SPECIAL ENVIRONMENTAL INSPECTION REPORT
(ELECTRONICALLY SUBMITTED)
FEDERAL ENERGY REGULATORY COMMISSION
Division of Hydropower Administration and Compliance

San Francisco Region

Conducted on August 6, 2004

Project Name Middle Fork American River **Project No.** 02079

Development Ralston Afterbay Dam and Oxbow Powerhouse

Licensee Placer County Water Agency **License Type** Major

License Issued March 13, 1963 **Expires** February 28, 2013

Location	Middle Fork American River	Tahoe and El Dorado National Forest
	(waterway)	**(reservation)**
	Placer	California
	(county)	**(state)**

Inspector Philip Scordelis

Parts of Project Inspected Ralston Afterbay and Middle Fork American River downstream

Weather Conditions Warm; clear; calm

Water Levels Low river inflow; normal reservoir level

Accompanied by John Scott, John Onderdonk – FERC San Francisco Regional Office; Steve Jones – Placer County Water Agency

Summary of Findings

An uncontrolled release of water from the Ralston Afterbay caused concern for public safety and aquatic resources downstream. No injuries or deaths were reported, and inspection of the river downstream of the dam did not find any significant or potential long-term impact.

Submitted August 31, 2004

Philip Scordelis
Fisheries Biologist

A. PURPOSE OF THE INSPECTION

The Regional Engineer, San Francisco Regional Office received notification on August 5, 2004, that two radial gates at the Ralston Afterbay Dam had opened unexpectedly at approximately 0600 hours, and that water had been released uncontrollably from the afterbay to the Middle Fork American River for about an hour (Photo 1). The licensee reported it had initiated part of the Emergency Action Plan, and the Regional Engineer received updates on the incident throughout the day. Local law enforcement and public safety agencies responded to the emergency and no deaths or injuries were reported.

Initial reports indicated that the afterbay was dewatered during the incident, and that a significant amount of sand and silt was transported to the river downstream of the afterbay dam. The reports also indicated that none of the material in the engineered fill designed to provide gravel to the lower river had moved from the vicinity of the Oxbow Powerhouse, approximately 900 feet downstream of the dam.

Staff from the Division of Dam Safety and Inspections and I conducted a site visit on August 6, 2004, to determine the cause of the release and to assess its impact on aquatic resources downstream of the dam.

B. INSPECTION FINDINGS

The licensee reported on August 10, 2004, that data from a gage 1.6 miles downstream of the dam indicated flow started to increase at about 0615 hours and that peak flow was about 5,850 cubic feet per second (cfs) at about 0700 hours. Flow of this magnitude is not unusual in the lower reaches of the Middle Fork American River, where the flood of record (1997) is over 100, 000 cfs.

The sudden, unexpected release of water from the Ralston Afterbay did not cause any injuries or deaths, although the amount of water released had the potential to cause them. The river below the dam receives heavy use from commercial rafting companies, which use the Oxbow Powerhouse tailrace channel for launching (Photo 2). The release occurred early enough in the morning that no rafters, gold miners, swimmers, anglers or other recreationists were on the river when it occurred.

No evidence of channel erosion was observed and no mud was deposited in the river channel downstream of the dam. The licensee reported during the inspection that as much as 10 feet of water remained in the afterbay when the gates were closed. Some turbidity was present in the afterbay, likely a result of its partial draining and refilling, which allowed the inflow to cut through exposed fine sediments. This material was being transported to the river downstream of the dam by flow from the Oxbow Powerhouse, but no streambed sedimentation was observed (Photos 3 and 4).

Inspection of the engineered fill designed to provide gravel to the lower river showed a

significant volume of material had been mobilized by the incident (Photos 5 through 8). Flows during the past two run-off periods had not been high enough to move any material. The licensee is preparing an estimate of the amount of gravel transported by the flow.

C. FOLLOW-UP ACTIONS

The licensee is collecting information on the cause of the release and its impacts; a report on its findings will be submitted to the Regional Engineer. I will review the report to assess the information on aquatic impacts, and will work with the project engineer to prepare a response.

D. EXHIBITS AND PHOTOGRAPHS

The following exhibits are provided to show the location of the project and to illustrate project features inspected:

2 figures and 8 photographs

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bcc: Scordelis SFRO

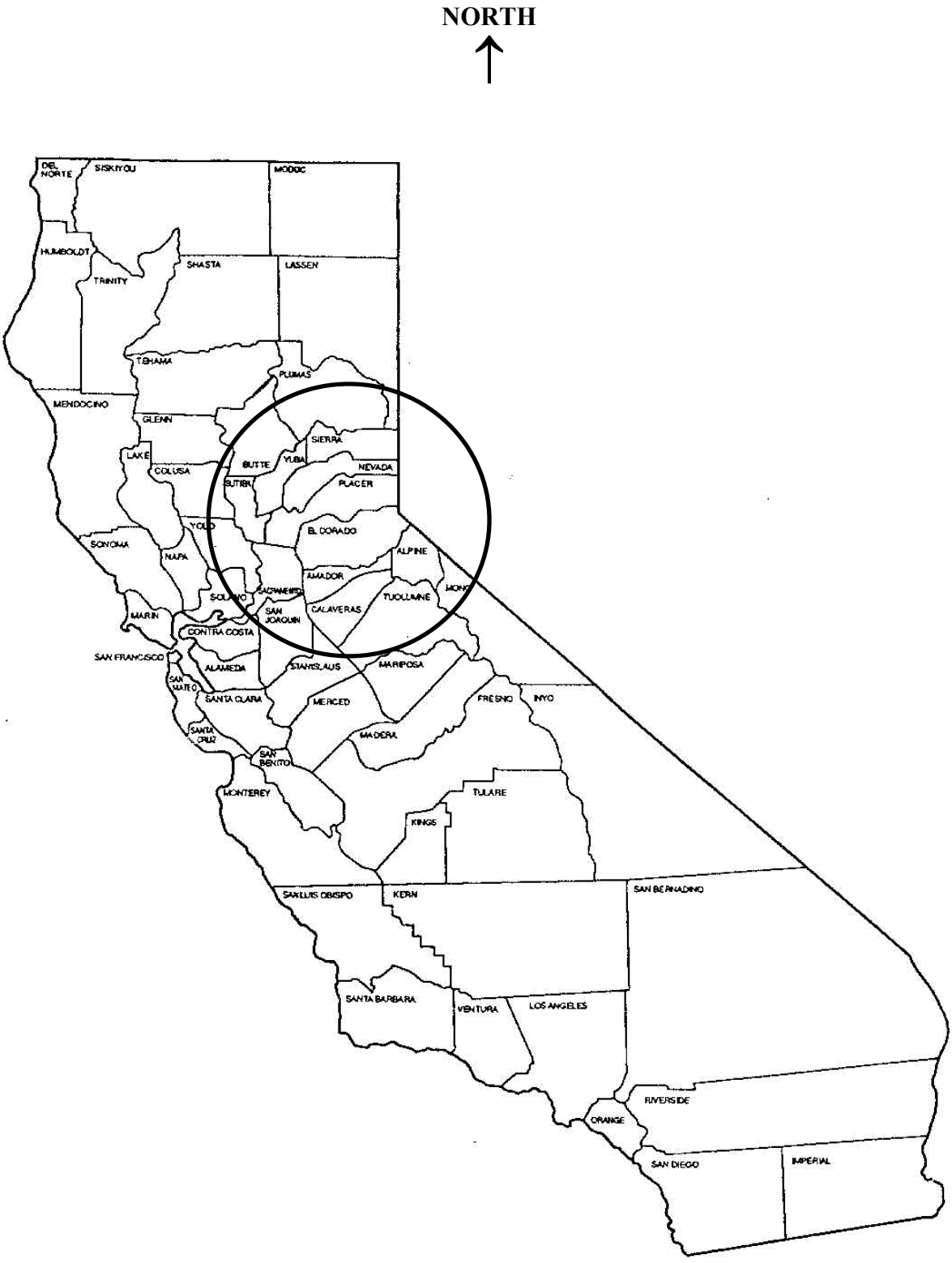


Figure 1. Project location map.

NORTH

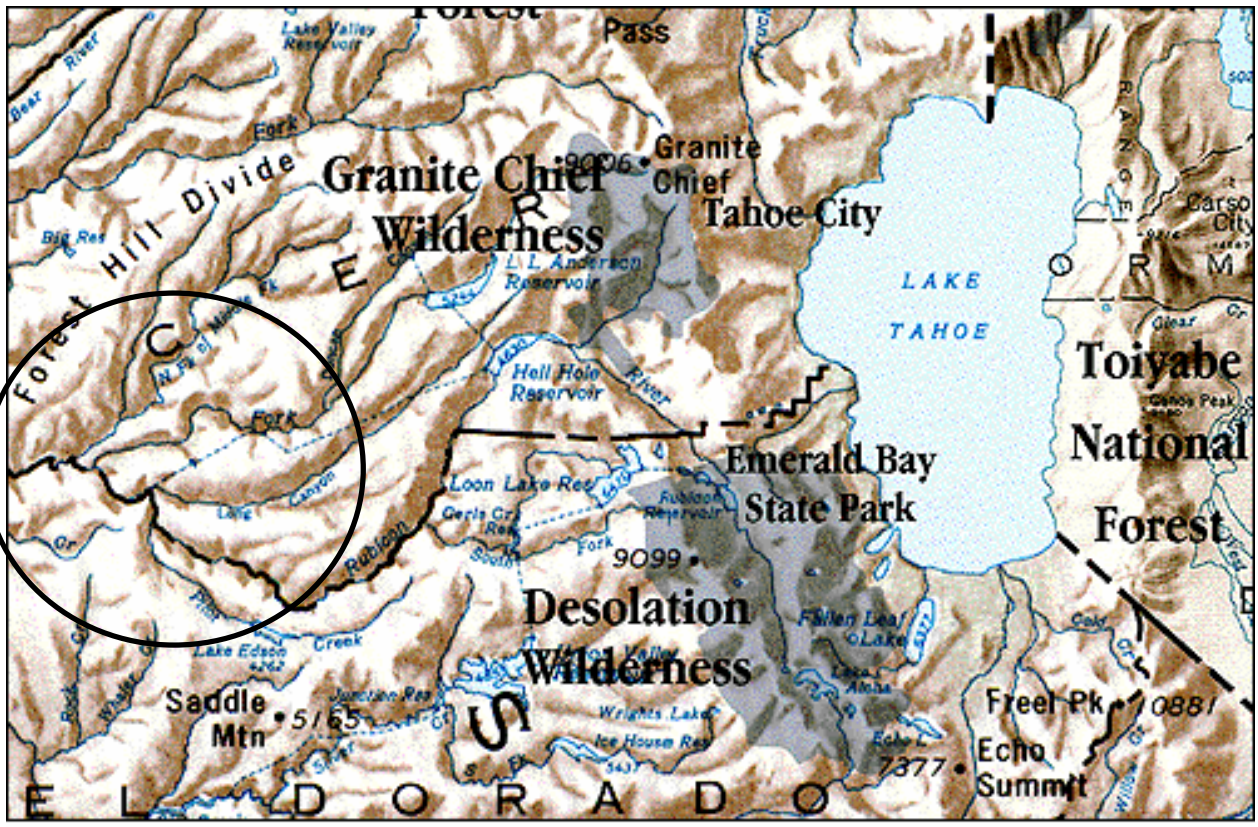


Figure 2. Project area map.

Photo 1. Ralston Afterbay Dam and afterbay at a very low elevation (note sand bars).

Photo 2. Rafters preparing to depart the Oxbow Powerhouse tailrace.

Photo 3. Turbid water in the Ralston Afterbay.

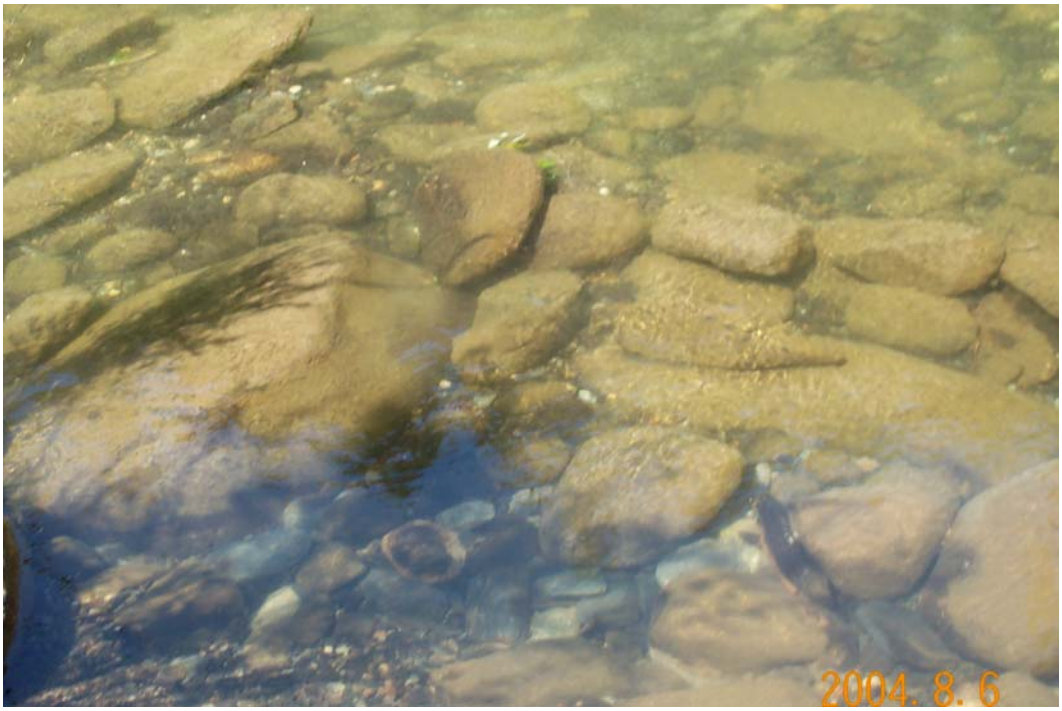
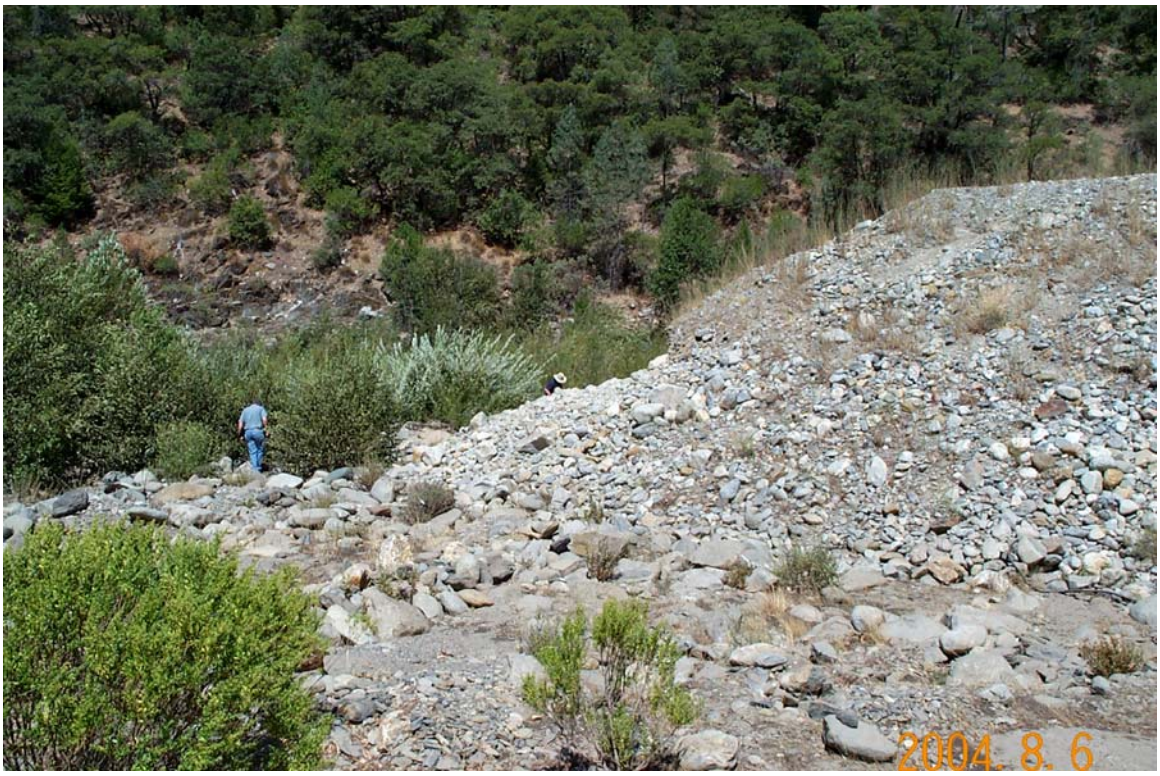


Photo 4. Water clarity in the Middle Fork American River below Ralston Afterbay.

Photos 5 and 6. Engineered fill near the Oxbow Powerhouse before and after the incident.



Photos 7 and 8. Edge of the engineered fill after the incident.