



DATE: March 6, 2007

TO: Lisa Holm, CALFED

FROM: Steve Macaulay, Executive Director

SUBJECT: Thoughts on Several Water Quality Subcommittee Items

Here are some comments and thoughts regarding two activities that will be addressed at the March 16, 2007 BDPAC Water Quality Subcommittee. These activities are addressed separately below.

Drinking Water Quality Risk Assessment. On February 20 Joe Grindstaff convened a meeting of various interested drinking water quality stakeholders/individuals to discuss one set of drinking water quality activities over the next year. In particular, this meeting was called to discuss the possibility of putting together a public health risk assessment for the Delta as a source of drinking water quality for many areas of the State, particularly focusing on the CALFED TOC and bromide targets and the ELPH concept as it has played out since the Record of Decision.

The concept of a risk assessment was raised late last year. Although this was on the meeting agenda, it was much less the focal point than was the concept of convening a water quality expert panel. We were greatly aided by attendance at the meeting of Bill Glaze of the Independent Science Board. Most of the group at this meeting supported convening a water quality expert panel similar to the Expert Panel convened by CUWA in 1998 that developed the TOC and bromide targets contained in the ROD. This new panel could guide any future risk analysis work, interacting with the ISB, stakeholders (presumably the Subcommittee) and others as may be appropriate. The participants in the meeting discussed the importance of defining a specific charge and schedule for the new science panel, in addition to discussing several potential panel members. This matter was discussed further at the February 21 ISB meeting, but I am unclear of the outcome. It would be helpful to get an update from you and Joe Grindstaff at our Subcommittee meeting.

Summary Program Performance Assessments. On February 15 the first meeting was held of BDPAC's new Program Performance and Finance Subcommittee. This Subcommittee is co-chaired by Steve Johnson and Tim Quinn, and includes co-chairs of the other BDPAC Subcommittees. A common historical frustration – both with CALFED/implementing agency and stakeholder staffs – has been development of program performance measures and corresponding performance assessments (not directed at the work on the water quality program assessment that has been underway for some time). We were told at the meeting that Tim, Steve, Wendy Halverson-Martin and Sue Garrett-Dukes (CALFED staff) had developed a new format and “first cut” short performance goals and assessments for each of the four program areas (water supply reliability, ecosystem restoration, levees and water quality). The plan was to bring these to the new

subcommittee at that meeting, get initial comments, and work with the subcommittee members and others to finalize these by early June. At that meeting it was clear to Greg Gartrell and I that the Water Quality Subcommittee needed to review and discuss the water quality piece (copy attached).

The general reaction to the drafts was they were a good first start but had some obvious omissions (for example, the water quality paper did not mention development of a Central Valley drinking water policy, a discrete ROD commitment). From my point of view it also appeared that all four drafts were put together quickly without the benefit of input from various staff – but it was made clear to us at the meeting that this was a first quick effort that would be refined over the next two months.

I suggest that at our March 16 Subcommittee meeting we review and discuss the draft, discuss how it relates to the water quality performance measures you presented at the February 21 ISB meeting, and also discuss how this fits into your program assessment activities as well as the recently proposed public health risk assessment (first issue in this memo). These issues are within the items on the agenda sent out last week. I recommend that we hold the new performance draft to the end of the meeting so that we can concentrate on the water quality program final assessment activities. It will be important for the Subcommittee to review and understand how all these activities fit together. I have attached ISB February 21, 2007 Item 3 material that sheds some light on this topic.

Attachments

Cc: Greg Gartrell, Co-Chair, BDPAC Water Quality Subcommittee

February 15, 2007

Re: BDPAC Program Performance Assessment – Working Draft

The attached preliminary draft report was developed by the co-chairs of the BDPAC Program Performance and Finance sub-committee in collaboration with CALFED Bay-Delta Program (CBDP) staff. The purpose of this analysis is to document BDPAC's assessment of overall program progress to date, using a format that is concise and easy to understand. It is a preliminary subjective assessment of program progress, and is not intended as a definitive nor exhaustive analysis and should be considered a work in progress.

At present, the draft report is organized in the following four sections, to correspond with the overarching goals of the CALFED program as defined in the Record of Decision (ROD):

- Water Supply Reliability
- Ecosystem Restoration Program (ERP)
- Levees
- Water Quality

In each area, the report provides a summary discussion followed by an assessment of progress in select areas. In many cases, the assessments are organized by 'In Delta' versus 'Delta Related' activities to better delineate the progress that is directly related to the delta versus those external actions that impact the delta. Yet to be included in the report will be an assessment on two other areas: CALFED Science and Program Management. The report will need further work to fill in any dates and details as well as financial investment information of the program which will help to provide a more complete picture for the last seven years.

This report is currently undergoing review by BDPAC representatives as well as implementing agency personnel. The report provides a retrospective view of program progress to date; however, we are hopeful that these reviews may also identify opportunities to apply this report format to development of a forward looking performance report. Comments will be reviewed and incorporated where appropriate, for submission of an updated draft report to the full BDPAC in June, 2007.

DRAFT WORK IN PROGRESS

As of February 21, 2007

CALFED Bay-Delta Program Water Quality Program Performance

Water Quality Goal: Provide good water quality for all beneficial uses.

Summary of Progress: The CALFED Water Quality Program set out to improve water quality to continuously improve Delta water quality for all uses, including in-

delta environmental and agricultural uses. Since the ROD was signed, water quality standards in the Delta have been met, but there has been little or no improvement in drinking water quality beyond the regulatory standards in the Delta. To date, \$76 million in source control projects targeted to improve water quality have been implemented through a competitive grant program. Advances in treatment technology are limited to a single small scale demonstration project.

In Delta
Delta Related



The CALFED agencies were uncertain at the time the ROD was signed whether it would be possible to achieve the desired water quality improvements using through Delta conveyance and built in an assessment at the end of Stage 1 to re-evaluate water quality progress. If water quality targets are not being met the ROD calls for consideration of additional conveyance actions including an isolated facility.

The CALFED water quality plan included actions such as source water improvements and treatment technology that were intended to provide an equivalent level of water quality to that which would occur if the better quality Sacramento River water were used to meet drinking water supplies. There are significant unknowns about human health risks associated with known and unknown drinking water contaminants. As the level of scientific understanding increases about risks associated with drinking water, there remains concern that despite meeting regulatory standards, risks to human health, specifically cancer and developmental problems could be dramatically reduced through water quality improvements in the Delta.

Funding: CALFED Agencies proposed investing approximately \$950 million during Stage 1 in water quality programs. Of this investment, more than \$500 million would come from State and Federal sources and the remainder from local sources. Over the last seven years we anticipate spending \$124 million.

Strategy: The ROD proposed Program actions to address the drinking water quality concerns of the more than 22 million Californians who rely on Delta water in four broad categories. These actions were intended to:

- Enable users to capture higher quality Delta water for drinking water purposes
- Reduce contaminants and salinity that impair Delta water quality
- Evaluate alternative approaches to drinking water treatment to address growing concerns over disinfection byproducts and salinity.
- Enable voluntary exchanges or purchases of high quality source waters for drinking water uses.

None of these actions, by itself, was intended to assure adequate supplies of good quality drinking water for California. They were to be pursued, in conjunction with other CALFED actions such as conveyance and storage improvements, to generate significant improvements in drinking water at the tap.

The agency approach to implementing this strategy included Implementation of treatment technology improvements and source control measures through a competitive grant process and the implementation of the South Delta Improvements Program in conjunction with other conveyance projects.

In Delta

Achieve 50 ug/L bromide and 3.0 mg/L total organic carbon or less



Approach: Average concentrations at Clifton Court Forebay and other southern and central Delta drinking water intakes should be aligned or less than 50 and 3.

ROD Dates: No schedule adopted for Stage 1.

Status: No significant improvement have been made for these constituents

Permanent Operable Barriers



Approach: Permanent operable barriers installed to ensure water of adequate quantity and quality to agricultural diverters within the South Delta.

ROD Dates: Barriers operable by 12/1/2007.

Status: Draft EIS/EIR circulated for public review in December 2005 with the comment period ending in February 2006. The final EIS/EIR was completed in December 2006. **(We need to add proposed construction schedule.)**

Note: Recent regulatory findings may result in delay indefinitely. These actions have created significant levels of conflict between fish and water quality.

Reduce Agricultural drainage in the Delta



Approach: Reduce agricultural drainage in the delta to minimize elevated salinity and other constituents of concern to drinking water at urban intakes in the South Delta prior to completion of the installation of permanent barriers.

ROD Dates: Complete prior to installation of operable barriers.

Status: The Old River and Rock Slough Water Quality Improvement Projects implemented by Contra Costa Water District have been completed. The purpose of these projects was to minimize elevated salinity and other constituents of concern to drinking water at urban intakes in the South Delta. The projects will now be monitored to determine the actual improvements.

Delta Related

Achieve Equivalent level of Public Health Protection (ELPH)



Approach: Using a cost effective combination of alternative source waters, source control and treatment technologies.

ROD Dates: No schedule adopted for Stage 1.

Status: An assessment is currently underway to understand if it is possible to achieve water quality improvements at the tap using this strategy and at what cost. There is significant concern that this approach may not be feasible at any cost, using the existing through Delta conveyance.

Address San Joaquin Valley drainage problems



Approach: The intent of this milestone was to improve downstream water quality by finalizing a State Basin Plan Amendment and Total Maximum Daily Load for salinity in the lower San Joaquin River and begin implementation of appropriate source control measures.

ROD Dates: TMDL by 2001. Implement source control by 12/1/2003.

Status: The State Water Resources Control Board has approved a total maximum daily load or TMDL to control salt and boron discharges into the lower San Joaquin River. An interagency group has formed to implement an alternative solution to prescribed load reductions.

Implement source controls in the Delta and its tributaries



Approach: Establish a comprehensive drinking water policy and monitoring program for the Delta and upstream tributaries and implementation of appropriate source control measures (e.g., advanced wastewater treatment and local drainage practices).

ROD Dates: Implement source control by 12/1/2006.

Status: The program has awarded \$76 million in competitive grants during the first six years for source controls in the Delta and to control runoff in the California Aqueduct and similar conveyances. The relationship of specific projects to quantified improvements is unclear at this time.

Invest in the development of UV disinfection and desalination treatment technology



Approach: Evaluate opportunities for full-scale implementation of technology.

ROD Dates: Schedule for full implementation by 1/1/2007.

Status: The Bay Area UV Light and Multiple Disinfectants Project has concluded demonstration and bench scale testing and has summarized its results in a draft report. **(We need to include the findings.)** Outside agencies have contributed more than \$1 million to new treatment technology.

Lessons Learned:



650 Capitol Mall, 5th Floor
Sacramento, CA 95814
916.445-5511 FAX 916.445-7297
<http://calwater.ca.gov>

Agenda Item: Item 3
Meeting Date: February 21, 2007

Indicators and Performance Measures Update

Summary: Science Program staff will provide an update on the approach and progress to date for CALFED indicators and performance measures. In addition, the Water Quality Subgroup will present an in-depth report on the development of their indicators and performance measures.

Action: Update is for information only. Input to be provided to Water Quality Subgroup.

Background: There are several inter-related efforts to develop performance measures underway. First, at the December 14, 2006, Joint California Bay-Delta Authority and Bay-Delta Public Advisory Committee (BDPAC) meeting, a resolution was adopted that instructed the CALFED Implementing Agencies to develop and report on Performance Measure progress at the March and June 2007 Joint BDPAC/Authority meetings. The language is below:

WHEREAS, while progress has been made during the past fiscal year across different program elements, certain deficiencies have contributed to program imbalances which must be the focus of the Authority's attention in 2007, unless the following measures are taken:

- (1) Performance measures must be developed for the four Program objectives.
- (2) A more detailed evaluation and analysis of Program progress in relation to the ROD must be prepared.
- (3) A revised Program implementation schedule must be prepared.

Second, the Chairs of the BDPAC Performance and Finance Subcommittee working with the CALFED Program Performance and Tracking Program are drafting a performance assessment that looks at CALFED performance from inception to the present.

Third, at the November 2006 ISB meeting, the following ISB members were assigned as liaisons to the four performance measure subgroups:

- Water Quality: Glaze and Baptista
- Levees: Goodwin, Mount and Twiss
- Water Supply Reliability: Keller and McKinney
- Ecosystem: Smith, Patten and Meyer

Many of these liaisons have provided written comments to the subgroups and will be invited to attend the subgroup meetings in person, or via teleconference to provide additional feedback and advice. Consolidated written comments are attached. Further, on Friday, February 23rd, ISB liaisons will meet in person with most, if not all, of the subgroups. Agendas for these meetings are being developed by the subgroups.

Lastly, at the November ISB meeting, the Water Quality Subgroup was invited to provide an in-depth presentation on the development of water quality performance measures. The subgroup is preparing this presentation and will provide powerpoint slides before the February meeting.

It is important to note that each of these approaches to developing performance measures is taking a somewhat different perspective. Some are focused primarily on evaluation of Stage 1 actions whereas others are looking ahead to assessing performance of new activities that may be implemented during the next phase of CALFED.

Attachments:

Attachment 1 - Consolidated ISB comments to subgroups on Phase I report

Contact:

Elizabeth Soderstrom
CALFED Science Program
Email: Elizabeth.Soderstrom@calwater.ca.gov

Phone: (916) 445-5658