

**Comments on
Revised Delta Plan Staff Draft Chapter 6 “Improve Water Quality to
Protect Human Health and the Environment” as Presented in
the Fourth Staff Draft of the Delta Plan**

Comments Submitted to
Delta Stewardship Council

by

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The revisions made to the third staff draft of Chapter 6 devoted to water quality issues, as presented in the “June 13, 2011 Fourth Staff Draft Delta Plan,” considerably improved the technical quality of the document. However, as discussed in our comments on the significant deficiencies in the third draft cited below, the third draft of this chapter was so poorly done that it had to be completely redeveloped.

Lee, G. F., and Jones-Lee, A., “Comments on the Delta Stewardship Council’s Third Staff Draft Delta Plan – Chapter 6 Improve Water Quality to Protect Human Health and the Environment – Released April 22, 2011,” Submitted to Delta Stewardship Council, Sacramento, CA, Report of G. Fred Lee & Associates, El Macero, CA, Updated May 1 (2011). <http://www.gfredlee.com/SJR-Delta/DSCThrdStaffDraft-Com.pdf>

Lee, G. F., and Jones-Lee, A., “Need for SJR Watershed Water to Reach San Francisco Bay,” Comments submitted to Delta Stewardship Council, Sacramento, CA by G. Fred Lee & Associates, El Macero, CA, May 22 (2011). <http://www.gfredlee.com/SJR-Delta/NeedSJRtoSFBay.pdf>

The rewriting of Chapter 6 has impaired proper public review of a key part of the Delta Plan. Instead of the public’s having had a properly developed third staff draft to review and a fourth draft that reflected revisions made based on the comments received, the revised third staff draft was released as part of the fourth staff draft of the Delta Plan. While the revised third staff draft now included in the fourth staff draft of the Delta Plan is considerably improved over the previous draft, it still far short of adequately informing the reader of the full range of the water quality issues and providing appropriate references to readily available literature that needs to be considered in developing the Delta Plan discussion of Delta water quality issues.

At a DSC meeting C. Dahm indicated to the DSC that he and two others would develop a revised Chapter 6 that would cover a few selected Delta water quality issues. This revised chapter reflects that approach in that it provides an introduction to several of the important Delta water quality issues. However, its literature citations do not provide the readers with a comprehensive list of the many water quality issues that must be adequately addressed if the Delta Plan is to be a

reliable guide to managing the water quality issues that are impacting the Delta water quality and resource management.

In preparing our comments on the third staff draft cited above, we took the time to provide background information on why certain Delta water quality issues are important, our background expertise discussing why we find these issues are important, and literature citations to readily available report/papers on these issues. That information is based on our more than two decades of work on Delta water quality issues during which time we have developed about 90 papers/reports on these issues. In reviewing the fourth staff draft of chapter 6 we find that certain key issues are not included or are inadequately covered. A summary of these issues are presented herein with reference to our original comments on the third staff draft of Chapter 6.

Impact of Water Diversions on Water Quality

The revised Chapter 6 is essentially silent on several of the key water quality issues that the DSC will need to address in developing and implementing the Delta Plan. The most important of these is the impact of diversions/manipulations of Delta flows on Delta water quality issues. As we have discussed in our comments to the SWRCB, in the past and in violation of the SWRCB D-1641 water rights decision, Delta flow diversions have been allowed to occur largely without regard to the impact, and follow-up evaluation of impact, on Delta water quality. In reviewing potential impacts of water flow manipulations on the Delta water quality the DSC should consider such issues as the low DO problem in the SJR Deep Water Ship Channel and the South Delta, the homing of the fall run of Chinook salmon to their SJR home stream waters in the SJR watershed, and impacts of the altered flow into and through Delta channels on the location, magnitude, and duration of impacts of pollutants on the beneficial uses of the Delta. While this issue was mentioned in the third staff draft, and briefly on page 106 line 3 of the fourth staff draft, a properly developed chapter on Delta water quality issues for the Delta Plan must include a discussion not only the water quality parameters of concern but also, and most important, factors affecting the impacts of the pollutants on Delta water quality/beneficial uses. A section of our comments on the third staff draft (found on pages 10 to 14) discusses these issues. A revised fourth staff draft of chapter 6 should be developed to correct this significant omission.

Groundwater Quality Issues

The DSC members have mentioned at several meetings the importance of including groundwater recharge in the Delta Plan. As we discussed in our comments on the third staff draft, beginning on page 14, the salinity of the Delta water is an important water quality issue in the recharge of domestic wastewaters in southern California. This should be mentioned in a Delta Plan water quality issues chapter.

Both CALFED and BDCP have placed emphasis on controlling pollutants in urban stormwater runoff. This issue is not discussed in the revised Chapter 6. We discussed this issue in our third draft comments with particular reference to protecting groundwater quality by discharge of urban stormwater runoff in dry wells, beginning on page 15 and especially on pages 16, and page 33 et seq.

Nutrients

The importance of nutrients as a cause of water quality problems in the Delta is discussed in the

revised third staff draft, now the fourth staff draft of Chapter 6. While considerable information on these problems is provided in the revised chapter, the draft fails to discuss and provide adequate reference to the most comprehensive review of the nutrient issues, i.e., the 2008 CWEMF Delta Nutrient workshop. Nutrient issues were discussed in our comments on the third staff draft, from page 19 through part of page 21. The 2006 reference provided in the fourth staff draft to an outdated DWR report on nutrient issues is not adequate for providing the reader with current information on Delta nutrient water quality issues that need to be addressed. Of particular concern is the impact of nutrients on drinking water quality and the potential for controlling nutrients and their impacts. The fourth staff draft Chapter 6 continues to provide recommendations to the CVRWQCB on when it should develop nutrient criteria. We discussed the unreliability of recommendations pertaining to nutrients in our comments on the third staff draft.

Impact of N/P ratios

We discussed the inadequate coverage of the issue of the impact of N/P ratios on Delta aquatic life resources (beginning on page 21 of our comments on the third staff draft). The fourth staff draft discussion has been expanded to include the reference to the report by Cloern on this issue that we noted in our comments. However the revised Chapter 6 fails to mention a very important reference to the work of Dr. Erwin Van Nieuwenhuysse on phosphorus reduction issues, also noted in our previous comments.

SJR Water Quality Impacts on Delta Water Quality

While agriculture in the SJR watershed is mentioned as a source of pesticides of concern in Delta water quality, inadequate attention is given to other significant impacts of SJR watershed agriculture on several aspects of Delta water quality. Because of the importance of these issues in impacting Delta water quality they should be reliably reviewed in properly addressing Delta water quality issues. These issues are discussed in our comments on the third staff draft of Chapter 6 beginning on page 22.

PCBs

An important issue that deserves more attention than given in the fourth draft page 106 in impacting Delta water quality is the excessive bioaccumulation of PCBs in Delta fish. As discussed in our comments on the third staff draft of Chapter 6 beginning on page 30, PCBs are a group of chemicals highly hazardous to public health that are being found in Delta waters/fish.

Questions on these comments should be directed to G. Fred Lee at gfredlee@aol.com.