



Draft Application for a New License
Major Project – Existing Dam

Erosion and Sediment Control Plan

SECURITY LEVEL: PUBLIC

Yuba River Development Project
FERC Project No. 2246

Draft – December 2013

©2013, Yuba County Water Agency
All Rights Reserved

Table of Contents

Section No.	Description	Page No.
	Glossary - Definition of Terms, Acronyms and Abbreviations	GLO-1
1.0	Introduction.....	1-1
1.1	Background.....	1-1
1.1.1	Yuba River Development Project	1-1
1.2	Purpose of the Erosion and Sediment Control Plan.....	1-5
1.3	Objectives of the Erosion and Sediment Control Plan.....	1-5
1.4	Contents of the Erosion and Sediment Control on National Forest System Land Plan	1-5
2.0	Methods for Minimization of Erosion and Sedimentation During Continued Project Operation and Maintenance.....	2-1
2.1	Overall Erosion and Sediment Control Planning Process for the Yuba River Development Project.....	2-1
2.2	Measures Related to New Construction.....	2-4
2.3	Measures Related to Other Emergency Erosion Control Events	2-4
3.0	Reporting, Consultation and Plan Revisions	3-1
3.1	Annual Consultation Meeting	3-1
3.2	Plan Revisions.....	3-1
4.0	References Cited	4-1

List of Figures

Figure No.	Description	Page No.
1.1-1.	Yuba River Development Project existing facilities and features.	1-3
2.1-1.	Erosion and sediment control plan process flow chart.	2-3

List of Tables

Table No.	Description	Page No.
	None	

List of Attachments

Attachment A: Forest Service Erosion Control Best Management Practices

Page Left Blank

GLOSSARY - DEFINITION OF TERMS, ACRONYMS AND ABBREVIATIONS

Term	Definition
BMP	Best Management Practices, as they relate to the erosion and sediment control
CVRWQB	Central Valley Regional Water Quality Control Board
Cal Fish and Wildlife	California Department of Fish and Wildlife
CDFG	California Department of Fish and Game, now called California Department of Fish and Wildlife
CDFW	California Department of Fish and Wildlife, formally California Department of Fish and Game, or CDFG
CVRWQCB	Central Valley Regional Water Quality Control Board
FERC	Federal Energy Regulatory Commission
Forest Service	United States Department of Agriculture, Forest Service
NFS	National Forest System
NMFS	National Marine Fisheries Service
Plan	Erosion and Sediment Control on National Forest System Land Plan
PNF	Plumas National Forest
Project	Yuba River Development Project, FERC Project No. 2246
SWPPP	Stormwater Pollution Prevention Plan
TNF	Tahoe National Forest
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
YCWA	Yuba County Water Agency

Page Left Blank

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, filed with the Federal Energy Regulatory Commission (FERC) an Application for a New License for Major Project – Existing Dam – for YCWA’s 361.9 megawatt Yuba River Development Project (Project), FERC 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 includes in its Application for New License this Erosion and Sediment Control Plan (Plan).

The United States Department of Agriculture, Forest Service’s (Forest Service) Federal Power Act (FPA) § 4(e) authority only applies in this Plan to Project facilities on National Forest System (NFS) land, and the United States Army Corps of Engineers’ (USACE) FPA § 4(e) authority only applies in this Plan to Project facilities on federal land administered by the USACE. The Forest Service administers the Plumas National Forest (PNF) in conformance with the PNF Land and Resource Management Plan (USDA 1988), and administers the Tahoe National Forest (TNF) in conformance with TNF Land and Resource Management Plan (USDA 1990).

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 2011 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.

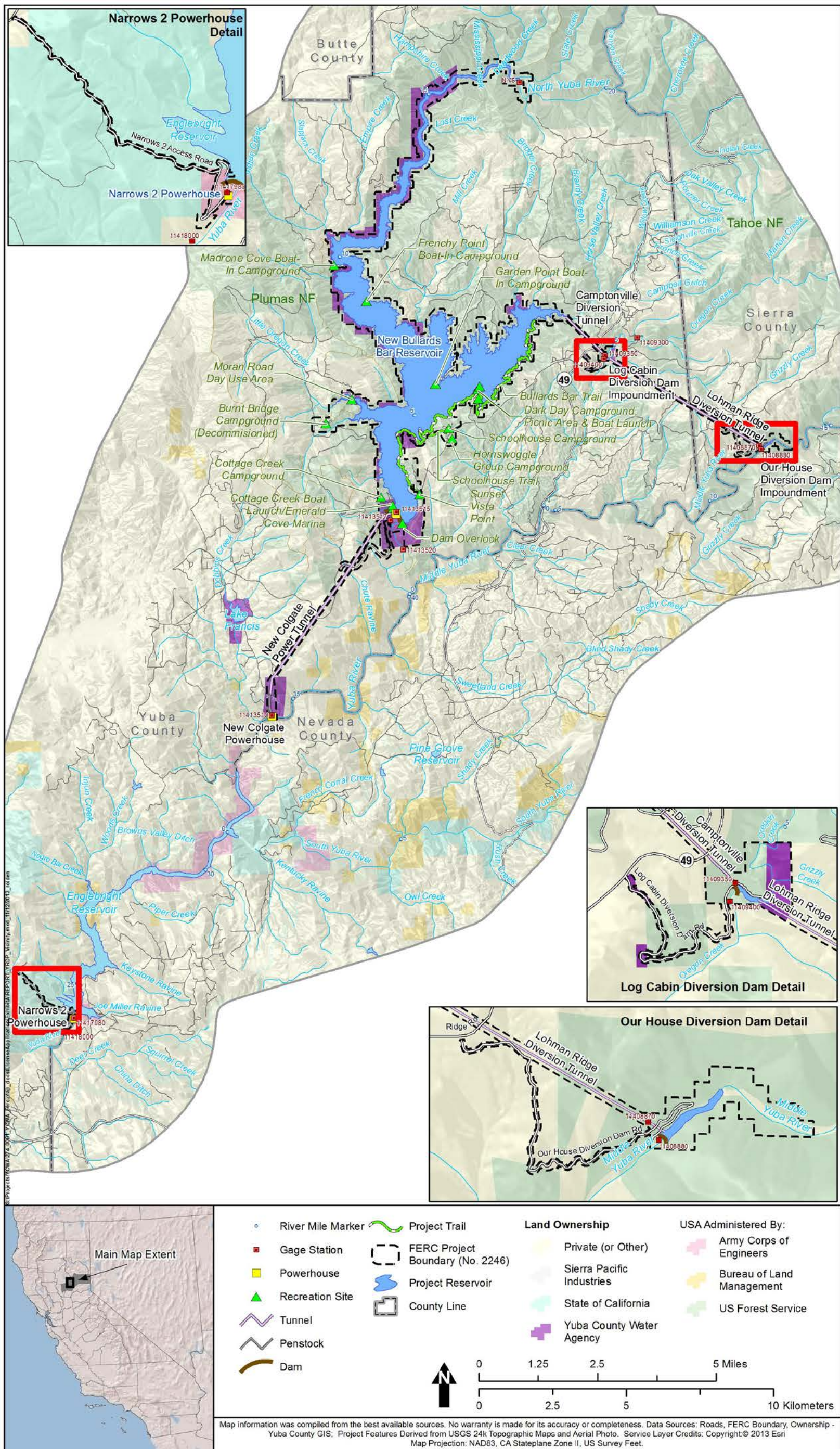


Figure 1.1-1. Yuba County Water Agency's Yuba River Development Project and Project Vicinity.

Page Left Blank

1.2 Purpose of the Erosion and Sediment Control Plan

The purpose of this Plan is to minimize future erosion and sedimentation related to the Project, with special emphasis on NFS land.

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 Objectives of the Erosion and Sediment Control Plan

The objectives of the Plan are to describe existing YCWA⁶ and Forest Service Best Management Practices (BMP) (Attachment A) to control site specific erosion and sedimentation impacts during new construction, reconstruction, and heavy maintenance of Project facilities, including emergency erosion control measures and protocols to control sedimentation during or after severe storm events.

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

1.4 Contents of the Erosion and Sediment Control on National Forest System Land Plan

This Plan includes the following:

- Section 1. Introduction. This section includes introductory information, including the purpose and goals of the Plan.
- Section 2. Methods for Minimization of Erosion and Sedimentation during Continued Project Operation and Maintenance. This section describes the methods for minimization of site-specific erosion and sedimentation impacts during continued operation and maintenance of the Project, including potential slope failures, new construction and/or reconstruction of Project facilities.
- Section 3. Reporting, Consultation and Plan Revisions. This section describes reporting, consultation and Plan revisions.
- Section 4. References Cited. This section lists references cited in this Plan.

⁶ YCWA's erosion control BMPs include sediment control measures, such as silt fences, sandbag and straw barriers, revegetation of areas after ground-disturbing activities, re-grading slopes to prevent concentrated runoff into water bodies, scheduling activities outside of the rainy season (when possible), and installation of rock revetment structures.

Page Left Blank

SECTION 2.0

METHODS FOR MINIMIZATION OF EROSION AND SEDIMENTATION DURING CONTINUED PROJECT OPERATION AND MAINTENANCE

2.1 Overall Erosion and Sediment Control Planning Process for the Yuba River Development Project

Figure 2.1-1 is a flowchart that describes the overall erosion and sediment control planning, consultation, permitting, treatment, and monitoring pathways for the Project. Erosion treatment projects are either planned in advance (Box 1 in Figure 2.1-1) or arise as, and are initially implemented as, emergency actions (Box 2 in Figure 2.1-1). All permanent erosion control/stabilization activities will require consultation with the Central Valley Regional Water Quality Control Board (CVRWQCB), and Forest Service when on or affecting NFS land (Box 10 in Figure 2.1-1) prior to implementation. Permanent erosion control features are defined as constructed features such as drainage features, rip-rap and retaining walls.

If erosion control takes place on an emergency basis, then notification to the CVRWQCB, Forest Service when on or affecting NFS land, and FERC may be necessary (Box 4 in Figure 2.1-1). If after the emergency erosion control actions are completed, more permanent stabilization measures are needed, then YCWA will prepare a site plan with appropriate remediation and monitoring measures (Box 6 in Figure 2.1-1). If the emergency action does not require more permanent stabilization activities, then no other erosion control measures are implemented (Box 5 in Figure 2.1-1).

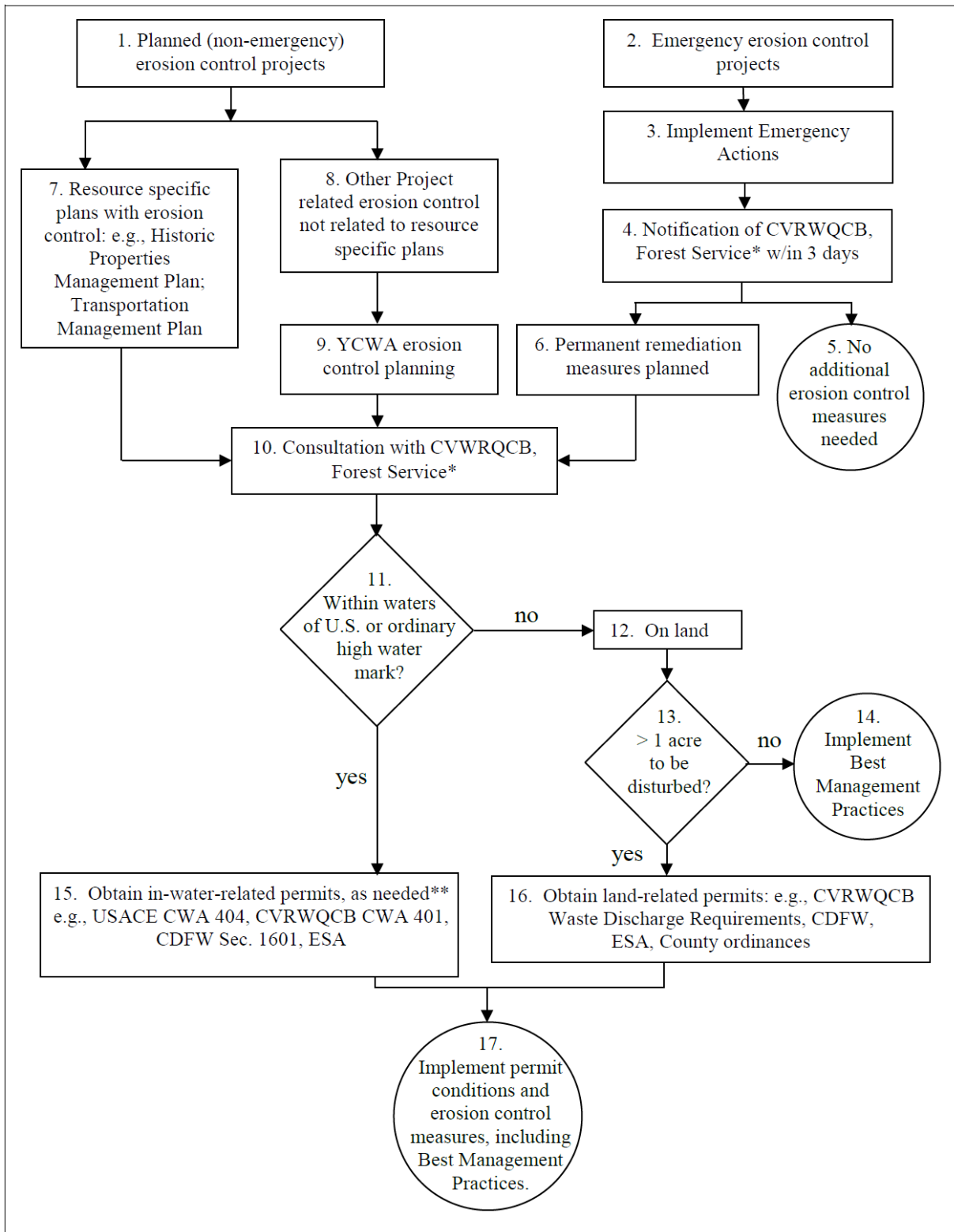
Planned (non-emergency) erosion control activities fall into one of two categories: 1) those associated with an erosion control element in a specific resource plan included in the new license (e.g., Historic Properties Management Plan and Transportation Management Plan) (Box 7 in Figure 2.1-1); and 2) any Project-related erosion control not addressed by specific resource plans included in the new license (Box 8 in Figure 2.1-1). All non-emergency erosion treatment plans and designs will require consultation with Forest Service when on or affecting NFS land and potentially the CVRWQCB (Box 10 in Figure 2.1-1) prior to implementation.

Erosion treatment projects that fall within designated “waters of the U.S.” may be subject to a United States Army Corps of Engineers (USACE) permit (Box 11 in Figure 2.1-1). This may be a Nationwide or an Individual permit, depending upon the specific circumstances.

Erosion treatment projects may also be subject to a California Fish and Wildlife Code § 1600 permit from the California Department of Fish and Wildlife (Cal Fish and Wildlife) if it falls within the annual high water designation (Box 11 in Figure 2.1-1). For construction projects that are not within the defined waters of the USACE or within the annual high water designation, neither a USACE nor Cal Fish and Wildlife permit would be required.

Construction work that disturbs a land area greater than 1 acre may be subject to a Statewide General Permit for stormwater discharge associated with construction activity, which may require a Stormwater Pollution Prevention Plan (SWPPP) (Box 16 in Figure 2.1-1). If the Project is smaller than 1 acre of land disturbance, then the Statewide General Permit is not required (Box 14 in Figure 2.1-1).

After the appropriate permits are obtained, and in compliance with the requirements of such permits, YCWA would implement the erosion treatment (Box 17 in Figure 2.1-1).



* Forest Service consultation applies when on or affecting NFS land.

**Resource agencies may include CVRWQCB, CDFW, USFWS, NMFS, USACE, the County Planning Department and others, as appropriate.

Figure 2.1-1. Erosion and sediment control plan process flow chart.

2.2 Measures Related to New Construction

Temporary erosion prevention and control measures will be implemented during construction or reconstruction of Project facilities and infrastructure. This includes, but is not limited to, reconstruction at dam sites, road reconstruction, and recreation site development, where ground disturbance and/or vegetation removal is expected. These measures will be based on local, state and federal permit requirements and BMP's for NFS land, YCWA BMP's, including the development of a SWPPP. YCWA, or its contractor(s), shall prepare and implement a SWPPP during development of detailed construction plans and drawings, and prior to initiating erosion control measures for each site larger than 1 acre. A copy of the SWPPP shall remain on the site while the site is under construction, commencing with the initial mobilization and ending with the termination of coverage under a USACE permit, if applicable.

Non-storm water BMPs shall be implemented by YCWA year-round for any construction or maintenance activity within the FERC Project Boundary. Measures shall be site-specific for each planned construction project and could extend past the final construction inspection by up to 2 years, if re-vegetation is included for more permanent site stabilization and erosion control.

2.3 Measures Related to Other Emergency Erosion Control Events

YCWA shall be prepared to monitor for unexpected, emergency erosion control events within the FERC Project Boundary that develop in response to significant events (e.g., storms and wildfires). Erosion control measures will include the protocols for documentation of specific erosion threats, appropriate agency notifications, and short/long-term actions that can be taken to stabilize each site and address public safety.

SECTION 3.0

REPORTING, CONSULTATION AND PLAN REVISIONS

3.1 Annual Consultation Meeting

Each year during the term of the license, YCWA shall arrange to meet with the Forest Service, for an annual meeting to discuss erosion and sediment control on or affecting NFS land within the FERC Project Boundary. The date of the meeting will be mutually agreed to by YCWA and the Forest Service, but in general, will be held in spring of each calendar year. It is the intent that this meeting will occur as part of the Annual Consultation Meeting, described in YCWA's proposed Condition GEN1. YCWA will maintain a record of the meeting for inspection by the FERC.

3.2 Plan Revisions

YCWA, in consultation with the Forest Service, will review, update, and/or revise the Plan, as needed, when significant changes in existing conditions occur. Any updates to the Plan will be prepared in coordination and consultation with the Forest Service. A minimum of 60 days will be allowed for the Forest Service to comment and make recommendations before YCWA files the updated plan with FERC, including relevant documentation of coordination and consultation with the Forest Service, for FERC's approval. 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.

Page Left Blank

SECTION 4.0

REFERENCES CITED

United States Department of Agriculture (USDA), Forest Service (Forest Service). 1988. Land and Resource Management Plan. USDA Forest Service. Pacific Southwest Region. Plumas National Forest.

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

Page Left Blank

**Erosion and Sediment Control Plan
on National Forest Land**

Attachment A

Forest Service Erosion Control BMP's

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

Draft - December 2013

©2013, Yuba County Water Agency
All Rights Reserved

**R5 FSH 2509.22 - SOIL AND WATER CONSERVATION HANDBOOK
CHAPTER 10 - WATER QUALITY MANAGEMENT HANDBOOK**

12.21 Exhibit 13
BMP 2.13 - Erosion Control Plan

Objective: Effectively limit and mitigate erosion and sedimentation from any ground-disturbing activities, through planning prior to commencement of project activity, and through project management and administration during project implementation.

1. Provide seamless transition between planning-level (NEPA) mitigation descriptions and on-the-ground implementation of erosion-control measures tailored to site conditions.
2. Ensure that all disturbance-related mitigation requirements and provisions for field revisions or modifications are accurately captured in one comprehensive document for each project or activity.
3. Activities include, but are not limited to: timber sale harvest; facility site, road, bridge, trail and appurtenance construction, reconstruction, and maintenance; watershed improvement; road and trail decommissioning; legacy site restoration, administratively permitted activities; and vegetation and fuels management activities.
4. Comply with overarching area plans, such as Northwest Forest Plan and Sierra Nevada Framework Plan Amendment.

Explanation: Ground-disturbing activities can result in erosion and sedimentation. By effectively planning for erosion control, sedimentation can be controlled or prevented. Engineering and hydrology personnel jointly develop mitigation recommendations and preliminary BMPs using an interdisciplinary team during the project planning process and environmental analysis phase. Erosion control plans are not to be confused with design features whose primary objective is to provide or improve water quality, such as a bridge; reinforced earth retaining wall; or landscaping. The long-term mitigation objectives are typically described in the NEPA document for the project, and then refined in project drawings and specifications as design features. Short-term mitigation measures to prevent erosion and sedimentation are described in detail in the project's erosion control plan.

Project mitigations are conceptually described in NEPA analyses but are typically generic. Detailed mitigation measures are based on site-specific surveys, conditions, and characteristics, and are developed in the project design phase. They are ultimately displayed in the project document's design documents (specifications and drawings) based on site-specific surveys, conditions, and characteristics. Furthermore, field personnel have the responsibility to make refinements or additional recommendations to adjust to actual current and predicted future conditions.

**R5 FSH 2509.22 - SOIL AND WATER CONSERVATION HANDBOOK
CHAPTER 10 - WATER QUALITY MANAGEMENT HANDBOOK**

12.21 Exhibit 13 -- Continued
BMP 2.13 - Erosion Control Plan

This flexibility is a necessary and desirable component of project implementation, but must ultimately result in implementation of requirements to protect soil and water quality. To ensure that all required and relevant mitigation measures are documented and implemented, an environmental control plan will be prepared to complement design (design addresses required mitigations specified in NEPA documents), site-specific prescriptions, and amended to include changes made in the field. Detailed and accurate environmental control plan will allow Forest Service and Water Board staff to conduct efficient, meaningful inspections of ground-disturbing projects, and will provide a needed check to ensure that mitigation measures for addressing impacts from the activities are accurately communicated to field staff.

Implementation: Ground-disturbing activities will be exempt from the requirement to prepare an erosion control plan under any of the four exemption categories below:

1. Area-based - less than 50 square feet in riparian area; less than 10,000 square feet in a non-riparian area;
2. Activity-based - activities conducted under a categorical exclusion with no wheeled or tracked equipment, or included under North Coast Regional or State waiver Category A;
3. Site-condition criteria - project locations that are: outside of riparian areas and on soils with high infiltration rates (more than 2 inches per hour) and on slopes less than 15 percent.
4. Flexibility criteria - any activity approved by the forest hydrologist with documentation explaining the rationale for the exemption.

BMP checklists will be prepared for all projects (see section 16) even if an erosion control plan is not necessary.

Erosion control plans for any ground-disturbing activity not meeting the exemption categories above will be reviewed and recommended by the forest hydrologist, and approved and signed by the District Ranger. The hydrologist's recommendation and signature indicates that all mitigation measures prescribed in environmental documents and project plans, or resource specialist's recommendations are included on the environmental control plan. The Forest Supervisor will approve and sign the environmental control plan for forestwide ground-disturbing activities, such as annual road maintenance.

All forests shall develop wet weather operations standards (WWOS). The purpose of the WWOS is to provide guidance with the end result of preventing significant adverse impacts to water quality from wet weather operations on NFTS roads and trails. Such operations may include

**R5 FSH 2509.22 - SOIL AND WATER CONSERVATION HANDBOOK
CHAPTER 10 - WATER QUALITY MANAGEMENT HANDBOOK**

12.21 Exhibit 13 -- Continued
BMP 2.13 - Erosion Control Plan

winter hauling, fuelwood gathering, public access for hunting or Christmas tree cutting, administrative access on closed roads for springtime burning of slash piles, reforestation activities, snow plowing, or other ground disturbance outside normal operating season. WWOS must include notification protocols for informing resource specialists (hydrologists, biologists, soil scientists) as well as line officers prior to initiation or continuation of a project or activity into wet weather season.

Project field operations cannot begin until the District Ranger approves and signs the plan. The erosion control plan will be kept on site during project activity and made available for review upon request of a representative of the Water Board or any local storm water management agency which receives the storm water discharge. The erosion control plan shall be amended if there is a change in control practices, site conditions, or BMPs that may result in less water-quality protection than specified in the project's environmental document, project plan, accepted erosion control plan, or permit/waiver. The amendment must include: name of person requesting the change; a description of the change, including revised BMPs or control practices to mitigate the effects of the change; and why the change is needed.

Even the best erosion and sediment control plan cannot cover the specifics of each situation that will arise on a site during the life of a project. All parties involved in the project have a role and responsibility to ensure the activity complies with the goals or intent of the erosion control plan at all times. All temporary erosion and sediment control practices must be maintained and repaired as needed to assure continued performance of their intended function.

Erosion Control Plan Contents

1. Erosion and Sediment Control shall include:
 - a. List of anticipated ground-disturbing actions associated with the project (for example, stream diversion; exposed cut slopes; stripped and stockpiled topsoil; water source development or use)
 - b. Checklist which includes mitigation measures required by project NEPA, and in some cases CEQA documents, requirements to meet BMPs, project plans, specifications, and permits, if any. The selection of erosion and sedimentation control measures shall be based on assessments of site conditions and how storm events may contribute to erosion. Control measures will be selected from the references provided in the On-Line Library at the end of section 12, or will be of equivalent effectiveness as the measures described in those references.

**R5 FSH 2509.22 - SOIL AND WATER CONSERVATION HANDBOOK
CHAPTER 10 - WATER QUALITY MANAGEMENT HANDBOOK**

12.21 Exhibit 13 -- Continued
BMP 2.13 - Erosion Control Plan

- c. Illustrations of control practices designed to prevent erosion and sedimentation. Illustrations must show construction and installation details for control practices, and must be included in the erosion control plan. (for example, California Stormwater Quality Association BMP standard specifications CASQA at <http://www.cabmphandbooks.com>, or Caltrans Stormwater and Water Pollution Control guides at <http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm>)
- d. Map/drawing(s) showing soil or water buffer zones, RCAs, RCHAs, SMZs or other soil or water protection areas to be protected from project activities. Project boundary extends beyond disturbance limits.
- e. A description of the color and/or pattern of flagging or marking for soil or water buffer zones, RCAs, RCHAs, SMZs or other soil or water protection areas for each unit.
- f. Relevant sections from the forest's WWOS that apply to activity/activities. The WWOS will provide guidance to prevent significant adverse impacts to water quality from wet weather operations on NFTS roads and trails.
- i. Forest motor vehicle use map will be used to determine seasonal closures for all NFTS routes that are not under permit or for administrative use only.
- (1) A storm preparedness plan that describes additional control practices to be implemented when the National Weather Service predicts a 50 percent or greater chance of precipitation.
- (2) A winterization plan that describes additional control practices to be implemented to stabilize the site during periods of seasonal inactivity. The dates vary by locality, and may be determined by the individual RWQCB (for example, October 15 through May 1). "Winterized" means that the site is stabilized to prevent soil movement permanently if project activities are complete, or temporarily in a manner which will remain effective until end of the stabilization period.
- (3) If winter activity, including over-snow operation is proposed, specifications for snow/ice depth or soil operability conditions must be described.
- g. Control practices to reduce the tracking of sediment onto paved roads. These roads will be inspected and cleaned as necessary.

**R5 FSH 2509.22 - SOIL AND WATER CONSERVATION HANDBOOK
CHAPTER 10 - WATER QUALITY MANAGEMENT HANDBOOK**

12.21 Exhibit 13 -- Continued
BMP 2.13 - Erosion Control Plan

- h. Control practices to reduce wind erosion and control dust.
 - i. A proposed sequential schedule to implement erosion and sediment control measures, in addition to the general construction schedule.
 - j. Location information, including directions to access the project area. Include a scaled map, with road names/numbers.
 - k. Contact information of project personnel, including name and cell phone number (that is, sale administrator, contracting officer's representative, project manager, project supervisor, contractor, site superintendent, hydrologist, permit administrator and so forth)
2. Maps requirements: Maps must be clear, legible, and of a scale such that depicted features are readily discernable. For example, sale area maps may be used to satisfy the mapping requirements outlined in b.ii, below, if they meet this intent.
- a. As a means of determining BMPs and erosion control measures, a topographic map should be in the project file. The map should extend beyond the boundaries of the project site, showing the project site boundaries, and surface and subsurface water bodies (ephemeral and intermittent waters, springs, wells, and wetlands) that could be at risk of water-quality impacts from project activities.
 - b. For timber harvest activities, unit-specific map(s) shall be scaled no smaller than 1 inch equals 1,000 feet (1:12,000). For all other activities, maps shall be scaled to provide legible interpretation of requirements shown above. All maps shall include:
 - (1) Specific locations of storm water structures and controls used during project activities.
 - (2) Erosion hazard ratings for each unit, specified down to 20 acres if different EHRs exist within each unit.
 - (3) Locations of existing and proposed haul roads, watercourse crossings, skid trails, and landings.
 - (4) Locations of post-project storm water structures and controls.
 - (5) Equipment access, storage, and service areas.

**R5 FSH 2509.22 - SOIL AND WATER CONSERVATION HANDBOOK
CHAPTER 10 - WATER QUALITY MANAGEMENT HANDBOOK**

12.21 Exhibit 13 -- Continued
BMP 2.13 - Erosion Control Plan

3. **Diversion of Live Streams:** If the project involves stream diversions for crossing construction, the erosion control plan must include detailed plans for these activities, including storm contingencies. See BMP 2.8 - Stream Crossings.
4. **Non-Storm Water Management:** The erosion control plan shall include provisions which eliminate or reduce the discharge of materials other than storm water to the storm sewer system and/or receiving waters. Such provisions shall ensure that discharged materials shall not have an adverse effect on receiving waters. Materials other than storm water that are discharged shall be listed, along with the estimated quantity of the discharged material.
5. **Waste Management and Disposal:** The erosion control plan shall describe waste management and disposal practices to be used at the project site. All wastes (including equipment and maintenance waste) removed from the site for disposal shall be disposed of in a manner that is in compliance with Federal, State, and local laws, regulations, and ordinances. Include plan for project-specific activities that produce waste products, such as concrete truck/chute/pump washout, equipment servicing, equipment washing, and so forth.
6. **Maintenance, Inspection, and Repair:** The erosion control plan shall include inspection, maintenance and repair procedures to ensure that all pollution-control devices identified in the erosion control plan are maintained in good and effective condition and are promptly repaired or restored. A qualified person shall be assigned the responsibility to conduct inspections. The name and telephone number of that person shall be listed in the erosion control plan. A tracking and follow-up procedure shall be described to ensure that all inspections are done by trained personnel and that adequate response and corrective actions have been taken in response to the inspection. This procedure may be in the form of a written checklist, with inspections signed and dated. Photo documentation is encouraged.
7. **Other Plans:** This erosion control plan may incorporate, by reference, the appropriate elements of other plans required by local, State, or Federal agencies. A copy of any requirements incorporated by reference shall be kept in the project file.
8. **Post-Project Storm Water Management:** The erosion control plan shall describe the storm water control structures and management practices that will be implemented to minimize pollutants in storm water discharges after project activity phases have been completed at the site. It shall also specify controls to be removed from the activity site(s) and methods for their removal. The discharger must consider site-specific factors and

**R5 FSH 2509.22 - SOIL AND WATER CONSERVATION HANDBOOK
CHAPTER 10 - WATER QUALITY MANAGEMENT HANDBOOK**

12.21 Exhibit 13 -- Continued
BMP 2.13 - Erosion Control Plan

seasonal conditions when designing the control practices that will function after the project is complete.

9. Preparer: The erosion control plan shall include the title and signature of the person responsible for preparation of the erosion control plan, the date of initial preparation, and the person and date responsible for any amendments to the erosion control plan.

10. Template: The Forest Service will develop sample templates for erosion control plans based on activity type. Complexity of the template will be commensurate with the degree of risk to impact water quality by the activity.

