

Printed: 06-02-97

By: Howe, Carol

Priority: Normal

Topic: RE: notes on CALFED Program

Sent: 06-02-97

From: rwoodard@goldeneye.water.ca.go

To: Howe, Carol; Carol Howe

AXNS

Mail*Link>

RE: notes on CALFED Program alternatives

>From: jkelly@goldeneye.water.ca.gov
>To: Syaeger@water.ca.gov, rwoodard@water.ca.gov
>Subject: RE: notes on CALFED Program alternatives
>Date: Thu, 29 May 97 14:01:30 EDT
>
>--- Begin Included Message ---
>
>Rick and Steve, I got this from EPA, FYI
>
>>From POP3-Server@goldeneye Thu May 29 12:43:59 1997
>Received: from zephyr.water.ca.gov (zephyr [136.200.84.6])
> by goldeneye.water.ca.gov (8.8.5/8.8.4) with ESMT
> id KAA10146 for <jkelly@exec.water.ca.gov>; Thu, 29
>May 1997 10:55:23 -0700 (PDT)
>Received: from epahub4.rtptok.epa.gov (epahub4.rtptok.epa.gov
>[134.67.212.72])
> by zephyr.water.ca.gov (8.8.5/8.8.4) with SMTP
> id KAA25459 for <jkelly@water.ca.gov>; Thu, 29 May
>1997 10:58:28 -0700 (PDT)
>Received: by epahub4.rtptok.epa.gov (Lotus SMTP MTA v1.1b1
>(341.13 3-12-1997)) id 852564A6.00625C80 ; Thu, 29 May 1997
>13:54:22 -0400
>From: Yale.Carolyn@epamail.epa.gov
>X-Lotus-FromDomain: EPA
>To: Hagler.Tom@epamail.epa.gov, Hatfield.Susan@epamail.epa.gov,
> bherbold@aol.com, Louis.Gail@epamail.epa.gov,
> Macler.Bruce@epamail.epa.gov,
>Melgin.Wendy@epamail.epa.gov,
> Valiela.Luisa@epamail.epa.gov,
>Yoshikawa.Nancy@epamail.epa.gov,
> Ziegler.Sam@epamail.epa.gov,
>Wright.Patrick@epamail.epa.gov,
> Schwinn.Karen@epamail.epa.gov,
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> Leidy.Robert@epamail.epa.gov,
>Monroe.Michael@epamail.epa.gov,
> Ross.Brian@epamail.epa.gov,
>Vendlinski.Tim@epamail.epa.gov,
> Asami.Joann@epamail.epa.gov
>Message-ID: <882564A6.005FA11E.00@epahub4.rtptok.epa.gov>
>Date: Thu, 29 May 1997 10:57:04 -0700
>Subject: notes on CALFED Program alternatives

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D-043546

>Mime-Version: 1.0
>Content-Type: text/plain; charset=US-ASCII
>Content-Length: 20580
>Status:

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>
>
>I'm sending around this draft of notes on a couple of the
>common elements
>in CALFED alternatives (also attached files). The water
>quality appendix B
>notes come mostly from a meeting 5/28 (Macler, Herbold, Rea,
>Schwinn,
>Yale), with a few comments which Gail provided before annual
>leaving.
>
>CALFED has asked for comments on the Phase II alternatives by
>6/6, in
>preparation for discussion at the 6/11 PCT meeting. I will
>compile
>comments but depend on Team members for substance. (We
>discussed this
>briefly at the Team meeting last week, passed out text. Also,
>Gail and I
>have been in contact with some of you about review already.)
>I'm in
>training next week, so getting together on this will be limited
>to the
>earlybirds. Please e-mail comments (before COB 6/2, if
>possible).
>There may be some interest in a federal agency conference call
>to discuss
>alternatives before the PCT meeting; I'll keep you posted.

>
>Re water quality:
>* We agreed that additional work is needed on water quality but
>that key
>people aren't available to complete work by the "due date" of
>6/6. Thus,
>we will provide some "highlight" comments by 6/6, and we'll
>notify CALFED
>of need for additional time for more thorough comments.
>
>Draft comments on the 17alternatives (distinguished by
>storage/conveyance)
>later today in separate e-mail.

NO NEED
FOR
RESPONSE

>Thanks. Carolyn

>
>_____
>May 1997

>
>Note: once we've reviewed and made recommended revisions to the
>component
>pieces, we might work through the integration process with a

>few selected
>alternatives-- maybe one from each of the three main
>approaches.

>
● ERPP COMMON PROGRAM-- APPENDIX A

>We agreed to hold off intensive ERPP review until the draft is
>released in
>mid-June. The following is a quick scan.
>When we review the ERPP in detail, we will need to consider a
>functional as
>well as geographic division of effort. For example, we'll need
>to look at
>how the resource element ?stream meander belts? (which relates
>to
>floodplain restoration) is handled in various watersheds. There
>are
>?watershed? actions distributed throughout the geographic areas
>under
>various resource elements. We should also check to see if ERPP
>targets and
>actions have been integrated with the other common programs --
>notably,
>water quality (contaminants as a stressor in ERPP) and levees
>(flood plain
>management, levees).

>
>General

- >
● 1. Provide integrating principles which characterize the
>relationships
>between the resource elements. Does this appear in the vision
>statements?
>
>2. Sources (information, plans, programs) for the targets and
>actions
>should be identified consistently. (Many appear to be drawn
>from DFG plans
>and/or the CVPIA AFRP.) Identification of sources applies to
>both flow and
>non-flow actions, but flow targets/actions particularly need
>documentation.
>(Is this information in the full ERPP?)
>
> In particular, clarify where CVPIA AFRP prescriptions are
>being used
> or supplemented. CALFED will need to address the question
>of level of
> AFRP implementation assumed/planned under that program
>(through
> CVPIA-related resources and authorities).
>
>3. Flow prescriptions intended to affect channel morphology
>need more
● scientific support.
a. Is the ?conceptual model? of flow/channel processes on

outside
view of
program

>which these
> prescriptions are based reasonable?
> b. What information is needed to make prescriptions using
>this
> conceptual model?
> Is this information available for the streams where this
>type of
> target intended?
> c. In light of the above (a and b), are the targets
>supportable?
>
> Note: The Phase II alternatives document (Summary of
>common Programs,
> pp. 3- 4) emphasizes strategy that will restore ecosystem
>processes.
> However, these processes aren't as clearly defined as they
>could be.
> (Is this information in the larger ERPP? Compare the work
>done for
> indicators....) We probably need to check the
>completeness of
> process.
>
>4. The mechanisms for streamflow enhancement are unclear,
>referring in
>some cases to voluntary sales of water, in other cases to
>something vaguer
>(see for example: Colusa, streamflow, reference to supplemental
>reservoir
>releases).
>
>. Establish implementation priorities. Are some ERPP targets
>more
>critical than others. Also, considering priorities, would some
>storage/conveyance or other component conflicts be more
>significant than
>others? For example, see Delta TA, Target 5 regarding net
>flows through
>the lower SJR channel during winter.
>
>6. There are many targets without corresponding actions (a few
>gaps noted
>below in the specific comments). Needs work.
>
>7. Provide additional detail regarding implementation of
>certain actions:
>Many of the actions are quite specific and appear to be
>directed to
>particular agencies and implementing mechanisms. In these
>cases, identify
>the agency/mechanism.
>
>Comments relating to specific zones and/or resource elements:
>
>San Joaquin River ecological zone: I suggest that we try to
>fill in the

*outside
zone
of
study*

>flows component for this zone to provide information
>complementing the
>floodplain and meander zone reestablishment referenced in the
>targets.
>Susan?
>
>Flows:
> a. No flows enhancement actions are provided with
>reference to the
> mainstem San Joaquin, although there are targets for the
>main
> tributarie). Whereas the Sacramento side used flow
>targets and
> actions, there is no comparable complement of measures for
>the San
> Joaquin. Do we know that the sum of targets for the
>tributaries
> amounts to adequate mainstem flows?
>
> b. What is the Bay-Delta connection in increasing flows
>between
> Friant and Gravelly Ford? (page 1, reference to benefits
>to resident
> native fish). [One can make the (logical) case that
>restoring flows in
> the main San Joaquin below Friant could contribute to
>solving salinity
> problems, refuge supplies (= waterfowl habitat), channel
>and
> floodplain habitat restoration, anadromous fish
>restoration, and so
> forth. As represented in this ERPP document, the
>rational seems
> feeble.]
>
> c. Streamflow targets refer to flow releases to provide
>for passage
> of fall run and late fall run chinook, not channel
>morphology or
> floodplain characteristics. The stream meander migration
>element
> calling for restoration of the floodplain and
>reestablishment of the
> stream meander zone between Vernalis and the mouth of the
>Merced makes
> no sense without the appropriate flow complement.
>
> d. Similarly, the levees, bridges, and bank protection
>element (page
> 2 of the SJ ecological zone) addresses setback levees ?to
>establish
> the hydrologic connectivity between these channels and
>natural
> floodplains? without clarification of the anticipated or
>targeted
> flows.

*Setback
Sept 4
1982
RDS/mcl*

>
>Shaded riverine aquatic (page 3, San Joaquin zone): is more
>detail
>available on the targeted areas?
>
>Note floodplain inundation in Delta zone (Delta TA, p. 5): If
>this is
>implemented there is a potential conflict with conveyance
>diversions
>(entrainment).
>
>See Delta ecological zone p.2, target 3, relating to fall or
>early winter
>outflow pulse.... The action refers to flows recommended by
>DFG and AFRP,
>and notes ?no supplementary release of stored water would be
>required above
>that required to meet [these] prescribed flows.? What does
>this mean from
>the perspective of CALFED program implementation? (See
>General comment #
>2.)
>
>Eastside delta tributariess ecological zone page 1 refers to
>the Cosumnes:
>restore natural streamflow pattern for summer and fall periods.
> Action:
>Improve base flows by developing new water supplies along the
>river and by
>purchases from willing sellers. What is intended here?
>Substitute supplies
>from other sources?
>
>Look at the dredging targets. Delta TA p. 6.
>
>Contaminants targets.
> Delta TA p. 8.
>
> The Water Quality common program p. 2 refers to mercury
>contamination;
> this is not carried over to the ERPP common program (see
>Yolo Basin
> ecol zone).
>
>Riparian scrub habitat, San Joaquin Delta area, Delta TA p. 14.
> This needs
>to be explained in ecosystem function and process terms (i.e.,
>the
>rationale for the specifics). It is not clear where this
>habitat is
>targeted within the South Delta (along the SJ River). How does
>this relate
>to the floodplain targets? Also, the target language addresses
>the SJ
>River, while the actions refer to the Sacramento and Mokelumne,
>Cosumnes...

*acts de
survival
in
program*

>not the SJR. For riparian woodlands (the next resource
>element), there is
>also reference to a South Delta Unit target without
>corresponding actions.

*outside
scope of
IUP
Program*

>Watershed management: see for example Cottonwood Creek ecol
>zone streamflow
>action to develop a watershed management program which could
>contribute to
>improved runoff patterns. See also land use (resource
>element), watershed
>protection....

>
>
>DRAFT
>
>Comments on the assumptions for no action and existing
>conditions
>(Appendices E and F):

>
>I understand from Rick Breitenbach that these assumptions,
>which apply to
>DWRSIM runs, are being tweaked for distribution soon as part of
>the no
>action/existing conditions package. CALFED will request agency
>sign-off of
>this package at the June Management Team meeting. This
>material has not
>changed substantially since we reviewed it in late 1996. If we
>accept the
>rules? for defining what belongs in the existing conditions
>and future no
>action (without project), then the contents should follow on
>the basis of
>good information and good judgment. I suggest that we defer
>final review
>and comment on these assumptions until receipt of the
>package.? In the
>meantime:

> Here are notes in progress, using Appendices E and F.
> We should discuss assumptions with the Bureau.
> Clarify relationship between these assumptions and those
>used for
> CVPIA PEIS, and by State Board.

>No action:

>Benchmark study 472

>
>Note that CVPIA implementation is not, for the most part, in no
>action.
>CVPIA flow implementation based on an April 1996 prescription
>from the
>Bureau (flow objectives on Sacramento, American, no reference
>to Delta).

(b) (2) in delta?

>
>The intent is to use 2020 hydrology. For the present, CALFED
>is using a
>1995 level of development.

>Conditions assume operation per the COA. Unstored flows for
>storage and
>export are split 55% CVP/ and 45% SWP. In months when
>export/import ratio
>limits exports, the export is split evenly between the two
>projects.

>
>Interruptible SWP water (page 5): how is this implemented?
>Implications for
>transfer capacity at facilities?

>
>Uses State Board Plan 1995. Interior delta standards on SJR
>(San Andreas
>landing) not modeled.
> Accord?

>
>Existing conditions:

>
>The agreement that the State Board WQC Plan and Accord should
>be included
>in the existing conditions scenario does not come through
>clearly.
>Instead, there are three ?alternatives?: D-1485, the 1995 Plan
>without
>sharing on the SJ side; and a third alternative based on the
>Plan, but with
>sharing. These ?alternatives? are assumptions for DWRSIM
>studies 467, 468,
>and 469. These assumptions may be selectively combined into a
>new existing
>conditions run for CALFED...?

>
>
>Water Quality -- Appendix B - *Ann's*
>Summary from meeting May 28, 1997

>
>1. We need to understand the problem assessments underlying
>the actions
>prescribed. The information provided is incomplete, but
>perhaps is (will
>be) included in the full text of the Common Program document.
>Contact Rick Woodard for information on the status of the full
>common
>program for water quality.

>
>2. We need to clarify what modeling will be done for water
>quality, beyond
>flows. What models will be used in the delta?

>
>3. Some actions are quite vague (for example, unknown
>toxicity). Other

*outside
- 2004
WQ
Program*

>actions have been restricted from original scope (for example,
>land
>retirement). The Program needs to explain where there are
>circumstances of
>incomplete, unavailable information which preclude more
>definitive action
>at this time-- investigations, etc., needed in the near term.
>The Program
>element should also explain which methods have been considered
>but rejected
>for various reasons (for example, land retirement for salinity
>control).
>In some cases we may be able to provide more substance
>(information on
>problems, criteria, potential methods, actions).

AKNS

>Specifics:

>
>p. 2, mine drainage: Explain where mine drainage presents a
>problem for the
>ecosystem and/or human health. Be specific regarding the
>reaches of
>rivers, streams affected. Cross check the water quality
>component
>assessment with references in ERPP relating to toxic
>contaminants. Joe
>Karkowski, Rick Sugarek.

AKNS
↓

>P 3 toxicity from pesticides chlorpyrifos and diazinon:
>indicators of
>success should cite DFG criteria.

>P 3 oxygen depletion problem to which the action refers is
>limited to a
>specific area on the San Joaquin, at the Port of Stockton
>turning basin,
>during the fall (low flow period on the River). We are not
>aware of other
>areas with this problem, making it less a program issue than a
>very
>specific one. Further, the source of the problem is related to
>discharge
>from a particular plant, so source control may be an option.
>This should
>be checked with Terry Oda and with the regional board. (Note
>top of page 4
>reference to Basin Plan objectives; is there really a
>widespread problem
>with DO?)

>
> We should check the CZARA measures applicable to these
>problems; could
> these measures be incorporated here by reference?

>GL: Page 2, Action regarding Mercury loadings to Delta,
Regarding the bullet on development of research program

>to identify
> bioavailable forms of mercury - According to Phil Woods,
>he has never
> seen any data to indicate that mercury, in any form, is
>not
> bioavailable. This research program should not serve as a
>reason to
> delay acting upon mercury sources.

>P 3 provision of incentives referenced as a method relating to
>the oxygen
>depletion action is out of place, and should be moved to a
>later section
>addressing discharges.

>P 4 The Program element should include an agricultural
>component relating
>to sediment loading, turbidity, unless assessment indicates
>that this is
>not a problem for the ecosystem. (The current text refers only
>to urban
>and industrial sources.)

>P 4 wastewater and industrial discharges: The problem of impact
>of domestic
>wastes and pathogens is largely associated with contact via
>recreational
>use. It is not truly a problem for drinking water, since
>treatment
>addresses these contaminants. Further, we are not aware of
>environmental?
>issues associated with these wastes. Rewrite the action
>statement and
>indicators to emphasize the recreation use. There are hot
>spots within the
>delta where the recreation impact is pronounced, and these
>should receive
>priority attention (for example, Grant Line slough/canal).

>GL: Page 4, Action regarding boat discharges -
> Consider developing a program that phases in a ban on
>boat
> discharges, after gradually providing access to plentiful
>and
> affordable pumpout facilities throughout the Delta. This
>could still
> be complemented by increased education, enforcement, etc.

>Page 5 action to reduce the toxic impacts of selenium: The
>western Delta?
>should refer to the area upstream of Chipps Island, and should
>not include
>Suisun Bay. Refinery releases probably do affect Suisun, but
>not the
>western Delta. Indicator of success should refer to reducing
>bioaccumulation of selenium in organisms of Suisun Bay (rather

*outside
(ALFE) review*

>than the
>western Delta).

>GL: Page 6, Action regarding reduction of selenium loading -

The three methods listed, by themselves, will not necessarily reduce selenium loads. While water use efficiency in the Grasslands region has increased from 60% to 80%, selenium loads have still increased as more land have come into production. We support the concept of reducing loadings and suggest a broadening of methods considered to include economic incentives such as tiered water pricing and tradable discharge permits. In addition, consideration should be given to the entire Grasslands watershed and activities that might be undertaken to address selenium sources in the upper watershed. This provides a good opportunity for CALFED to promote more of watershed approach to the selenium problem.

>GL: Page 6, Action regarding salinity in the Delta -

Third bullet under methods - Reverse osmosis does not appear to be a viable, cost-effective solution. Also, by what mechanisms do constructed wetlands remove salts? Performance measure focuses on reduced salinity loads entering the San Joaquin River. However, the fourth method that suggests timing the discharges with high flow conditions in the River will not have an impact on salt loadings (just on concentrations).

>Page 6, referring to the action to reduce agricultural drainage toxic effects of selenium:

Methods should add developing and implementing a TMDL; incorporating the provisions of the Grasslands Bypass Use agreement; adopting and implementing a waste discharge requirement.

Indicators should refer to reduced selenium loads. This could be measured closer to the source and impact areas such as Mud Slough, although Vernalis acceptable as well (monitoring data available). We were not certain of the distinction between the

>?performance measure?
> and the ?indicator of success,? which appears to be
>another
> performance measure without ultimate ecosystem
>relationship. Tissue
> concentrations should refer to Bay-Delta species.
>
>Page 6, on salinity reduction: check with Dennis Westcot or
>similar expert
>at the Regional Board.
>
> Methods should, we believe, include land retirement or at
>least
> explain that this method was considered but rejected for
>specified
> reasons.
> Emphasize management for in-valley solutions in the
>methods list.
>
>Page 6, action relating to reducing salinity in the South
>Delta. The
>separate entry here should be deleted, as it refers to dilution
>actions,
>rerouting pollution, and structural options which are included
>in certain
>of the 17 alternatives. These measures are inappropriate for
>the water
>quality common element. To the extent that salinity in the
>South Delta is
>a problem, it should be noted in the action immediately
>preceeding. Source
>control methods are appropriate in the common element, but not
>the methods
>associated in this action (such as tide gates).
>
> If the CALFED alternatives do adversely affect the South
>Delta,
> mitigation measures such as those suggested here
>(barriers, additional
> water supplies) may be considered. (Again, note that the
>barriers are
> included in some of the storage and conveyance
>alternatives. These
> may not be necessary to the performance of the
>storage/conveyance
> facilities, but more associated with impact mitigation.)
>
> ** We need to consider further how to address the
>question of
> disposal of salts. This is a key issue in the San Joaquin
>Valley
> water quality/drainage strategy paper.
>
>Page 7, action on toxic effects of carbofuran, etc. in the
>delta and
>tributaries. There are DFG criteria which can be cited in

>?indicators of
>success.? Ascertain why only three of five pollutants (in rice
>field water
>quality issues) are cited here. Check with Debra Denton.

>Page 7, on ammonia. Clarify the geographic incidence of this
>problem. Dan
>Meer or someone such as Chris Vaux (sp?) at the Regional Board
>might be
>able to explain if ammonia is a problem.

>Page 8, water treatment, action relating to improved quality of
>treated
>drinking water. There needs to be further thinking on
>appropriate actions.
>We cannot agree that the ?incentives? listed under ?methods?
>are
>appropriate.

>Page 8, TOC and other problems. This needs clarification of
>the problems
>and rewrite of the methods. Bromides, for example, are not
>discharges. *- inorganic - TSSB/C who wants bromide as emission*
>Relocating the water supply intakes may not be the appropriate
>response.

>
>(Note however that this is included in many of the 17
>alternatives.)

>Page 9, unknown toxicity. This is genuinely a problem but the
>common
>element write up is vague. Run this by Debra Denton.

>
>GL: Common Program in Alternatives Report:

>
>Page 12, Second paragraph under ?Coordinated Watershed
>Approach? - change
>?the State Water Resources Control Board?s (SWRCB) Sacramento
>River
>Watershed Program? to ?Sacramento River Watershed Program.?
>Change ?the
>Sacramento River Toxic Parameter Control Program? to ?Toxic
>Pollutant
>Control Program.?

>
>
>
>
>
>
>
>--- End Included Message ---
>
>
>