

April 15, 1996
CALFED Workshop #6
Black Breakout Group

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Allan Highstreet, Recorder
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Participants (initials follow name):

Chuck Binder (CB), Bookman-Edmonston Engineering
Clair A. Hill (CH), CH2M Hill
Joe Patten (JP), CH2M Hill
Jim Easton (JE), HYA Consulting Engineers
Jerry Troyan (JT), Sacramento Regional CSD
Richard A. Denton (RD), Contra Costa Water District
Kathy Kelly (KK), DWR
Lena Tam (LT), EBMUD
David Nesmik (DN), Sierra Club
Ronnie Weiner (RW), NRDC
Walter Kornichuk (WK), DOI
Robert Meacher (RM), Regional Council of Rural Counties and Plumas Co.
John Mautow (JM), James I.D.
'Stain' ^{Stein} ~~Stain~~ (didn't sign up, but made lots of comments)
Judd(didn't sign up)

QUESTIONS AND ANSWERS ABOUT THE PROCESS AND THE ALTERNATIVES

Jim Easton (JE): When will we get data on water supply yield; even approximate numbers?

Joe Patten (JP): What gage did CALFED use to estimate demand met (Bull 160)?

Chuck Binder (CB): What volume was used to calculate urban runoff reduction and what is CALFED proposing to do with retained water?

Clair Hill (CH): When will there be more detail on operating criteria?

CH: How will higher water quality be reflected in treatment savings?

Ronnie Weiner (RW): How is water pricing considered? How will land be fallowed; just during droughts?

Walter Kornichuk (WK): What monitoring is currently underway to document baseline conditions in the Bay-Delta and what monitoring is being proposed for adaptive management purposes?

Stain: Is there really any such thing as "carriage water?" Should carriage water savings be included in evaluation of alternatives? Will our models be able to address no carriage water?

JE: Why don't all alternatives include in-delta storage for export?

JE: How will equity be maintained during staged implementation, especially with respect to water supply?

RW: Why isn't conjunctive use seen as a water supply option early in staging process?

RD: Is it true that dilution is the solution to pollution?

???: Why is use of reclaimed water only mentioned in Alternatives A,H, and E?

Sharon Gross (SG): As we move through process, details will become available.

JE: We need ballpark estimates on yield. Water suppliers will not support this effort much longer without some quantitative information, especially on yield.

Kathy Kelly (KK): Even if you had yield estimates, you wouldn't know how it would be assigned...who gets the increased yield.

JE: Water supply community needs a ballpark figure on yield, not who gets it.

RW: It is not CALFED's job to increase yield, it's supposed to be about increasing reliability.

SG: You're right, CALFED is not trying to develop a grand water plan for California, just trying to fix the main conduit [i.e., the Delta].

JP: How can you expect to measure success of different alternatives if you haven't estimated or assumed something quantitative about demand and yield?

Stain: We need to ask whether an alternative is going to cost water, yield new water or be water neutral.

CB: We need to have a performance measure for each component of an alternative before we can evaluate the alternative.

Loren Bottorf (LB): Analytical tools won't be used until Phase II starts.

PARTICIPANT COMMENTS ON ALTERNATIVES

Alternative A

Strengths:

RW: Does not rely on facilities.

DN: Relies on extensive conjunctive use program

RW: It's adaptable (e.g., dry vs. wet years)

Weaknesses:

JE: Economic impacts are not equitable

JP: Unrealistically optimistic

RM: Could limit growth in source counties

JP: It is water deficient

JE: Water conservation estimates are too high

RW: Water conservation estimates are too low

Alternative F

Strengths:

JE: Many impacts of this alternative are already addressed in Delta Wetlands EIS

RW: Includes extensive habitat restoration

JE: In-Delta storage

Weaknesses:

JP: Levees and siphons are too vulnerable to earthquake or other hazards to base state's water supply on

Stain: Flooding delta islands would eliminate prime waterfowl habitat in Pacific Flyway

Stain: Shallow reservoirs would have poor water quality (high dissolved organic carbon concentration), high algal abundance, uncontrolled aquatic vegetation growth

RW: Storage options are too narrow

KK: Does not address M/I public health and safety concerns (water quality)

JP: In-Delta storage (get bigger multiple use bang for a buck with upstream storage)

Stain: Dam safety could not be guaranteed in peat soils of Delta

Alternative D

Strengths:

Stain: Addresses flood concerns within Delta

Stain: Adheres to "common pool" concept

KK: South of Delta storage gives you flexibility for exports
JE: Has surface and groundwater storage
RD: Has wide intake (island storage/conveyance) rather than screened intake
Stain: Could be relatively cost effective; multipurpose improvements

Weaknesses:

CH: Can't construct safe dams in peat soils
KK: Does not address public health and safety concerns (M/I water quality)
RM: So-called 'surplus water' may not exist (depends on interest group) if it limits source county growth
RD: Doesn't specify how conveyance will be increased (widen channels or deepen them?)
LT: Channel modifications could adversely affect Mokulmne R salmon
RW: South of Delta storage should look first at conjunctive use, instead of reservoirs
RW: Doesn't put enough emphasis on improving system integrity by reducing subsidence and building up islands with tidal marshes (for example) rather than just beefing up levees
JP: There won't be any water to put in storage

Alternative C

Strengths:

Stain: Lots of operational flexibility
Stain: Increases water supply and water quality

Weaknesses:

JP: Screens will be too expensive
CH: Screening on this scale may not be technically or economically feasible
Judd: Creates in-Delta habitat, but then proposes screens to prevent fish from using habitat
JP: Doesn't specify where new storage would be located

Alternative E

Strengths:

RD: Combines ecosystem restoration with improved conveyance and levee improvements

Weaknesses:

RD: Doesn't go far enough in promoting use of set back levees ("may" in Alternative description should be changed to "should")
KK: Offers very little flexibility in terms of operations, especially for export potential
JP: Unreliable (see Alternative F weaknesses)
JP: All through-Delta conveyance/storage options lack flexibility

JE: Unscreened diversion on Sacramento River would have negative impacts on anadromous fish
RD: May create prime habitat for predators
Stain: Doesn't present rationale for what effect Alternative would have on fish
JP: There won't be enough water

Alternative G

Strengths:

RW: Extensive reliance on conjunctive use and groundwater banking could have environmental benefits

Weaknesses:

RD: Could compromise quality of EBMUD and SFWD water supplies
Stain: Not implementable or durable because required institutional guarantees are not practical
Stain: Cost is too high
RD: Extension to Friant is not practical
JP: No feasible storage sites
JP: Problems with in-Delta storage (vulnerability)
RD: Doesn't define what is meant by "temporary diversion"....how temporary?

Alternative B

Strengths:

JP: Includes storage in western Sacramento Valley (the only cheap storage still left) thus providing maximum potential for multiple use benefits
WK: Features real time monitoring and sharing of data resources
???: Shaving flood hydrograph and storing for dry weather use has flood control benefits

Weaknesses:

RM: Doesn't specify where upstream storage would be
Stain: Too expensive and inherently cost-inefficient because huge pumps would be idle except during short high flow periods
RW: Needs more conjunctive use
RW: Should start with conjunctive use and then examine other storage options instead of relying first on reservoirs
JP: 400,000 acres of ag land retirement seems unrealistic (too much redirected economic impact)

Alternative H

Strengths:

RW: Offers more flexibility for diversions

JE: Provides greatest opportunity to capture and store surplus flows

JE: Doesn't require pumping to store (gravity fed)

RW: Has a pretty name.....)

Weaknesses:

RD: Would have to excavate a lot of peat soil to prevent contact with stored water

KK: System would be too vulnerable...if one lake in chain goes out, whole system is compromised

CH: System would be highly vulnerable to earthquakes

Alternative I

Strengths:

JP: Provides highest quality water of all the alternatives

CH: Offers most offstream storage for use during droughts, provides most operational flexibility during droughts and floods, it can be staged, and incorporates a lot of existing facilities

JE: It's way too expensive

RW: Difficult to make plausible guarantees to environmental community

RW: Prime habitat in northern Delta and Suisun Bay would be disrupted during construction of conveyance facilities under Delta

Stain: Constructing a tunnel under the Delta will be technically very difficult (because of water depth, strong tides, poor quality of foundation material, etc.) and thus very expensive

Stain: Large, expensive pumps would be idle most of the time

Alternative J

Strengths:

RW: Provides for extensive pollutant source control

Weaknesses:

JP: No confirmed fish screen facility

RD: Inefficient to use such a large facility just to skim off high flows; would thus create incentive to operate facility year round (despite initial guarantees to the contrary).

Stain: Too similar to Peripheral Canal proposal of 1982.....political stigma.

KK: Too much emphasis on conveyance, too little on storage

Stain: Could cost water

RD: Possible major water quality impacts on South Delta water quality

CH: 15,000 cfs channel capacity is oversized given capacity of pumping facilities and aqueduct capacity to San Luis

SUGGESTED MODIFICATIONS TO ALTERNATIVES

Alternative A

RW: Replace permanent land retirement with dry year options

JM: Increase storage if possible

JP: Combine with Alternative I

RM: Recognize that watershed management could increase water yield and increase reservoir life

RW: Add user fees as a demand management feature

JE: Add storage element (or elements)

LT: Include measures for water conservation

KK: Increase opportunities for water transfers

RW: Add more ecosystem components

Alternative F

RW: Broader range of storage options are needed

CH: Massive land retirement would have huge redirected economic impacts, all of which must be evaluated and described

JP: Take environmental components of this alternative and add to best of Alternative I

Alternatives D, E, and C

RD: Alternative C should just include screening of isolated facility intake, not through-Delta conveyance intakes

RD: Limit size of isolated facility to match screens

RD: Widen south fork of Mokulmne R conveyance (not the north fork)

Alternative J

JM: Add storage

Stain: May need to release clean water to maintain South Delta water quality....so facility would have to be even bigger than specified

JE: This alternative is DOA (politically unattainable)...cannot be improved

BIN COMMENTS

JP: Don't restrict operators to just descending limb of hydrograph when capturing flood flows

RD: Focus on descending limb has to do with fish movement induced by ascending limb...if you start pumping before peak, you increase fish take

KK: Our options here are limited because the primary purpose of upstream reservoirs is flood control

RM: Need to formally define what CALFED means by "surplus flows"

RW: Need to develop a priority list for storage options with conjunctive use being the first priority, the second being any option that is most implementable and stageable

RW: Need more extensive ecosystem components