Application for a New License
Major Project – Existing Dam

New Bullards Bar Reservoir
Floating Material Management Plan

Security Level: Public

Yuba River Development Project
FERC Project No. 2246

April 2014

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None.

GLOSSARY – DEFINITIONS OF TERMS, ACRONYMS AND ABBREVIATIONS

ac	acre
CRLF	California red-legged frog
ESA	Federal Endangered Species Act
FERC or Commission	Federal Energy Regulatory Commission
Forest Service	United States Department of Agriculture, Forest Service
LOP	Limited Operating Period
mi	mile
NFS	National Forest System (used in association with land ownership, such as NFS land)
Plan	New Bullards Bar Reservoir Floating Material Management Plan
PNF	Plumas National Forest
Project	Yuba River Development Project, FERC Project No. 2246
TNF	Tahoe National Forest
USFWS	United States Department of Interior, Fish and Wildlife Service
YCWA	Yuba County Water Agency

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SECTION 1.0

INTRODUCTION

In April 2014, the Yuba County Water Agency (YCWA), pursuant to Section (§) 5.18 of Title 18 of the Code of Federal Regulations (C.F.R.), filed with the Federal Energy Regulatory Commission (FERC or Commission) an Application for a New License for Major Project – Existing Dam – for YCWA's 361.9 megawatt Yuba River Development Project (Project), FERC Project Number 2246. The initial license for the Project was issued by the Federal Power Commission (FERC's predecessor) to YCWA on May 16, 1963, effective on May 1, 1963. The Federal Power Commission's May 6, 1966, Order Amending License changed the license's effective date to May 1, 1966, for a term ending on April 30, 2016.

YCWA included in its Application for New License this New Bullards Bar Reservoir Floating Material Management Plan (Plan).

The United States Department of Agriculture, Forest Service's (Forest Service) Federal Power Act Section 4(e) authority only applies in this Plan to Project facilities on National Forest System (NFS) land. The Forest Service administers the Plumas National Forest (PNF) in conformance with the PNF Land and Resource Management Plan (USDA 1988), as amended, and administers the Tahoe National Forest (TNF) in conformance with TNF Land and Resource Management Plan (USDA 1990), as amended.

1.1 Background

1.1.1 Yuba River Development Project

The Project is located in Yuba, Sierra and Nevada counties, California, on the main stems of the Yuba River, the North Yuba River and the Middle Yuba River, and on Oregon Creek, a tributary to the Middle Yuba River. Major Project facilities, which range in elevation from 280 feet to 2,049 feet, include: 1) New Bullards Bar Dam and Reservoir; 2) Our House and Log Cabin diversion dams; 3) Lohman Ridge and Camptonville diversion tunnels; 4) New Colgate and Narrows 2 power tunnels and penstocks; 5) New Colgate, New Bullards Minimum Flow and Narrows 2 powerhouses; and 6) appurtenant facilities and features (e.g., administrative buildings, switchyards, roads, trails and gages). The existing Project does not include any aboveground open water conduits (e.g., canals or flumes) or any transmission lines.

In addition, The Project includes 16 developed recreation facilities. These include: 1) Hornswoggle Group Campground; 2) Schoolhouse Campground; 3) Dark Day Campground; 4) Cottage Creek Campground;[1] 5) Garden Point Boat-in Campground; 6) Madrone Cove Boat-in Campground; 7) Frenchy Point Boat-in Campground; 8) Dark Day Picnic Area; 9) Sunset Vista

[1] Cottage Creek Campground was burned in 2010 and has not been rebuilt. YCWA is in discussions with the Forest Service regarding rebuilding the burned campground.

Point; 10) Dam Overlook; 11) Moran Road Day Use Area; 12) Cottage Creek Boat Launch;[2] 13) Dark Day Boat Launch, including the Overflow Parking Area; 14) Schoolhouse Trail; 15) Bullards Bar Trail; and 16) floating comfort stations.[3] All of the recreation facilities are located on NFS land, with the exception of the Dam Overlook, Cottage Creek Boat Launch and small portions of the Bullards Bar Trail, which are located on land owned by YCWA. All of the developed recreation facilities are located within the existing FERC Project Boundary, except for a few short segments of the Bullards Bar Trail to the east of the Dark Day Boat Launch. In addition, the Project includes two undeveloped recreation sites at Our House and Log Cabin diversion dams, both located on NFS land and within the existing FERC Project Boundary.

Figure 1.1-1 shows the Project Vicinity,[4] proposed Project, and proposed FERC Project Boundary.[5]

[2] Emerald Cove Marina provides visitor services at Cottage Creek Boat Launch, including houseboat and boat rentals, boat slips and moorings, fuel and a general store. The marina is operated under a lease from YCWA by a private company.

[3] The Project recreation facilities included one campground that is no longer part of the Project. Burnt Bridge Campground was closed initially by the Forest Service in 1979 due to low use levels. FERC, in an August 19, 1993 Order, which approved YCWA's Revised Recreation Plan, directed YCWA to remove all improvements and restore the Burnt Bridge Campground to the condition it was in prior to development of the facility. YCWA consulted with the Forest Service and all that remains of Burnt Bridge Campground today is the circulation road and vehicle spurs; all other facilities were removed.

[4] For the purpose of this Plan, "Project Vicinity" refers to the area surrounding the proposed Project on the order of United States Geological Survey (USGS) 1:24,000 quadrangles.

[5] The FERC Project Boundary is the area that YCWA uses for normal Project operations and maintenance. The Boundary is shown in Exhibit G of YCWA's Application for New License, and may be changed by FERC with cause from time to time during the term of the new license.

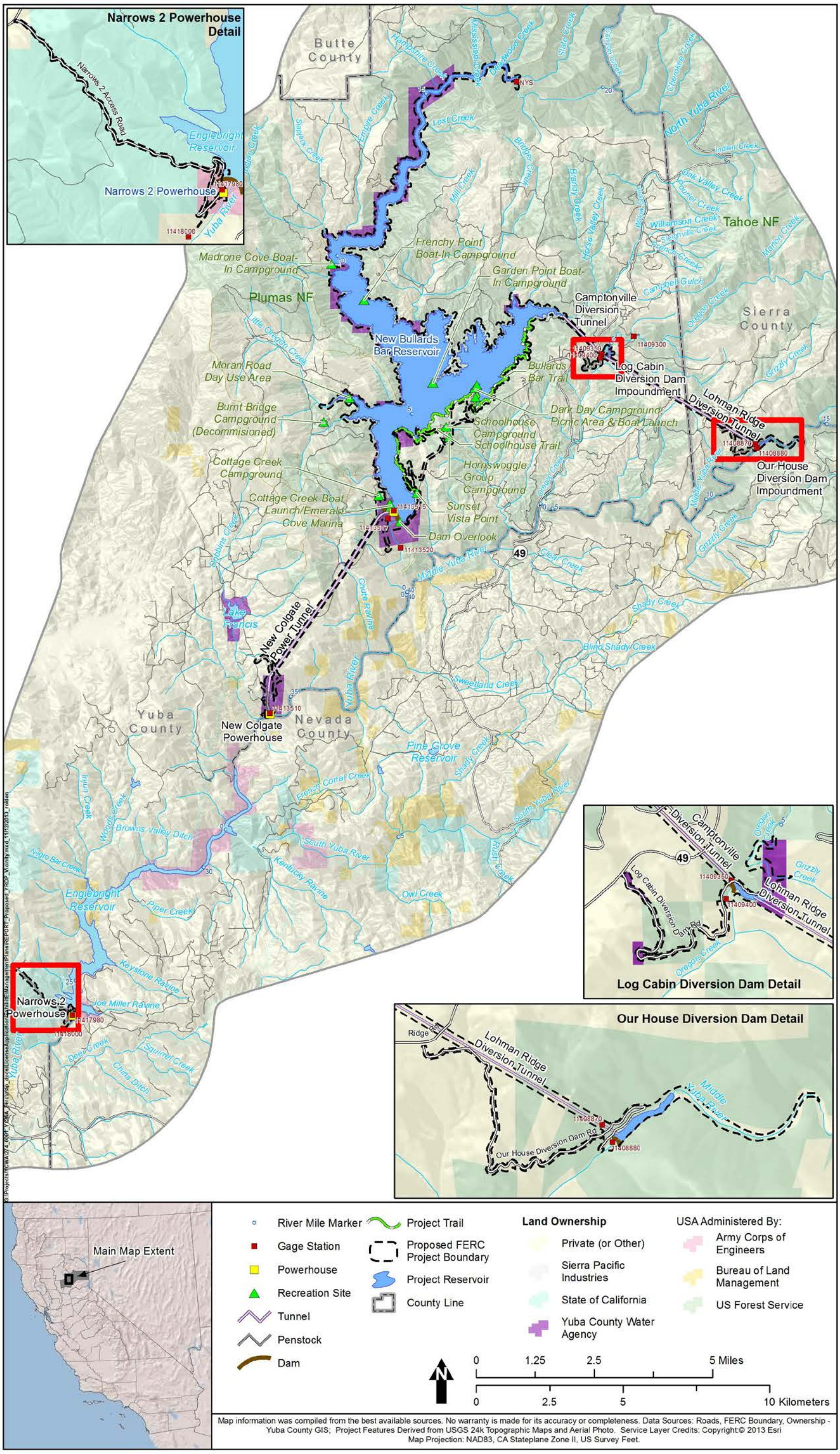

Figure 1.1-1. Yuba County Water Agency's Yuba River Development Project and Project Vicinity.

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1.2 Purpose of the New Bullards Bar Reservoir Floating Material Management Plan

This Plan is intended to provide guidance, including coordination with the Forest Service, for YCWA's annual collection, storage and disposal of floating material on New Bullards Bar Reservoir. The majority of these activities occur on NFS land within the TNF and PNF.

YCWA 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 New Bullards Bar Reservoir Floating Material Management Plan

The goal of the Plan is to ensure that YCWA's annual collection, storage and disposal of floating material on New Bullards Bar Reservoir is fully protective of environmental and recreational resources.

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

1.4 Contents of the New Bullards Bar Reservoir Floating Material Management Plan

This Plan includes the following:

- Section 1.0. Introduction. This section includes the purpose, goals and other introductory information for the Plan.
- Section 2.0. Collection, Storage and Disposal of Floating Material. This section provides a description of YCWA's collection, storage and disposal of material floating on New Bullards Bar Reservoir.
- Section 3.0. Reporting, Consultation and Plan Review. This section describes reporting, consultation and other requirements regarding the Plan between YCWA and the Forest Service.
- Section 4.0. References Cited. This section provides a list of the references cited in the Plan.

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SECTION 2.0

COLLECTION, STORAGE AND DISPOSAL OF FLOATING MATERIAL

The section describes the YCWA's annual collection, storage and disposal of floating material on New Bullards Bar Reservoir.

2.1 Collection of Floating Material

Historically, floating material, mostly wood, begins to accumulate on the surface of New Bullards Bar Reservoir during spring runoff in April and May when the reservoir is filling. The material accumulates at the upper end of the reservoir or in coves, but can disperse throughout the reservoir based on wind direction and speed, and the dispersal pattern may change from week to week. The amount of floating material varies by year, with the most material occurring in wet years following a series of dry years. Floating logs and other material poses a potential hazard to the public, particularly boaters, jetskiers and waterskiers. To provide for public safety, YCWA has historically removed this material annually from the reservoir.

No earlier than March 16, YCWA shall begin to collect the floating material by capturing portions of the material in enclosed floating log booms and dragging the material by boat to the storage areas described in Section 2.2.

The boats used for the collection of floating material shall be placed on the reservoir at Cottage Creek Boat Launch, moored there during the work, and may be removed or moored there when the work is complete.

If boats or booms have been removed from the reservoir, prior to launching the boats and using the log booms each year, YCWA shall inspect the boats and booms for aquatic invasive species and, if any signs of aquatic invasive species are found, the boats and booms shall be cleaned to remove those species.

The boats dragging the material shall fly flags which will advise recreation boaters of unsafe conditions in the vicinity of YCWA's boats.

To the extent possible, YCWA will make a good faith effort to assure that New Bullards Bar Reservoir is substantially free from floating material by the beginning of each recreation season (i.e., by the Memorial Day holiday weekend). However, it is understood that in some years, the collection of floating material will continue into the recreation season.

Material that naturally settles on the shoreline as New Bullards Bar Reservoir lowers prior to collection shall remain on the shoreline – YCWA is not required to collect, store or dispose of this material.

2.2 Storage of Material

2.2.1 Storage Areas

Historically, YCWA places log booms across and stores floating material in one or more of three coves.

On February 4, 2004, the United States Department of Interior, Fish and Wildlife Service (USFWS) released a Biological Opinion for the New Bullards Bar Reservoir Safety and Annual Maintenance Project (BiOp) (USFWS 2004). The BiOp was in response to a TNF October 21, 2002, request for informal consultation under Section 7 of the federal Endangered Species Act (ESA) regarding, among other activities, YCWA's disposal of wood debris accumulated in the reservoir by piling and burning. The species of concern in the BiOp were bald eagle (*Haliaeetus leucocephalus*), California-red-legged frog or CRLF (*Rana draytonii*), Lahonton cutthroat trout (*Oncorhynchus clarki*) and valley elderberry longhorn beetle (*Desmocerus californicus*), all of which were listed as threatened under the ESA in 2002.[6,7]

According to the BiOp, four physical requirements for wood debris disposal sites are needed to stockpile and dispose of wood. These include:

- Have a low-gradient slope at the water's edge so that wood can be floated onto the shoreline.
- Possess a cove-like shape, to facilitate effective booming of wood while water levels are high.
- Have nearby road access for heavy equipment, needed to pile wood for burning.
- Be large enough to accommodate estimated yearly wood volumes, including periodic years with medium to high water flows.

The Forest Service and YCWA surveyed New Bullards Bar Reservoir and selected three locations (referred to in the BiOp as the Primary, Secondary and Tertiary burn sites, and shown on Figure 2.1-1) on the west bank of Garden Point Penninsula for wood disposal that would meet the following wildlife objectives:

- Minimize the risk of adversely affecting CRLF
- Protect bald eagle breeding at the reservoir

[6] Bald eagle is no longer listed under the ESA, and valley elderberry longhorn beetle is proposed for de-listing.

[7] Prior to this Forest Service consultation with the USFWS, on April 4, 2000, in response to the Pendola Fire, the Forest Service sent a letter to YCWA and Yuba County requesting assistance on the implementation of a seasonal closure from January 1 through August 31 of Garden Valley Road and Tractor Cove, which is located on Garden Valley peninsula in New Bullards Bar Reservoir, with the goal of minimizing disturbances from people and boats during the bald eagle nesting season. YCWA agreed to assist the Forest Service, and a closure of Garden Valley Road and Tractor Cove from January 1 through August 31 has been in place each year since 2001.

- Protect wintering eagles
- Reduce adverse effects to fish and wildlife habitat

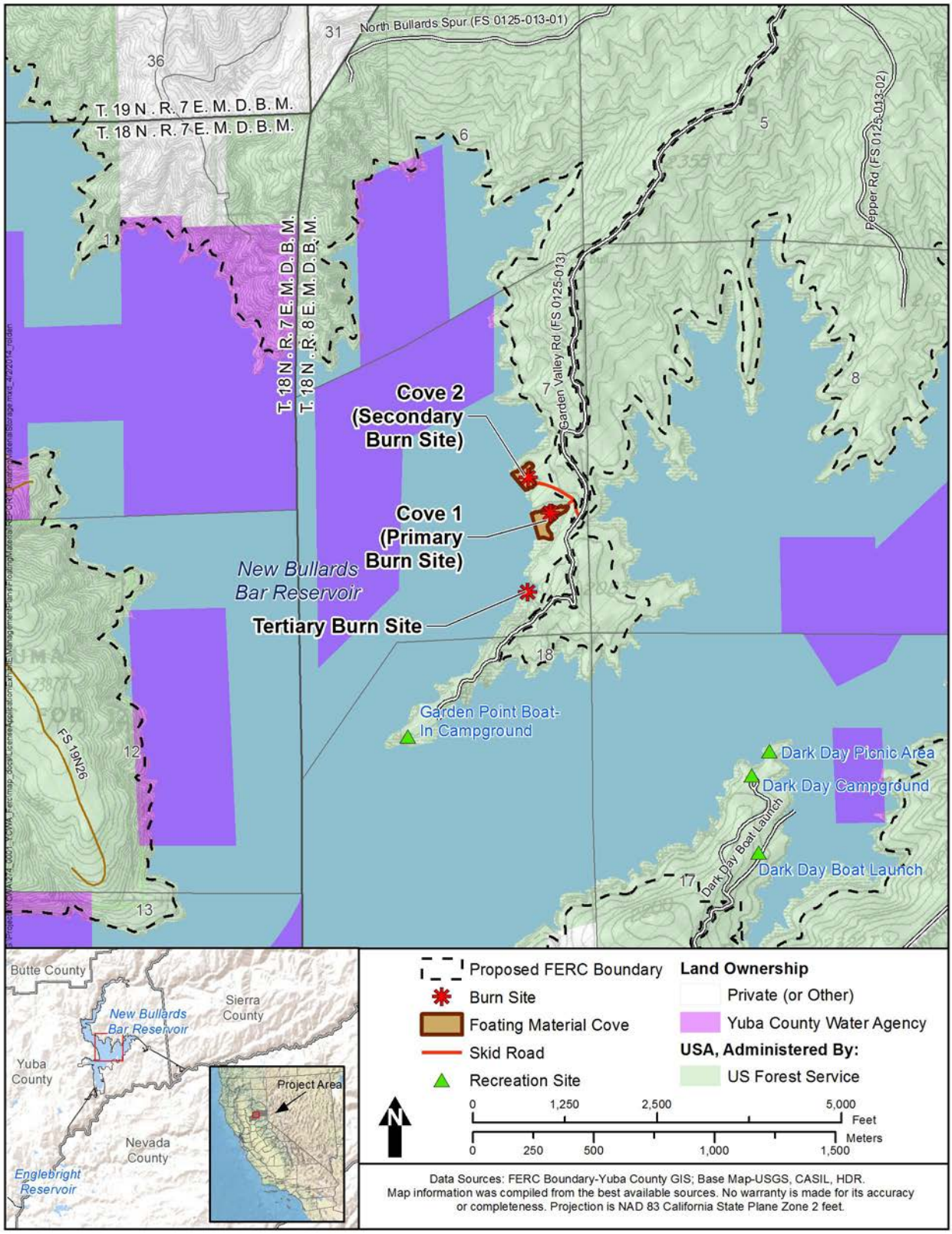

Figure 2.2-1. Location of burn sites, which were identified in USFWS' 2004 BiOp, and YCWA's proposed floating material sites, Cove 1 and Cove 2.

USFWS determined the action, using these burn sites, was not likely to adversely affect CRLF, Lahonton cutthroat trout and valley elderberry longhorn beetle. With regards to bald eagle and the removal and disposal of woody debris from New Bullards Bar Reservoir, the BiOp specified the following four conservation measures that would protect bald eagles:

- Implement a Limited Operating Period (LOP) from January 1 through August 31 (or one month past fledging) within 0.25 mile of the Garden Point bald eagle breeding territory. If monitoring identifies the nest tree being used that year, the area for the LOP may be adjusted to within 0.25 miles (mi) of the nest trees. If a tree, other than the current Garden Point bald eagle nest tree is used, all activities will be re-evaluated based on their proximity to the new nest.
- Implement an LOP from January 1 through August 31 for burning debris and stockpiling wood at the Primary, Secondary and Tertiary burn sites (Figure 2.2-1) for expansion territories identified in the *Bullards Bar Reservoir Fish and Wildlife Management Plan*. The season may be shortened from January 1 to June 30, if sufficient monitoring can determine that bald eagles are not nesting within 0.25 mi of the proposed activities. Wood gathering from the water surface may still occur within 0.25 mi of the expansion territories.
- Apply an LOP from November 15 through March 15 to activities within 0.25 mi of the normal maximum water surface elevation to protect wintering bald eagles. Extend the LOP from November 1 through March 15 for areas within 0.25 mi of the dam and winter night roost.

With these conditions, the BiOp concluded the action of collecting, storing and disposing of floating material at the Primary, Secondary and Tertiary sites was not likely to jeopardize the continued existence of the bald eagle.

This Plan continues the use of the BiOp's proposed Primary and Secondary burn sites, which are associated with Cove 1 and Cove 2, respectively. YCWA has found that the Tertiary Burn Site is too steep to be a reasonable storage and burn area. This Plan includes a third location to replace the proposed Tertiary Burn Site.

The locations of the storage and burn coves in this Plan are shown in Figures 2.2-1 and 2.2-3. All three coves are located on NFS land. Coves 1 and 2 located on the east side of New Bullards Reservoir on Garden Valley peninsula within the TNF, and Cove 3 on the west side of the reservoir in Moran Cove within the PNF. Information regarding each cove is provided below.

2.2.1.1 Cove 1

Cove 1, which was identified as the Primary Burn Site in the BiOp, is YCWA's preferred storage location and is adequate to store floating material in normal years. The cove is relatively flat and encloses an area of approximately 2.4 acres (ac). YCWA expects that Cove 1 can store approximately 3,000 cubic yards of debris, and would be used every year. Figure 2.2-2 shows a photograph of Coves 1 and 2 with the log booms in place and material stored in Cove 1. In this

figure, no material is stored in Cove 2. In addition, Figure 2.2-2 shows the skid roads to Coves 1 and 2.

Figure 2.2-2. Coves 1 and 2 with the log booms in place and material stored in Cove 1.

Cove 1 and Cove 2 are accessed by traveling 2.5 mi from County Road 158 along Garden Valley Road (USFS Road 0125-013), which is gated by the Forest Service at two locations and is closed from January 1 through August 31. The first gate is located on Garden Valley Road at the intersection with County Road 158, and the second gate is located on Garden Valley Road just off Pepper Road (USFS Road 0125-013-02). From Garden Valley Road, Cove 1 is accessed over a 0.1-mi long skid road, which is opened and put to bed by YCWA each year it uses the skid road. The skid roads do not have a Forest Service road designation.

The nearest sensitive area to Cove 1 is the Garden Point bald eagle nest at Tractor Cove, which is located approximately 0.25 mi southeast of Cove 1. Cove 1 is not associated with any known bald eagle wintering night roosts, or expansion territories identified in the BiOp. YCWA's relicensing studies found one cultural resources site 0.2 mi away from the cove, and not along the skid road. YCWA's relicensing studies did not identify any other sensitive areas along, within or adjacent to the skid road and Cove 1.

2.2.1.2 Cove 2

Cove 2, which was identified as the Secondary Burn Site in the BiOp, is YCWA's preferred first option to store material when Cove 1 cannot store all the material collected on the reservoir in a year. The cove is relatively flat and encloses an area of approximately 1.3 ac. Based on recent experience, YCWA expects that Cove 2 can store approximately 3,000 cubic yards of debris.

The cove is accessed by a 0.1-mi long skid road from the skid road that accesses Cove 1 (Figure 2.2-3). YCWA will open the skid road and put it to bed each year YCWA uses Cove 2.

The nearest sensitive area to Cove 2 the Garden Point bald eagle nest at Tractor Cove described above, which is located approximately 0.3 mi southeast of Cove 2. Cove 2 is not associated with any known bald eagle wintering night roosts, or expansion territories identified in the BiOp. YCWA's relicensing studies found one cultural resources site 0.3 mi away from the cove, and not along the skid road. YCWA's relicensing studies did not identify any other sensitive areas along, within or adjacent to the skid road and Cove 2.

2.2.1.3 Cove 3

Cove 3 (apportion of Moran Cove) is YCWA's preferred option to store material when Coves 1 and 2 cannot store all the material collected on the reservoir in a year (Figure 2.2-3). As stated above, YCWA has found that the Tertiary Burn Site is not a suitable site to dispose of material due to steep terrain. The cove is relatively flat and encloses an area of approximately 5.0 ac. Based on recent experience, YCWA anticipates that Cove 3 (Moran Cove) would be used approximately once every 10 years.

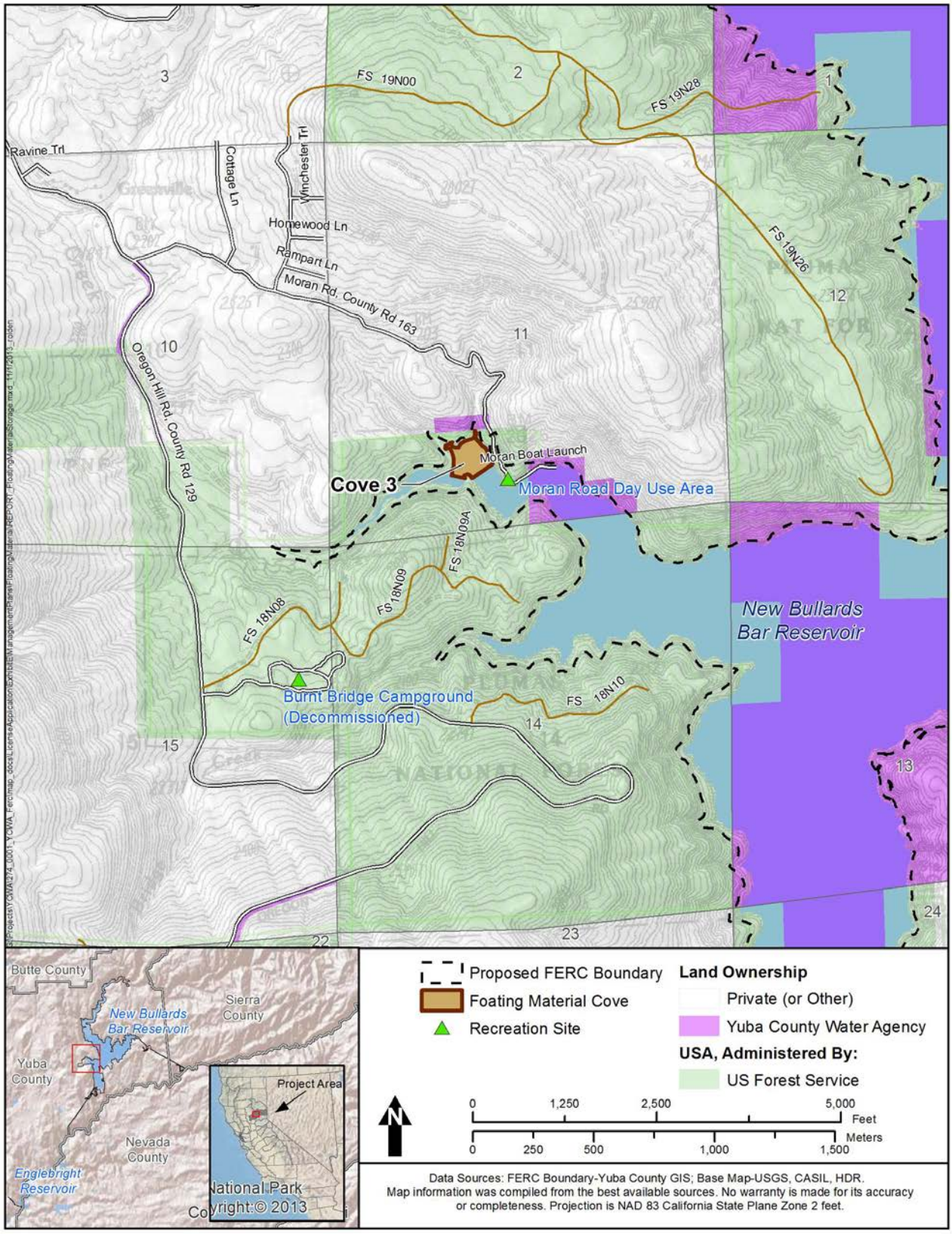

Figure 2.2-3. Location of Cove 3.

Figure 2.2-4 is an aerial view of Cove 3 showing the nearby road and where log booms would be placed.

Figure 2.2-4. Cove 3 with the locations for log booms in Cove 3.

The cove was used by YCWA in the past as the primary location for storage of floating material, but use was discontinued due to the potential effect on CRLF.

The cove is accessed from County Road 163, which is ungated, over a combination of private and NFS land to the cove. A skid road would not be needed.

The nearest sensitive area to Cove 3 is a cultural resource site about 0.1 mi from the site and not along the access road. Cove 3 is also adjacent to a California spotted owl (*Strix occidentalis occidentalis*) Protected Activity Center. An area of documented occurrences of CRLF occurs approximately 0.7 mi west. Cove 3 is within designated CRLF Critical Habitat Unit YUB-1 (75 Federal Register 12815), which contains other potentially suitable habitats for CRLF. Little Oregon Creek bisects the Critical Habitat Unit and terminates near Cove 3. Although use of Little Oregon Creek or Cove 3 by CRLF has not been documented, a competing and predatory introduced species, American bullfrog (*Lithobates catesbeianus*), has been observed by Forest Service in the creek and in the vicinity of Cove 3. In addition, according to the USFWS 2004

BiOp, Cove 3 is located within 0.5 mi of a bald eagle night roost, and adjacent to the Burnt Bridge expansion territory. Furthermore, YCWA's relicensing studies did not document use of the bald eagle night roost reported in the BiOp.

2.2.2 Storage Process

2.2.2.1 Coves 1 and 2

Prior to storing floating material in Cove 1 and in Cove 2, which will only be used if Cove 1 is full, YCWA shall invite the TNF to inspect the skid roads and coves with YCWA prior to their use.

YCWA shall then place a log boom across Cove 1. A log boom will only be placed across Cove 2 if YCWA anticipates the cove will be needed that year for material that cannot be accommodated in Cove 1.

YCWA shall then place the collected material behind the log booms.

Once the cove is dry enough for equipment to operate safely, and respecting the bald eagle LOP, YCWA shall open the skid road and a tractor will place the material into piles that are roughly 30 feet in diameter and 20 feet high. YCWA anticipates that Coves 1 and 2 can each accommodate approximately 20 such piles.

YCWA shall then invite the TNF to inspect the piles, which shall remain in place until they are burned, as described in Section 2.3.1.

2.2.2.2 Cove 3

Cove 3 will only be used if Coves 1 and 2 cannot accommodate storage of floating material in that year, and with the prior consent of the PNF. In those cases, storage of material in Cove 3 shall be in accordance with the agreement with the PNF, which may include monitoring for CRLF and other amphibians prior to burning.

2.3 Disposal of Material

2.3.1 Coves 1 and 2

With the exception described below, YCWA shall burn the piles of material no earlier than September 1 and only after 2 inches of rain falls in a 24-hour period, and no later than November 14. YCWA shall obtain the necessary permits and approvals for burning from the Forest Service and any other agency with jurisdiction over the burning. Use of tractors to facilitate burning is allowed.

YCWA may allow the United States Army Corps of Engineers, or others as approved by the Forest Service, to remove some of the piled material for use outside of NFS land.

When the material has been burned and the skid road(s) have been put to bed, YCWA shall invite the Forest Service to inspect the site.

2.3.2 Cove 3

In cases where the floating material loading has been extremely heavy, and if the PNF has agreed that YCWA can use Cove 3, YCWA will endeavor to dispose of the material within the same year (i.e., no later than November 14 of that year). If the woody debris cannot be disposed of in that time period, a qualified biologist will survey the site for YCWA to assess whether the condition of the site has enhanced conditions for American bullfrog, which may necessitate bullfrog control efforts. Disposal of material shall be in accordance with the agreement with the PNF.

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SECTION 3.0

REPORTING, CONSULTATION AND PLAN REVISION

3.1 Reporting and Consultation

No reporting to or consultation with the Forest Service in addition to that described in Section 2 is required.

3.2 Plan Revisions

YCWA, in consultation with the Forest Service will review, update, and revise the Plan, as needed, when significant changes in the existing conditions occur. Any updates to the Plan will be prepared in coordination and consultation with the Forest Service. Sixty days will be allowed for the Forest Service to provide written comments and recommendations before YCWA files the updated plan with FERC for FERC's approval. YCWA will include all relevant documentation of coordination/consultation with the updated Plan filed with FERC. If YCWA does not adopt a particular recommendation by the Forest Service, the filing will include the reasons for not doing so, based on Project-specific information. YCWA will implement the Plan as approved by FERC.[8]

[8] The Plan will not be considered revised until FERC issues its approval.

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SECTION 4.0

REFERENCES CITED

United States Fish and Wildlife Service (USFWS). 2004. *Biological Opinion for the New Bullards Bar Reservoir Safety and Annual Maintenance Project.*

United States Department of Agriculture, Tahoe National Forest (TNF). 1990. Tahoe National Forest Land and Resource Management Plan. Department of Agriculture. Nevada City, California. 687 pp. and appendices.

_____. 1988. Land and Resource Management Plan. USDA Forest Service. Pacific Southwest Region. Plumas National Forest.

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