing gage or trail now required for Project operation or maintenance.

<sup>10</sup>Existing facility that has been added to the Project.

<sup>11</sup>Converted to Ralston Afterbay Sediment Removal Access Point Boat Ramp.

<sup>12</sup>This facility will be converted to the McGuire Group Campground.

<sup>13</sup>This facility replaces the Ralston Afterbay Sediment Removal Access Point.

**Table 7.6-8. Game Species of the Middle Fork American Watershed.**

| Species   | Status | Habitat  | General Season   | Bag Limit  | Possession Limit   | Hunting Restrictions   |
|---|--------|--|--|--|--|--|
| <b>Resident Game Birds</b>                            |        |  |  |  |  |  |
| Blue grouse<br>( <i>Dendragapus obscurus</i> )        | MIS    | Uncommon to common permanent resident at middle to high elevations. Occurs in open, medium to mature aged stands of fir, Douglas-fir, and other conifer habitats, interspersed with medium to large openings, and available water. | The second Saturday in September extending for 31 consecutive days   | 2 blue grouse per day  | Double the daily bag limit                                   | Hunting license is required. No use of motor vehicles to drive birds toward target. No use of mammal (or imitation) as blind. No take of nests or eggs. No use of practice dogs on birds outside of season. Must use ten-gauge shotgun or smaller, and no shot size larger than BB.    |
| Wild turkey<br>( <i>Meleagris gallopavo</i> )         | None   | Found mostly in deciduous riparian, oak, and conifer-oak woodlands. Prefers rugged, hilly terrain with low to intermediate canopy, interspersed with numerous grass/forb openings, near water.                                     | Fall season - the second Saturday in November extending for 16 consecutive days<br><br>Spring Season - the last Saturday in March extending for 37 consecutive days  | Fall Season: 1 either-sex turkey per day.<br><br>Spring Season: 1 bearded turkey per day             | Fall Season: 1 per season<br>Spring Season: 3 per season     | Hunting license is required. No use of motor vehicles to drive birds toward target. No use of mammal (or imitation) as blind. No take of nests or eggs. No use of practice dogs on birds outside of season. Must use ten-gauge shotgun or smaller, and no shot size larger than No. 2. |
| Mountain quail<br>( <i>Oreotyx pictus</i> )           | MIS    | Common to uncommon resident, found typically in most major montane habitats of the state. Found seasonally in open, brushy stands of conifer and deciduous forest, woodland, and chaparral.  | Early Season -the second Saturday in September through the Friday prior to the third Saturday in October.<br><br>General Season - the third Saturday in October extending through the last Sunday in January | 10 quail in any combination of species per day<br><br>10 quail in any combination of species per day | Double the daily bag limit<br><br>Double the daily bag limit | Hunting license is required. No use of motor vehicles to drive birds toward target. No use of mammal (or imitation) as blind. No take of nests or eggs. No use practice dogs on birds outside of season. Must use ten-gauge shotgun or smaller, and no shot size larger than BB.       |
| California Quail<br>( <i>Callipepla californica</i> ) | None   | Common, permanent resident of low and middle elevations. Found in shrub, scrub, and brush, open stages of conifer and deciduous habitats, and margins of grasslands and croplands.   | The third Saturday in October through the last Sunday in January   | 10 quail in any combination of species per day   | Double the daily bag limit                                   | Hunting license is required. No use of motor vehicles to drive birds toward target. No use of mammal (or imitation) as blind. No take of nests or eggs. No use practice dogs on birds outside of season. Must use ten-gauge shotgun or smaller, and no shot size larger than BB.       |

**Table 7.6-8. Game Species of the Middle Fork American Watershed (continued).**

| Species   | Status | Habitat   | General Season  | Bag Limit                       | Possession Limit           | Hunting Restrictions  |
|---|--------|---|---|---------------------------------|----------------------------|---|
| <b>Migratory Game Birds</b>   |        |   |   |                                 |                            |   |
| Wilson's snipe<br>( <i>Gallinago delicata</i> )                           | None   | Prefers wet areas with organic soil and without tall vegetation. One of the most abundant shorebirds in North America, it is a resident of central and northeastern California.   | The third Saturday in October extending for 107 days                                    | 8 per day                       | Double the daily bag limit | Hunting license and state duck tag are required. No use of motor vehicles to drive birds toward target. No use of mammal (or imitation) as blind. No take of nests or eggs. No use practice dogs on birds outside of season. Must use ten-gauge shotgun or smaller, and no shot size larger than BB.    |
| Band-tailed pigeon<br>( <i>Columba fasciata</i> )                         | None   | Common resident in hardwood and hardwood-conifer habitats. Inhabits lower slopes of major mountain ranges of the state.   | The third Saturday in December extending for 9 consecutive days                         | 2 per day                       | Double the daily bag limit | Hunting license and state duck tag are required. No use of motor vehicles to drive birds toward target. No use of mammal (or imitation) as blind. No take of nests or eggs. No use of practice dogs on birds outside of season. Must use ten-gauge shotgun or smaller, and no shot size larger than BB. |
| Mourning dove<br>( <i>Zenaida macroura</i> )                              | None   | Open woodlands, grasslands, croplands, open hardwood, hardwood-conifer, riparian, low elevation conifer, and deserts all provide adequate habitat. Requires a nearby water source.  | Sept. 1-15 and from the second Saturday in November extending for an additional 45 days | 10 doves of any species per day | Double the daily bag limit | Hunting license and state duck tag are required. No use of motor vehicles to drive birds toward target. No use of mammal (or imitation) as blind. No take of nests or eggs. No use of practice dogs on birds outside of season. Must use ten-gauge shotgun or smaller, and no shot size larger than BB. |
| <b>Game Mammals</b>   |        |   |   |                                 |                            |   |
| Sierra Nevada snowshoe hare<br>( <i>Lepus americanus tahoensis</i> )      | CSC    | An uncommon resident at upper elevations in the Cascade Mts. south through the Sierra Nevada. In California, primarily found in montane riparian habitats with thickets of alders and willows, and in stands of young conifers interspersed with chaparral. The early seral stages of mixed conifer, subalpine conifer, red fir, Jeffrey pine, lodgepole pine, and aspen are likely habitats, primarily along edges, and especially near meadows. | July 1 through the last Sunday in January   | 5 per day                       | 10 in possession           | Hunting license is required. Use of coursing dogs is permitted with rabbits. Must use ten-gauge shotgun or smaller, and no shot size larger than BB.  |
| Western white-tailed jackrabbit<br>( <i>Lepus townsendii townsendii</i> ) | CSC    | Common throughout the state, except at the highest elevations. Abundant at lower elevations in herbaceous and desert-shrub areas and open, early stages of forest and chaparral habitats.   | All Year  | no limit                        | no limit                   | Hunting license is required. Use of coursing dogs is permitted with rabbits. Must use ten-gauge shotgun or smaller, and no shot size larger than BB.  |
| Western gray squirrel<br>( <i>Sciurus griseus</i> )                       | None   | Fairly common locally in mature stands of most conifer, hardwood, and mixed hardwood-conifer habitats in the Klamath, Cascade, Transverse, Peninsular, and Sierra Nevada Ranges. Dependent upon mature stands of mixed conifer and oak habitats. Closely associated with oaks. Require large trees, mast, and snags.  | The second Saturday in September through the last Sunday in January                     | 4 per day                       | 4 in possession            | Hunting license is required. Must use ten-gauge shotgun or smaller, and no shot size larger than BB.  |
| Coyote<br>( <i>Canis latrans</i> )  | None   | Occurs in almost all habitats and successional stages. Frequents open brush, scrub, shrub, and herbaceous habitats. Also found in younger stands of deciduous and conifer forest and woodland with low to intermediate canopy, and shrub and grass understory.  | All Year  | no limit                        | no limit                   | Hunting license is required. Must use ten-gauge shotgun or smaller, and no shot size larger than BB.  |

|   |   |   |  |  |  |  |
|---|---|---|--|--|--|--|
| Black bear<br>( <i>Ursus americanus</i> )       | None  | Widespread, common to uncommon resident occurring from sea level to high mountain regions. Occurs in fairly dense, mature stands of many forest habitats, and feeds in a variety of habitats including brushy stands of forest, valley foothill riparian, and wet meadow.   | Zone D-4: The fourth Saturday in September until the last Sunday in December or until all tags are filled<br>Zone X-7b: The second Saturday in October and extend for 79 consecutive days or until all tags are filled | 1 adult/season/tag   | 1 adult/season/tag   | Requires hunting license and hunting tags. Only adults may be taken. May use approved rifles, bow and arrow, and approved shotguns. Cubs and females accompanied by cubs may not be taken.   |
| Mountain lion<br>( <i>Felis rufus</i> )         | Specially protected mammal, CDFG Code, Chapter 10, Section 4800 | Widespread, uncommon permanent resident, ranging from sea level to alpine meadows. Found in nearly all habitats, except xeric regions of the Mojave and Colorado deserts that do not support mule deer populations. Excluded from croplands in the Central Valley. Most abundant in riparian areas and brushy stages of most habitat.   | None   | N/A  | N/A  | N/A  |
| Bobcat<br>( <i>Felis rufus</i> )                | None  | Common to uncommon, permanent resident throughout most of California. Uses nearly all habitats and successional stages. Optimal habitats are brushy stages of low and mid-elevation conifer, oak, riparian, and pinyon-juniper forests, and all stages of chaparral.  | Oct. 15 - Feb. 28 (hunting)<br>Nov. 24 - Jan. 31 (trapping)  | Bobcats taken under a hunting license and bobcat hunting tags: Five bobcats per season.<br>Bobcats taken under a trapping license: No limit. | Bobcats taken under a hunting license and bobcat hunting tags: Five bobcats per season.<br>Bobcats taken under a trapping license: No limit. | Requires hunting license and hunting tags.   |
| Mule deer<br>( <i>Odocoileus hemionus</i> )     | MIS   | Common to abundant, yearlong resident or elevational migrant with a widespread distribution throughout most of California, except in deserts and intensively farmed areas without cover. Prefer a mosaic of vegetation, providing an interspersed of herbaceous openings, dense brush or tree thickets, riparian areas, and abundant edge.  | Zone D-4: The fourth Saturday in September extending for 37 consecutive days<br>Zone X-7b: The First Saturday in October and extend for 16 consecutive days.   | 1 buck/ tag  | 1 buck/ tag  | Requires hunting license and hunting tags. May use approved rifles, bow and arrow, approved shotguns, and crossbows. Only bucks with antlers with demonstratable forks (or greater) may be taken.  |
| <b>Furbearing Mammals</b>                       |   |   |  |  |  |  |
| Gray fox<br>( <i>Urocyon cinereoargenteus</i> ) | None  | Uncommon to common permanent resident of low to middle elevations throughout most of the state. Frequents most shrublands, valley foothill riparian, montane riparian, and brush stages of many deciduous and conifer forest and woodland habitats. Also found in meadows and cropland areas. Suitable habitat consists of shrublands, brushy and open-canopied forests, interspersed with riparian areas, providing water. | Nov. 24 - the last day of Feb.   | no limit   | no limit   | Hunting license is required. May use firearms, bow and arrow, poison under special permit, and approved traps with trapping permit. Dogs permitted.  |
| Raccoon<br>( <i>Procyon lotor</i> )             | None  | Widespread, common to uncommon permanent resident throughout most of the state. Occurs in all habitats except alpine, and desert types without water; marginal in Great Basin shrub types. Most abundant in riparian and wetland areas at low to middle elevations.   | Nov. 16 - Mar. 31  | no limit   | no limit   | Hunting license is required. May use firearms, bow and arrow, poison under special permit, and approved traps with trapping permit. Dogs permitted. When taking raccoon after dark, pistols and rifles not larger than .22 caliber rimfire and shotguns using shot no larger than No. BB may be used |

**Table 7.6-8. Game Species of the Middle Fork American Watershed (continued).**

| Species  | Status | Habitat   | General Season             | Bag Limit | Possession Limit | Hunting Restrictions  |
|--|--------|---|----------------------------|-----------|------------------|---|
| <b>Furbearing Mammals (continued)</b>            |        |   |                            |           |                  |   |
| Long-tailed weasel<br>( <i>Mustela frenata</i> ) | None   | Common to uncommon, permanent resident of most habitats, except xeric brush, shrub, and scrub in the Mojave and Colorado deserts. Mostly uses intermediate cover stages of conifer and deciduous habitats, interspersed with lower seral stages and open forest, woodland areas and shrubs, from sea level to alpine meadows. | All Year                   | no limit  | no limit         | Hunting license is required. May use firearms, bow and arrow, poison under special permit, and approved traps with trapping permit. Dogs permitted. |
| American mink<br>( <i>Mustela vison</i> )        | None   | Uncommon permanent resident, generally occurring in the northern half of the state. Semiaquatic, inhabiting most aquatic habitats, including some coastal areas. Occurs at elevations up to about 2700 m (9000 ft).   | Nov. 16 - Mar. 31          | no limit  | no limit         | Hunting license is required. May use firearms, bow and arrow, poison under special permit, and approved traps with trapping permit. Dogs permitted. |
| American badger<br>( <i>Taxidea taxus</i> )      | None   | Badgers are most often found in open, often treeless habitats with an available food source, usually other fossorial mammals. Badgers do not occur in heavily forested areas but inhabit open grasslands, parklands, prairie and cold desert areas.   | Nov. 16 - last day of Feb. | no limit  | no limit         | Hunting license is required. May use firearms, bow and arrow, poison under special permit, and approved traps with trapping permit. Dogs permitted. |

Source: <http://www.dfg.ca.gov/wildlife/hunting/>



**Table 7.6-9. MFP Target Noxious Weeds List.**

| Scientific Name                       | Common Name                             | TNF Priority Species <sup>1</sup> | ENF Priority Level <sup>2</sup> | Acres in the MFP |
|---------------------------------------|---|-----------------------------------|---------------------------------|------------------|
| <i>Ailanthus altissima</i>            | Chinese tree of heaven                  |                                   | 2                               | 2.67             |
| <i>Bromus diandrus</i>                | Ripgut brome                            |                                   | 4                               | 97.21            |
| <i>Bromus tectorum</i>                | Cheat grass                             | X                                 | 2                               | 246.8            |
| <i>Carduus pycnocephalus</i>          | Italian thistle                         |                                   | 3                               | 18.31            |
| <i>Centaurea melitensis</i>           | Tocalote                                | X                                 | 2                               | 18.93            |
| <i>Centaurea solstitialis</i>         | Yellow starthistle                      | X                                 | 2                               | 6.65             |
| <i>Chondrilla juncea</i>              | Rush skeletonweed                       | X                                 | 2                               | 75.89            |
| <i>Cirsium arvense</i>                | Canada thistle                          | X                                 | 1                               | 0.05             |
| <i>Cirsium vulgare</i>                | Bull thistle                            |                                   | 3                               | 103.78           |
| <i>Cynosurus echinatus</i>            | Hedgehog dogtailgrass                   |                                   | 4                               | 81.43            |
| <i>Hirschfeldia incana</i>            | Shortpod mustard                        |                                   | 4                               | 43.83            |
| <i>Hypericum perforatum</i>           | Klamathweed                             | X                                 | 3                               | 125.05           |
| <i>Lepidium latifolium</i>            | Tall whitetop (pepperweed)              | X                                 | 1                               | 8.90             |
| <i>Melilotus officinalis, M.albus</i> | Yellow sweet clover, white sweet clover |                                   | 3                               | 57.88            |
| <i>Rubus discolor</i>                 | Himalayan blackberry                    | X                                 | 3                               | 32.13            |
| <i>Rumex acetosella</i>               | Red (sheep) sorrel                      |                                   | 4                               | 189.48           |
| <i>Taeniatherum caput-medusae</i>     | Medusahead                              | X                                 | 2                               | 21.18            |
| <i>Torilis arvensis</i>               | Spreading hedgeparsley                  |                                   | 4                               | 84.41            |
| <i>Verbascum thapsus</i>              | Woolly mullein                          | X                                 | 4                               | 318.68           |
| <i>Vulpia myuros</i>                  | Rattail fescue                          |                                   | 4                               | 225.26           |

<sup>1</sup>Source: TNF Noxious Weed List received from K. VanZuuk on March 4, 2010 (TNF Weed List and Current Management Direction.doc).

<sup>2</sup>Source: ENF Noxious Weed List received from S. Durham dated January 27, 2010 (ENF Proposed Treatment Tables 012710.docx).

## **FIGURES**

**Figure 7.6-1. Timing of Bald Eagle Reproductive Activities and Associated Sensitivity Levels.**

| Activity   | Jan   | Feb            | Mar            | Apr | May                  | June           | July | Aug | Sept | Oct | Nov | Dec |
|--|---|----------------|----------------|-----|----------------------|----------------|------|-----|------|-----|-----|-----|
| <b>Timing of Bald Eagle Reproductive Activities and Sensitivity to Human Activities (Pacific Region)<sup>1</sup></b> |   |                |                |     |                      |                |      |     |      |     |     |     |
| <b>Nest Building</b>   | Most sensitive period: likely to respond negatively |                |                |     |                      |                |      |     |      |     |     |     |
| <b>Egg Laying / Incubation</b>   |   | Very sensitive |                |     |                      |                |      |     |      |     |     |     |
| <b>Hatching /Rearing Young</b>   |   |                | Very sensitive |     | Moderately sensitive |                |      |     |      |     |     |     |
| <b>Fledging Young</b>  |   |                |                |     |                      | Very sensitive |      |     |      |     |     |     |

<sup>1</sup>National Bald Eagle Management Guidelines, USFWS 2007

**Sensitivity to Human Activity**

- = Most sensitive period: likely to respond negatively
- = Very sensitive
- = Moderately sensitive

**MAPS**

**CONFIDENTIAL**

**MAPS**

**“Maps 7.6-1. Location of Special-Status Plant Populations  
in the Vicinity of the MFP”**

**“Maps 7.6-1a–f. Location of Stebbins’ Phacelia  
at MFP Facilities and Features and Recreation Facilities and Features”**

**“Map 7.6-2. Bald Eagle Nests and Night Roosts in the Vicinity of the MFP”**

*(from Exhibit E; Section 7.6, Botanical and Wildlife Resources Affected Environment)*

These Maps have been removed from this document because they contain the location(s) of special-status biological resources and are considered “confidential” information. Confidential special-status biological resources information is located in Volume 4 which may not be made available to the public pursuant to the Federal Energy Regulatory Commission’s (FERC’s) regulated contained in 36 CFR 385.1112. This information is not maintained in FERC’s Public Reference Room or on the Commission’s electronic library except as an indexed item.