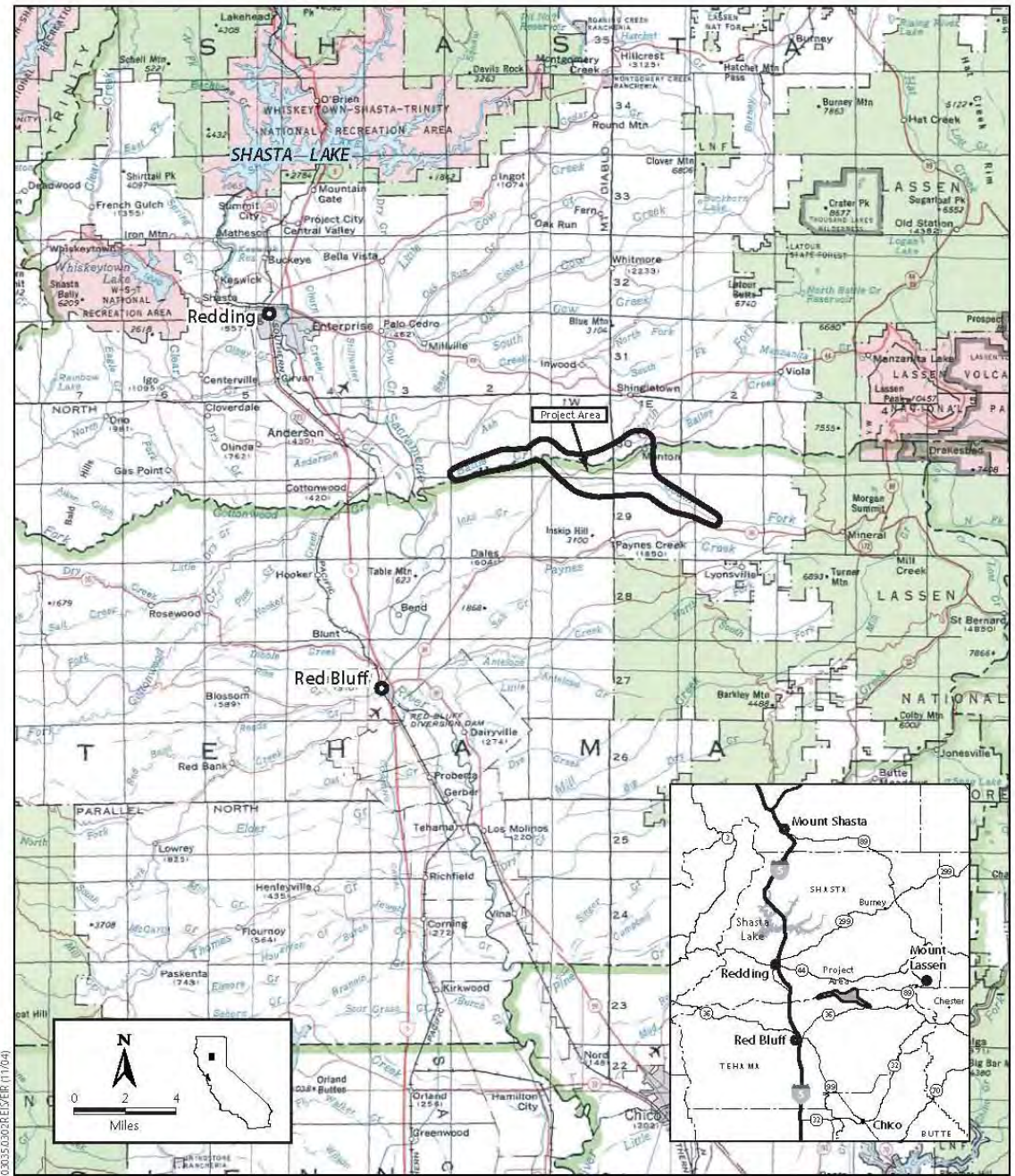


Battle Creek Salmon and Steelhead Restoration Project

(October 2009)



Springs near Eagle Canyon Diversion Dam



Location of the Battle Creek Salmon and Steelhead Restoration Project

Significance of Battle Creek

- **Battle Creek offers the geologic and hydrologic conditions to support the state and federally-listed spring-run Chinook salmon, winter-run Chinook salmon, and steelhead**
- **Restoration of habitat in Battle Creek would allow for improvement of these fish populations**
- **Improvement of these fish populations would improve the reliability in state and federal water project operations and salmon harvest**

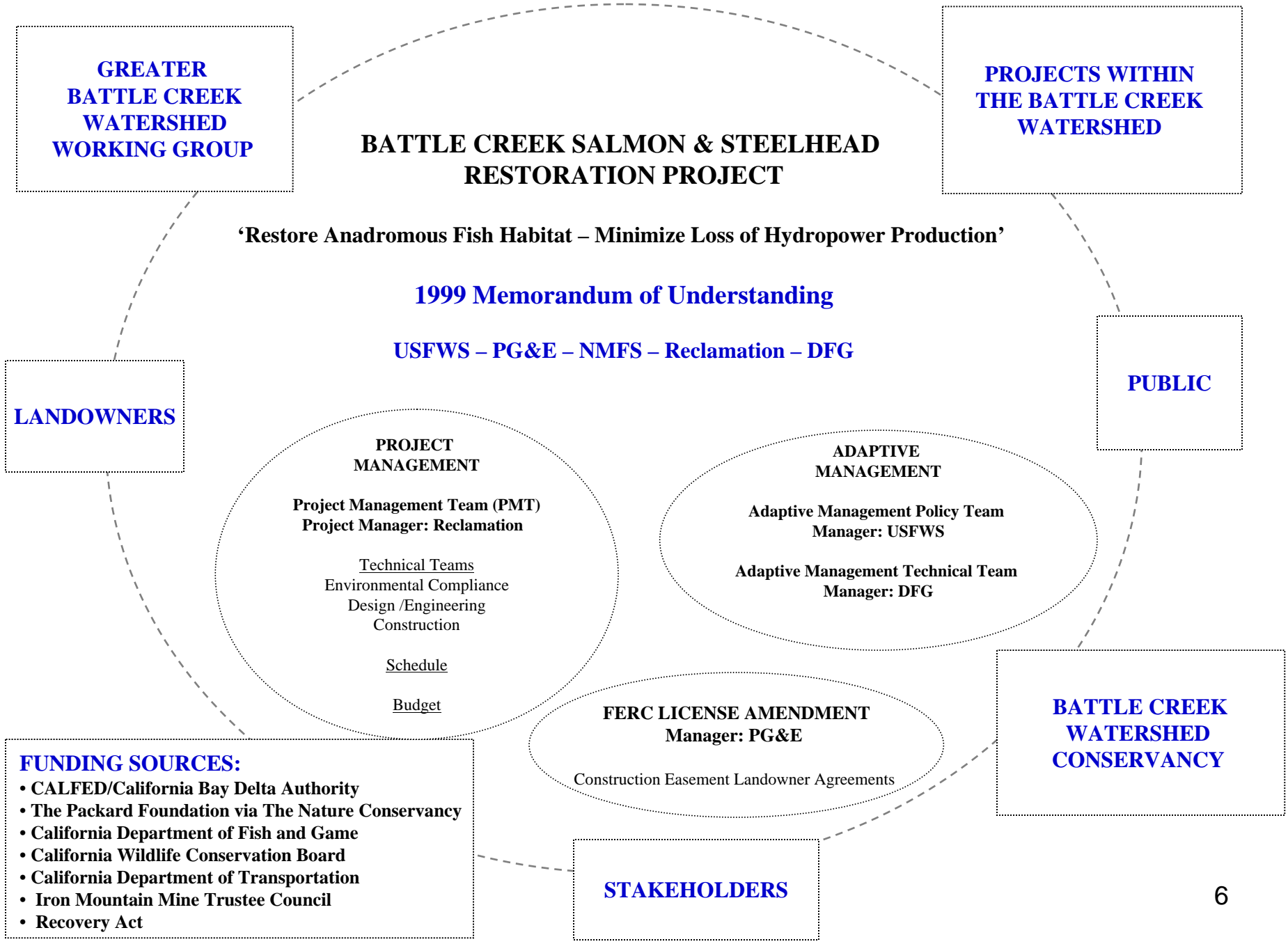
Battle Creek Salmon and Steelhead Restoration Project

- **The proposed Battle Creek Salmon and Steelhead Restoration Project (Restoration Project) presents an opportunity to restore and enhance approximately 42 miles of anadromous fish habitat in Battle Creek and an additional 6 miles of habitat in its tributaries. Habitat restoration and enhancement would enable safe passage for, and the growth and recovery of naturally-produced anadromous salmonids.**
- **The proposed Restoration Project can be accomplished through modification of Pacific Gas Electric Company's Battle Creek Hydroelectric Project, licensed by the Federal Energy Regulatory Commission (FERC).**
- **The purpose of the proposed Restoration Project is to restore and enhance anadromous fish habitat while minimizing the loss of clean and renewable energy produced by the Battle Creek Hydroelectric Project.**
- **Adaptive Management is an integral part of the Restoration Project.**

Partnerships with Other Agencies

Per a 1999 Memorandum of Understanding (MOU), the Restoration Project is a partnership effort between the DOI Bureau of Reclamation, National Marine Fisheries Service, U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (DFG), and Pacific Gas and Electric Company (PG&E).

- **Per the MOU, Reclamation's role is overall project management of design, environmental compliance, construction, budget and schedule.**
- **While Reclamation is the Federal Lead Agency for National Environmental Policy Act (NEPA) compliance, FERC is a Federal Cooperating Agency for NEPA compliance, and the California State Water Resources Control Board is the State Lead Agency for California Environmental Quality Act (CEQA) compliance.**
- **PG&E is managing the FERC License Amendment process.**
- **USFWS and DFG are managing Adaptive Management efforts.**
- **The California Department of Water Resources has been involved as the preparer of project screen and ladder designs.**



Restoration Project Features

- **Removal of five hydropower diversion dams**
- **Installation of screens and ladders on three hydropower diversion dams**
- **Increases in flow releases**
- **Dedication of water diversion rights for instream purposes at dam removal sites**
- **Elimination of mixing between North Fork Battle Creek and South Fork Battle Creek**

Battle Creek

Salmon and Steelhead Restoration Project



Figure 1
Restoration Project Facilities and Project Phases

Restoration Project Implementation

- **Project implementation includes modification of facilities at Hydroelectric Project diversion dam sites located on the North Fork Battle Creek (North Fork), South Fork Battle Creek (South Fork), and Baldwin Creek in three phases (Phases 1A, 1B & 2).**
- **Phase 1A includes installing fish screens and ladders at the North Battle Creek Feeder and Eagle Canyon diversion dams and removing Wildcat diversion dam and appurtenant conveyance systems on the North Fork; installing Eagle Canyon Canal pipeline; and modifying Asbury dam on Baldwin Creek.**
- **Phase 1B includes installing an Inskip Powerhouse tailrace connector and bypass to prevent discharges from entering directly into South Fork Battle Creek. (The discharges would be redirected into a pipeline and then into the Coleman Canal).**
- **Phase 2 includes installing a fish screen and ladder on Inskip diversion dam, installing a South Powerhouse tailrace connector, and removing Lower Ripley Creek Feeder, Soap Creek Feeder, Coleman and South diversion dams, and appurtenant conveyance systems.**

Restoration Project Funding

- **Reclamation received \$28 M in Calfed Federal Funds in 1999 for the Restoration Project.**

- **In July 2008, via funding agreements, Reclamation received \$49.25 M from the following sources to implement Phase 1A of the Restoration Project:**
 - DFG State (Proposition 50) Funds: \$26.82 M
 - California Wildlife Conservation Board (WCB) State (Proposition 50) Funds: \$9.98 M
 - California Department of Transportation (Caltrans) Benicia Bridge Mitigation State Funds: \$ 4.45 M
 - Caltrans Richmond San Rafael Bridge Mitigation State Funds: \$1.5 M
 - Iron Mountain Mine Mitigation Federal Funds: \$ 6.5 M

- **In April 2009, Reclamation received \$26 M in Recovery Act Funding to implement Phase 1B of the Restoration Project.**

- **Funding for Phase 2 of the Restoration Project has not been determined.**

North Fork Battle Creek



Eagle Canyon Spring Flows

The springs are vitally important to fishery restoration efforts. They provide cold water to the creek even in drought conditions, making Battle Creek unique in its ability to provide refuge for anadromous fish during droughts.

Eagle Canyon Diversion Dam

(Part of Phase 1A)



South Fork Battle Creek

Coleman Diversion Dam and Canal



Key Events Timeline

1999: Project funded as a directed action with \$28 million in CALFED Federal funds

March/September 2005: Final revised proposal submitted to the California Bay Delta Authority (CBDA) requesting \$73.5 million in additional funding

June 2005: Issuance of Biological Opinions from NOAA Fisheries and U.S. Fish and Wildlife Service

July 2005: Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) Completed

October 2005 CBDA Meeting: Authority decision to transfer remaining Ecosystem Restoration Program Funds to the California Department of Fish and Game (DFG)

September 2006: State Water Resources Control Board (State Water Board) certifies the EIR

March 2007: DFG issues CEQA Findings and a Notice of Determination in regard to a Funding Decision on the Restoration Project

July – November 2008: Phase 1A Funding Transfer Agreements Completed, and State and Federal Funding Received

July 2008: Pacific Gas & Electric Company Files Phase 1A License Amendment Application with Federal Energy Regulatory Commission (FERC)

December 2008: State Water Board filed Final CEQA Findings and issued Notice of Determination on the EIR, and issued the Clean Water Act Section 401 Water Quality Certifications for the project.

January 2009: Bureau of Reclamation Signs Record of Decision on the EIS

April 2009: Recovery Act Funding for Phase 1B Received

August 25, 2009; FERC Issues Phase 1A License Amendment Order

September 1, 2009: Reclamation awards 1st Phase 1A Construction Contract, Removal of Wildcat Dam and appurtenant conveyance systems

Projected Dates:

Fall 2009/ Winter 2009-2010: Phase 1A Construction Begins

2010/2011: Phase 1A Construction Completed

Spring 2010: Phase 1B FERC License Amendment Order

Spring 2010: Phase 1B Construction Begins

Late 2010/Early 2011: Phase 1B Construction Completed

It is currently unknown when Phase 2 will be funded and implemented.

Restoration Project Website:

www.usbr.gov/mp/battlecreek

Battle Creek Watershed Conservancy Website:

www.battle-creek.net

