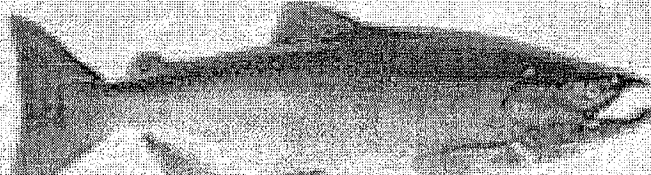


Public Draft

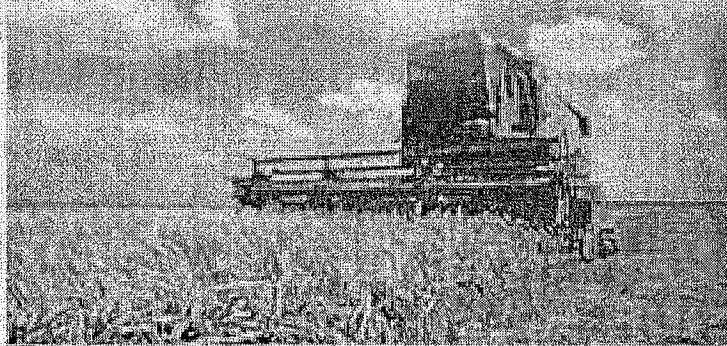
Fish Passage Improvement Project
at the



RED BLUFF DIVERSION DAM

EIS/EIR

ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT



CEQA Lead- Tehama-Colusa Canal Authority

NEPA Lead- U.S. Bureau of Reclamation

Prepared for

Tehama-Colusa Canal Authority
Willows, California

State Clearinghouse No. 2002-042-075

CH2MHILL

August 2002

Executive Summary

**Draft Environmental Impact
Statement/Environmental
Impact Report
Fish Passage Improvement
Project at the Red Bluff
Diversion Dam**

Lead Agencies
**Tehama-Colusa Canal Authority
and U.S. Bureau of Reclamation**

August 2002

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TABLE ES-3
Acreage of Habitat Impacts for Project Alternatives

Vegetation Habitat	No Action	Alternatives									
		1A: 4-month Improved Ladder		1B: 4-month Bypass		2A: 2-month Improved Ladder		2-month with Existing Ladders		3: Gates-out	
		Permanent Impact	Temporary Impact	Permanent Impact	Temporary Impact	Permanent Impact	Temporary Impact	Permanent Impact	Temporary Impact	Permanent Impact	Temporary Impact
Riparian	0	2.18	5.56	2.60	6.30	2.18	5.56	2.05	4.76	2.05	4.76
Freshwater marsh	0	0.05	0.71	0.05	0.71	0.05	0.71	0.05	0.71	0.05	0.71
Mixed woodland	0	0	0	1.37	4.30	0	0	0	0	0	0
Restored habitat	0	0	0	4.96	4.80	0	0	0	0	0	0
Annual grassland	0	0	0	0	0	0	0	0	0	0	0
Disturbed	0	11.75	44.12	12.90	51.70	11.75	44.12	11.36	41.35	11.36	41.3
Parkland	0	0.19	4.86	4.19	12.32	0.19	4.86	0	0	0	0

All of the alternatives require the removal of elderberry shrubs and three osprey nests. The removal of the elderberry shrubs could negatively affect VELB. Additionally, removal of the osprey nests could negatively impact the birds that were occupying two of the nests during the project area survey. Mitigation would reduce these impacts to a less than significant level.

Recreation

Potential project impacts on recreational opportunities, activities, and facilities of the project area were identified as a key concern of project stakeholders. Changes to recreation opportunities resulting from the proposed project alternatives were analyzed to determine the extent to which impacts may exist. While the project area is limited to RBDD and the Mill Site, the facilities examined in the physical recreational analysis are broader; extending north along the Sacramento River from RBDD to Ide Adobe State Historic Park.

According to a study by California State University, Chico, approximately 64,000 individuals recreated in and along the Sacramento River from RBDD to Ide Adobe State Historical Park during 1995. Most used one of three locations: River Park (also known as City Park), Ide Adobe State Historical Park, and the boat launch ramp area at the Red Bluff Recreation Area (Recreation Area) south of RBDD. More than half of the individuals counted in the survey recreated in the area during the summer months between May and September. This time frame also correlates to the current gates-in period of the dam, resulting in the creation of Lake Red Bluff.

Special holidays and well-attended activities result in increased recreation patronage during the summer, including the annual July 4 fireworks celebration at River Park and the Nitro National Drag Boat Festival on Memorial Day weekend.

Bypass construction would significantly impact the Sycamore Grove Campground and the outdoor recreational experience of campers. The campground would be bisected with a constructed channel structure, eliminating campsites and separating a portion of the Recreation Area. Additionally, the associated loss of riparian woodlands for educational/interpretive uses is in conflict with the Lake Red Bluff Final EIS (FEIS). The Lake Red Bluff FEIS stresses the importance of recreational uses in concert with the restoration of riparian habitat and public education of the area's natural environment.

Reduced gate operations under the 2-month gates-in alternatives and Gates-out Alternative would limit Lake Red Bluff recreational activities to 2 months annually, or eliminate lake recreation all together. These activities, characterized as "lake-dependent" include boating, jet skiing, water skiing, and swimming and would cause the greatest impact. Additionally, the Nitro National drag boat races could not be held over the Memorial Day holiday weekend. These impacts are significant to local residents and users of the recreational facilities. No mitigation has been identified that would reduce this impact.

Land Use

The predominant land use in the immediate area of the project is general industrial and recreation. A large portion of the land adjacent to Lake Red Bluff is the Recreation Area and is used for recreational and educational purposes. The project facilities lie entirely within the County of Tehama.

Generally, construction and operations of the proposed facilities would be consistent with existing land use and land use plans, with two exceptions: the bypass channel and changed gate operations.

Construction and operations of the 4-month Bypass Alternative would result in a conflict with the existing land use plan for the Recreation Area. The bypass channel would require removal of camping sites and would isolate the Discovery Center, drastically reducing its utility. Further, the existing Recreation Area has been developed through extensive volunteer efforts and has been the focus for many educational programs, which add to its unique character. Additionally, a number of boat ramps have been developed to take advantage of Lake Red Bluff. If gate operations were reduced to 2-month operations or gates-out operations year-round, these boat ramps would no longer be functional, causing impacts to current land use. No mitigation is available to offset these impacts.

Geology

The project area is on the upper member of the Riverbank Formation, a Late Pleistocene-age stream/terrace deposit of fluvial/deltaic origin. This unit consists of moderately well-consolidated, interconnected, and discontinuous layers and lenses of channel and overbank deposits containing varying mixtures of gray, brown, reddish-brown, and red-orange-brown gravel, sand, silt, and clay. These deposits occur along channels, floodplains, and natural levees of major streams; are highly permeable; and vary in thickness from 5 to 15 feet (Regional Water Quality Control Board, 1990).