

Chapter 7

Adaptive Management, Changed Circumstances, and Funding

This chapter explains adaptive management proposed for the Restoration Project, changed circumstances and remedial measures to ensure the success of conservation measures identified in this ASIP, and funding to implement the conservation measures.

Adaptive Management

A comprehensive draft *Battle Creek Salmon and Steelhead Restoration Project Adaptive Management Plan* (Adaptive Management Plan) (Appendix C) has been developed pursuant to the 1999 MOU (Appendix A) and is consistent with relevant CALFED guidelines (Chapter 3 in CALFED 1999). The Adaptive Management Plan has been incorporated as part of the Restoration Project's project description to ensure the success of fishery restoration efforts. For more information on the draft Adaptive Management Plan, see Chapter 2, "Project Description," and Appendix C in this report.

The ASIP does not include an adaptive management plan for implementing the conservation measures. The methods that will be used to implement the conservation measures (e.g., replacement of disturbed habitat) are well established and, therefore, the degree of certainty for their successful implementation is such that an adaptive approach to their implementation is not required.

Changed Circumstances and Remedial Measures

ASIPs are required to address circumstances that might change over the permit term and to provide remedial measures to address these changes. *Changed circumstances* are defined in Section 2802 of the NCCPA as "reasonably foreseeable circumstances that could affect a covered species or geographic area covered by the plan." Remedial measures differ from adaptive management in that remedial measures are predetermined actions that must be taken in the event of a changed circumstance. *Adaptive management*, by definition, does not include predetermined actions but rather identifies new responses based on the

results of management and new information acquired through monitoring and research.

Changed circumstances for which the project proponent is required to implement remedial measures are identified in Table 7-1.

Table 7-1. Changed Circumstances and Remedial Measures

Changed Circumstances	Remedial Measures
1. The creation or restoration of habitat in accordance with this ASIP is unsuccessful, or is successful but fails to provide essential elements for one or more of the covered species that use that habitat type.	Performance monitoring will determine the success of the action and may help identify causes of action failure; if necessary, additional investigations will be conducted to determine the cause of failure. Based on this assessment, modified or additional measures will be identified and implemented to correct or replace the habitat.
2. A toxic or hazardous substance spill occurs, affecting the ASIP conservation areas.	In the event of such loss, land management and habitat restoration measures will be implemented in conservation areas to ensure the restoration of the conservation area through active management or natural processes.

Funding

The following sections describe funding for Restoration Project conservation measures. In addition, this section presents an estimate of costs associated with implementing the conservation measures over the term of the ASIP.

Funding for Restoration Project Conservation Measures

In early 1999, Reclamation, NOAA Fisheries, USFWS, DFG, and PG&E signed an Agreement in Principle to pursue a restoration project for Battle Creek. In mid-1999, the parties signed a detailed, formal MOU (Appendix A) in conformance with the Agreement in Principle, allowing the release of \$28 million by CALFED of federal funding for the agencies' responsibilities in the partnership. Since the signing of the MOU in 1999, project costs have increased. Additional CALFED funding is currently being sought to fund the costs of implementing the Restoration Project, which includes implementing environmental conservation measures. If additional funds are not made available for physical implementation of the project, the Restoration Project will be suspended until said additional funds are made available.

To date, additional funding has not yet been approved for the Restoration Project; however, CALFED will likely be the primary funding agency to finance

Restoration Project conservation measures. Additional funding may be obtained through Central Valley fishery restoration funding sources, including CALFED's Comprehensive Monitoring Assessment Research Program and the CVPIA's Comprehensive Assessment and Monitoring Program.

Cost of Implementing Conservation Measures

As mentioned above, Reclamation is currently seeking additional funding from CALFED to implement the Restoration Project. According to the draft cost proposal that will be submitted to CALFED in April 2004, approximately \$2 million of the revised budget has been dedicated to implement conservation measures for the Restoration Project. These costs are summarized in Table 7-2.

Table 7-2. Approximate Cost Dedicated to Implement Conservation Measures

Conservation Measure	Funding Entity	Estimated Available Funds
Compensation for and monitoring loss of valley elderberry longhorn beetle habitat	CALFED requested funds to be administered by Reclamation	\$225,000
Compensation for temporary effects on wetlands	CALFED requested funds to be administered by Reclamation	\$175,000
Compensation for temporary effects on riparian forest and scrub	CALFED requested funds to be administered by Reclamation	\$126,000
Compensation for temporary effects on chaparral	CALFED requested funds to be administered by Reclamation	\$13,600
Compensation for temporary effects on grassland	CALFED requested funds to be administered by Reclamation	\$5,600
Compensation for temporary effects on valley/foothill woodland and forest	CALFED requested funds to be administered by Reclamation	\$987,500
Monitoring and maintenance of restored habitats	CALFED requested funds to be administered by Reclamation	\$197,500
Miscellaneous mitigation and monitoring before, during, and after construction	CALFED requested funds to be administered by Reclamation	\$300,000
Total Estimated Cost		\$2,030,200