
Actions Included in the Programmatic EIS/EIR

Stage 1 actions for the CALFED Levee System Integrity Program include:

- C Initiate actions to refine the Delta Emergency Management Plan by 2000.
- C Develop a Delta Risk Management Strategy that identifies risks to Delta levees, evaluates consequences, and recommends actions by 2001.
- C Develop Best Management Practices for the reuse of dredged materials by 2001.
- C Institute a program for using bay and Delta dredge material to repair Delta levees and restore Delta habitat, targeting 2 million cubic yards of dredge material applied in Stage 1. This program must be coordinated with CVRWQCB and other interested agencies to assure that the dredge material reuse program adequately addresses concerns over salinity and the quality of dredge material. An aggressive protective dredge material reuse program will be critical to the success of both the base level program and special improvement projects.

Complementary Action

The Framework identified the following actions which was not analyzed in the Final Programmatic EIS/EIR and will, therefore, require additional environmental review.

- C Sacramento/San Joaquin River Comprehensive Study.** USACE is currently performing a Comprehensive Study of the Sacramento and San Joaquin River watersheds to improve flood control efforts. The Delta's levees play a crucial role in controlling floods and therefore in the Comprehensive Study. The CALFED Agencies intend that final development and implementation of actions under the Comprehensive Study will be coordinated and consistent with the CALFED Bay-Delta Program.

2.2.12 Science

This ROD establishes the CALFED Science Program, which will bring world-class science to all elements of the program; ecosystem restoration, water supply reliability, water use efficiency and conservation, water quality, and flood management (e.g., levee stability). Performance measures and indicators for each program element will track progress.

The purpose of the CALFED Science Program is to provide a comprehensive framework and develop new information and scientific interpretations necessary to implement, monitor, and evaluate the success of the CALFED Program (including all program components), and to communicate to managers and the public the state of knowledge of issues critical to achieving CALFED goals.

The Science Program will be developed and directed by an interim lead scientist, who will also serve in the role of lead scientist during the initial years of program implementation. Implementation of the CALFED Science Program includes implementation of the Comprehensive

Monitoring, Assessment and Research Program (CMARP), now under the direction of the interim lead scientist. The Science Program also has primary responsibility to establish the role of adaptive management in program implementation, implement strategies to reduce uncertainties that impede successful accomplishment of CALFED goals, provide programmatic review of overall implementation of mitigation measures and integrate the CALFED Science Program with existing/related agency science programs.

An overarching principle of the Science Program is adaptive management. Adaptive management is defined as using and treating actions as partnerships between scientists and managers, designing those actions as experiments with a level of risk commensurate with the status of those species involved, and bringing science to bear in evaluating the feasibility of those experiments. New information and scientific interpretations will be developed through adaptive management, as the programs progress, and will be used to confirm or modify problem definitions, conceptual models, research, and implementation actions.

In order to better integrate scientific review into the CALFED Program, the Governor and the Secretary of the Interior will appoint an independent science board to provide oversight and peer review for the overall program. Also, specific independent science panels may be convened as standing bodies or on an as needed basis. For example, the Science Program will assist with convening an independent science panel to review implementation and operation of the EWA. In addition, the existing ERP Interim Science Board will likely become the ERP Science Panel, and provide ongoing independent review of the ERP.

While much of the need for scientific review is often focused on habitat restoration efforts, the CALFED Science Program will cover all of the program components. Water supply reliability, water use efficiency and conservation, water quality, and flood management/levee stability can each benefit from the periodic review of an independent science panel to help ensure the best investments are being made and results are being achieved, as well as form strategies to reduce scientific uncertainties. The interim lead scientist will work with CALFED program managers and CALFED Agencies to develop priorities for these program areas.

In early Stage 1, the emphasis for the CALFED Science Program will be on ecosystem restoration activities, including design of effective monitoring, targeted research and development of priorities. These efforts will be based initially on the 12 uncertainties identified in the ERP Strategic Plan.

The Science Program will not be directly involved in making regulatory decisions, but rather in ensuring that CALFED, and the CALFED Agencies, are incorporating the best available knowledge into activities and decisions that are made, as well as continuously working toward narrowing scientific uncertainties, bettering knowledge, and advancing the debate. The CALFED Science Program will be conducted in an open and collaborative manner to allow and encourage involvement of stakeholder and academic science communities. The CALFED Science Program can serve as a science clearinghouse for the CALFED Agencies and identify and articulate areas of scientific uncertainty relevant to key issues.

Actions Included in the Programmatic EIS/EIR

The CALFED Science Program will accomplish the following in Stage 1:

- C Appoint an independent science board for the CALFED Program as a whole by the middle of 2001.
- C Appoint an independent science panel for the EWA by the middle of 2001.
- C Coordinate existing monitoring and scientific research programs.
- C Refine the set of ecological, operational and other predictive models that will be used in the evaluative process by the end of 2001.
- C Establish performance measures and indicators, and a consistent strategy of on-going development of these, for each of the program areas.
- C Develop an annual science report, format and content, which includes:
 - S Status of the species and effectiveness of efforts to improve conditions, including EWA, ERP and water management strategies, and provide recommendations to maximize fishery benefits while minimizing impacts to water supply.
 - S Assessment of progress and effectiveness of each program element as indicated by performance measures and indicators.
 - S Complete feasibility study to establish and construct CALFED Science Center.
 - S Recommended research and/or program adjustments.
- C Prepare first annual report by the end of 2001.

CALFED intends to invest approximately \$300 million in the science program during Stage 1.