

Thomas R. Grovhoug, P.E.

President

EDUCATION

M.S., Civil Engineering, 1975, University of California, Davis

B.S., Civil Engineering, 1973, University of California, Davis

REGISTRATIONS

Civil Engineering, State of California, No. 27901

YEARS OF EXPERIENCE

With LWA: 35 Other: 7

PROFESSIONAL AFFILIATIONS

Member, Water Environment Federation

Member, California Water Environment Association

Associate Member, California Association of Sanitation Agencies

Member, Northern California Society of Environmental Toxicologists and Chemists

Member, SWRCB Nutrient Policy Stakeholder Advisory Committee As the President of LWA, Mr. Grovhoug is responsible for the leadership of the company and the overall quality of technical work performed by the firm. His work for numerous municipal and private clients over the past 35 years at LWA has focused on water quality issues: permitting, policy development, watershed management, TMDLs, offsets and trading. In his frequent role as either a project manager or project advisor, he is responsible for project team leadership and management, budgeting, scheduling, regulatory agency communications, public presentations, and product quality.

Mr. Grovhoug is an expert in the Clean Water Act and California Water Code regulatory issues, with extensive experience over the past three decades pertaining to NPDES discharge permits and TMDLs. He has provided a broad range of technical and regulatory policy services to numerous clients. He is an expert in NPDES permit and TMDL compliance strategies at a statewide, regional and individual client level through his work for the California Association of Sanitation Agencies, regional associations of wastewater agencies and individual clients.

Mr. Grovhoug's expertise includes collaborative policy development and water quality management working with regulators, municipal, agricultural and nongovernmental organizations on a variety of topics, including, for example, mercury TMDL development in the Sacramento-San Joaquin Delta, including development of a proposed mercury offset program, development of a variance policy for the Central Valley of California, development of NPDES permitting strategy for implementation of USEPA 2013 ammonia criteria, salinity and nitrate permitting strategies in surface and ground waters of the Central Valley, development of policies for nutrient management and regulation in surface waters of the Sacramento-San Joaquin Delta, San Francisco Bay and wadeable streams of California. Mr. Grovhoug has extensive experience in the development of water quality objectives, Basin Plan amendments, anti-degradation analysis, and regional monitoring programs in California. Recent examples include the development of salinity objectives in the Lower San Joaquin River, the development of technical elements of a Central Valley Salt and Nitrate Management Plan, and the development of a groundwater management zone archetype study in the Alta Irrigation District study area.

TMDI s

Bay Area Clean Water Agencies, Technical and Policy Support for San Francisco Bay PCB TMDL Implementation (2011-2012)

Bay Area Clean Water Agencies, Technical and Policy Support for San Francisco Bay Mercury TMDL Development (2007-2008)

Central Valley Clean Water Association, Delta Methylmercury TMDL Phase I Implementation (2012-2015)

Sacramento Regional County Sanitation District, Technical and Policy support for Delta Methylmercury TMDL Development, (2006-2011)

Offsets/Trading

Sacramento Regional County Sanitation District, Feasibility Study for Mercury Offsets in the Sacramento River Watershed (2004-2009) RCSD-17



Sacramento Regional County Sanitation District, Study of the Local Bioaccumulative effects of mercury in treated effluent discharge to the Sacramento River near Freeport (2008)

NPDES Permitting

Central Valley Clean Water Association, Permitting and Regulatory Advocacy Special Project, Lead consultant working on NPDES permit issues, compliance strategies and regulatory policy development (2004-2017)

Sacramento Regional County Sanitation District, NPDES permit assistance, Lead consultant on NPDES permit issues, compliance strategies, and a wide range of regulatory policy services (1990 to 2017)

Central Contra Costa Sanitary District, NPDES permit assistance (2002-2016) Central Valley Clean Water Association, Freshwater Mussels Special Project, NPDES permitting and policy strategies for implementation of USEPA 2013 ammonia criteria (2014-2017)

Nutrient Management and Policy Development

California Association of Sanitation Agencies, Technical Assistance for Nutrient Policy Development, Inland Surface Waters of California (2013-2015)

Bay Area Clean Water Agencies, Development of Regulatory Strategy to support implementation of a Nutrient Management Strategy for San Francisco Bay (2013)

Central Valley Clean Water Association, Technical and Policy Support for Nutrient Policy Development, Inland Surface Waters of California (2012-2017)

Sacramento County Regional Sanitation District, Stakeholder, Technical and Policy support for Nutrient Policy Development, Sacramento-San Joaquin Delta (2013-2017)

Basin Plan Amendments

Central Valley Clean Water Association, Development of Variance Authority and Streamlined Salinity Variance for the Central Valley, Technical support for staff report and Basin Plan amendment (2012-2013)

East Stanislaus Resource Conservation District, Development of Salinity Objective for Lower San Joaquin River, CV-SALTS Lower San Joaquin River Committee, Technical Support for Basin Plan amendment (2013-2016)

San Joaquin Valley Drainage Authority, CV-SALTS Central Valley Salt and Nitrate Management Plan development, Technical Support for Basin Plan Amendment (2012-2016)

Sacramento Regional County Sanitation District, Development of Delta Drinking Water Policy and Basin Plan amendment (2002-2013)

Bay Area Clean Water Agencies, Cyanide Site-specific water quality objective and Shallow Water Discharger Implementation Plan, Technical support to Regional Water Board in development of Basin Plan amendment (2004-2005)

Clean Estuary Partnership, Site-specific Water Quality Objectives for Copper and Nickel for San Francisco Bay north of the Dumbarton Bridge (2002-2004)

SRCSD-17



Recent Papers & Presentations

WEF Nutrient Symposium 2015, San Jose, CA. (2015)

Implementing a New Regulatory Paradigm to Support Effective Nutrient Management in California

This paper describes a shift in nutrient policy development in California, with focus on stakeholder collaboration, scientific studies and modeling to support nutrient management planning and implementation in lieu of traditional objectives-setting emphasis.

Work History

Larry Walker Associates, Inc., 1982-present Black and Veatch, 1979-1982 California SWRCB, 1975-1979