

CALFED Workshop

April 15, 1996

Break-out Group Discussion

Green Group - Club Room

Jay Stewart: Facilitator

Larry Rodrigez: Recorder

Jim Sherar: Notetaker

Participants:

Randy Baily	Consultant/MWD
Ben Barretta	Nevada Irrigation District
Marilyn Candiff-Gee	Wildlife Conservation Board
Kyra Emanuels	ILSG Local Gov. Water Ed.
Dan Fuits	Friant Water Users Authority
Lloyd Fryer	Kern County Water Agency
Bill Gaines	California Waterfowl Association
Brent Graham	Tulare Lake Basin
Bob Masterson	Woodward - Clyde
Patrick Minturn	Shasta County Water Agency
Richard H. Moss	PG&E
Pete Roads	MWDSC
Rick Soehren	CALFED
Chris Williams	Executive Director, Mountain County Water Resources Agency
Molly Wilson	Shasta County Board of Supervisors
John Winter	Delta Wetlands

QUESTIONS AND ANSWERS ABOUT THE PROCESS AND THE ALTERNATIVES

Questions:

Randy Baily (Consultant/MWD) requested a list of assumptions that guide and structure the alternatives (e.g. X2 standard, habitat restoration, amount of Delta island flooding).

Dan Fuits (Friant Water Users Authority): Additional information on voluntary land retirement is needed (such as how much land is available, how and where land will be retired, etc.). In addition, this information should be documented to allow for verification of references.

Marilyn Candiff-Gee (Wildlife Conservation Board): How many alternatives/actions require voluntary efforts? (e.g. land retirement, habitat restoration, conjunctive use, reclamation.)

Brent Graham (Tulare Lake Basin): Need more information on costs.

Lloyd Fryer (Kern County Water Agency): How and when will staging of core actions be implemented.

Molly Wilson (Shasta County Board of Supervisors): How will area of origin water rights be addressed?

General comment: How will adaptive management work?

Answers:

Rick Soehren (CALFED):

Assumptions: Some assumptions are listed in the Workshop 6 Information Package (Refined Alternatives Section). No actions are untouchable. All actions are on the table and are being considered, not ignoring any ideas.

Voluntary land retirement. Where possible CALFED would like to avoid taking of private land especially where these actions would affect individual property owners. The feasibility of land retirement remains unstudied.

Comment: (Brent Graham [Tulare Lake Basin]) Third party impacts remain unaddressed. DWR water-banking information indicates that third party land retirement impacts are substantial.

Comment: Lloyd Fryer (Kern County Water Agency): Basis for land retirement from the Rainbow Report (San Joaquin Valley Drainage Program) are based on faulty assumptions.

Russ Brown (Jones and Stokes Associates): Assumptions are generally based on past programs and references. Additional references are important, please send them in.

Larry Rodrigez (Bookman - Edmonston Engineering): While detailed analysis has not been conducted to determine the extent of third party impacts, the solution principles would not allow for significant third party impacts.

General Comment: Information should be verified prior to incorporation into the CALFED process. Stakeholders should not have to be responsible for verifying the feasibility of CALFED proposed actions.

Rick Soehren (CALFED):

Adaptive management has not been well defined. As the process continues a better definition is needed and will be developed.

Area of Origin Water Rights. While not a legal expert, Rick recognized that these water rights are important and will be addressed.

Comment: Patrick Minturn (Shasta County Water Agency): Area of origin water rights are a hot spot and need to be addressed.

Core action staging: In general, these actions should happen with or without CALFED. These actions include things like habitat restoration projects, which are in-progress. Some overlap of staging will occur. In some cases, CALFED will be providing funding to projects that are in-progress. Some of the CVPIA actions (e.g. Shasta temperature Control Device) are core actions and are currently happening.

Funding: Rick has nothing to add to what Zack and Lester said this morning. Funding is a major issue for the group.

Comment: Lloyd Fryer (Kern County Water Agency): Issues of funding priority should be addressed to identify an effective sequence of actions (for example habitat restoration actions may not be appropriate to implement until toxicity issues are resolved). In general, the sequence should build on the issues, not detract from them.

PARTICIPANT COMMENTS ON ALTERNATIVES

WORKSHOP NOTES

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B-001834

ALTERNATIVE A

STRENGTHS

A low cost alternative that looks implementable (however, land retirement has a substantial financial impact).

In Delta storage is a benefit.

WEAKNESSES

Reliance on water transfers would result in a net environmental impact on wetlands. Should be carefully structured to avoid impacts to wildlife and wetlands.

Cost of land retirement is substantial.

Does not address water quality to the level of some other alternatives.

ALTERNATIVE B

STRENGTHS

In general the development of new storage is a strength. However, should include more storage on the Sacramento and San Joaquin river tributaries. (On- or off-stream storage should be considered, these locations should be specified).

This alternative has habitat benefits.

Chris Williams (Mountain County Water Resources Agency): Avoids third party impacts of land retirement in mountain counties and eliminates the need for demand management (land retirement).

This alternative takes advantage of existing facilities and ground water systems, rather than proposing new facilities.

WEAKNESSES

Brent Graham (Tulare Lake Basin): Land retirement is a general weakness, in spite of increasing storage in other areas.

Randy Baily (Consultant/MWD): The alternative as structured does not meet the CALFED ecosystem goals. Fish flows are based on poor scientific information and should not be relied on as a solution. San Joaquin water quality problems are better corrected by source controls, rather than by dilution.

Lloyd Fryer (Kern County Water Agency): It appears that this alternative may conflict with local district export programs. Potential reductions in pumping capacity to the Kern Water Bank and other user, would be a weakness.

ALTERNATIVE C

STRENGTHS

Ability to take water from more than one sources accommodates catastrophic problems or allows for greater flexibility of operation.

Increased storage.

Isolated conveyance has important water quality benefits.

Small isolated facility is a good compromise between larger PC and the current conditions.

Allows for benefits for fisheries.

Can improve water supply, allowing for flexibility of pumping and overcomes current limitations.

WEAKNESSES

Requires demand management (a strong feeling that third party impacts are substantial).

Reliance on conjunctive use and ground water banking programs is a general weakness, due to physical limitations on geology. Past studies from Kern County show that the proposed strategy (in the ground in February and out in June) does not work.

This alternative does not meet the CALFED ecosystem goals, to few actions in the wrong combination (Randy Baily [Consultant/MWD]).

Real time monitoring is a general weakness.

Alternative results in moderate increases in water supply, at a substantial (?) cost.

ALTERNATIVE D

STRENGTHS

Richard H. Moss (PG&E): Through Delta conveyance is a strength. Building the Peripheral Canal will be impossible. The appeal of through Delta conveyance is the environmentally sensitive manor of water conveyance. Works with what is currently working.

General Comment: This alternative could also be considered the "status quo". (Channel capacity improvements without new storage.)

Randy Baily (Consultant/MWD): The lack of in Delta storage is a strength.

WEAKNESSES

John Winter (Delta Wetlands): This project will not survive the Section 404 process, will impact Stone Lakes and the Delta Meadows projects. This alternative is certainly not the least damaging alternative. Will affect sensitive wildlife areas. (Fatally flawed.)

Patrick Minturn (Shasta County Water Agency): No upstream storage is a weakness. Upstream reservoir operations should be described. Needs more water to balance supply with demand.

Salmon straying problems could be expected with the implementation for this alternative.

ALTERNATIVE E

STRENGTHS

Relatively low cost.

This alternative has a better chance of meeting ecosystem goal (Randy Baily [Consultant/MWD]).

WEAKNESSES

Randy Baily (Consultant/MWD): This alternative does not meet the CALFED ecosystem objectives.

Brent Graham (Tulare Lake Basin): Land fallowing is a general weakness.

Wetland habitat creation is lacking.

Does not balance water supply and demand.

ALTERNATIVE F

STRENGTHS

In Delta storage is a strength (storage objectives should be broadened to include economic goals rather than just ecosystem goals).

WEAKNESSES

Randy Baily (Consultant/MWD): Ecosystem goals are not addressed. This alternative does not have substantial improvements. These habitat improvements do not account for population variability and fluctuations. In-Delta storage for ecosystem fish flows are unrealistic. Needs to have storage upstream and downstream of the Delta, which would allow for flow management.

Brent Graham (Tulare Lake Basin): Demand management.

ALTERNATIVE G

STRENGTHS

It moves the diversions upstream to avoid impacts to Delta species.

Improved water quality for Southern California urban users (cities).

Has a high degree of flexibility allowing for interconnection of systems (e.g. Mokelumne River). Also allows water to remain in the rivers where needed.

WEAKNESSES

High cost.

Demand management.

Randy Baily (Consultant/MWD): The proposed benefits the fish due to transport flows will not occur (True of all alternatives with in Delta storage).

ALTERNATIVE H

STRENGTHS

A significant increase in yield.

Question: How to seal the peat soils (is this possible and/or feasible).

Comment: Rick Soehren (CALFED):
Water quality impacts are not known at this time. The peat soil sealing process would be the subject of technical analysis.

WEAKNESSES

Increases water quality vulnerability by removal of peat soils.

Has potential water quality impacts which we don't know about.

Are there examples of finding and engineering a solution for moving water successfully in other areas similar to the Bay-Delta?

High potential for loss of waterfowl habitat.

Mitigation for waterfowl, Swainson's hawks, and sandhill cranes would be substantial.

High cost.

ALTERNATIVE I

STRENGTHS

Increased yield.

Improved water quality.

Isolated conveyance protects fish. (This alternative has a high level of certainty for solving fish issues.)

Has a long shelf life and a vision that would survive the next 100 years.

Increased flexibility for water transfers.

WEAKNESSES

Randy Baily (Consultant/MWD):
Depending on instream flow conditions, has the potential for a high level of impact to fisheries on the Feather and Sacramento rivers.

Could transport unwanted fish species from the upper watershed south of the Delta.

Cost.

Possess a threat to north coast rivers.

ALTERNATIVE J

STRENGTHS

Implementation would have benefits for water quality and fisheries.

Reduced vulnerability for levees.

Potential to increase exports.

WEAKNESSES

Perceived as a PC.

Could degrade water quality in the south Delta.

Water temps in the central Delta would increase, would be bad for salmon. (Related Question: In the central Delta, are water temps controlled by ambient air temps or inflow from the Sacramento?)

Highly contentious history.

Supply component questionable.

Question between outflow and supply. What standards of operations will be used?.

Pete Roads: Fish screen at this location is challenging.

Water transfer to central and eastside islands in exchange for the water that these islands are drawing should be considered. (These islands would be taking screened water from the other locations, and improve fisheries conditions and reduce reversed flows.)

Skeptical of fish screening feasibility and implementability.

SUGGESTED MODIFICATIONS TO ALTERNATIVES	
ALT.	SUGGESTIONS
A	Demand management should not be a stand alone solution. It should be included in all of the alternatives and be debated on its own merits.
B	In consideration of the high costs of Los Banos Grandes, Orestimba, and other proposed reservoir projects, south of Delta storage economics should be investigated. This advice applies to many alternatives. Non-tidal wetland should be included in this alternative (creation). More storage up-stream is needed to make this work.
C	Needs more specification on where storage would happen. More storage at Pine Flat Reservoir should be considered. Yield of water should be considered and disclosed. Would like to see increasing storage at existing storage facilities.
D	Should be combined with E.
E	Should include more conveyance and channel improvements to increase water deliveries. By developing several pathways through the Delta, water transfer could occur through areas where there are no fish. Would then work with existing system. Should include a small Snodgrass Slough supply facility and include booster pumps to upgrade the Delta Cross Channel. Should also include Georgianna Slough booster pumps and some dredging on the Mokelumne River. Should increase Middle River carrying capacity. Randy Baily (Consultant/MWD): This alternative is a partial implementation of an existing idea - misrepresentation of that idea. The habitat and conveyance components are incomplete. Lloyd Fryer (Kern County Water Agency): Should include additional information on storage (surface or groundwater). Existing description is confusing and implies surface storage.
F	None.
G	Needs to have more storage upstream of the Delta.
H	These islands could be used seasonally for storage to benefit wildlife.
I	None.

ALT.	SUGGESTIONS
J	Needs storage south of the Delta. Needs to incorporate storage and demand management.

BIN COMMENTS

General Comments: Water quality should be measured in three ways: bromide, DOC, and salinity.

The no-project alternative should be based on Dec 15 standards.

What would have been the history of pump reductions in light of the Dec 15 standards and associated biological opinions?

The Delta is not broken as generally portrayed.

Randy Baily (Consultant/MWD): None of the alternatives meet the CALFED ecosystem goals. Release of flows into the Delta to transport fish will not occur. This idea is based on incomplete science. Dilution of San Joaquin River flows is inferior to sources control. All of the alternatives should address zebra mussel invasion. Facilities should be designed to accommodate this species. Zebra mussels can plug major water intakes.

Need more storage in most alternatives (expect for west side conveyance alternatives).

The alternatives should try to solve a specific goal, instead of playing a "numbers game" (high a, low b, etc...). Alternatives are bits and pieces. Components need to be better integrated with solution principles.

Need more information (quantification of water supply, habitat benefits, water quality improvements, cost) before making or expected a decision.

Need more information on costs (how much and who pays for what).

Develop better cost figures.

Randy Bailey (Consultant/MWD): When using information from outside sources, CALFED needs to understand this information and use it appropriately. Alternatives E and F do not appropriately represent the MWD ideas for improving the system.

To be workable, an alternative needs to have a comprehensive demand management program and a comprehensive habitat management plan that address the ESA concerns.

Molly Wilson (Shasta County Board of Supervisors): Need to fully address area of origin concerns.

Bill Gaines (California Waterfowl Association): Need to address species other than fish, need to take an ecosystem view (upland areas should also receive some level of focus). Alternatives should address terrestrial species as well. Need to address biological issues other than fish.

Core actions should be reviewed and with consideration as to weather they are enough to make a difference. Are they adequate in scope to make a difference?

Need an adaptive management plan. (Feasibility, description., pioneering work.)

Randy Bailey (Consultant/MWD): Need to run workshops differently, level of input is adequate.

Need to allow for more stakeholder input.

Marilyn Candiff-Gee (Wildlife Conservation Board): Need two weeks to review workshop information.

Molly Wilson (Shasta County Board of Supervisors): Some people are not being notified of workshops. Mailing list needs to be updated.

Stakeholders need to know what a level of implementation is; please quantify: high, low, min, max, etc.

Priorities are unclear (min, high priority, etc...). Still unspecified.

The CALFED process needs quality time to spell out intentions and develop a comprehensive integrated approach.

Randy Bailey (Consultant/MWD): The success and failure of the program depends on how well these alternatives are described. What are the costs, strengths, weakness? Not ready for the short list. Need more information.

Most participants willing to go to a two day workshop.

QUESTIONS AND ANSWERS ABOUT
THE PROCESS AND THE ALTERNATIVES

WORKSHOP FLIPSHEETS

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B-001849

PARTICIPANT COMMENTS ON ALTERNATIVES

WORKSHOP FLIPSHEETS

B - 0 0 1 8 5 0

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ALTERNATIVE A

STRENGTHS

- Implementable and inexpensive?
- In-Delta storage

WEAKNESSES

- Should not be a stand alone alternative - should be a component in all acts.
- Land retirement
- Net ecosystem benefit is questionable.
- Expensive - land retirement program
- Does not adequately improve W.Q.

ALTERNATIVE B

STRENGTHS

- New storage
- Could modify existing facilities for storage.
- Habitat and supply benefit
- Does not redirect impacts
- Positive impacts in mountain counties
 - - Eliminates need for demand man.
- Groundwater manage.

WEAKNESSES

- Needs new storage in SJV.
- Land retirement
- Does not meet habitat restor. goals
 - Flows may not benefit habitat directly
- Dilution flows on SJR may be ineffective
- Where would So. Delta storage be located for cost feasibility
- Does not address wildlife habitat (non-tidal wetland)
- Not clear on So. Delta capacity allocations

ALTERNATIVE C

STRENGTHS

- Multiple sources
- New storage
- Water quality (isolated conveyance)
- Small scale of isolated facility
 - feasible
- Fisheries benefits
- Improve water supply by increasing exports during low flow cond. in south Delta

WEAKNESSES

- Requires demand man.
- Only moderate increase in supply yield for large expenditure
- No specific locations on storage sites and operation criteria
 - to determine feasibility
- Amount of confidence placed in adoptive management (real time man.) for Delta exports
- Does not meet ecosystem objectives of CALFED

ALTERNATIVE D

STRENGTHS

- Through Delta component is a plus - increased channel capacity.
- Existing export facilities
- No in-Delta storage

WEAKNESSES

- Meadows and Stone Lakes are impacts to wetland habitat.
- No storage up-stream of Delta
- Introduction of Sacramento River water to interior Delta.

ALTERNATIVE E

STRENGTHS

- Low cost, relatively
- Better chance of meeting ecosystem restor. goals
- Has possibility of developing more efficient movement of water across Delta
 - Fisheries benefit
 - Improved channel capacity
 - Management of channel flows
- Improvements
- - Small Snodgrass facility
 - Booster pumps at cross channel

Georgiana Slough booster pumps

WEAKNESSES

- Partial implement. of set back levee program.
- Does not meet ecosystem obj.
- Impacts of permanent land retirement.
- Does not address wetland habitat
- No additional storage (surface)

ALTERNATIVE F

STRENGTHS

- In Delta storage (if not used entirely for environment)

WEAKNESSES

- Does not meet ecosystem goals
 - Does not implement enough change from existing conditions
- Use of in-Delta storage for env. pur.
- Not enough storage to maximize effectiveness
- Demand man.

ALTERNATIVE G

STRENGTHS

- Moves diversion to less sensitive location for some species
- Water quality
- Promotes water transfer
- Flexibility to interconnect to other systems

WEAKNESSES

- 2nd highest cost
- Demand man.
- In-Delta storage - will not meet proposed benef.
- No new storage
 - flexibility
 - water supply

ALTERNATIVE H

STRENGTHS

- Increase in water supply
- Imaginative

WEAKNESSES

- Increases levee vulnerability
- Unknown water quality impacts
 - salinity
 - DOC
 - bromides
- High potential for low cost waterfowl habitat (will be mitigated)
- Cost

ALTERNATIVE I

STRENGTHS

- Increased yield
- Water quality
- Completely isolated from fishery impacts
- Durable
 - long-term
- Increase flexibility for water transfers

WEAKNESSES

- Potential major impacts on Sacramento River Feather River fishery
 - Reduced river flows
- Cost
- Potential threat to north coast rivers

ALTERNATIVE J

STRENGTHS

- Water quality
- Fisheries
- Potential to incr. exports
- System is more protected
 - Less vulnerable

IMPROVEMENT

- Deliver water to east - south Delta users
 - Improves W.Q.

WEAKNESSES

- Perceived as P.C.
- No storage So. of Delta
- Could degrade So. Delta water quality
- Water temp in central Delta will increase (?)
- Difficult politically (P.C.)
- Supply component is question
- Fish screen
 - Is it feasible?
Engineering?
Implementability

COMPARING ALTERNATIVES TO SOLUTION PRINCIPLES AND OBJECTIVES		
ALT.	UNMODIFIED ALTERNATIVE MEETS SOLUTION PRINCIPLES & OBJECTIVES	UNMODIFIED ALTERNATIVE DOESN'T MEET SOLUTION PRINCIPLES & OBJECTIVES
A	None	13
B	5	8
C	2	10
D	3	10
E	0	11
F	0	13
G	1	12
H	0	12
I	5	8
J	4	9

BIN COMMENTS

GREEN BREAKOUT SESSION

Questions Re: Process

- Is there a list of Assumptions driving selection of alternatives (7)
- Were do references for land retirement come from. How are acreages determined
- How many alternatives contain voluntary actions (6.7)
 - i.e. conjecture use
 - transfers
 - reclamation
- Where is money coming from
- - How will adaptive management for ecosystem operate
- Area origin water rights
- How will core actions be staged

ANSWERS

- Strategy for alternative selection is contained in brief in Workshop Package
- All options are considered

- There is considerable reliance on voluntary actions

COMMENT

- Voluntary action (water transfers, land retirement) have considerable third party impacts
- Not all options are on the table
- Facts and Figures are from existing reports and documents. Encompass a range of possibilities

COMMENT

- CALFED has the responsibility to verify number and assumptions
- Adaptive management
- Not clearly known at this time
- - Area of Origin
- Has been recognized

COMMENT

- More attention needs to be addressed to this area

FUNDING

- Need to determine prioritize expenditure of money

- Implementation of core actions

STRENGTH AND WEAKNESS OF ACTS

Weakness in all

- Simplistic approach to groundwater conjunctive use and banking
- Will not work in current descriptions
- No acts meet ecosystem goals
- Release of in-Delta storage tributary releases to move fish in the Delta
- Not effective for fishery man.
- Diluting SJR flows for water quality objectives

Question: Relationship between increased Delta exports and existing Delta standards

- Can we meet yield objectives and maintain 1995 standards
- Realistic No-project assumptions
- Do not address zebra muscle

MODIFICATIONS

ALTERNATIVE B

- Remove demand man.
- More storage no. of Delta
- Increase east side storage SJV
- More non-tidal hab.
- Beef-up levee program

ALTERNATIVE I

- Guar. adequate river flows
- Storage needs to be a component of all acts.
- Alt. components need to be better integrated to meet sol. prn. and prog. obj.
- Cost need to be balanced with benefits.
- Costs need to be analyzed more fully - better cost figures.
- If using components that come from outside source - meet with creators to gain understanding.
- Act needs to have:
 - workable demand management
 - comprehensive habitat restor.
- Staff needs to address area of origin water rights.
- More comprehensive ecosystem program.
- Each act needs extensive ecosystem restoration package.

- Core actions are inadequate in scope to meet soc. prn and prog. obj.
- Clear and understanding adaptive man. program - feasibility
- Reorganize workshop
 - Inadequate ability to provide input
 - More timely mailout - two weeks prior
- Assumptions need to be explained
- More quality time describing components of alternatives and the objectives of each alternative
- Review science behind alternatives

AGENDA

1:00 Welcome and Introduction

1:10 Questions and Answers About the Process and the Alternatives

- Alternative refinement process
- Structure and operation of alternatives

1:30 Participant Comments on Alternative

1:30 - Strength and weakness - Alternatives A, F, D

2:10 - Strength and weakness - Alternatives C, E, G, B

2:40 - Strength and weakness - Alternatives H, I, J

3:10 How Well Do Alternatives Match Solution Principles

How Well Do Alternatives Fulfill Primary and Secondary Objectives

3:40 Advice to CALFED Staff on Refining Alternatives

3:50 Conclude Break-out Sessions

4:15 Reconvene Main Session