

CR3 RESTORATION EFFORTS

This response is to many comments regarding restoration efforts and their role in the CALFED Program. The majority of the comments supported ecosystem restoration goals, with some individuals and groups indicating that the goals did not go far enough to preserve the ecosystem. Other comments focused on the removal of barriers and dams, with Englebright dam specifically mentioned in numerous comment letters.

Ecosystem Restoration has been given great importance in the CALFED Program. An Ecosystem Restoration Program (ERP) is part of the CALFED Preferred Program Alternative presented in the PEIS/EIR. The ERP is inter-related with the other program elements of the Preferred Program Alternative, as described in Common Response 1.

CALFED's Ecosystem Restoration Program is one of the largest, most comprehensive, and most inclusive environmental restoration programs in the United States. It provides a new perspective to restoration science by focusing on the rehabilitation, protection or restoration of ecological processes that create and maintain habitats needed by fish, wildlife and plant species dependent on the Delta and its tributary systems. This strategy emphasizes solid science, adaptive management and local participation: an innovative approach that is becoming a model for similar efforts throughout the nation. By restoring the natural processes that create and maintain diverse and vital habitats, CALFED aims to meet the needs of multiple plant and animal species while reducing the amount of human intervention required to maintain habitats.

The Ecosystem Restoration Program (ERP) identifies over 600 programmatic actions that, after being refined and prioritized, will be implemented throughout the Bay-Delta ecosystem and near-shore ocean environment over the 30 or more year implementation period of the Program. The ERP is described in the Ecosystem Restoration Program Plan (ERPP), a two volume set, and the Strategic Plan for Ecosystem Restoration. Volume I of the ERPP describes the health and interrelationships of the elements of the ERP. Volume II defines specific restoration prescriptions for ecological management zones and their respective units. The Strategic Plan for ecosystem restoration provides the conceptual framework and process that will guide the refinement, evaluation, prioritization, implementation, monitoring, and revision of ERP actions.

In addition to the documents listed above, please refer to Chapter 2 of the PEIS/EIR, Alternative Descriptions, for an overview of the Ecosystem Restoration Program. Please see Chapters 5, 6, and 7 of the PEIS/EIR for discussion of the environmental consequences related to this Program. Additional information is contained in the Revised Phase II Report, June 1999, specifically section 3.3.

CR 3.1 SUPPORT RESTORATION GOALS

Many comments were made that simply stated they were in support of the CALFED Ecosystem Restoration efforts, while not supporting other portions of the CALFED Program. No specific information was provided with these comments.

CR 3.2 SUPPORT REMOVING BARRIERS AND REMOVING EXISTING DAMS

Dams in any form block or hinder upstream and downstream migrations of anadromous fish, hinder or have eliminated the downstream movement of coarse sediments, and have altered streamflow and runoff patterns below the dams. As a result, stream channels below medium and large dams are typically deficient in coarse gravels necessary for spawning anadromous fish such as chinook salmon and steelhead, stream channels are fixed and do not meander except under extremely high flow or flood conditions, and riparian regeneration is sporadic due to altered flow patterns and lack of stream meander.

In general, the ERP recommends the following types of actions for fish passage problems at dams and diversions: upgrade existing fish ladder systems to improve fish passage where needed; construct fish ladders, where appropriate, to minimize blockages of upstream migrating anadromous fish behind weirs; provide adequate fish passage, including fish ladders, for small- to moderate-sized diversion dams; and where feasible and consistent with other uses, reconstruct diversions or remove dams to allow fish passage.

In all instances, projects are developed in a collaborative manner with participation by all affected and interested individuals, organizations, and local, state and federal agencies. Each project is evaluated on its technical and scientific merits and overall cost. Each site-specific action is required to comply with state and federal law and universally included the preparation of the appropriate NEPA/CEQA documentation.

For example, in the Feather River/Sutter Basin Ecological Management Zone section of Volume II of the ERP, it is recommended that a cooperative study be conducted to determine the feasibility of allowing spring-run chinook salmon and steelhead access to historical spawning and rearing habitats above Englebright Dam on the Yuba River. This collaborative study is guided by the Upper Yuba River Work Group which is comprised of local business and property owners, environmental groups, and state and federal agencies. This project is in the initial study phase to determine its feasibility. Elements to be evaluated include quantity and quality of anadromous fish habitat upstream and downstream of Englebright Dam, economic consequences, effect on downstream flood control, effect on local water supplies, and evaluation of sediment and contaminants within Lake Englebright. The feasibility study phase will determine if there is a potential project as defined by NEPA/CEQA for future evaluation or whether there is no feasible option to allow the introduction of salmon and steelhead to the Upper Yuba River watershed.

CR 3.3 GOALS DON'T GO FAR ENOUGH TO PRESERVE THE ECOSYSTEM

Many comments while supporting the ecosystem restoration program, noted that they felt the proposed Ecosystem Restoration Program did not go far enough to meet the needs of the ecosystem.

The Strategic Plan signals a fundamental shift in the way the ecological resources of the Bay-Delta ecosystem will be managed, because it embodies an ecosystem-based management approach with its attendant emphasis upon adaptive management. Traditional management of ecological resources has

usually focused upon the needs of individual species. Ecosystem-based management, however, is a more integrated, systems approach that attempts to recover and protect multiple species by restoring or mimicking the natural physical processes that help create and maintain diverse and healthy habitats.

Ecosystem restoration does not entail recreating any particular historical configuration of the Bay-Delta environment; rather, it means re-establishing a balance in ecosystem structure and function to meet the needs of the plant, animal, and human communities while maintaining or stimulating the region's diverse and vibrant economy. The broad goal of ecosystem restoration, therefore, is to find patterns of human use and interaction with the natural environment that provide greater overall long-term benefits to society as a whole.

The following sections contained in the Strategic Plan for Ecosystem Restoration provide additional information on constraints and uncertainty associated with the Ecosystem Restoration Program:

Chapter 1: Acknowledging Existing Constraints to Ecosystem Restoration
Acknowledging Future Constraints to Ecosystem Restoration

Chapter 2: Addressing The Uncertainty Inherent In Natural Systems Through Adaptive Management
Reducing Uncertainty By Learning From Restoration and Management Actions
Addressing Political, Regulatory And Economic Uncertainty

The Strategic Plan defines broad goals and objectives for the Bay-Delta ecosystem in Chapter 4. Volume II of the ERPP defines more specific targets and actions for the ecological management zones and units that comprise the larger Bay-Delta ecosystem.

CR3.4 Water for Ecosystem Restoration

Volume I of the Ecosystem Restoration Program Plan includes a section titled "Central Valley Streamflows". In this section, we present the background, the ecological function, the issues and opportunities and our vision for the restoration of instream flows to all of the streams and rivers tributary to the Delta.

In Volume II of the Ecosystem Restoration Program Plan, we propose target instream flows for each stream or river tributary to the Delta. These targets are organized by ecological management zones. Where sufficient data is available, we have been very specific in our targets. Where uncertainty remains, we have proposed programmatic actions to obtain and analyze the data necessary.

It is estimated that meeting the proposed Central Valley streamflow targets will require as much as 400,000 acre feet of water over and above the existing instream flow. In all cases, we intend to obtain this additional water by acquisition from willing sellers or by developing alternative supplies.

CALFED's Ecosystem Restoration Program will participate in the costs and benefits of water conservation, conjunctive use, ground water management and development, reoperation of existing

facilities and the yield from new storage.

Management of the proposed augmented streamflows in the Delta will be a function of the Environmental Water Account Program.

Water acquired or developed for ecosystem restoration purposes will be protected or guaranteed under California water rights law.

CR 3.5 Remove Barriers to Fish Migration

The CALFED Ecosystem Restoration Program is actively evaluating opportunities to remove barriers to fish migration. In most cases, the involves removing small diversion dams. We have removed dams on Butte Creek and will soon remove dams on Battle Creek. We are evaluating additional opportunities on Butte Creek, Clear Creek and Mill Creek. The potential also exists to eliminate Englebright Dam on the Yuba River as a barrier to fish passage. Please see CR3.2, Support Removing Barriers and Removing Existing Dams for additional information.

In the case of Englebright, we are evaluating several alternatives that could preclude the need to remove the dam.

In every case, a thorough study of alternative will be made, All potentially significant impacts will be evaluated and documented. Appropriate mitigation will be included in the CEQA and NEPA documentation.

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