

**SUMMARY OF PROFESSIONAL QUALIFICATIONS OF
Richard Breuer**

EDUCATION

Master's of Science	Plant Protection and Pest Management	1984
	University of California, Davis	
Bachelor's of Science Minor	Agronomy/Soil and Crop Science Speech	1981
	California State University, Chico	
Continuing Education	Environmental Engineering, SEMS and Incident Command	

CURRENT EXPERIENCE

Chief of Environmental Water Quality Estuarine Studies Branch; duties include managing and directing 3 managers and a staff of 26 that conduct continuous and discreet water quality, benthic, phytoplankton, and fish monitoring programs in the Sacramento San Joaquin Delta; management of the DWR component of the Interagency Ecological Program, including contract management.

PREVIOUS EXPERIENCE

10 years of education and experience in agriculture, including work with UC Cooperative extension, the UC IPM program, and the California Department of Food and Agriculture implementing Integrated Pest Management. 5 years in DWR's Delta Planning branch, managing western Delta islands for agriculture and restoration. 8 plus years as chief of the DWR Municipal Water Quality Investigations Program, managing a research and monitoring program of Delta and source water quality. Coordinated the DWR response for water quality concerns from the Jones Tract flooding incident.

PUBLICATIONS

Recent Reports supervised/directed

[DWR] California Department of Water Resources, 2004. The Municipal Water Quality Investigations Program Summary and Findings from Data Collected September 2001 through October 2003, October, 2004

[DWR] California Department of Water Resources, 2003. Modeled Impacts of Delta Peat Island Drainage on Organic Carbon Levels at Selected Delta Municipal Intakes. Memorandum Report 2003. October, 2003

[DWR] California Department of Water Resources, 2003. Natomas East Main Drainage Canal Water Quality Investigation: Initial Technical Report, November 2003.

[DWR] California Department of Water Resources, 2003. The Municipal Water Quality Investigations Program Summary and Findings from Data Collected August 1998 through September 2001. July 2003

[DWR] California Department of Water Resources, 2002. Water Quality Investigations of the Barker Slough Watershed, 1997-2001 North Bay Aqueduct Summary, May 2002

[DWR] California Department of Water Resources, 2001. State Water Project Watersheds Sanitary Survey Update Report 2001, December 2001

Authorship –State Publications

Integrated Pest Management on California Parklands. Pest Management Series. California Department of Food and Agriculture Departmental Publications (1988)

Breuer, R.S. (1992) Evaluation of a Rice Herbicide Transport Model. Environmental Hazards Assessment Program California EPA. EH 92-05

Terms and Procedures Concerning the Endangered Species Acts. Department of Water Resources, Division of Planning, Delta Planning Branch (1992)

1997 Compendium of Water Quality Investigations in the Sacramento River Watershed, Sacramento-San Joaquin Delta, and the San Francisco Bay Area. Department of Water Resources, Division of Local Assistance, MWQI Program (1998)

Journal articles

- Chow, A. T., Fengmao Guo, Suduan Gao, Richard S. Breuer. 2006. Fractionation and disinfection byproduct reactivity of water- and alkaline-extractable soil organic carbon, *Journal of Environmental Quality*, Vol 35(1):xxx-xxx (in press for Jan/Feb 2006 issue, accepted July 31, 2005).
- Alex T. Chow, Fengmao Guo, Suduan Gao, and Richard S. Breuer. 2005. Trihalomethane Formation Potential of Filter Isolates of Electrolyte-extractable Soil Organic Carbon. *Journal of Environmental Quality*, Vol 34(6):xxx-xxx (in press for Nov/Dec 2005 issue).
- Alex T. Chow, Fengmao Guo, Suduan Gao, Richard S. Breuer. 2005. Size and XAD Fractionations of Trihalomethane Precursors from Soils.

Chemosphere, in press (accepted June 22, 2005).

Proceeding papers

Chow, A.T., Dahlgren, R.A., Gao, S., Guo, F. and Breuer, R. 2004. Relationships between specific UV absorbance and trihalomethane precursors from water sources of the Sacramento-San Joaquin Delta, California. Proceedings of the 2004 Water Quality Technology Conference, American Water Works Association, 13 pages.

Chow, A.T., Guo, F., Gao, S., and Breuer, R. 2004. Filter pore size selection for characterizing trihalomethane precursors from California Delta soils. Proceedings of the 2004 Water Quality Technology Conference, American Water Works Association, 15 pages.