

1. Introduction

A. Overview of the CALFED Bay-Delta Program

CALFED is a collaborative effort of more than [20 State and federal agencies](#) with management and regulatory responsibilities for the [Bay-Delta system](#) and has four main objectives.

- **Improve Ecosystem Quality.** Improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta system to support sustainable populations of diverse and valuable plant and animal species.
- **Improve Water Supply Reliability.** Reduce the mismatch between Bay-Delta system water supplies and current and projected beneficial uses that depend on the Bay-Delta system ecosystems.
- **Improve Water Quality.** Provide good water quality for all beneficial uses.
- **Improve Levee System Integrity.** Reduce the risk to land use and associated economic activities, water supply, infrastructure, and ecosystem from catastrophic failure of Delta levees.

The [California Bay-Delta Authority](#) (Authority) was created by the California State Legislature in 2002 to oversee implementation of CALFED by coordinating the activities of numerous agencies. The Authority is specifically charged with providing accountability, ensuring balanced implementation of CALFED objectives, tracking and assessing CALFED progress, using sound science, ensuring public involvement and outreach, and coordinating and integrating related government programs. There are [11 separate program elements](#) under CALFED, each of which is implemented by a unique set of State and federal “lead” [agencies](#). The Authority is authorized to implement the Science Program, and to disburse funds in the form of grants. [See Water Code, §§ 79420(a)(6); 79421(j).]

B. Overview of the Science Program

The long-term goal of the Science Program, one of the 11 CALFED program, is to establish a body of knowledge relevant to CALFED actions and their implications. That body of knowledge must be unbiased, relevant, authoritative, integrated across program elements, and communicated to the scientific and CALFED management communities, stakeholders, and public. The Science Program is charged with leading and overseeing the integration of science across all CALFED activities. This role includes developing the best scientific information possible to guide decisions and to evaluate scientific aspects of actions that are critical to the success of CALFED’s objectives.

To provide science useful to CALFED decision-making requires three things:

- supporting new scientific studies,
- establishing and maintaining a conduit between experts and the CALFED management community to ensure that the most current knowledge relevant to a problem can be directly communicated, and
- clearly articulating the state of knowledge through unbiased scientific review.

This Proposal Solicitation Package (PSP) is designed to fulfill the Science Program’s charge of developing new information and grantees will be asked to include communication of their findings to the CALFED management community to fulfill the Program’s communication charge.

Each of the other 11 CALFED programs is also responsible for developing and integrating new science—for example, the [Ecosystem Restoration Program](#) has [funded a significant amount of research on restoration and ecosystem processes](#). The Science Program focuses its resources for new scientific investigations on topics that are relevant to many individual programs and to CALFED as a whole.

Science is thus integrated into the entire CALFED program at three different levels:

- **Systemwide Level.** The Science Program takes the lead to define and investment in critical unknowns at the systemwide (i.e., CALFED) level. This work includes evaluating existing monitoring efforts and strategic design of monitoring to fill gaps in performance assessment information, investing in analyses that integrate information across scales, supporting systemwide studies relevant to upcoming decisions and long-term performance assessments, and clarifying the state of knowledge about specific technical subjects critical to specific programs and decisions.
- **Regional Level.** The Science Program shares responsibilities with the other programs at this level, cost-sharing in integrated, multidisciplinary studies where focused investments have a high likelihood of benefiting multiple programs and answering questions about how program activities affect each other. This support includes identifying geographic locations where opportunities exist for a rapid advancement of knowledge relevant to accomplishing CALFED's objectives. The priority for this solicitation is science for the Delta region that will support multiple program information needs and lead to better understanding of cross-program interactions.
- **Program Level.** Individual programs take the lead on defining critical information needs and funding studies specific to them. The Science Program provides advice and guidance to individual CALFED programs on specific science opportunities, including monitoring and performance assessment, expert panels, and peer review. The Science Program collaborates with CALFED programs to perform independent reviews of major activities, such as the Environmental Water Account.