



**CALFED
BAY-DELTA
PROGRAM**

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May 18, 1999

The Honorable John Doolittle, Chair
Subcommittee on Water and Power Resources
1526 Longworth House Office Building
Washington, D.C. 20515

Dear Representative Doolittle:

This is in response to your letter of May 7, 1999, regarding the Subcommittee's upcoming oversight hearing on California Central Valley Water Management.

You have raised several questions regarding performance criteria and budgeting for the ecosystem restoration components of the CALFED Bay-Delta Program. Responses to your specific questions will be more meaningful in the context of the entire range of CALFED Bay-Delta Program activities, and I would ask that you refer to the attached Briefing Packet (Attachment 1) for that broader context.

CALFED agencies intend these activities to work toward solutions to inter-related issues regarding ecosystem health, water supply reliability, water quality, and levee system integrity in the Bay-Delta system. The CALFED Mission to develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system is the basis for evaluating the success of the overall Program and each of its constituent elements. We have developed the following framework based on adaptive management for evaluating success.

- Establishing desired outcomes or overall goals for each CALFED program. In the CALFED Ecosystem Restoration Program, there are six "Strategic Goals" developed by a broad cross section of scientists, stakeholders, and governmental agencies.
- Using the best available science, we have developed 62 "Strategic Objectives" under the Strategic Goals. The strategic objectives are narrative descriptions of population levels or environmental conditions needed to be attained for program success.
- For each strategic objective, we have set a range of targets. These targets may be either a quantitative statement (for example, a range of numbers) or a qualitative statement

CALFED Agencies

<p>California</p> <ul style="list-style-type: none"> The Resources Agency Department of Fish and Game Department of Water Resources California Environmental Protection Agency State Water Resources Control Board 	<p>Federal</p> <ul style="list-style-type: none"> Environmental Protection Agency Department of the Interior Fish and Wildlife Service Bureau of Reclamation U.S. Army Corps of Engineers 	<ul style="list-style-type: none"> Department of Agriculture Natural Resources Conservation Service Department of Commerce National Marine Fisheries Service
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(that is, a narrative description) of what is needed in terms of the quality or quantity of desirable ecosystem attributes. For many endangered species, we have specific population targets required for their recovery.

- Finding measurable environmental variables that are related to the strategic goals and objectives in some manner. In CALFED, these are called "indicators."
- Comparing actual measurements for selected environmental variables against those success standards. In an on-going adaptive management program, administrators modify or adapt program activities as new information becomes available.

With that brief background in mind, I offer the following responses.

1. *"Which specific goals is CALFED setting to determine if it is achieving success in the habitat/environmental restoration components of the program? Which clear and unambiguous performance standards are being adopted to determine if the funding is improving the environment?"*

As summarized previously, CALFED has established a stepwise framework for determining success, moving from broad goals, to objectives, to quantifiable targets.

CALFED has established six Strategic Goals for ecosystem restoration

1. Achieve recovery of at-risk native species dependent on the Delta and Suisun Bay as the first step toward establishing large, self-sustaining populations of these species; support similar recovery of at-risk native species in San Francisco Bay and the watershed above the estuary; and minimize the need for future endangered species listings by reversing downward population trends of native species that are not listed.
2. Rehabilitate natural processes in the Bay-Delta system to support, with minimal ongoing human intervention, natural aquatic and associated terrestrial biotic communities, in ways that favor native members of those communities.
3. Maintain and enhance populations of selected species for sustainable commercial and recreational harvest, consistent with goals 1 and 2.
4. Protect or restore functional habitat types throughout the watershed for public values, such as recreation, scientific research, and aesthetics.

5. Prevent establishment of additional non-native species and reduce the negative biological and economic impacts of established non-native species.
6. Improve and maintain water and sediment quality to eliminate, to the extent possible, toxic impacts to organisms in the system, including humans.

For example, in recovering the Sacramento winter-run Chinook salmon (Goal 1), we have established a strategic objective to "Restore winter-run Chinook salmon to the Sacramento River and the Bay-Delta estuary." As a quantifiable target, specialists have established a recovery goal of an annual average of 10,000 female adults over a thirteen-year period. We will measure success in achieving this objective by annually measuring population numbers and the rate at which the spawning population is increasing in abundance.

Additional environmental variables related to the recovery of winter-run chinook include such measurement as flows, temperatures, and habitat quality and quantity.

Other species targets, as listed in Ecosystem Restoration Program Plan – Population Targets and Programmatic Actions for Species and Species Groups (Attachment 2), include:

- for Delta smelt – meet Delta Native Fishes Recovery Plan goals. (p. 3).
- for longfin smelt – meet the goals of the Delta Native Fishes Recovery Plan. (p. 4).
- for green sturgeon – meet the goals of the Delta Native Fishes Recovery Plan which includes 1,000 green sturgeon greater than 100 centimeters long as measured in the Department of Fish and Game mark-recapture program for estimating sturgeon abundance. (p. 5).
- for splittail – meet the goals of the Delta Native Fishes Recovery Plan. (p. 6).
- for Sacramento Spring-run Chinook salmon – maintain the average cohort replacement rate of Sacramento spring-run Chinook salmon above 1.0 while the stock is rebuilding. Then maintain a replacement rate equal to or greater than 1.0 when the stock reaches restoration goal levels set by the regulatory agencies. (p. 9).
- for Swainson's hawk – restore nesting density to nine nesting pairs per 100 square miles. (p. 13).
- for Suisun song sparrow – increase the population of breeding pairs of Suisun song sparrow between 70 and 100 percent compared to existing population estimates of 6,000. (p. 14).

We have also included two sets of graphs (Attachment 3) depicting the values for ecosystem indicators (measurable phenomena that are related to the program's goals and objectives). The first set of graphs depicts population trends for winter-run, spring-run, and fall-run Chinook salmon. The Chinook salmon data, when combined with habitat

quality and other factors, provide a broad assessment of ecosystem health. The second set of graphs depicts levels of foodweb organisms and chlorophyll levels in the estuary. The foodweb and chlorophyll trends indicate the estuary's productivity and are more direct assessments of ecosystem health than the salmon population data.

Attachment 4 ("Ecosystem Restoration Program Plan – Restoration Targets and Programmatic Actions") includes targets for ecological processes and habitats – our estimates of physical environmental changes needed to get to our population targets.

The following observations will clarify information in the attachment. "Ecosystem Restoration Program Plan Restoration Targets and Programmatic Actions" presents the restoration targets and programmatic actions for each ecosystem element (habitat, process, or ecosystem stressor). The attachment is organized by ecosystem element and ecological management zone. The ecological management zones are 14 discrete geographic areas.

Full descriptions of the ecological management zones and the basis for establishing targets and actions is fully described in the Strategic Plan for Ecosystem Restoration and the two volumes of the Ecosystem Restoration Program Plan.

The targets and actions described in these Attachments 2 and 4 are directly linked to the Strategic Goals and Objectives for ecosystem restoration and tier from the overall CALFED Mission and Objectives. Targets listed in the two attachments are the measurable or quantifiable component of the restoration program. Programmatic actions are potential means by which to reach the target level.

2. *"Are ecosystem performance and monitoring standards integrated with all other projects in the region receiving money from the Federal and State governments for similar programs? And, if so, how are these items coordinated?"*

Here, the questions asked about use of CALFED Bay-Delta Program goals, indicators, and targets in other programs. CALFED ecosystem goals, indicators, and targets are well integrated with other programs in the region. Many of the CALFED ecosystem population targets noted above and described in Attachment 2 are identical to targets used in other programs, such as the US Fish and Wildlife Services' Delta Native Fish Recovery Program and the US Fish and Wildlife Service's Anadromous Fish Recovery Program.

3. *"Was an interagency crosscut budget developed for the CALFED Program as required under Public Law 104-208, that displays Federal spending for fiscal years 1993 through 1998 on ecosystem restoration and other purposes in the Bay-Delta region, separately*

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showing funding provided previously or requested under both pre-existing authorities and new authorities? If so, please provide a copy of what was submitted.

“For our May 20, 1999, hearing please provide a program level crosscut budget for the federal and state agencies involved in CALFED. By September 1, 1999, please provide a comprehensive project level crosscut budget that identifies all expenditures within the state and federal governments used to achieve the objective identified within the CALFED program (long-term levee protection, water quality, ecosystem restoration, water use efficiency, water transfers, watershed management, storage, and conveyance). For each such expenditure, provide an identification of whether or not it is currently being integrated into the planning and financial allocation process used by CALFED or whether it remains independent.”

Office of Management and Budget submitted the required interagency crosscut budget to the House Committee on Appropriations on March 21, 1997. I have enclosed a copy of the submittal for your information (Attachment 5).

We are now working on a program-level cross-cut budget for the Federal and State agencies involved in CALFED. I hope to have material available at the time of the hearing. I should note, though, that State agencies have not previously been requested to produce cross-cut budgets, particularly on a geographic basis, and this material may not be readily available in the short period of time between your letter and the Subcommittee's hearing.

At the May 13, 1999 meeting of the CALFED Policy Group, the topic of Program financing and budgeting was discussed, and CALFED agencies are continuing their efforts to develop an integrated budget approach for the Program.

4. *Adaptive management only has merit if predicated on the idea that some aspect of a given project is meeting or failing to meet a previously identified criteria. What indicators has CALFED developed to determine when adaptation is necessary in relation to individual projects or overall assessment of ecosystem response?*

The CALFED Bay-Delta Program has identified adaptive management as one of its fundamental program concepts. In the adaptive management process, action is taken, response is measured, and movement of an indicator is evaluated. When an indicator is not responding as predicted to program actions, a scientific and management review of the action will be conducted and the action adjusted as appropriate.

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CALFED has developed indicators of ecosystem health at three levels and they are tied to our strategic goals, strategic objectives, and targets (Attachment 6).

5. *Are these indicators being integrated with all other projects in the region receiving money from the Federal or State government to achieve ecosystem restoration or habitat enhancement? And, if so, how are these items coordinated?*

CALFED is in the process of refining a system-wide monitoring program and a universal suite of indicators of ecosystem health. The CALFED Comprehensive Monitoring, Assessment, and Research Program will integrate major components of existing programs including the Interagency Ecological Program, Central Valley Project Improvement Project's Anadromous Fish Restoration Program, Comprehensive Assessment and Monitoring Program, and other agency monitoring programs.

I would like to return for a moment to the opening portion of your letter regarding timely and clear responses to earlier questions. On March 26, 1998, you forwarded a letter containing five questions regarding the CALFED Bay-Delta Program, including questions on performance criteria for ecosystem restoration. We responded in writing on April 1, 1998, and I provided additional information on these topics at last year's oversight hearing on May 12, 1998. Moreover, Subcommittee staff visited with CALFED Bay-Delta Program staff in August 1998 and again earlier this month. On both occasions, they discussed performance criteria, among other topics.

I acknowledge that clear thinking about performance measures is important for effective program management, and I appreciate the value of critical thinking that the Subcommittee brings to our deliberations in ensuring that our plans have relevance to the real world. Still, ecosystem restoration in the Bay-Delta system is probably the largest and most complex ecosystem restoration program undertaken, in part because it is contemplated to last for a long period of time. Unforeseeable future events will almost certainly affect the direction of all components of the Program. In developing the overall Program, we are relying on principles of adaptive management – looking into the future as far as possible, but recognizing -- as does every corporation, business, or family farmer -- that much will change in California in the next 30 years, some in ways that we cannot reasonably predict. I believe you will agree that it is important to design appropriate levels of flexibility into all aspects of the CALFED Bay-Delta Program. An inflexible program will almost certainly not accomplish its goals – for ecosystem restoration or for water management.

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I hope this material clearly sets forth our point of view on the issues you have raised. Again, I look forward to the opportunity to discuss the progress of the CALFED Bay-Delta Program with you and the Subcommittee.

Please call me at (916) 657-2666 if you have questions on this material.

Sincerely,

A handwritten signature in black ink, appearing to read "Lester A. Snow", with a long horizontal flourish extending to the right.

Lester A. Snow
Executive Director

Attachments

cc: The Honorable Don Young, Chair
House Committee on Resources

The Honorable Bruce Babbitt
Secretary of the Interior

The Honorable Mary Nichols
Secretary for Resources

The Honorable Gray Davis
Governor of California