

**DIVERSION EFFECTS ON FISH TEAM (DEFT)
NONAME GROUP (NoName)
DEFT NONAME COORDINATION TEAM (DNCT)**

STATUS REPORT

September 3, 1998

DEFT

At the July 1998 CALFED Policy Group meeting, staff provided a summary of the "Diversion Effects on Fish - *Issues and Impacts*" report. The primary issues addressed by the report were:

- Which species, populations, and life stages are most sensitive to diversion effects under No Action and Alternatives 1, 2, and 3?
- What degree of benefit and impact will the common programs provide?
- What is the risk and chance of success of species recovery for each alternative?

The report summarizes the process, assumptions, modeling studies, information, professional judgment and the conclusions reached by the teams on these three issues.

At the July Policy Group meeting, the tasks and schedule for DEFT were revised. The direction given DEFT was to:

- Develop one or more of the best through-Delta options for fisheries and determine the risk and potential success of species recovery considering all actions of the CALFED Program.
- Closely interact with the NoName Group, water quality technical team, and ERP to consider impacts on water quality and supply.
- Present a strong progress report to CALFED Management Team at its September 1 meeting with a best Delta option presented at Policy Group at its September 14-15 meeting.
- Delay the analyses of the dual system to a later date.

At the August Policy Group meeting, the first task was modified to require DEFT to present at the September Policy Group meeting, "a through-Delta alternative that will result in recovery."

To address recovery using all CALFED actions (in-Delta, upstream, and harvest), the DEFT team was expanded to include technical representatives of the commercial and recreational fishing industry and the eastside river tributaries.

DEFT Status on a Through-Delta Alternative

The DEFT species teams concluded that it is not technically possible to determine if an alternative will recover the species. It is possible to make professional judgments as to the areas in which an alternative will improve the likelihood that a species will move towards recovery.

DEFT is focusing on the following areas to develop a through-Delta alternative and the Stage 1 actions that will improve the likelihood of moving the species towards recovery:

Habitat Restoration--DEFT has developed consensus on Stage 1 habitat restoration actions. These actions show the distribution and magnitude of habitat restoration that would complement the through-Delta alternative.

Upstream Actions--Upstream (Sacramento and San Joaquin River systems and the eastside tributaries) actions are being scored and prioritized. These scores will be incorporated with the scores on in-Delta actions and Harvest Management to give an overall assessment of moving towards recovery.

Harvest Management--A Harvest Management subgroup was formed to review ocean harvest management and possible actions that could assist with species recovery and determine the likelihood that harvest management can move the species towards recovery. The team will not have Harvest Management integrated with the other actions by September 15.

Structural Actions--DEFT is evaluating a suite of structural actions and their operations that would enhance or provide information for future enhancement of fisheries. Concluded that the following actions provide the most flexibility and protection for fish with limited potential and cost:

- 2,500 cfs research/demonstration fish screens at Tracy (design for 0.2 cfs criteria)
- 6,000 cfs screen at the head of Clifton Court Forebay (CCF) (designed for 0.2 cfs criteria)
- Investigate fisheries benefits of intertie between CCF and Tracy
- Operable Old River Barrier
- 2,000 cfs research/demonstration screen at Hood with a connection to the Mokelumne River (will be evaluated by Policy Group meeting).

Operational Actions--DEFT is evaluating operational protective actions that could help move the species towards recovery. Some of these include:

- Monthly E/I ratio adjustments
- Expanded VAMP
- X2 at 1962 level of development

Evaluation Scenario--Although DEFT realizes that it's highly unlikely that all of the operational protective actions evaluated would be applied at the same time and to the fullest extent, DEFT combined all the operational actions into a single model run. This run will serve as a starting point from which to evaluate how effective each action is in improving the likelihood

of moving towards recovery. This scenario includes the structural actions and the full protection measures above. Operational model runs have been made that show benefits and impacts on water supply for this scenario. DSM model runs are now being made to show the change in Delta flow patterns as a result of this scenario. The information is being evaluated by each of the species teams for benefits and impacts and the movement toward recovery achieved for each species.

At the September Policy Group meeting, DEFT will present a summary matrix for the DEFT evaluation scenario, similar to that in the DEFT "Issues and Impacts," June 25, 1998 report. This matrix will show the improvement in the probability of each species moving towards recovery. The evaluation will be compared to that for Alternatives 1, 2, and 3 in the previous report to show what variables achieve the most improvement and the general consequences of each action.

Future studies--DEFT will investigate each of the protection actions to determine the sensitivity of an action in improving the probability towards recovery. The degree of uncertainty and/or likelihood of success will be estimated for each action. Recommendations will be made to the DNCT as to those actions that could have the greatest potential for a flexible adaptive management approach.

NoName Group

Purpose

The NoName Group was formed to provide a forum for stakeholder and agency discussion relating to water supply and water quality "tools." These tools are to have broad stakeholder support and be capable of being implemented and producing real water. NoName's charge was to recommend a prioritized list of the most promising water supply and water quality tools that can be implemented in Stage 1.

Recommendations

The NoName Group recommends that CALFED conduct further evaluation of export water supply and water quality measures capable of being implemented within Stage 1 of the CALFED Bay-Delta Program (early implementation), including immediate-term measures (0-2 years), near-term measures (3-7 years) and measures that may warrant further evaluation, in order of their promise for success in the 7-10 year time frame. These measures should be integrated with other Stage 1 CALFED measures and goals to be compatible with the eventual long-term CALFED solution. Specific recommendations include:

- Highest priority measures for evaluation are: ISDP, JPOD, an intertie between the DMC and the California Aqueduct, and Madera Ranch groundwater storage. Second priority measures are: small enlargement of Shasta Dam and in-Delta storage. Other near-term measures were also examined. The results of preliminary studies, which estimate the potential export water supply for consumptive users that are associated with these projects, are attached.

- CALFED should continue to evaluate its possible role in facilitation of transfers of supplies from willing sellers, either to other users or to the environment. The available physical and regulatory capacity to transfer water from north of Delta to south of Delta can be estimated from the operations studies.
- Unresolved issues related to all measures require further work and/or mitigation measures.
- Continue evaluation of operational criteria which are a key element in determining water supply benefits or impacts of any measures.
- Continue to evaluate water quality measures to help provide benefits or offset impacts of water supply measures or operational criteria.
- CALFED should continue to consider other measures not included in the above list that might be integrated later in Stage 1 or in subsequent stages.
- Because of time delays in permitting, CALFED should expedite environmental documentation for those projects it chooses to implement early in Stage 1.
- Alternative methods for providing flows in the San Joaquin River have been proposed.
- A number of near-term water quality measures have been proposed. These have not yet been discussed in detail and still need to be considered.

Qualifications on recommendations

- No formal endorsement of any individual measure or groups of measures.
- Impacts to fisheries, water quality, water supplies of non-export users require further analysis.
- In the report, water supply benefits are measured in the operation models as "south of Delta deliveries." Impacts to other water users should also be assessed.
- While some measures produce "new" water, others involve more efficient use of existing supplies and still others involve re-distribution of supplies (while protecting existing water rights). It should be recognized that these measures do not produce new water but involve redistribution of supplies. The benefits/impacts of any changes in supply, for both consumptive use and for the environment, are highly dependent on the timing of those changes.
- The role and impacts of meeting a portion of demands with transfers were not analyzed, nor is it possible without specific information on each transfer to make this analysis.

- In most cases, project specific environmental documentation may be needed on a time track parallel to the CALFED EIS/EIR ROD if early implementation is desired. Exceptions are: JPOD, ISDP, Delta Wetlands (all have draft EIR/EIS documents). In all cases, final permitting is required.
- The results herein are preliminary and require review and further analysis which may help to refine impacts and benefits of these studies.

Limitations on Modeling

- Not all water quality and biological requirements are met in the water supply analyses. Examples include: Vernalis water quality and flow standards, and Shasta Reservoir levels required to ensure downstream temperature control. Had these requirements been met, water supply impacts to users (including non-exporters) could be significant.
- A number of baseline issues were not resolved, including Trinity River flows, overall Delta requirements, San Joaquin River flows, and full compliance with the water quality control plan.
- Assumed 1995 demands were not met for all users in most years, including the base case and cases with the additional projects.
- The level of demands used in the studies may over- or under-estimate the actual current demand levels.

Next Steps

- Continue work on bundling operations and water supply measures through the DEFT NoName Coordination Team (DNCT).
- Continue consideration of water quality measures.
- Continue evaluation of alternative measures that show promise and could be used to resolve other identified issues such as San Joaquin River flows.

Summary of results (preliminary)

The table below is intended to indicate the incremental export water supply benefit that occurs after specific water supply measures are incorporated. As shown below, the incremental benefits vary depending on which environmental measures are also included. Absolute deliveries will be included in future drafts to indicate delivery changes that result from differing baseline conditions.

New water supply measures	Baseline conditions	Additional Export Deliveries		Comments
		Dry period (TAF/yr)	Average (TAF/yr)	
ISDP, JPOD & DMC-CA Intertie	Accord + upstream AFRP	110	240	
ISDP, JPOD & DMC-CA Intertie	Accord + upstream AFRP + in-Delta AFRP	100	240	
ISDP, JPOD & DMC-CA Intertie	Accord + upstream AFRP + in-Delta AFRP + prelim. DEFT ¹	15	180	
ISDP, JPOD & DMC-CA Intertie	Accord + upstream AFRP + assumed Trinity R.	100	230	
ISDP, JPOD, DMC-CA Intertie & Madera Ranch GW	Accord + upstream AFRP + in-Delta AFRP	160	250	Madera Ranch GW project yield will vary w/ ops rules
ISDP, JPOD, DMC-CA Intertie & Small Shasta Expan.	Accord + upstream AFRP + in-Delta AFRP	150	305	
In-Delta Storage (only)	Accord + upstream AFRP	45	50	

1: Represents one combination of preliminary DEFT measures, new combinations are under development and will be examined.

DEFT NoName Coordination Team

The first DNCT assignment is to investigate the potential of flexible operational strategies that can enhance fisheries, improve water supply and water quality. Some general concepts that the team is considering are:

- Develop a Baseline of operations: May include new environmental requirements, some fixed, some flexible.
- Develop a general group of actions that could work with any baseline, such as:

Share in new yield--Projects that add water supply would share yield with environment. Amount or proportion shared could vary based on degree of public investment. Could consider existing and new projects.

Environmental water account--Deposits (banked somewhere) from relaxation of standards and/or purchased water. Debits from reduced exports and/or going beyond standards.

Operational flexibility base on real time triggers--Real time adjustment in operations (flows, exports, storage, conveyance) that improve opportunities, enhance fish and improve water supply. Network of real-time data/monitoring that guides adjustments (proactive triggers such as salvage, fish distribution, water conditions). Adaptive management (effectiveness of approach will improve with time.)

The DNCT has formed subgroups to evaluate the potential of operational flexibility based on real-time triggers and of using an environmental water account.