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Via email

Comments on Scope of South Delta EIS/EIR

Paul Marshall, Department of Water Resources
Dan Meier, US Bureau of Reclamation

In response to a request at the scoping meeting for the South Delta Improvement Project (SDIP) that was held on October 7, 2002, I wish to provide the following comments on issues that should be addressed as part of developing and implementing this project.

Overall, I support the SDIP in concept. There are, however, significant water quality problems that occur in the South Delta (and, for that matter, elsewhere in the Delta) associated with the State and Federal water diversion Projects that need to be effectively addressed to correct the errors that were made in developing these Projects without adequate attention to impacts on the South Delta and other parts of the Delta. The large-scale diversions of water from the South Delta by these two Projects has caused and will continue to cause significant adverse impacts to aquatic life resources in the South Delta, and in some respects, to other Central Valley waterbodies.

During your (Paul Marshall's) presentation, mention was made that the SDIP was designed to improve water quality. From the information available, the water quality assessment that is being addressed now by the SDIP is water quality to those who use the exported water – not to the Delta and other upstream Central Valley waters. A credible, certifiable EIR/EIS for the SDIP should include a detailed evaluation of the full range of water quality problems caused by the South Delta diversions and how they will be corrected as part of implementing the SDIP.

In the way of background to this assessment, I have been involved in large-scale water quality problem investigations in various parts of the US and other countries over the past 43 years. I have been specifically involved in Delta water quality issues over the past 13 years. Last year I was an invited participant in the DWR/USBR IEP water quality monitoring program review. This activity provided me with the opportunity to become familiar with the details of the monitoring database available on the Delta, with particular reference to assessing the South Delta water diversions by the State and Federal Projects on Delta water quality. As part of the IEP review, I was greatly surprised to hear some of the so-called “leaders” in Delta fisheries and water issues claim that the diversions have had no impact on water quality within the Delta. This assessment is erroneous.

The export of South Delta water has changed the movements of pollutants, such as pesticides, nutrients, TDS, sediment, etc., through the Delta. This, in turn, has changed in some yet to be

defined manner the impacts on Delta aquatic life resources. The most obvious impact is on the amount of San Joaquin River (SJR) flow through the Deep Water Ship Channel (DWSC) near Rough and Ready Island. The shunting of SJR down Old River increases the hydraulic residence time of water in the DWSC and thereby causes greater DO depletion in the DWSC than would occur if the diversions to the State and Federal projects did not occur down Old River. Those who divert water from the SJR upstream of the DWSC who should be part of the group responsible to correct the low-DO problem in the DWSC.

Any further export of Delta water should be done after it has been demonstrated that the water quality problems caused by the current exports are identified, and work is done to correct them. It is inappropriate to consider expanding the export of Delta water to 8,500 cfs, and then to 10,300 cfs, under the current South Delta Improvement Project framework that was outlined at the October 7 meeting, without beginning to correct the problems caused by the existing diversions.

Beginning in the mid-1990s, as CALFED was being organized, I volunteered my time to work on water quality issues associated with CALFED's programs. I have seen the CALFED water quality program evolve from what was once a highly active and potentially effective program to one that is now of limited scope compared to the magnitude of the problems that exist.

Over the past three years I have been involved with the San Joaquin River Deep Water Ship Channel DO TMDL effort, including during the past year and a half serving as the coordinating PI for a CALFED \$2 million per year research effort devoted to this topic. I have developed two comprehensive reviews on the current understanding of these issues, which have been reviewed by the SJR DO TMDL Steering Committee. One of these was the SJR DO TMDL "Issues" report (Lee and Jones-Lee, 2000), the other is a "Synthesis" report (Lee and Jones-Lee, 2002) that was released in draft form in May of 2002, and is now being finalized.

The development of these reports and my work on the SJR DO TMDL has enabled me to become familiar with South Delta water quality issues. The Synthesis report contains discussion of a number of these issues. As discussed in these reports, the South Delta currently has significant water quality problems of low DO, currently-used pesticide caused aquatic life toxicity, legacy organochlorine pesticide excessive bioaccumulation in edible fish which are a threat to cause cancer to people who use the fish as food, excessive nutrients and elevated salts and TOC. Dr. Anne Jones-Lee and I have just completed a review for the Central Valley Regional Water Quality Control Board on the organochlorine pesticide and PCB excessive bioaccumulation problems in Central Valley fish, which shows that Old River and Paradise Cut fish have excessive concentrations of legacy pesticides that are a threat to the health of those who use these fish as food.

The impact of the South Delta Improvement Project in impacting the magnitude of these water quality problems should be understood. Further, as was pointed out by a member of the audience at the October 7 meeting, there is concern about the increased residential development in the South Delta region, which will bring additional wastewaters into the South Delta. As part of my work on defining water quality issues that impact dissolved oxygen in the Deep Water Ship Channel, I have just completed a review of the potential impacts of urban stormwater runoff on

oxygen demand loads to the channel, and have found that there is sufficient BOD in urban stormwater runoff to be a significant source of oxygen demand for the San Joaquin River Deep Water Ship Channel, and almost certainly – especially as additional development occurs – for the South Delta. These are just some of the water quality issues that need to be addressed as part of developing an EIR/EIS for the SDIP.

One of the major problems with the work that has been done on South Delta water quality is that grossly inadequate funding has been made available to support this work. The true cost of the South Delta Project water diversions should include supporting the studies that need to be done to properly define the impacts of the diversions, and then funding remedial programs to correct these impacts. These issues should be discussed in the EIS/EIR for the South Delta Improvement Project.

These comments are submitted by me as an individual who is concerned about improving South Delta and overall Delta water quality.

G. Fred Lee, PhD, DEE

References

Lee, G. F. and Jones-Lee, A., “Issues in Developing the San Joaquin River Deep Water Ship Channel DO TMDL,” Report to Central Valley Regional Water Quality Board, Sacramento, CA, August (2000).

Lee, G. F. and Jones-Lee, A., “Synthesis of Findings on the Causes and Factors Influencing Low DO in the San Joaquin River Deep Water Ship Channel Near Stockton, CA,” Draft Report Submitted to SJR DO TMDL Steering Committee/Technical Advisory Committee and CALFED Bay-Delta Program, G. Fred Lee & Associates, El Macero, CA, May (2002).

References are available from www.gfredlee.com.