

STUART T. PYLE  
Phone or FAX (805) 873-9225

CONSULTANT- WATER RESOURCES  
3707 Panorama Drive  
Bakersfield, CA 93306

M E M O R A N D U M

TO: LESTER SNOW

FROM: STUART PYLE

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SUBJECT: Problem Statements Regarding the State Water Project

It appears that the problem statements should include concerns about the operation of the State Water Project (SWP) and the impact of operating constraints on the performance of the SWP. This same concern could be extended to the Central Valley Project (CVP). Neither the problem statements or the action categories are clear that some of the impacts on the Bay-Delta are specifically related to these two projects and that proposed actions to improve the ecological health of the Bay-Delta and its related water management rests mainly in how these projects are operated.

The water supply problem statements have been generalized to (A) conflicts between beneficial users and system inefficiencies, and (B) water supplies are uncertain and unreliable. These classes of problems are subdivided as to in-Delta, export, Delta outflow, short term, long term, and agricultural, urban and environmental. There is no reference in the analysis of problems impacting the State Water Project. It should be recognized that the SWP has not been able to achieve its planned water supply potential because of negative impacts of project operation on Bay-Delta fish resources and that originally planned Delta transfer facilities were never constructed. Many of the actions growing out of the CALFED process will be changes in SWP operations and facilities to be constructed by the SWP. These changes will represent costs to the project and will result in a number of decreases, and hopefully in improvements to water supply. State Water Project contractors are seeking, and believe that the Governor's 1992 water policy statement called for, improvements in water supplies from the Delta.

In the following, I have tried to pose a basic problem statement related to the SWP. This probably needs further thought to fit into the format that you are developing and I hope you can give it that consideration.

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1. The State Water Project is unable to operate at either its planned level or even an optimal level water development as a result of its impacts on the Bay-Delta ecosystem.

a. Oroville Reservoir stores surplus water upstream of the Delta and releases this water into existing channels to be diverted at a pumping plant at the south edge of the Delta for export to service areas throughout the State. The planned project yield has not been realized because of the need to dedicate stored water to the maintenance of water quality standards and fish flow volumes.

b. The conveyance of SWP water supplies released from Oroville Reservoir in natural and improved channels of the Sacramento River and the Delta is inefficient resulting in negative impacts to the ecosystem. Allocation of Project water to mitigate damages related to project flows reduces project yield. The imposition of freshwater inflows into the Delta from the Sacramento River at its junction with the San Joaquin causes a number of unnatural conditions in the Delta including the following:

- disruption of fresh and salt water flow patterns within the central Delta which is naturally subject to tidal action with saline water inflows from the West and fresh water inflows from the San Joaquin River in the Southeast.

- the southward flow of water from the Sacramento River near Antioch in the interior Delta channels is disruptive to the survival of local and anadromous fish and blocks the natural drainage of poor quality water from channels linked to the San Joaquin River.

- the existing flow pattern for SWP water causes it to mix with saline tidal water resulting in contamination by undesirable chloride and bromide compounds

c. The SWP Banks Pumping Plant cannot be operated at planned levels of the installed equipment due to constraints imposed by the D-1485 Water Quality Standards and the current December 15, 1994 Accord to maintain water quality standards and prevent the entrainment of fish in the pumped water. As a result the yield and the reliability of the SWP water supply is reduced.

Each of the problems cited above can be carried through the cause, objective and action analyses. In fact, many of the proposed actions included in the Categories of Actions for Bay-Delta Solutions relate to the problems presented here and are already being considered as tied to the environmental impact without reference to the water project cause. At some point there will need to be an analysis of the problems related to the CVP and those related to the SWP. The mitigation responsibilities

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of the projects and the benefits to the projects will have to be determined.

I hope you can find a way to work this into the problem statements, causes and objectives. It may be possible to stay with the A-(conflicts) and B-(uncertainty) format that you now have and extend the detailed subdivisions to refer to SWP, CVP, and other project operations. This is a reasonable option since the reference to ag, urban and environment is rather ambiguous. I believe that we need to be more specific about the major water supply projects since, in the long run, there are going to be recommendations for actions that the projects will need to take, and these will have significant impacts in terms of costs and changes in how project yield will be managed.