

From: sbuer@water.ca.gov

Date: 16 Apr 96

Subject: Draft Level of Detail and Development of Analytical Tools

To: rickb@exec.water.ca.gov

Cc: rbrown@water.ca.gov, kkelly@water.ca.gov, dsandino@water.ca.gov, kjohnson@water.ca.gov, gbarnes@water.ca.gov, harder@water.ca.gov, schmutte@water.ca.gov, earlec@water.ca.gov, jspence@water.ca.gov, sford@water.ca.gov, rwoodard@water.ca.gov, kkelly@water.ca.gov, naser@water.ca.gov, rpineda@water.ca.gov, ahegedus@water.ca.gov, mmeeeks@dop.water.ca.gov, jimm@dop.water.ca.gov, sina@dop.water.ca.gov

Rick-- The following is a copy of email I sent to Lester 4/15.

>From: Ebuer@aol.com

>Date: Mon, 15 Apr 1996 01:11:38 -0400

>To: lsnow@water.ca.gov

>cc: syaeger@water.ca.gov, rwoodard@water.ca.gov, raymac@water.ca.gov

> mford@water.ca.gov, sbuer@water.ca.gov, vpacheco@water.ca.gov,

> rbreiten@water.ca.gov

>Subject: Draft Level of Detail and Development of Analytical Tools

>To: Lester Snow

>This is in response to the March 21, 1996 memo to CALFED  
>Members and Staff regarding Draft Level of Detail and  
>Development of Analytical Tools. These comments were  
>compiled from input by Rick Woodard, Ray McDowell, and  
>me. You requested that we identify analytical tool contacts for  
>future meetings. The list should really include the entire  
>PCT/ERT list, as a wide range of analytical tools will be used  
>for the various impact analyses in the biological, chemical,  
>hydrologic, hydraulic, and socioeconomic disciplines. We may  
>need to draw on others for specific analytical concerns at the  
>appropriate time. For example, Ray Hoagland and his team of  
>economists could make important contributions to the  
>evaluation of economic models for water demand reduction  
>measures. Specific comments on the two documents are  
>attached below.

Stein Buer 4/14/96, 2200 hr

>Selecting Analytical Tools and Information for Assessment of

>CALFED Bay-Delta Alternatives

>

>Level of Detail of Analysis for the CALFED Tier 1 EIR/EIS

>=====

>CALFED Bay Delta Program staff is to be commended for  
>tackling this difficult issue early in the EIR/EIS process. The  
>draft provides a good framework for focusing discussion and  
>achieving consensus, particularly with permit agencies, over the  
>requisite levels of detail for various potential impact areas. We  
>hope the following comments will be helpful in achieving those  
>goals.

>

>

>Ray McDowell

>-----

>Overall the Draft Level of Detail looks fine as a framework for  
>additional refinement of alternatives. However, there is not  
>sufficient information about many of the proposed Components  
>and the rationale behind their selection to allow for a good  
>analysis of impacts, even at the program EIR/EIS level.

>

>To be more useful to those evaluating the impacts of the  
>proposed program alternatives there needs to be a brief  
>discussion of two intertwined issues:

>

>1) The reasons for the "mix" of Components chosen, and

>

>2) The ranges of implementation of the  
>Components/subcomponents. For some of the Components  
>there is a reasonable range of differentiation between modest,  
>moderate, and extensive implementation--even if there isn't a  
>detailed explanation for the "mix" of subcomponents. For  
>example, the range of wetlands restoration in Suisun Bay (1000,  
>2000, and 5000 acres) provides the reader with some sense of  
>the magnitude of each level of effort/cost.

>

>Unfortunately, in the same Component all the reader is given is  
>one level of levee restoration of 100 mi. in the Delta and no  
>explanation for "restore Sacramento River channel through the  
>Delta." Without an explanation for the need for 100 mi. or  
>what "restore" means there is no sense of there being tradeoffs  
>with other Components or subcomponents. I understand that

>some experts may have developed these components using  
>some tradeoffs already--and there are probably excellent  
>reasons for these Component mixes but somebody needs to  
>explain these to the non-expert agency folks and the public.

>  
>Other examples of lack of specificity include the distinction  
>between high and moderate priority diversions for fish screens  
>or islands requiring levee improvements. Knowing how many  
>high priority diversions there are (even roughly) and knowing  
>the miles of high priority levees that need improvement would  
>give the reader some information about the extent of the  
>problem.

>  
>Without a description of the ranges I believe that we are  
>implicitly overstating our understanding of the way ecosystems  
>respond to human-induced geologic, biologic, and hydrologic  
>change.

>  
>It seems fairly clear from reviewing Tables 4-2 through 4-4 that,  
>for many of the Components, there is not sufficient specificity  
>yet for those doing the impact analysis to complete their work.  
>In the end, those doing the impact assessment, the stakeholders,  
>and the decisionmakers need more information about the  
>tradeoffs that went into packaging the alternatives.

>  
>  
>Stein Buer

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>P. 2, Minimum Threshold of Analysis: As described in the  
>draft, the minimum threshold of analysis in most cases  
>represents the minimum difference between levels of  
>implementation of major components. It is suggested as a guide  
>to the level of detail of analysis necessary to assess the  
>difference in impacts of alternatives and thus it will be used as a  
>guide to selecting analytical tools to be used in the impact  
>analysis.

>  
> This is a difficult issue and I may be misunderstanding the  
>presentation, but I believe that this approach should be  
>modified. In my opinion, the minimum threshold of analysis,  
>which to a large extent dictates the type of analytical tools used  
>and the intensity of study, should not be linked to the various

>initial levels of implementation. It is quite likely that as  
>alternatives are refined, levels of implementation of various  
>components will change, thus altering the minimum differences  
>between them. We would thus face a constantly changing  
>"minimum threshold level" as a function of the alternatives  
>themselves.

>  
>The appropriate test for the minimum threshold of analysis is  
>the test for significant effect, as collectively defined under 40  
>CFR1508.8, 40 CFR 1508.7, and 40CFR1508.27. This test  
>essentially responds to the question, "At what point does the  
>proposed activity create effects which are distinguishable from  
>background noise, considering both the context and intensity of  
>an action?" Such a test is entirely independent of the initial  
>increments in levels of implementation, and would lead to a  
>selection of a stable set of tools of the appropriate level of  
>resolution.

>  
>o Table 4-1. CALFED Bay-Delta Program Draft Alternative  
>Matrix: The designations for various levels of implementation  
>are somewhat confusing. The intent, I believe, is to provide for  
>three levels of implementation. However, there are six terms in  
>use: Modest, moderate, partial, extensive, full, and high.  
>Without loss of information content we could simply use low,  
>medium, and high, and in the process also dispense with the  
>double meanings associated with modest, moderate, and  
>extensive.

>  
>o Table 4-2. Key Components of Alternatives and  
>Differentiating Factors - Ecosystem Quality: "Restore upper  
>Sacramento River channel" appears in the first row "Bay and  
>Delta Habitat Restoration". It does not belong there, since it is  
>outside the Bay-Delta. In row 4, "Obtain Water for  
>Environment, last column should read "100,000 af of storage in  
>the Delta", not "100,000 acres..." In row 7, "Habitat  
>Programs", one entry includes "-establish and fund a team to  
>manage introduced species". This option may prove  
>impractical. Depending on the particular species introduced,  
>the control strategy, tools, skills, and knowledge may be vastly  
>different. It is therefore likely that teams will have to be  
>fashioned on a case-by-case basis, tailored to the specific  
>challenge at hand.

>  
>o Table 4-3. Key Components...Water Supply. Row 3, "Small  
>Isolated Conveyance", last column is confusing. Recommend  
>new wording for clarity, "Conveyance of 2,000 cfs from the  
>Sacramento River system to the California Aqueduct". The  
>starting and end points of diversions are different for Alt C and  
>Alt G, and should be spelled out separately. See also my earlier  
>comments on minimum threshold of analysis. Same comments  
>are applicable to Row 4, "Large Isolated Conveyance".

>  
>o Table 4-4. "Key Components...Integrity": Table is  
>erroniously designated as "Table 4-3 continued". Row 2,  
>"Increase Flows for Water Quality", last column should read,  
>"Effects of south", not "Affects of south".

>  
>o Table 4-5. "Level of Detail...EIR/EIS": Under last column  
>of first row, Geology and Soils, the entry states, "River  
>meander changes will be assessed through GIS analysis and  
>model predictions". I believe that we can use the available  
>historic photographic records, plus surveys and various maps to  
>trace river meander changes. I am very doubtful that any model  
>can reliably predict specific future channel changes, due to the  
>unpredictability and complexity of future regulated and  
>unregulated flows, the complexities of partly vegetated, rip,  
>rapped, and eroding stream banks, and the random components  
>of such a system. In row 2, 3, 4, and 5, the time step is listed  
>in column 4. It should be noted that the simulation time step  
>may be very different from the analytical time step. For  
>exāmplē, for Delta hydraulics and water quality a simulation  
>time step of 15 minutes is typically used, and depending on the  
>analytical needs, can be analyzed on 15 minute, hourly, daily,  
>monthly or annual time steps. In row 5, last column, there  
>appears to be a commitment to conduct very sophisticated  
>analyses to evaluate temperatures and pulses of contaminants.  
>This commitment may be very difficult to keep, and may not be  
>necessary to meet the goals of the program.

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>Document Name: "Selecting Analytical Tools for Assessment of  
>CalFed Bay-Delta Alternatives"  
>=====

>  
>Rick Woodard  
>-----  
>Table 1, Page 9  
>  
>Comments:  
>  
>1. "Drainage toxicants" are listed among the Issues and  
>conditions for Agricultural Water Quality. It is not  
>apparent how supposed toxicants in drainage affect the  
>beneficial uses of Delta waters used for agriculture. It  
>would seem, rather, that this issue should be addressed  
>under another category of beneficial use.  
>  
>2. Under Drinking Water Quality, add pathogens. This is a  
>very important issue, Also add arsenic, which has  
>recently become a large regulatory concern.  
>  
>  
>3.  
> Add the category "Environmental Water Quality".  
>Include in  
>this category "pesticides and other synthetic organic  
>pollutants". Include "toxic elements", which would include  
>metals and elements such as arsenic and selenium. Include  
>"temperature". (You may want to remove temperature from the  
>Aquatic Habitat Conditions category, or just leave it there  
>as well).  
>  
>end of file  
>  
>  
>  
>  
>