

Summary of the Department of Finance Audit Report for the CALFED Watershed Program

Edited, and with added Program Notes (in *bold italic*) to update Program details since the audit report published in 2005.

I. Program Description

Watershed management largely occurs locally, and involves landowners, land managers, government agencies, and community groups. The Watershed Program (Program) element of the CALFED Bay-Delta Program (CALFED) provides grants and other support to local entities to strengthen local watershed management in support of CALFED's objectives for clean, reliable water and ecosystem health. The Program seeks to strengthen local management capacity to improve management of watersheds, improvements in watershed conditions, and ultimately improvements in the health of the Bay-Delta system.

The Program funds local activities in watershed management, trains local personnel involved in watershed issues, and provides technical assistance to support local watershed efforts. The Program functions with advice and support from an Interagency Watershed Advisory Team (IWAT) comprised of federal and state agency representatives, and the Bay-Delta Public Advisory Committee's Watershed Subcommittee (Subcommittee), that is open to all interested members of the public. Program staff maintain contact with, and promote cooperation among, local groups and industries that affect watershed conditions.

The implementing agencies are: the Resources Agency, State Water Resources Control Board, Department of Water Resources, US Department of Agriculture's Natural Resources Conservation Service, Department of Fish and Game, US Fish and Wildlife Service, and US Environmental Protection Agency.

A. Goals

The goals of the Program are "to provide assistance—both financial and technical—for watershed activities that help achieve the mission and objectives of CALFED, and to promote collaboration and integration among existing and future local watershed programs. Although the goal is stated in slightly different ways in other program documents, CALFED staff subscribe to the version in the program plan. The program plan also contains seven principles for community involvement and support to which watershed efforts must adhere in order to receive Program assistance. The principles specify, among other things, that activities must: be community-based (e.g., involve landowners, local leaders, and diverse community interests); address multiple watershed issues; be coordinated and supported by multiple government agencies and community organizations; provide for ongoing implementation; and include monitoring.

B. Program Commitments for Stage 1

Actions for Stage 1 (roughly the first seven years of CALFED implementation) are described in both the Record of Decision (ROD) and the program plan. The ROD actions, however, are very narrowly defined, whereas the program plan represents the full range of activities conducted during Stage 1.

ROD. The actions described in the ROD are summarized as follows:

1. In the first year, establish a grant program to solicit, evaluate and fund local projects that contribute to achieving CALFED goals. The ROD includes types of projects to be funded and priorities.
2. By the end of 2002, develop program performance measures and monitoring protocols consistent with the CALFED Science Program.

Program Plan. There are nine interrelated Stage 1 actions in the program plan, summarized as follows:

1. Fund and implement locally led watershed restoration, maintenance, conservation, and monitoring activities that support CALFED goals (Years 1-7).
2. Assist local watershed management initiatives and government agencies to address common issues, and to ensure effective communication and implementation among government and other stakeholders (Years 1-7).

3. Implement a funding process and provide watershed stewardship funds to build the capacity of locally led watershed management initiatives that ensure participation of local landowners (Years 1-7).
4. Improve the use and usefulness of information and data (Years 3-7).
5. Ensure that grantees complete environmental documentation and permitting; and to assist as appropriate (Years 1-7).
6. Evaluate benefits (including economic) that accrue from watershed plans and projects (Years 3-7).
7. Establish, fund, and maintain watershed restoration and maintenance assistance to aid local communities and private landowners with projects (Years 1-7).
8. Collaborate with other CALFED and non-CALFED programs (Years 1-7).
9. Work with stakeholders and the Legislature to develop a statewide umbrella watershed management act (Year 1).

II. Findings and Observations

A. Implementation Status

ROD Actions. The Program element has completed its two ROD actions. It has implemented and continues to implement the grant program pursuant to the specified priorities. Performance measures have been developed, albeit 17 months late, but are not yet fully in use, and it is not clear to what extent they will be used.

Program Plan Commitments. The Program has implemented and continues to implement all nine of its program plan commitments.

Goals. The program appears to be meeting its goals.

B. Other Issues

Our review also identified the following issues in Watershed Management that may warrant further analysis:

Communication. Performance information has been difficult to understand and interpret, and its significance in terms of the program's goals has not always been clear. Some of the information reported to date has also been inconsistent. For example, the geographic scope of the Program is unclear, because the various maps show different boundaries.

Performance Measures. Efforts have been made to build performance measures into most program activities, including competitive grants, watershed coordinators, and partnership seminars; however, these disparate measures have not been translated into overall measures for the program. Also, five new performance measures are not integrated with previously used measures that have appeared in the multi-year program plans and annual reports. The Watershed Program Status Review (Years 1-4), conducted in 2004, appears to be a solid effort to assess the strengths and weaknesses of the grant program, and to shape future direction.

Program Records. The financial data in the projects database and the Authority's financial records are inconsistent. There may be reconciling factors; however, those issues were outside the scope of our review.

I. Funding and Projects

A. Total Funding

For the Program, the Authority's fiscal system reported funding of \$135 million for Years 1 through 5, or 61 percent of the \$220 million original cost estimated for this period. The original estimate assumed that 46 percent of the costs would be provided by the federal government, but federal funds represent only 2 percent of the amount reported; 80 percent of funds were provided by the state, and 18 percent by users/local match. Approximately 90 percent of funds were expended for financial assistance to local programs, and 5 percent for technical assistance to local programs.

B. Project Funding

The Program has awarded three rounds of competitive grants, administered by the Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB). Based on the project database and

grant administration records, 116 grants and \$49.4 million were awarded during Years 1 through 5. A total of \$18.1 million (36 percent) was provided through Proposition 13, which emphasized construction and implementation projects to physically alter watersheds, rather than capacity building or planning (such as developing watershed management plans). Management capacity, however, can also be developed during the course of implementing construction and improvement projects. Although the funding available for grants was less than originally anticipated at the time of the ROD, Program implementing agencies indicate that the amount of funding available was adequate for the number of high quality project proposals received.

The grant process has been protracted. It has sometimes taken 14 months to make awards, and another 20 months to complete contracts. From the first cycle funded in 2000-01, all 53 grants have been completed; the last ones closed in June 2005.

Grants from the second cycle (funded in 2002-03) are just starting implementation, and only about half the grants from the third cycle (funded in 2003-04) have begun implementation. The SWRCB redesigned its grant process for the 2003-04 cycle to help expedite the process. Funds were appropriated to DWR for grants for 2004-05, but the process was deferred until 2005-06, and is currently in progress.

C. Project and Other Information

Competitive Grants. As noted above, 116 grants have been funded, and 53 completed. (as of the date of the audit). *(Program note: Two additional grant cycles since this report funded 56 projects totaling \$19.6 million to bring the total to 169 projects funded for \$68.9 million).*

Appendix I. Watershed Management

The greatest numbers of projects were for implementation and planning, followed by assessment and capacity building. The use of Proposition 13 funds, which were primarily for construction, led to an increase in implementation projects after the first round of grants. The next round of grants will focus on capacity building, and will fund implementation projects that promote capacity building.

Table I-2. Projects by Type

Implementation	31	\$12.3
Planning	27	13.1
Assessment	18	12.2
Capacity Building	15	5.5
Education And Outreach	12	4.3
Monitoring	11	0.9
Research	2	1.1

Total 116 \$49.4 million
(PN: Now 169 \$68.9 million)

Projects were expected to meet multiple CALFED objectives (i.e., water supply reliability, ecosystem restoration, water quality, and levee system integrity). Nearly two-thirds of the projects meet three of the four CALFED objectives.

All of the 116 projects addressed the CALFED objectives of ecosystem restoration and water quality, nearly two-thirds addressed water supply reliability, but no projects addressed levee system integrity.

Half the projects have been awarded in the Sacramento River region; the remaining projects have been distributed throughout the Watershed Management focus area (which includes Southern California), while two projects have had a statewide impact.

Watershed Coordinators. Watershed coordinators help assess local watersheds and help bring together local government, landowners, and community groups through outreach, education, and partnerships, in order to improve the health of the watersheds. The Department of Conservation funded 30 watershed coordinators as a pilot project during 2000-01 and 2001-02. The Watershed Management program element initially extended funding for 18 coordinators through December 2003. Beginning in 2003-04 and through 2006-07, the Watershed Management program element funded 48 watershed coordinators for \$3 million per year.

Watershed Partnership Seminars. These two-week seminars provide training primarily to local officials involved in policy planning and decision making that affects watersheds, as well as to officials whose work influences watershed management and to leaders of industries that affect the watershed. Prior to CALFED, federal officials provided training on a national basis in Colorado and West Virginia, and few individuals from California were able to attend. CALFED persuaded (and paid for) federal officials to provide the training in California, which occurred in 2001 and 2003. A total of 78 (*now 149*) individuals were trained, at a cost of \$224,000 (*now \$435,000*). The federal government has ceased to provide this training, and CALFED has assumed the responsibility. Contracts were recently established to conduct three training sessions over the next two years, which will result in up to 200 persons trained. Participants are selected for the seminars based on the relevance of the training to their jobs.

Technical Assistance. The DWR has approximately five positions that provide most of the technical assistance for the Program. (Originally several agencies were involved, but most of the staffing was eliminated due to budget constraints. Some assistance is still provided by the Department of Food and Agriculture and the Department of Forestry.) Five types of assistance are provided:

- Response to specific questions—permitting, assessment techniques, grant processes, etc.
- Periodic participation in selected efforts—currently assisting about 60 efforts with project management and with school programs, etc.
- Full partnerships—currently three partnerships, including participation in all activities and conducting water monitoring and measurement.
- Regional efforts—planning, producing maps, etc.
- Special projects—endangered species surveys, etc.

II. Performance Measures

The *2004 Annual Report* includes input measures of funded projects and watershed coordinators, as both tables and maps. *The Multi-Year Program Plan (Years 5-8)* and *The Multi-Year Program Plan (Years 6-9)* include a list of accomplishments—inputs for grants and other activities, and outputs for various products developed—as well as various maps and graphs. Some of these data have been inconsistent and confusing, as further discussed below. In June 2004, the Program published a draft document entitled *Watershed Program Performance Measurement*, which identified five performance measures and indicators, displayed in Table I-6, below. Four of the measures are output measures, and one (hydrograph changes, further explained below) is an outcome measure. The performance measures document is the culmination of an extensive, broad-based process in which the program considered many more measures, but in the end selected a small number of essential measures. The performance measures tie directly to the goals of the program element, as follows:

Although the *Watershed Program Performance Measurement* document is labeled “draft,” the Watershed Management staff consider the measures complete and meaningful for the current early stage of the program, because they focus on building local capacity and improving watershed management. Staff indicated, however, that the measures may be refined in the future. Although some information has been reported that relates to the new measures, full reporting based on the new measures has not begun, and it remains unclear to what extent that will occur, pending the current assessment and revitalization of CALFED generally. Baseline data (i.e., the pre-CALFED condition) have not been established except for the number of watershed assessments completed, but some could be created from historical records. The current status of the reporting for each indicator is as follows:

- *Diversity of involvement and continuity of local watershed initiatives, by tributary watershed.* Not developed. Continuity would be measured by the number of watershed groups in existence for three or more years. Diversity of involvement could be measured by conducting surveys of local perceptions of inclusiveness.
- *Percent of supported projects that help achieve objectives of three or more CALFED elements.* Data on project objectives have been reported in the Status Review (discussed below) and multi-year program plans, but the data in those reports only indicated the primary objective. Our report is the first to display the degree to which projects meet multiple objectives.

- *Percent area of the Bay-Delta watershed with completed assessments.* Some information has been reported on assessments, but not yet in the form required by the measure. Also, the information has not been explained or presented in a clear and understandable manner, and has thus appeared confusing.
 - A multi-color map is available on the CALFED website that displays assessments done at different times by different entities; however, the information is not quantified and is difficult to interpret, and one assessment was done outside the CALFED focus area.
 - The annual report for 2004 indicated that assessments were completed for 4,652 square miles. The significance of this figure in terms of the program's target is unclear.
 - The *Multi-Year Program Plan (Years 6-9)* includes a bar graph indicating that the total focus area is 82,151 square miles, the target area is 65,720 square miles, and assessments are underway or completed for 20,537 square miles; however, it is not clear what the target area or the total area mean, nor which figure should serve as the denominator for determining the percent complete.
 - Furthermore, the total area of 82,151 square miles is about half the total area of California (about 160,000 square miles), yet the website map indicates a Watershed Management focus area comprising about three-quarters of the state. The *Multi-Year Program Plan (Years 6-9)* also reports that 14 watershed assessments have been completed covering 10,000 square miles. • The *Multi-Year Program Plan (Years 5-8)* indicates that 9 million acres (14,000 square miles) of vegetation have been mapped. A map indicates areas in which land cover mapping is complete or in progress as of August 2004.
 - Vegetation mapping is a prerequisite to watershed assessment, but the information provided is not explained and is hard to interpret. The map displays a core area that has different boundaries from other Watershed Management maps.

Level of local government involvement in ongoing watershed initiatives, by tributary watershed. Not developed. Local government involvement could be measured by attendance at meetings (e.g., sign-in sheets) and recorded comments.

Hydrograph changes relative to selected reference watersheds. Hydrographs depict the volume of water flowing over time, generally one year. The more dispersed the flow is over time, the healthier the watershed (i.e., concentrated flows indicate that groundwater is not being recharged and that the risk of flooding is increased). Many decades worth of data exist to create hydrographs, which is reportedly a simple task. The key watersheds, however, have not yet been identified, so the hydrographs have not yet been created.

III. Accomplishments

The accomplishments and performance of the Watershed Management program element are considered first in terms of accomplishments reported for ROD actions, then in terms of the nine activities specified in the program plan, and lastly in terms of the goals.

A. ROD Actions

In June 2004, the Program published a document entitled *Watershed Program Status Review (Years 1-4)* (Status Review), which addressed fiscal years 2000-01 through 2003-04. The Status Review described program accomplishments in terms of the grants programs—competitive grants, training seminars, watershed coordinators—and the development of performance measures. This report draws on the Status Review as appropriate. Accomplishments of the grants programs have also been reported in the *2004 Annual Report*, *Multi-Year Program Plan (Years 5-8)*, and *Multi-Year Program Plan (Years 6-9)*.

1. Establish a grant program in the first year to solicit, evaluate, and fund local projects that contribute to achieving CALFED goals. The watershed activities targeted by this program will:

- Build local capacity.
- Develop assessments and management plans.
- Fund development and implementation of specific conservation, maintenance, and restoration actions.

Priorities include a diversity of activities for demonstration purposes, integration of multiple CALFED objectives, a variety of watershed settings, and wide geographical representation.

Assessment of Progress—Established (and continuing). As described in the “Project Funding” and “Project Information” sections above, the grant program was established in the first year of the program and has continued to function. The projects have met the criteria for types of projects, diversity of projects, integration of multiple objectives, and wide geographical representation. The *2004 Annual Report* states that a comprehensive review of the first 53 watershed projects showed significant contributions toward improved water quality, water supply reliability and ecological health. This statement is supported by a detailed compendium describing the accomplishments of each project, for example: completed watershed assessments and management plans that brought local interests together and will serve to guide local decisions; development of pesticide management practices to reduce pollution of waterways; and restoration actions that improved water quality.

2. Develop watershed program performance measures and monitoring protocols consistent with the CALFED Science Program by the end of 2002.

Assessment of Progress—Completed (late). This action was completed, although it was 17 months after the ROD target date (i.e., end of 2002). The process was delayed in part due to uncertain guidance from the Science Program. Watershed Management staff had expected the Science Program to assist with the development of performance measures, but instead the Science program produced guidelines for the Watershed Management staff to use in developing their own measures. In addition, the guidelines underwent several changes, requiring the Watershed Management staff to re-do their work twice.

3. Non-ROD Activities. This section provides information about activities related to Watershed Management goals, but not explicitly addressed in the ROD:

Watershed Coordinators. The watershed coordinator grants require quarterly reporting of performance, activities in 21 areas, and benefits to the watershed and CALFED. Based on the most recent quarterly report available, it appears that the watershed coordinator program is very active in conducting outreach and education, implementing watershed restoration actions, garnering outside funding, and establishing new watershed partners. The projects vary in their level of development. The Department of Conservation also prepares an annual report, which can be very useful in conveying the effect of the program more fully.

(Program Note: The Program conducted a review of the Coordinator project in 2007. The review was to inform the Program of any necessary changes and improvements as part of its adaptive management following the end of Stage I of the CALFED Bay-Delta Program. The review resulted in the following findings:

- 1. Coordinators in place through project funding and/or Program funds implemented through the Department of Conservation (DOC) have generated value in local watersheds*
- 2. The project with DOC has been an effective partnership*
 - Over 50 coordinators have helped further local organization of watershed management programs*
 - Contracts and contract management through DOC have been reasonable, timely and responsive, averaging 90 days or less for completion*
 - Coordinator support has promoted increased local partnerships with the Program*
- 2. The project has not yet fully developed connections between the coordinator activities and the goals and objectives of the Program.*
 - Not all coordinator positions have been aware of the CBDA Watershed Program connection*
 - Program performance indicators are not always well aligned with DOC performance indicators, and vice versa.*
 - Connections between the coordinators and the Program have improved in the second round of Program financial support*

3. Work plans developed for the coordinators have not consistently related results to the implementation of the Program Plan)

Partnership Seminars. The partnership seminars have been effective in promoting understanding of watershed management as well as improved local leadership and collaboration. (This determination is based on surveys of alumni, statements at public meetings, and CALFED communications with local communities in which seminar alumni work.) CALFED promotes continued communication and networking among the prior participants, and recently established contracts to design an Internet-based network that will include follow-up training modules. The participants rated the training highly, and demand for the program is high.

(Program Note: Two additional seminars were conducted in 2006, bringing the total number of graduates to 149. Many of the graduates have moved to significant leadership roles, such as elected officials, agency and organization management, organization development, conference sponsorships, and teaching. The Seminar ratings by the students averaged 4.6 on a 1-5 scale)

B. Program Plan Actions

The discussion below addresses accomplishments in terms of the nine activities called for during Stage 1 in the program plan. Some of these activities concern processes rather than specific outcomes.

1. Fund and implement locally led watershed restoration, maintenance, conservation, and monitoring activities that support CALFED goals (Years 1-7).

Assessment of Progress—On schedule. As noted above, the Watershed Management program element has funded 31 implementation and 11 monitoring projects, for a total of \$13.2 million awarded. These grants include projects to maintain watersheds, and to conserve watersheds and water resources.

2. Assist local watershed groups and government agencies to address common issues (e.g., roles and responsibilities, funding support, technical assistance, and information exchange) and to ensure effective communication and implementation among government and stakeholder groups (Years 1-7).

Assessment of Progress—On schedule. Various facets of the Watershed Management program element contribute to this action, including watershed coordinator grants, technical assistance, capacity building grants, and partnership seminars. For example, a representative of the Silicon Valley manufacturers' group (these manufacturers are major water dischargers) attended a partnership seminar; subsequently, the manufacturers' group joined the local watershed management group. Watershed Management staff maintain contact with many industry and manufacturing groups (approximately 1,800 individuals are contacted directly through mass e-mail, and many pass the information on to others) and promote networks through the Watershed Subcommittee of the Bay-Delta Public Advisory Committee.

Another facet of the program element that promotes communication and implementation among government and stakeholder groups is the two-stage grant proposal process. In the first stage, concept proposals are submitted. Watershed Management staff select proposals for advancement to the second stage, often informing multiple applicants from the same watershed that they must work together on a combined proposal, or telling individual applicants that they must expand their scope to involve the full array of local participants (i.e., landowners, government, and community groups).

3. Implement a funding process and provide watershed stewardship funds to build the capacity of locally led watershed organizations that ensure participation of local landowners (Years 1-7).

Assessment of Progress—On schedule. There are several aspects of the Program that ensure the participation of local landowners. To receive funding, grant projects must demonstrate support from landowners; further, Proposition 13 mandates that landowners be included in projects funded from that source. Watershed coordinator grants are often awarded to Resource Conservation Districts, whose boards are composed of landowners. Technical assistance is also provided to landowners, and partnership seminars emphasize inclusion of landowners.

4. Improve use and usefulness of information clearinghouse functions to help watershed groups obtain information on funding, technical assistance, and data storage and retrieval (Years 3-7).

Assessment of Progress—On schedule. Numerous activities have been undertaken to promote the improved use of information. Several efforts improved the availability of information about grant projects and funding opportunities. These include providing public access to information on grant funded projects through the Natural Resources Project Inventory database and other funding sources in the California Watershed Funding Database. The program also assisted in development of the *California Watershed Assessment Manual*, which provides general guidance on available assessment tools and methods, and processes for identifying future priority projects. Other projects resulted in technical assistance with watershed assessment, including projects that mapped vegetation, provided instruction in watershed assessment, and produced atlases containing detailed watershed maps with various types of information. Additionally, many projects included funding for geographic information system software. One project led to the creation of a web-based Watershed Information Model that incorporates data from many sources into interactive watershed maps; developed by the Western Shasta Resource Conservation District, the model can be used by other watershed areas once populated with their own local data.

5. Ensure that grantees complete environmental documentation and permitting; assist as appropriate (Years 1-7).

Assessment of Progress—On schedule. This action has been achieved largely through technical assistance activities, including responses to questions about permitting, publication of the Guide to Regulatory Compliance on the CALFED website, and workshops for grant applicants (discontinued due to budget constraints). In addition, language has been inserted in all grant contracts requiring grantees to submit documentation that their projects comply with environmental requirements. Costs for completing this documentation are reimbursable.

6. Evaluate benefits (including economic) that accrue from watershed plans and projects (Years 3-7).

Assessment of Progress—On schedule. Several means are used to demonstrate program benefits. The two catalogs of funded grants identify the benefits of each project. Each watershed coordinator grantee reports quarterly on benefits to the watershed and to the CALFED program. Furthermore, the Program has funded a research project to conduct a literature review of the economic benefits of watershed management to the water supply; the report was due in September 2005 but has been delayed.

7. Establish, fund, and maintain watershed restoration and maintenance assistance to aid local groups and private landowners in project concept, design, and implementation (Years 1-7).

Assessment of Progress—On schedule. As described above, two aspects of the program assist local groups and landowners with project design and implementation. Technical assistance includes direct help to grantees as well as workshops for applicants and grantees. The two-stage grant proposal process also assists applicants in the concept design. Initially, the Watershed Management program element engaged in much more extensive guidance to potential grantees, but this assistance was discontinued for legal reasons because the program might have been liable if there were to be inequitable treatment of prospective grantees.

8. Collaborate with other CALFED and non-CALFED programs (Years 1-7).

Assessment of Progress—On schedule. The Watershed Management program element collaborates with other CALFED program elements and the SWRCB in consolidated grant processes; funds watershed-related activities through the Department of Forestry and Fire Protection and Department of Conservation; participated in developing the online Watershed Portal developed by the Resources Agency and California Environmental Protection Agency (CalEPA); and participated in the watershed strategic plan (discussed below).¹¹⁸ The Program consults with all CALFED program elements—especially the Ecosystem Restoration Program, Drinking Water Quality Program, and Water Use Efficiency Program—when developing its proposal solicitation packages to ensure that the watershed grants help meet the CALFED objectives.

9. Work with stakeholders and the Legislature to develop a statewide umbrella watershed management act (Year 1).

Assessment of Progress—Partly on schedule, partly not applicable. The Program worked with the Legislature to develop an umbrella act, but the enacted version (Chapter 735, Statutes of 2000 [AB 2117]) instead required a status report. The status report, released in April 2002, recommended a strategic plan, which was produced in August 2003; an updated 18-month plan was drafted in early 2005. In addition, a Watershed Memorandum of Understanding (MOU) was signed by CalEPA and the Resources Agency, as required by Chapter 727, Statutes of 2002 (AB 2534), which established several grants programs for Proposition 40 bond funds, including the Integrated Watershed Management Program. The goal of the MOU is to improve the coordination and integration of watershed policies statewide as well as to support the Integrated Watershed Management Program funded from Proposition 40. (Note: The Integrated Watershed Management Program grants differ from CALFED's Watershed Management grants in purpose and geographic scope, although there is some overlap in activities.) Interest in a statewide watershed management act has fluctuated in recent years. Watershed Management staff continue to work with stakeholders through working groups, committees, and conferences to help define the role of the state in watershed management.

C. Goals and Objectives

As noted at the beginning of this section, the goals of the Watershed Management program element are to provide financial and technical assistance for watershed activities that help achieve the mission and objectives of CALFED, and to promote collaboration and integration among existing and future local watershed programs. Based on the accomplishments described for the ROD actions and program plan, the Program appears to be meeting its goals.