

Attachment 1-CDFW and USFWS version

**Application for New License**  
**Major Project – Existing Dam**

**Bald Eagle Management Plan**

**Security Level: Public**

Camp Far West Hydroelectric Project  
FERC Project No. 2997



Prepared by:  
South Sutter Water District  
2464 Pacific Avenue  
Trowbridge, CA 95659  
[www.southsutterwd.com](http://www.southsutterwd.com)

August 2019

©2019, South Sutter Water District. All Rights Reserved

**Table of Contents**

<b>Section No.</b>	<b>Description</b>	<b>Page No.</b>
	Glossary - Definition of Terms, Acronyms and Abbreviations .....	GLO-1
1.0	Introduction.....	1-1
1.1	Background.....	1-1
1.2	Purpose of the Bald Eagle Management Plan.....	1-4
1.3	Goals and Objectives of the Bald Eagle Management Plan .....	1-4
1.4	Contents of the Bald Eagle Management Plan .....	1-4
2.0	Bald Eagle Distribution and Life History .....	2-1
2.1	Bald Eagle.....	2-1
2.1.1	Bald Eagle Status .....	2-1
2.1.2	Physical Characteristics .....	2-4
2.1.3	Life History.....	2-5
2.1.3.1	Nesting and Breeding.....	2-5
2.1.3.2	Foraging .....	2-6
2.1.3.3	Wintering .....	2-6
2.1.4	Distribution .....	2-7
2.1.4.1	California .....	2-7
2.1.4.2	Camp Far West Hydroelectric Project.....	2-7
3.0	Bald Eagle Protection .....	3-1
3.1	Bald Eagle Protection Guidelines .....	3-1
3.1.1	Surveys.....	3-1
3.1.2	Establish Buffers and Limited Operating Periods .....	3-2
3.2	Incidental Sightings .....	3-4
4.0	Reporting, Consultation and Plan Revisions .....	4-1
4.1	Reporting and Consultation .....	4-1
4.2	Plan Revisions.....	4-3
5.0	References Cited.....	5-3

**List of Figures**

<b>Figure No.</b>	<b>Description</b>	<b>Page No.</b>
1.1-1.	Camp Far West Hydroelectric Project and Project Vicinity.....	1-3
2.2-1.	Bald Eagle Sightings and Nests Located During 2017 Surveys.....	2-8

**List of Tables**  
**Description**

<b>Figure No.</b>	<b>Description</b>	<b>Page No.</b>
2.2-1.	Bald eagle breeding chronology in Northern California.....	2-5

**List of Attachments**

Attachment A      California Bald Eagle Breeding Survey Instructions and Nesting Territory  
Survey Form

# GLOSSARY - DEFINITION OF TERMS, ACRONYMS AND ABBREVIATIONS

---

ac	acres
Application	Application for New License
BGEPA	Bald and Golden Eagle Protection Act
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
C.F.R	Code of Federal Register
ESA	Endangered Species Act of 1973, as amended (16 U.S.C. 1531 <i>et seq.</i> and 50 CFR 402)
FERC or Commission	Federal Energy Regulatory Commission
F.G.C.	Fish and Game Code
FR	Federal Record
ft	foot/feet
LOP	Limited Operating Period; time period within which certain Project activities would NOT occur, within a pre-defined distance from a sensitive resource area.
MBTA	Migratory Bird Treaty Act
NMWSE	Normal Water Surface Elevation
O&M	operations and maintenance
Plan	Bald Eagle Management Plan
Project	Camp Far West Hydroelectric Project, FERC Project No. 2997
Project Vicinity	The area surrounding the proposed Project on the order of United States Geological Survey 1:24,000 quadrangles.
§	section
Special-Status	<p>Listed under the federal Endangered Species Act as Endangered, Threatened, Proposed or Candidate for listing.</p> <p>Designated by the California Department of Fish and Wildlife as a Species of Special Concern.</p> <p>Listed under the California Endangered Species Act as Threatened, Endangered or a Candidate for Listing.</p> <p>Classified as Fully Protected by the State of California.</p> <p>Protected under the Migratory Bird Treaty Act.</p> <p>Protected under the Bald and Golden Eagle Protection Act.</p>
SSWD	South Sutter Water District
take	For bald eagles, 'take' includes pursue, shoot, shoot at, poison, wound, kill, trap, collect, molest, or disturb.
USFWS	United States Fish and Wildlife Service
U.S.C	United States Code

Page Left Blank

## SECTION 1.0

# INTRODUCTION

---

## 1.1 Background

In June 2019, the South Sutter Water District (SSWD), pursuant to Sections (§§) 5.17 and 5.18 of Title 18 of the Code of Federal Regulations (C.F.R.), file with the Federal Energy Regulatory Commission (FERC or Commission) an Application for New License for Major Project – Existing Dam for SSWD’s 6.8 megawatt Camp Far West Hydroelectric Project (Project), FERC Project No. 2997. The initial license for the Project was issued by FERC to SSWD on July 2, 1981, effective on July 1, 1981. In its Application for New License (Application), SSWD proposes to continue operating the Project for the next 50 years with one modification to the spillway, a reservoir pool raise of 5 feet (ft) (from 300.0 ft Normal Maximum Water Surface Elevation [NMWSE) to 305.0 ft NMWSE), and the adoption of the resource management measures proposed in its license application.

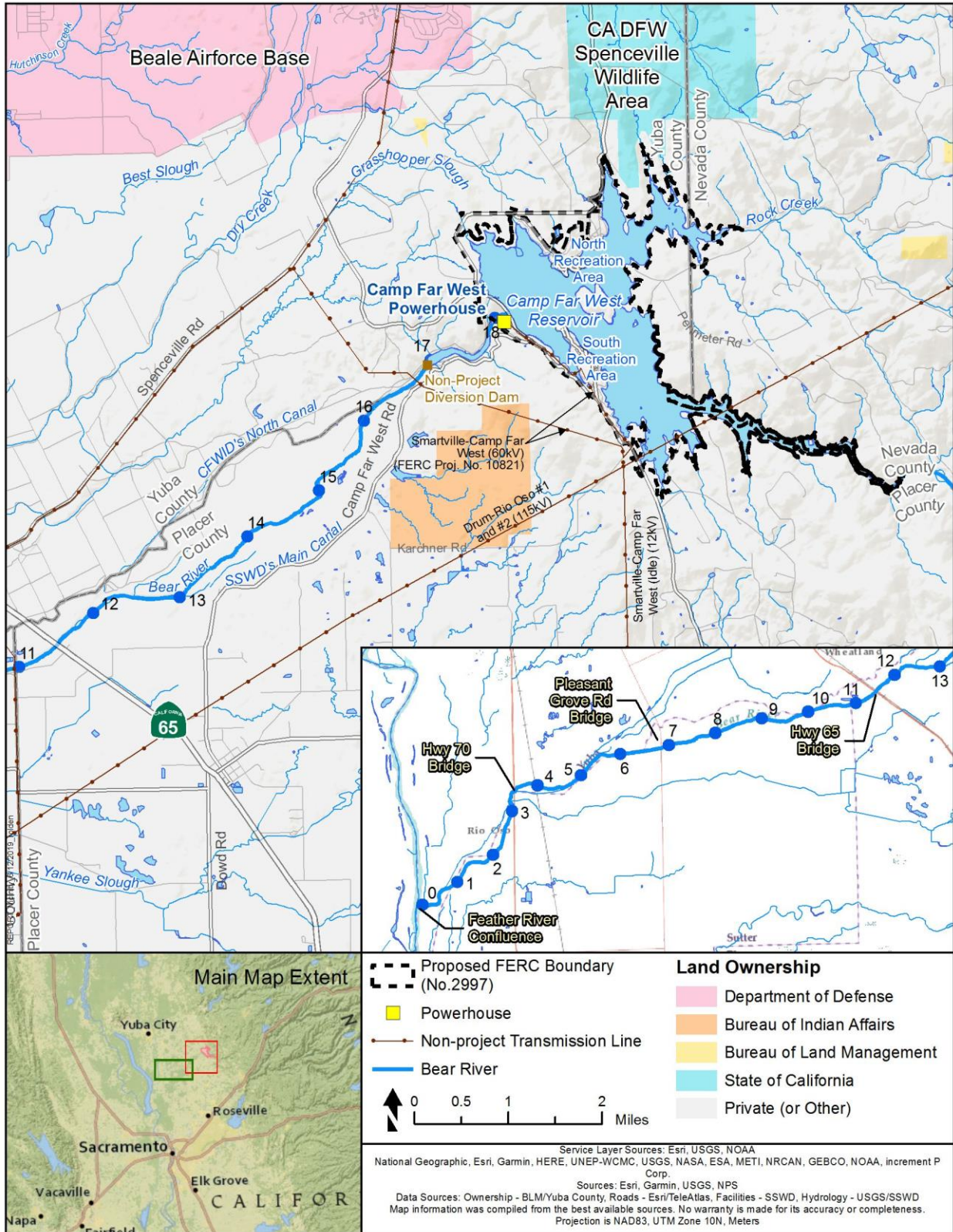
The proposed FERC Project Boundary<sup>1</sup> encompasses 2,674.0 acres (ac) of land in Nevada, Placer, and Yuba Counties, California. Within the boundary, SSWD is the major landholder with 2,515.2 ac (94.8% of the area within the FERC Project Boundary). The remaining lands (146.7 ac) are privately-owned lands. Neither the existing FERC Project Boundary nor the proposed FERC Project Boundary includes federal lands. Figure 1.1-1 shows the Project Vicinity<sup>2</sup> and the proposed FERC Project Boundary.

---

<sup>1</sup> The Federal Energy Regulatory Commission Project Boundary encompasses all Project facilities and features as well as all land needed by SSWD for the normal operation and maintenance of the Project. The boundary is shown in Exhibit G of SSWD’s Application for New License.

<sup>2</sup> In this Plan, “Project Vicinity” refers to the area surrounding the Project on the order of United States Geological Survey 1:24,000 scale topographic quadrangle.





**Figure 1.1-1. Camp Far West Hydroelectric Project and Project Vicinity.**

## **1.2 Purpose of the Bald Eagle Management Plan**

This Bald Eagle Management Plan (Plan) is intended to provide guidance for the protection of bald eagles (*Haliaeetus leucocephalus*) in all areas within the FERC Project Boundary where bald eagles are affected or have the potential to be affected by the Project.

SSWD will coordinate, to the extent appropriate, the efforts required under this Plan with other Project resource efforts, including implementation of other resource management plans and measures included in the new license.

## **1.3 Goals and Objectives of the Bald Eagle Management Plan**

The goal of the Plan is to ensure that Project operations and maintenance (O&M), as well as Project-related recreation activities, do not result in “take” of bald eagles and their eggs or nests by implementing measures that are consistent with federal and State of California laws and regulations (see Section 2.1.1 for the definition of “take” under various applicable laws and regulations).

The objective of the Plan is to provide necessary guidelines to meet Plan goals.

## **1.4 Contents of the Bald Eagle Management Plan**

This Plan includes the following major sections:

- Section 1.0. Introduction. This section includes introductory information, including the purpose and goals of the Plan.
- Section 2.0. Bald Eagle Distribution and Life History. This section provides a description and life history of bald eagles, as well as occurrences known in the Project vicinity.
- Section 3.0. Bald Eagle Protection. This section describes bald eagle protection measures for the Project.
- Section 4.0. Reporting, Consultation and Plan Revisions. This section details reporting and consultation commitments under the Plan between SSWD and appropriate state and federal agencies.
- Section 5.0. References Cited. This section provides a list of the references cited in the Plan.

Page Left Blank

## SECTION 2.0

# BALD EAGLE DISTRIBUTION AND LIFE HISTORY

---

## 2.1 Bald Eagle

### 2.1.1 Bald Eagle Status



On March 11, 1967, the southern bald eagle was listed as endangered under the Endangered Species Act (ESA) of 1966<sup>3</sup> (32 Federal Record [FR] 4001). This endangered status resulted from a population decline caused primarily by high levels of dichloro-diphenyl-trichloroethane in the food chain that increased egg shell thinning and drastically impaired productivity. On February 14, 1978, the United States Department of the Interior, Fish and Wildlife Service (USFWS) ruled to delete the subspecific names for the southern and northern subspecies, which resulted in the designation of a single species *Haliaeetus leucocephalus* (43 FR 6230). The February 14, 1978 ruling also listed bald eagle as endangered in 43 of the 48 contiguous United States. Bald eagle in the remaining five States (i.e., Washington, Oregon, Minnesota, Wisconsin, and Michigan) was listed as threatened (43 FR 6230). On July 12, 1995, all bald eagles listed as endangered in the 43 States were reclassified as threatened, while the status of threatened remained in effect for the five other States (60 FR 36000). On August 8, 2007, the USFWS ruled to delist the bald eagle (72 FR 37346). In the ruling, USFWS indicated that a reduction or elimination of threats, as well as habitat protection led to an increase in breeding pairs from an estimated 487 in 1963 to approximately 9,789 in 2007 in the 48 contiguous States (72 FR 37346).

Within California, the bald eagle was listed under the California Endangered Species Act (CESA) as endangered on June 27, 1971.

Section 86 of the California Fish and Game Code (F.G.C.) defines “take” to mean “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

In 1971, the State of California also assigned the status of Fully Protected Birds to bald eagle (F.G.C. § 3511). Section 3511 of the F.G.C. states:

---

<sup>3</sup> Endangered Species Preservation Act of 1966 was amended in 1969 by the Endangered Species Conservation Act of December 5, 1969 (P.L. 91-135, 83 Stat. 275), which was repealed by the ESA of 1973 (16 U.S.C. 1531-1544).

Except as provided in Section 2081.7 or 2835, fully protected birds or parts thereof may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected bird, and no permits or licenses heretofore issued shall have any force or effect for that purpose. However, the department may authorize the taking of those species for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species, and may authorize the live capture and relocation of those species pursuant to a permit for the protection of livestock.

Additional protections for bald eagle in California exist under F.G.C. Sections 3503, 3503.5, and 3513, which make it unlawful to take, possess, or needlessly destroy birds' nests or eggs; take possess, or destroy raptors and their eggs and nests; and take or possess any migratory non-game bird or part thereof, designated in the Migratory Bird Treaty Act of 1918 (MBTA) (16 United States Code [U.S.C.] 703-712; Ch. 128; July 13, 1918; 40 Stat 755) as amended).<sup>4</sup>

Since delisting, federal protection of the bald eagle has continued under the MBTA, and the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d), as amended.

The MBTA provides protection to migratory birds and includes agreements between the United States, Great Britain on behalf of Canada, Mexico, Japan and Russia for the protection of such birds. The MBTA and its implementing regulations provide authority for the conservation of bald eagles and protect against take if the ESA protections are removed. The MBTA protects most native species of birds in the United States, including those likely to occur in the Project Vicinity (50 C.F.R. 10.13). In short, the MBTA, unless permitted by regulation, prohibits:

... taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests except as authorized under a valid permit (50 C.F.R. 21.11)

...pursuit, hunt, capture, take, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation of carriage, or export at any time, or in any manner, any

---

<sup>4</sup> Take under F.G.C. Section 3513 defers to the "rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act."

migratory bird, included in the terms of the convention...for the protection of migratory birds...or any part, nest, or egg of such bird.” (16 U.S.C. 703).

The MBTA language is clear that actions resulting in a “taking” of a protected species are violations of the MBTA. The MBTA does not specifically authorize the incidental take of migratory birds, and the USFWS does not issue permits authorizing the incidental take of migratory birds<sup>5</sup>. In the absence of a permit from USFWS, the temporary or permanent possession of protected migratory birds and their carcasses is also a violation of the MBTA.

The BGEPA protects bald and golden eagles (*Aquila chrysaetos*),<sup>6</sup> except under specific conditions, from take and includes their parts (feathers), nests or eggs. Under BGEPA, “take” is defined as “*pursue, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.*” Furthermore, disturb is defined as:

...to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding or sheltering behavior.

The BGEPA authorizes the USFWS to permit the take of eagles for certain purposes and under certain circumstances, including scientific or exhibition purposes, religious purposes of Native American tribes, and the protection of wildlife, agricultural, or other interests, so long as that take is compatible with the preservation of eagles (16 U.S.C. 668a). On December 14, 2016, the USFWS announced a final rule revising the regulations for permits for incidental take of eagles and take of eagle nests. The USFWS analyzed various alternative management options and rule revisions, including the final rule revisions, in a programmatic environmental impact statement (PEIS).

Among other revisions, the final rule addresses criteria for permit issuance, compensatory mitigation requirements, permit duration, and data standards for submitting permit applications. See <https://www.fws.gov/birds/management/managed-species/eagle-management.php>

---

<sup>5</sup> On December 22, 2017 the Department of the Interior issued a legal memorandum that declared that the MBTA applies only to the purposeful actions that kill migratory birds, not to “incidental take” (U.S. DOI 2017). This memorandum is currently under litigation.

<sup>6</sup> Bald Eagle Protection Act of 1940 was amended in 1978 (P.L. 95-616 [92 Stat. 3114]) to include golden eagles.



The USFWS carries out its mission to protect wildlife and plant resources by fostering relationships with entities that have taken effective steps to avoid take, by encouraging others to implement measures to avoid take, and through investigations and enforcement when appropriate. The USFWS encourages companies to work closely with the USFWS to identify available protective measures when developing project plans to safeguard wildlife and to implement those measures where applicable. In addition, USFWS strongly encourages companies to apply for permits authorizing otherwise prohibited activity, including eagle programmatic take permits where eagle take is possible.

The development and implementation of an avian plan to avoid take of migratory birds, including bald and golden eagles, does not limit or preclude the USFWS from exercising its authority under any law, statute, or regulation. However, the USFWS Office of Law Enforcement focuses its resources on investigating and prosecuting those individuals and companies that do not identify and implement all reasonable, prudent and effective measures to avoid the take of migratory birds (including eagles) and then subsequently take individuals of such species.

Ideally, a high quality, scientifically valid, and robust avian protection plan that is implemented in a timely and effective manner, and regularly reviewed and revised as needed, will maximize avoidance of species protected under various federal laws while allowing for project development in the most environmentally conscientious ways practicable.

Ultimately, it is the responsibility of those involved with the planning, design, construction, operation, maintenance, and decommissioning of projects to conduct relevant wildlife and habitat evaluation and determine, which, if any, species may be affected, and to seek and obtain necessary permits to avoid liability.

Violation of the BGEPA can result in criminal penalties that can result in a fine of \$100,000 for an individual (\$200,000 for organizations), imprisonment for 1 year, or both, for a first offense. Penalties increase for additional offenses, and a second offense is a felony.

### **2.1.2 Physical Characteristics**

The bald eagle is a large raptor with a wingspan between 6 and 8 ft, and can weigh up to 14 pounds. According to McCollough (1989), bald eagles molt through five plumage phases. These five phases are important for establishing the age of an individual as well as distinguishing them from golden eagles. The five plumage phases are:

- Juvenile (first year) – mostly dark including head and beak.
- Basic I (second year) – mottled with white belly and inverted triangle on back and head crown is tan.



- Basic II (third year) – body is mottled and variable with the head having a light crown and throat and dark eye stripe similar to an osprey’s (*Pandion haliaetus*) head.
- Basic III (fourth year) – plumage is mostly adult like with brown flecking on head and fading eye stripe, mostly yellow beak, some white flecking on belly and chest, and a brown terminal band on an otherwise white tail.
- Basic IV (fifth year) – often indistinguishable from adult plumage, but does contain some brown flecking on the head and tail.

In addition to the plumage phases listed above, bald eagles may be further distinguished from golden eagles by their proportionately larger head and bill.

### **2.1.3 Life History**

#### **2.1.3.1 Nesting and Breeding**

Bald eagles typically nest within 1 mile of water bodies. Their nests are large structures (i.e., approximately 6 ft in diameter), and are constructed with sticks. Nests are often found in the upper third of live, dominant or co-dominant trees, with some canopy above the nest that provides shade.<sup>7</sup> Most nest trees exceed 100 ft in height. A single pair will use the same nest each year, and will often have alternate nests within their breeding territory (USFWS 2011).

Bald eagles can breed as early as 4 to 5 years of age, but in healthy populations may not breed until much older (USFWS 2011). The breeding period for bald eagles varies throughout their range and can often be influenced by weather but typically begins between January and mid-March with courtship and nest initiation, and ends when young fledge sometime in June or July (Jackman and Jenkins 2004). Table 2.2-1 outlines breeding chronology in northern California.

**Table 2.2-1. Bald eagle breeding chronology in Northern California.**

---

<sup>7</sup> Dominant or co-dominant trees are the most significant trees, in terms of size, within a stand of timber.

Breeding Activity	Dec/Jan	Feb	Mar	Apr	May	June	July	Aug
Courtship, Nest Initiation	X <sup>1</sup>	X	X	--	--	--	--	--
Egg Laying	--	X	X	--	--	--	--	--
Incubation	--	X	X	X	--	--	--	--
Hatching	--	--	X	X	X	--	--	--
Nestlings	--	--	X	X	X	X	X	--
Fledging	--	--	--	--	--	X	X	--
Post Fledging	--	--	--	--	--	X	X	X
Migration	--	--	--	--	--	--	X	X

Source: Jackman and Jenkins 2004

<sup>1</sup> X indicates the month in which breeding, nesting or rearing activities generally occur.

According to Stalmaster (1987), bald eagles lay one to three eggs asynchronously, 2 to 4 days apart. Eggs typically require 35 days of incubation and nestlings remain in the nest for about 12 weeks until they are fledged. After they are fully fledged juvenile birds remain in the vicinity of the nest for about 1 month.

### 2.1.3.2 Foraging

Bald eagles are opportunistic feeders and will forage on fish, waterfowl, small mammals, and carrion. Generally, foraging occurs in the morning and evening hours. Hunting perches are used and have the following attributes: close proximity to potential prey; isolation from disturbance; good visibility of surrounding terrain; and accessibility for landing and departing (Stalmaster 1987). Caton et al. (1992) believed that the location of a hunting perch relative to shallow water was very important at deep water lakes because shallow water tends to concentrate fish and makes them more visible and accessible to bald eagles.

### 2.1.3.3 Wintering

Prior to the onset of winter, many bald eagles will migrate from colder northern climates to warmer southern climates or from higher elevations that experience complete ice coverage of water bodies to lower elevations where water bodies remain ice free. During the winter bald eagles spend the night in a roost. Paired adults will night roost within their nesting territory, and have been observed roosting in the tree containing their nest (Jackman and Jenkins 2004, Merced Irrigation District 2010).<sup>8</sup> According to the USFWS (2011) and Keister et al. (1987), communal roosts: 1) are areas where bald eagles gather and perch overnight, and sometimes during the day during inclement weather; 2) are in stands of trees that contain the largest, oldest, and most open-structured trees available; 3) are as close as possible to food; 4) may be used year after year; and 5) may be occupied by non-breeding migrant birds, both adult and subadult.

---

<sup>8</sup> A nest stand is a patch of timber that includes the tree on which a bald eagle nest was constructed.

## **2.1.4 Distribution**

### **2.1.4.1 California**

Bald eagles range throughout California and can be found at most lakes, reservoirs, rivers, and some rangelands and coastal wetlands. The largest concentration of wintering bald eagles has historically been in the Klamath Basin, located on the border of California and Oregon. A majority of breeding pairs are found in northern California, while a smaller number of pairs can be found in the central and southern Sierra Nevada mountains and foothills, the Central Coast range and inland southern California. Breeding pairs are also found on Santa Catalina Island. (CDFW 2016).

### **2.1.4.2 Camp Far West Hydroelectric Project**

SSWD completed the *Special Status Wildlife – Raptors* study as part of the relicensing. Specifically, SSWD identified and mapped known nest sites for three special-status raptor species: bald eagle, golden eagle, and Swainson’s hawk (*Buteo swainsoni*) and conducted nesting surveys. Surveys included an area up to approximately 0.25-mile inland from the edge of the shoreline of Camp Far West Reservoir. Nesting bald eagle surveys were performed according to the *Bald Eagle Breeding Survey Instructions* (CDFW 2017) and *Protocol for Evaluating Bald Eagle Habitat and Populations in California* (Jackman and Jenkins 2004).

Bald eagle surveys were conducted on December 20-22, 2016; January 16-18; February 15, 23-24; March 16; April 6, 25; May 2; and June 16, 2017.

Forty-seven bald eagle occurrences (including multiple at the same site) were observed during surveys. Two active bald eagle nests were found within the proposed FERC Project Boundary in 2017. One nest is historic, previously found on the Bear River Arm of Camp Far West Reservoir in adjacent trees. It was previously documented in a 2013 report by Sycamore Associates. A second active bald eagle nest was found on the Rock Creek Arm of the reservoir, east of the North Shore Recreation Area boat ramp. Figure 2.2-1 shows recorded special-status raptor sightings on Camp Far West Reservoir during the 2017 surveys.

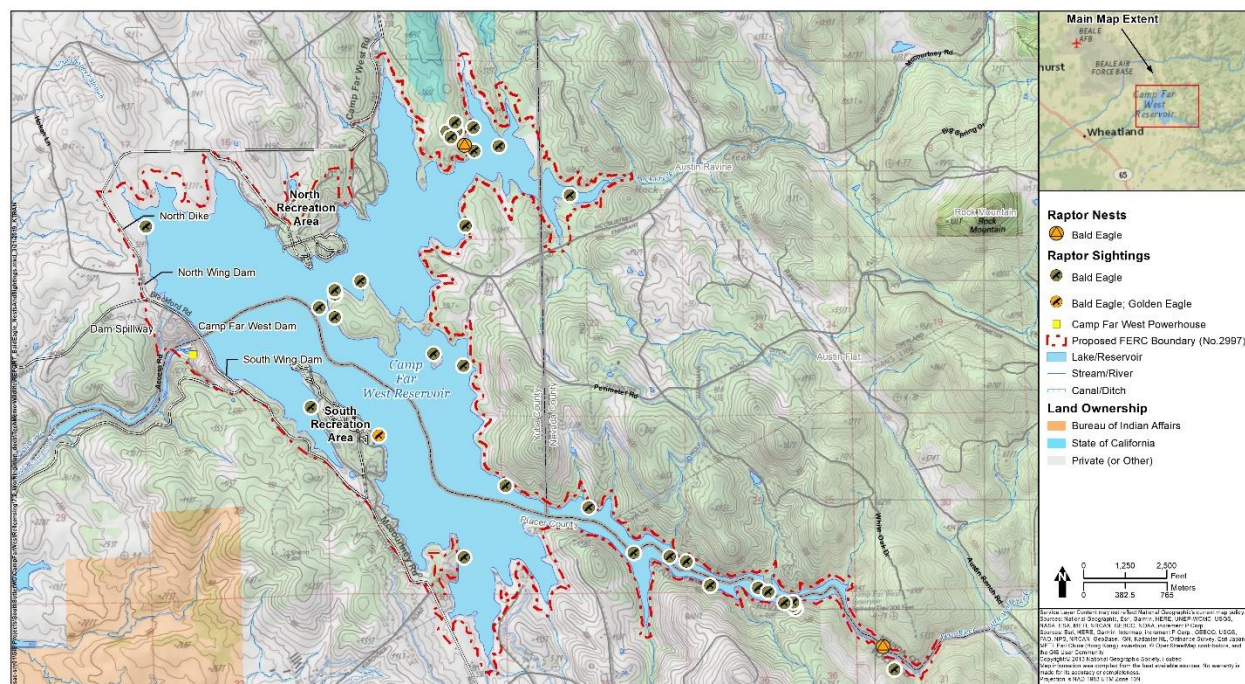


Figure 2.2-1. Bald Eagle Sightings and Nests Located During 2017 Surveys.

Page Left Blank

## SECTION 3.0

# BALD EAGLE PROTECTION

---

## 3.1 Bald Eagle Protection Guidelines

SSWD will conduct surveys and implement protection guidelines described in this Plan to ensure that Project-related activities do not result in the take of bald eagles.

### 3.1.1 Surveys

SSWD will conduct nesting surveys via boat on Camp Far West Reservoir in the first full calendar year following license issuance (Year 1).

#### Northern Nest:

- The Northern-most nest shall be surveyed annually from Year 1 through Year 5 due to the proximity to heavier recreational impacts and previous anecdotal nesting failures. In the event there is no nesting activity at this location for a period of five consecutive years, starting with Year 6, the Licensee may reduce surveys to once every five years. If, in any year after Year 5, nesting activity is detected incidentally (or during a survey) at this location, SSWD shall return to annual surveys at this location until five years of inactivity occurs subsequently.
- A qualified avian biologist shall conduct the annual surveys. If surveys are occurring once every five years, a qualified avian biologist will conduct these surveys.
- A trained designee may conduct the surveys on alternate years while surveys are occurring annually. Training for the designee shall be coordinated and approved by SSWD, CDFW, and USFWS.
- Surveys will take place at least twice: February or early-March (depending on weather) to establish initial occupancy and possible incubation and then again May to early-June to establish probable fledgling success.

#### Southern Nest

- The Southern-most nest shall be surveyed starting in Year 1 and then every other year thereafter for the duration of the new license period. In the event there is no nesting activity at this location for at least three consecutive survey years (e.g. Year 1, 3, and 5 have no activity), SSWD may reduce surveys to once every five years after coordinating with the USFWS and CDFW. If, after reducing survey effort to once every five years, nesting activity is detected incidentally or during a survey year at this location, surveys will return to the initial every other year frequency.

- A qualified avian biologist shall conduct the surveys in Year 1 and every other survey year thereafter (Year 1, Year 3, Year 5, etc).

All survey years shall include a survey for new nests conducted from the water along the shoreline of the reservoir. The USFWS and CDFW anticipates this survey would be conducted on the same day as the monitoring of known nest locations. In the event that a new nest location is determined, SSWD shall survey the new location(s) annually until five consecutive years of no nesting activity have been observed, whereupon SSWD may reduce survey years to once every five years for that location. Nesting surveys will be conducted in general accordance with the *Bald Eagle Breeding Survey Instructions* (CDFW 2017) and the *Protocol for Evaluating Bald Eagle Habitat and Populations in California* (Jackman and Jenkins 2004), and for each survey, SSWD will fill out the form from the *Bald Eagle Breeding Survey Instructions* (CDFW 2017).

All data collected during nesting surveys will be recorded on the California Bald Eagle Nesting Territory Survey Form (CDFW 2017, Attachment A). Data collected at each site will include: 1) presence of adults; 2) courtship behavior; 3) evidence of nest repair or construction; 4) incubation; 5) observation of old nests; 6) observation of new nest locations; 7) probable fledgling success; and 8) nearby activity that could potentially disturb the nesting eagles or young (not restricted to Project activities). Location data will be recorded, and photographs will be taken for all nests observed in a manner that does not disturb the breeding pair.

### **3.1.2 Establish Buffers and Limited Operating Periods**

Upon completion of the nest survey, SSWD will develop a map showing a 0.25 mile buffer around all documented active bald eagle nests for implementation of buffers by SSWD operators/staff, except as noted or otherwise agreed to by SSWD, USFWS and CDFW. The buffer will encompass all SSWD-owned land and water that falls within the FERC Project Boundary in an approximate 0.25 mile radius of a documented nest or logical topographical boundary. SSWD will place markers along the shoreline (markers to be placed every 500 feet along the shoreline buffer area within the FERC Project Boundary, in a manner that would be expected to be durable) indicating that no watercraft are to be brought onto shore or anchored in the area, and pedestrians are not permitted on the shore.

The Bear River Arm nest will be protected from recreational uses and other Project activities with a 660 foot buffer within the FERC Project Boundary. SSWD will place permanent signage in the Camp Far West Reservoir approximately 660 feet downstream of the nest stating ‘no wake and quiet zone.’

In years when nesting surveys do not occur throughout the Project, SSWD will visit each nest identified during the previous survey to establish if the nest is active for the given year. If it is active, SSWD will establish the buffers and limited operating periods (LOPs) described in this Plan. If it is inactive, SSWD will document that for the report.

Beginning January 1 through August 31 of each year where there is a nest(s) with an established buffer, SSWD will institute a LOP for all SSWD Project-related activities, as well as restrict public access, on SSWD land within the buffer areas in the FERC Project Boundary. If a new nest is documented, SSWD will institute a LOP and implement buffers for that nest as soon as practicable, but not more than 7 working days after the initial sighting. If more time is required, SSWD will consult with the CDFW and USFWS.

Additional water barriers (e.g., buoys and signage) and land barriers (e.g., fencing and signage) around known occupied bald eagle nests will be installed within the FERC Project Boundary reservoir and SSWD-owned land (i.e., not on private land without the approval of the landowner), as determined appropriate by the CDFW and USFWS, to delineate the buffers in order to restrict Project O&M and recreation activities in the vicinity of nests. The buffers may be expanded to 1 mile for Project-related activities requiring the use of helicopters or blasting. The 1 mile buffer may be adjusted (i.e., reduced) in consideration of logical topographical boundaries. It is recognized that SSWD cannot control the activities of other parties (i.e., SSWD does not have enforcement authority) within the buffer areas during the LOP period.

Nest buffers may be removed, adjusted or new buffers may be established if subsequent nesting surveys demonstrate that a nesting territory is no longer occupied or new nests are identified. Additionally, any information provided to SSWD by USFWS or CDFW regarding previously unidentified or existing nests will be used to inform the establishment of nest buffers. Requests to remove established nest buffers at any time will be submitted to USFWS and CDFW for approval. Requests to remove a nest buffer shall include a justification for the removal, including dates of eagle surveys/checks and results from that year.

SSWD O&M staff as well as the trained designee, will be trained to recognize nesting bald eagles exhibiting signs of disturbance or distress and to be knowledgeable of bald eagle LOPs and associated buffers. If SSWD staff incidentally observe signs of disturbance or distress to bald eagles in response to conducting routine Project O&M activities, staff will immediately cease the activities that are causing the disturbance/distress and contact SSWD Management. SSWD Management will send an approved biologist to the area where the disturbed/distressed eagles were observed to determine if there is a nest in the area. If an active nest is detected, SSWD will establish a buffer and LOP around the nest. SSWD will contact the USFWS's FERC Coordinator or BGEPA Coordinator, as well as the CDFW's FERC Coordinator, within 1 business day after the biologist completes an assessment. The activities that disturbed/distressed the bald eagles may resume with USFWS and CDFW approval or in 1 week, whichever occurs first, if no active nest is observed.

If non-routine Project activities are scheduled on or near the Camp Far West Reservoir where an active nest is not known during the normal LOP, SSWD will survey for active nests within a 1 mi



radius no more than a week prior to the start of Project activities. If an active nest is located, a buffer will be established for the remainder of the LOP.

SSWD shall annually review this Plan with Operations staff, focusing on: 1) the locations and purpose of bald eagle protection measures; 2) potential signs and identification of bald eagles; and 3) the reporting of any newly discovered individual sightings or nests.

### **3.2 Incidental Sightings**

SSWD shall record incidental observations of other nesting raptors within and just outside (within 500 ft) the FERC Project Boundary area while conducting bald eagle nest surveys and performing O&M activities. An incidental sighting should include approximate coordinates (if possible) or a description of the location, any behavior observed, and a photograph (if possible). The purpose of this effort is to opportunistically gather data through incidental observations, not to expand the specific monitoring described in this Plan, or for SSWD staff to perform additional surveys. SSWD shall maintain a map of incidentally observed nesting raptors within the Project.

Page Left Blank

**SECTION 4.0****REPORTING, CONSULTATION AND PLAN REVISIONS**

---

**4.1 Reporting and Consultation**

By December 31 of each year in which surveys were conducted or buffers and LOPs were implemented under this Plan, SSWD will provide to the USFWS and CDFW a draft annual report for that calendar year. The report will include five components. The first component will include the results of all surveys that occurred in that calendar year, including: 1) a description of the surveys and methods; 2) the results of those surveys, including maps with occurrence information for each species and their nests surveyed or incidentally observed including alternate, unused nests within the territory; and 3) if nesting is documented, a description of the proposed buffers and LOPs. The second component will be a summary of observed disturbance or distress to bald eagles recorded during that calendar year. The third component will be a brief summary of results from all previous surveys conducted. The fourth component will be any additional, relevant information regarding bald eagle and nesting within the FERC Project Boundary and adjacent areas that was provided to SSWD by the USFWS and CDFW at least 45 days in advance of the report preparation. This information is intended to inform potential changes to existing buffers and LOPs, if appropriate. The last component of the report will be a summary of specific protection measures that were applied to Project O&M and construction activities, as appropriate, during that calendar year and include a discussion of the effectiveness of those protection measures, including vandalism of signs and buoys, during the bald eagle nesting season. This will also contain a description of emergency activities undertaken, if any, within a nest buffer area during the LOP. The report will also include an appendix containing information regarding incidental sightings of special-status raptors.

In the event that an emergency activity is undertaken within an active nest buffer area, SSWD shall notify USFWS and CDFW as soon as practicable once the emergency has been identified, but not more than 48 hours after the emergency has been identified. Unless otherwise approved by CDFW and USFWS, an Avian biologist will be present during all emergency activities that take place within the buffer, or shall be present as soon as practicable after the emergency has begun. When reporting on the emergency activity during the end of year summary, SSWD shall include all observed behaviors of the nesting eagles and young during the activities, distance from the nest for any activities that occurred within the buffer, and number of young known to have fledged or likely to have fledged.

Sixty days will be allowed for the USFWS and CDFW to comment before SSWD files the final report with FERC. SSWD will include all relevant documentation of coordination/consultation

with the report filed with FERC. If SSWD does not adopt a particular recommendation made by CDFW or USFWS, the filing would include the reasons for not doing so, based on Project-specific information.

## 4.2 Plan Revisions

SSWD, in consultation with CDFW and USFWS, will review, update, and/or revise the Plan, as needed, when significant changes in the existing conditions occur, which may include, but not be limited to: changes in the State or Federal listing status of bald eagle; changes in the occurrence of bald eagles within the Project vicinity; changes in accepted survey protocols for bald eagle; changes in State and/or Federal laws or management plans related to bald eagle; changes in Project O&M activities; and repairs to existing or new construction of Project facilities.

Sixty days will be allowed for CDFW and USFWS to comment and make recommendations before SSWD files the updated plan with FERC for FERC's approval. SSWD would include all relevant documentation of coordination/consultation with the updated Plan filed with FERC. If SSWD does not adopt a particular recommendation by CDFW and USFWS, the filing would include the reasons for not doing so, based on Project-specific information. SSWD will implement the Plan as approved by FERC.<sup>9</sup>

### SECTION 5.0

## REFERENCES CITED

---

California Department of Fish and Wildlife (CDFW). 2017. Bald Eagle Breeding Survey Instructions and Nesting Territory Survey Form. Available online: <file:///C:/Users/spitts/Downloads/Bald%20Eagle%20Nest%20Instructions%20and%20Form\_Sept\_2017-fillable.pdf>. Accessed March 19, 2019. Last updated September 2017. State of California, The Resource Agency, Department of Fish and Wildlife, Wildlife Branch, Sacramento, CA.

California Department of Fish and Wildlife (CDFW). 2016. Bald eagles in California. Available online: <https://www.wildlife.ca.gov/conservation/birds/bald-eagle>. Accessed: January 30, 2019. CDFW, Nongame Wildlife Program.

Jackman, R.E., and J.M. Jenkins. 2004. Protocol for Evaluating Bald Eagle Habitat and Populations in California. Prepared for U.S. Fish and Wildlife Service. Sacramento, CA.

---

<sup>9</sup> The Plan will not be considered revised until FERC issues its approval.

Keister, G.P., R.G. Anthony, and E.J. O'Neill. 1987. Use of communal roosts and foraging areas by bald eagles wintering in the Klamath Basin. *J. Wildl. Manage.* 51(2): 420-425.

McCullough, M.A. 1989. Molting sequence and aging of bald eagles. *Wilson Bulletin.* 101:1-10.

Merced Irrigation District. 2010. Technical Memorandum 7-7, CESA-listed wildlife – bald eagle. Merced River Hydroelectric Project. FERC No. 2179.

Stalmaster, M. V. 1987. *The Bald Eagle.* Universe Book, New York. 227 pp.

United States Department of Interior, United States Fish and Wildlife Service (USFWS). 2011. National Bald Eagle Management Guidelines. Available online: <<https://www.fws.gov/pacific/ecoservices/documents/NationalBaldEagleManagementGuidelines.pdf>>. Accessed January 31, 2019. Last updated March 18, 2011. USFWS, Washington, D.C.

United States Department of Interior (U.S. DOI), Office of the Solicitor. 2017. “The Migratory Bird Treaty Act Does Not Prohibit Incidental Take”. Memorandum M- 37050.