

**Comments on
Development of an EIR for the CVRWQCB Drinking Water Policy**

submitted by

G. Fred Lee, PhD, BCEE and Anne Jones-Lee, PhD

G. Fred Lee & Associates

El Macero, California

Ph 530-753-9630 gfredlee@aol.com www.gfredlee.com

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The Central Valley Regional Water Quality Control Board (CVRWQCB, Board) has requested input on issues that should be covered in the development of an environmental impact report (EIR) for the Board's proposed Drinking Water Policy. Dr. Lee has been active in a variety of aspects of domestic water supply water quality and domestic water treatment issues throughout his nearly 50-year professional career; Dr. Jones-Lee has worked with him since the mid-1970s. A summary of their experience in this area is available on their website [www.gfredlee.com] in "About G. Fred Lee & Associates" [http://www.gfredlee.com/exp/wswq_exp.htm]. Many of their publications in this area are available in the "Domestic Water Supply" Section of their website [<http://www.gfredlee.com/pdswsq2.htm>]; selected references are presented herein. Those writings address many of the issues and concerns that need to be considered in developing a reliable drinking water policy for the Central Valley.

Drs. Lee and Jones-Lee became active in water quality issues in the Sacramento/San Joaquin Delta in the summer of 1989. A summary of their experience and activities in that area is available on their website at <http://www.members.aol.com/annejlee/Delta-SJR-exp.pdf>. Their publications concerning Delta water quality issues, including domestic water supply quality issues, are available on their website at <http://www.gfredlee.com/psjriv2.htm>; and a summary of their work and publications on issues concerning TOC (total organic carbon) as related to domestic water supply water quality is available at <http://www.members.aol.com/annejlee/GFL-DeltaTOCWork.pdf>. Their publications pertinent to domestic water supply water quality issues in the Sacramento River are available at <http://www.gfredlee.com/psacriv2.htm>.

In the summer of 2007 Drs. Lee and Jones-Lee began organizing and developing the Delta Nutrient Water Quality Modeling Workshop that was held in Sacramento in March 2008 under sponsorship of the California Water and Environmental Modeling Forum (CWEMF). Background information on that workshop is available at several locations on their website noted below; PowerPoint slides from the presentations made are on the CWEMF website:

- Lee, G. F., and Jones-Lee, A., "Synopsis of CWEMF Delta Nutrient Water Quality Modeling Workshop – March 25, 2008, Sacramento, CA," Report of G. Fred Lee & Associates, El Macero, CA, May 15 (2008).
http://www.members.aol.com/GFLEnviroQual/CWEMF_WS_synopsis.pdf
- "Overview of Delta Nutrient Water Quality Problems: Nutrient Load – Water Quality Impact Modeling," Agenda for Technical Workshop sponsored by California Water and Environmental Modeling Forum (CWEMF), Scheduled for March 25, 2008 in Sacramento, CA (2008).
http://www.members.aol.com/GFLEnviroQual/CWEMF_Workshop_Agenda.pdf

- Lee, G. F., and Jones-Lee, A., “Delta Nutrient Water Quality Modeling Workshop — Background Information,” Report of G. Fred Lee & Associates, El Macero, CA, September (2007). <http://www.members.aol.com/GFLEnviroQual/NutrWorkshopRev4.pdf>
- March 25, 2008 - Workshop on Overview of Delta Nutrient Water Quality Problems: Nutrient Load - Water Quality Impact Modeling (includes presentation links) <http://www.cwemf.org/workshops/NutrientLoadWrkshp.pdf>

The workshop presentations and the background discussions on its development provide considerable information pertinent to developing a CVRWQCB drinking water policy.

Additional information pertinent to managing nutrient-related water quality issues in the Delta is available in the report:

Lee, G. F., and Jones-Lee, A., “Managing Nutrient (N & P) Water Quality Impacts in the Central Valley, CA,” [Excerpts from: Lee, G. F. and Jones-Lee, A., “Review of Management Practices for Controlling the Water Quality Impacts of Potential Pollutants in Irrigated Agriculture Stormwater Runoff and Tailwater Discharges,” California Water Institute Report TP 02-05 to California Water Resources Control Board/Central Valley Regional Water Quality Control Board, 128 pp, California State University Fresno, Fresno, CA, December (2002)], Report of G. Fred Lee & Associates, El Macero, CA (2002). <http://www.members.aol.com/GFLEnviroQual/CentralValleyNutrientMgt.pdf>

An important issue in developing a CVRWQCB Drinking Water Policy is the ability to control pollutants derived from irrigated agriculture that adversely impact domestic water supply water quality. On behalf of the CVRWQCB, Drs. Lee and Jones-Lee developed a discussion of issues that need to be considered in developing control programs for potential pollutants derived from irrigated agriculture in the Central Valley:

Lee, G. F. and Jones-Lee, A., “Review of Management Practices for Controlling the Water Quality Impacts of Potential Pollutants in Irrigated Agriculture Stormwater Runoff and Tailwater Discharges,” California Water Institute Report TP 02-05 to California Water Resources Control Board/Central Valley Regional Water Quality Control Board, 128 pp, California State University Fresno, Fresno, CA, December (2002). http://www.gfredlee.com/BMP_Rpt.pdf

A key component of developing a CVRWQCB Drinking Water Policy is the development of an adequate water quality monitoring/evaluation program. The following report developed by Lee and Jones-Lee provides guidance on developing technical valid, appropriate water quality monitoring in support of the CVRWQCB Drinking Water Policy:

Lee, G. F. and Jones-Lee, A., “Issues in Developing a Water Quality Monitoring Program for Evaluation of the Water Quality - Beneficial Use Impacts of Stormwater Runoff and Irrigation Water Discharges from Irrigated Agriculture in the Central Valley, CA,” California Water Institute Report TP 02-07 to the California Water Resources Control Board/ Central Valley Regional Water Quality Control Board, 157 pp, California State University Fresno, Fresno, CA, December (2002). <http://www.gfredlee.com/Agwaivemonitoring-dec.pdf>

The often-overlooked interrelationships between surface water characteristics and the quality of groundwater used for domestic water supply should also be discussed in the EIR. Of particular importance is the need for the CVRWQCB to adopt land-surface permitting activities to prevent groundwater pollution by releases/discharges from land-surface activities. Those issues are discussed in the report:

Lee, G. F. and Jones-Lee, A., "Groundwater Quality Protection Issues," Report of G. Fred Lee & Associates, El Macero, CA, February (2007).

<http://www.members.aol.com/annelhome/GWProtectionIssues.pdf>

The CVRWQCB's draft EIR for its proposed Drinking Water Policy should cover the issues addressed in Dr. Lee and Jones-Lee's publications on water quality issues in the Delta and Delta tributaries that are pertinent to the use of the waters of the Sacramento and San Joaquin Rivers and Delta for domestic water supply. Questions on those publications and their relevance to developing an EIR for the CVRWQCB Drinking Water Policy should be directed to Dr. G. Fred Lee at gfredlee@aol.com.

Selected, Additional References Pertinent to Drinking Water Policy EIR

Lee, G. F., "Comments on California Regional Water Quality Control Board, Central Valley Region Resolution No. R5-2004-X in Support of Developing a Drinking Water Policy for the Sacramento-San Joaquin Delta and Upstream Tributaries," Comments Submitted to CVRWQCB by G. Fred Lee & Associates, El Macero, CA, June (2004).

<http://www.members.aol.com/duklee2307/DrinkingWaterPolicy.pdf>

Lee, G., F., "G. Fred Lee and Anne Jones-Lee's work on Domestic Water Supply Water Quality and TOC issues in the Delta," Report of G. Fred Lee & Associates, El Macero, CA (2004).

<http://www.members.aol.com/annejlee/GFL-DeltaTOCWork.pdf>

Lee, G. F. and Jones, R. A., "Regulating Drinking Water Quality at the Source," Proc. University of California Water Resources Center Conference: Protecting Water Supply Water Quality at the Source, Sacramento, CA, 39pp, April (1991). <http://www.gfredlee.com/wswqsour.htm>

Lee, G. F. and Jones, R. A., "Impact of the Current California Drought on Source Water Supply Water Quality," Presented at CA/NV AWWA Fall Conference, Anaheim, CA, 30pp, October (1991). <http://www.gfredlee.com/pdwsqw2.htm>

Lee, G. F. and Jones-Lee, A., "Issues that Need to Be Considered in Evaluating the Sources and Potential Control of TOC that Leads to THMs for Water Utilities that Use Delta Water as a Water Supply Source," Report of G. Fred Lee & Associates, El Macero, CA, May 27 (2003).

http://www.gfredlee.com/TOC_update.pdf

Lee, G. F., and Jones-Lee, A., "Interpretation of Nutrient Water Quality Data Associated with Irrigated Agricultural Ag Waiver Monitoring," Submitted to Central Valley Regional Water Quality Control Board, Rancho Cordova, CA, by G. Fred Lee & Associates, El Macero, CA, November (2005). <http://www.members.aol.com/annejlee/InterprNutrWQData.pdf>

Lee, G. F. and Jones-Lee, A., "Agriculture-Related Water Quality Problems in the San Joaquin River," PowerPoint slides presented at 2006 International Conference on "The Future of Agriculture: Science, Stewardship, and Sustainability," Sacramento, CA, August 7-9 (2006). <http://www.members.aol.com/annejlee/SJRAgAug06Paper.pdf>

Lee, G. F., and Jones-Lee, A., "Delta Nutrient Water Quality Modeling Workshop — Background Information," Report of G. Fred Lee & Associates, El Macero, CA, September (2007). <http://www.members.aol.com/GFLEnviroQual/NutrWorkshopRev4.pdf>

Lee, G. F. and Jones-Lee, A., "Groundwater Quality Protection Issues," Report of G. Fred Lee & Associates, El Macero, CA, February (2007). <http://www.members.aol.com/annelhome/GWProtectionIssues.pdf>

Lee, G. F., and Jones-Lee, A., "Groundwater Quality Protection Issues," Presented in part at CA/NV AWWA Fall Conference, Sacramento, CA, PowerPoint Slides, G. Fred Lee & Associates, El Macero, CA, October (2007). <http://www.members.aol.com/annejlee/GWProtectionIssues-sli.pdf>

Lee, G. F., and Jones-Lee, A., "Water Quality Issues of Irrigated Agricultural Runoff/Discharges—San Joaquin River, Central Valley, California," Presented at Agriculture and the Environment - 2007 Conference, Central Coast Agricultural Water Quality Coalition, Monterey, CA, November (2007). <http://www.members.aol.com/GFLEnviroQual/SJR-WQ-Ag-Monterey.pdf>

Lee, G. F., and Jones-Lee, A., "Synopsis of CWEMF Delta Nutrient Water Quality Modeling Workshop – March 25, 2008, Sacramento, CA," Report of G. Fred Lee & Associates, El Macero, CA, May 15 (2008). http://www.members.aol.com/GFLEnviroQual/CWEMF_WS_synopsis.pdf