

# **Delta Flow Criteria Informational Proceeding**

Before the

State Water Resources Control Board

Scheduled to Commence

March 22, 2010

## **Exhibit CCWD-1**

Statement of Qualifications of Gregory Gartrell, Ph.D., P.E.

Assistant General Manager

Contra Costa Water District

Submitted on behalf of

Contra Costa Water District

P.O. Box H2O

Concord, CA 94524

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Exhibit CCWD-1  
Statement of Qualifications of Gregory Gartrell, Ph.D., P.E.  
Assistant General Manager  
Contra Costa Water District  
P.O. Box H20  
Concord, CA 94524  
925-688 8100 (Fax: 925 688 8197)

*Employment History:*

1988 - present, Contra Costa Water District.  
Assistant General Manager 2001-present  
Director of Planning 1995-2001  
Principal Engineer 1993-1995  
Division Engineer 1988-1992  
1985 - 1988, Vice President and Senior Engineer, Flow Science Inc.  
1983 - 1984, Engineer, HYDRATEC, Paris, France  
1982 - 1983, National Hydraulics Laboratory, Electricité de France, Chatou, France  
1979 - 1982, Chaim Weizmann Research Fellow, California Institute of Technology

*Education:*

B.S. with Honor, 1973 California Institute of Technology, Pasadena, CA  
M.S., Environmental Engineering Science, 1974 California Institute of Technology  
Ph.D., Environmental Engineering Science, 1979 California Institute of Technology  
Water and Wastewater Leadership Center, 2003 Kenan-Flagler Business School, University of North Carolina

*Awards*

Association of California Water Agencies' Excellence in Water Leadership Award, 1997  
Hugo B. Fischer Award, 1997 for model development of the Bay-Delta system  
Lorenz G. Straub Award for doctoral thesis on density-stratified flows, 1980  
Elected to Sigma Xi, 1976; Tau Beta Pi, 1972

*Memberships, Affiliations:*

Member, Governor's Stakeholder Coordination Group for a Delta Vision (2007)  
Member, California Bay-Delta Public Advisory Committee [BDPAC] (2001-present)  
Chair, BDPAC Water Quality Subcommittee (2001-present)  
Co-Chair, CALFED Ecosystem Roundtable (1996-2001)  
Chair, Operations and Fish Forum, CALFED Operations Group (1995-2001)  
Chair, California Urban Water Agencies/Agriculture Caucus (CUWA/Ag) Technical Committee on Bay-Delta Standards for Bay-Delta Accord (1994)  
Member, Bay-Delta Accord Ecosystem Restoration Steering Committee 1994-96  
Member, Water Quality Technical Advisory Committee to the Governor's Bay-Delta Oversight Council, 1993-94  
Convener, Bay-Delta Modeling Forum 1994, Past-Convener 1995  
Member, San Francisco Estuary Project Technical Advisory Committee  
Chair, State Water Resources Control Board Bay-Delta M&I Water Quality Workgroup, 1989-90

*Professional Affiliations and Registrations*

Registered Civil Engineer # C33021, State of California

*Professional Experience:*

**Current Activities:** As Assistant General Manager, Dr. Gartrell manages Contra Costa Water District's Water Resources Department, and in the past ten years his duties include managing: 1) the Los Vaqueros Expansion Project, a \$30 million, feasibility study on expansion of the existing 100,000 acre-foot reservoir up to 275,000 acre-feet; 2) CCWD's Alternative Intake Project in Victoria Canal, a \$100 million pump station and pipeline to improve water quality and reliability of CCWD's supplies, 3) CALFED's \$5 million Veale and Byron Tract Drainage water quality projects to remove the impacts of local agricultural drainage on CCWD's water quality (now completed); 4) CCWD's Future Water Supply Implementation (a fifty year strategic plan for improving the water supply reliability of CCWD), including an increased conservation program, water transfers and renewal (completed) of CCWD's Central Valley Project Contract for 195,000 acre-feet of water annually; 5) CCWD's annually updated 10-year, \$500 million Capital Improvement Program; 6) CCWD's Water Resources group involved in all Bay-Delta activities.

**Delta Vision:** Dr. Gartrell was appointed in 2007 by the Secretary of Resources to the Governor's Stakeholder Coordination Group, an advisory panel to the Governor's Blue Ribbon Task Force on a Delta Vision.

**CALFED:** Dr. Gartrell was appointed by the Secretary of the Interior and the Governor of California to the Bay-Delta Public Advisory Committee at its formation in 2001, and was appointed co-chair of its Water Quality Subcommittee. Dr. Gartrell was Co-chair of the CALFED Ecosystem Roundtable, an oversight and advisory committee that recommended funding for over \$300 million in Sacramento-San Joaquin River Delta ecosystem restoration projects.

**Bay-Delta Accord:** Dr. Gartrell was in leadership roles in the negotiation and implementation of the 1994 Bay-Delta Accord. He chaired the CUWA/Ag technical team that developed the proposal that formed the basis for the Accord. He helped negotiate and develop consensus on the Accord and was among the Accord signatories. Dr. Gartrell helped lead implementation of the Bay-Delta Accord as Chair of the Operations and Fish Forum (charged with implementing the operations of the State Water Project and the Federal Central Valley Project to protect fisheries) and as a representative of Urban/Ag Stakeholders on the CALFED Operations Coordination Group, which is charged with implementing the Accord. He received the 1997 Association of California Water Agencies' Excellence in Water Leadership Award for his work in developing, negotiating and implementing the Accord.

**Los Vaqueros Project:** Dr. Gartrell led the development of technical and environmental documentation on project operations and Delta modeling necessary for the water rights and environmental permits of the \$450 million Los Vaqueros Project, the first reservoir permitted in California's Central Valley water system in over 15 years. Dr. Gartrell worked with U.S. Fish and Wildlife Service staff to obtain non-jeopardy biological opinions for the Project, and with State agencies to obtain the Project's water rights.

**Alternative Intake Project and Multi-Purpose Pipeline:** Dr. Gartrell led these two \$100 million projects, through pre-design and environmental permitting. Dr. Gartrell worked with U.S. Fish and Wildlife Service staff to obtain Endangered Species Act permits that included a non-jeopardy biological opinion for the projects and for the District's Future Water Supply Implementation and piloted the environmental documents to final approval.

## Publications

- Gartrell, G. and S.K. Friedlander, 1975, "Relating Particulate Pollution to sources: The 1972 California Aerosol Characterization Study," *Atmospheric Environment*, Vol. 9, pp. 279-299.
- Gartrell, G., 1978, "A Signal Processor for a Laser-Doppler Velocimeter," W.M. Keck Laboratory of Hydraulics and Water Resources, Technical Memorandum 78-5, California Institute of Technology.
- Gartrell, G., 1979, "Studies on the Mixing in a Density-Stratified Shear Flow," Ph.D. Thesis, available as Report No. KH-R-39, W.M. Keck Laboratory of Hydraulics and Water Resources, California Institute of Technology.
- Gartrell, G., 1980, "Vertical Flux Measurements in a Density-Stratified Shear Flow," IAHR, Second International Symposium on Stratified Flows, Trondheim, Norway.
- Gartrell, G., S.L. Heisler and S.K. Friedlander, 1980, "Relating Particulate Properties to Sources: The Results of the California Aerosol Characterization Experiment," pp. 665-714 in **The Character and Origins of Smog Aerosols**, Advances in Environmental Science and Technology, Vol. 9, G.M. Hidy et al. ed., John Wiley & Sons, N.Y.
- Gartrell, G. and E.J. List, 1990, "Chapter 9: Stresses on Well Casing and Screen", in **The Handbook of Ground Water Development**, The Roscoe Moss Company (ed.), John Wiley & Sons, New York.
- List, E.J., G. Gartrell and C.D. Winant, 1990, "Diffusion and Dispersion in Coastal Waters", *Journal of Hydraulic Engineering*, ASCE, Vol 116, No. 10, October 1990, pp 1158-1179
- Burt, C.M., and Gartrell, G., 1991, "Canal Models and You", ASCE Task Committee on Irrigation Canal System Hydraulic Modeling, presented at the ASCE National Conference on Irrigation and Drainage Engineering, Honolulu, HI, July 22-26, 1991.
- Gartrell, G., 1993, "Quantification of Uncertainties in Water Quality Models with Application to the Sacramento-San Joaquin Delta", ASCE National Conference on Hydraulic Engineering, San Francisco, July, 1993.
- Gartrell, G., 1993, "Predicting Water Quality at Municipal Intakes -Part 2: Application to the Southern Sacramento-San Joaquin Delta", ASCE National Conference on Hydraulic Engineering, San Francisco, July, 1993.
- Denton, R. A., Gartrell, G., & Nelson, A. W., 1993, "Modeling the Operation of a Water Quality Reservoir and its Effect on the Sacramento-San Joaquin Delta", ASCE National Conference on Hydraulic Engineering, San Francisco, July, 1993.
- Campbell, J. E., Briggs, D.A., Denton, R.A., & Gartrell, G. 2002 "Water quality operation with a blending reservoir and variable sources", *J. Water Resour. Plng. Mgmt.*, ASCE, Volume 128, Issue 4.