

Wednesday, April 22

3:20 p.m.–5:00 p.m.

Session XII:
**Putting it All Together: Where do we
go from here?**



Putting it All Together: Where do we go from here?

Session Chair: Steve Weisberg

Southern California Coastal Water Research Project

Session Abstract

Panelists will use the questions below to guide a 5 to 10-minute oral presentation. Following all presentations we will open the floor to discussion and comment for the remainder of the session.

Given everything you've heard at the conference about technological advances that provide opportunities for improving beach water quality monitoring systems:

1. Which changes are you most looking forward to,
2. Which potential changes concern you the most, and
3. What should EPA (and congress) do to ease the transition?

Stephen Weisberg

Southern California Coastal Water Research Project

Biosketch

Dr. Stephen Weisberg is Executive Director of the Southern California Coastal Water Research Project (SCCWRP), a research agency that serves as the interface between science and water quality management in California. Dr. Weisberg's research emphasis is in design of environmental monitoring programs and developing next generation assessment tools. He is Chair of the Southern California Bight Regional Monitoring Steering Committee and is on the Governing Boards of the California Ocean Science Trust and the Southern California Coastal Ocean Observing System. He serves on numerous advisory committees, including the State of California's Clean Beach Task Force, the

California Ocean Protection Council Science Advisory Team, California's Water Quality Monitoring Council, the Alliance for Coastal Technologies Stakeholder Committee and the US EPA Board of Scientific Counselors. Dr. Weisberg received his undergraduate degree from the University of Michigan and his Ph.D. from the University of Delaware.

Denise Keehner

USEPA

Biosketch

Denise Keehner is the Director of the Standards and Health Protection Division in the Office of Science and Technology in the Office of Water. The division she manages in the Headquarters Office is responsible for the Water Quality Standards Program, the Beach Program, and, the Fish Advisory Program. Denise has been in this position since May 2003. Prior to her joining the Office of Water, Denise was the Director of the Biological and Economic Analysis Division (BEAD) in the Office of Pesticide Programs (OPP) and the acting Director of the Environmental Fate and Effects Division in OPP. She has been with U.S. EPA at Headquarters for 26 years and has served in management positions since 1985.

Shannon Briggs

Michigan Department of Environmental Quality

Biosketch

Dr. Shannon Briggs is a Toxicologist and the Beach Monitoring Coordinator for the Water Bureau of the Michigan Department of



Environmental Quality. She manages federal and state grant funds for beach monitoring programs, provides toxicological support for pollution prevention programs, and serves as an expert witness in enforcement cases. She is also a co-founder, Past-President, and active member of the Great Lakes Beach Association (GLBA). Dr. Briggs also helps teach the Beach Monitoring 101 classes for the National Beach Conference and the Annual GLBA Conference. Her education includes a Ph.D. in Pharmacology & Toxicology and a B.S. in Animal Science from Michigan State University.

Mark Gold

Heal the Bay

Biosketch

Mark Gold is President of the environmental group Heal the Bay. Heal the Bay is an environmental nonprofit organization dedicated to making Southern California coastal waters and watersheds, including Santa Monica Bay, safe, healthy and clean.

Mark has worked extensively over the last 20 years in the field of coastal protection and water pollution. He created Heal the Bay's Beach Report Card, and has co-authored Santa Monica Bay's epidemiology study; In addition, served as co-investigator on the Avalon and Doheny epidemiology studies which are ongoing. He participated in the Aerial Experts Committee effort to provide recommendations for improving the EPA's Beach Act. He also helped draft and pass California's beach water quality and monitoring law, including California's \$100M Clean Beaches Initiative.

Mark received his Bachelors and Masters in Biology and his doctorate in Environmental Science and Engineering from UCLA.

Julie Kinzelman

Racine Health Department Laboratory Director

Biosketch

Dr. Kinzelman is a research scientist and the Health Department Laboratory Director for the City of Racine, WI. She earned her Ph.D. in public health microbiology from the University of Surrey (UK). Dr. Kinzelman is currently

on the Board of Directors for the Great Lakes Beach Association, the Great Lakes Regional Collaboration Beach Initiative Work Group, and holds academic appointments at various universities (University of Surrey, University of Wisconsin-Milwaukee, and the University of Wisconsin-Parkside). An 18 year employee of the City of Racine, her research focuses on applied science solutions to improve surface water quality. Current research projects include trialing standardized sanitary surveys to identify pollution sources at Great Lakes beaches, evaluating real-time PCR, conducting chemical and biological assessments on urban river segments, and assessing the impacts of algal blooms on recreational water quality.

Alexandria Boehm

Stanford University

Biosketch

Alexandria Boehm is a professor at Stanford University in the department of civil and environmental engineering. Her primary research area is coastal water quality, and a secondary area is sanitation more broadly. The work on coastal water quality is focused on understanding the sources, transformation, transport, and ecology of biocolloids—specifically fecal indicator organisms, pathogens, and phytoplankton—as well as sources and fate of nitrogen. This knowledge is crucial to directing new policies, and management and engineering practices that protect human and ecosystem health at the coastal margin. Projects focus on understanding both the influence of terrestrial runoff and submarine groundwater discharge on coastal water quality. The work on sanitation aims to gain a better understanding of how pathogens are transmitted to humans through their contact with water, feces, and contaminated surfaces. The goal is to design and test novel interventions and technologies for reducing the burden of waterborne disease. Current projects include a microbial risk assessment of rotavirus transmission to children via fomites, studies on water quality and health in Dar es Salaam, Tanzania and Papua New Guinea, and lab and field work to understand the efficacy of alcohol-based hand sanitizer and hand washing



with soap in reducing bacterial levels on hands and reducing illness in developing countries.

Grace R. Chan

Assistant Chief Engineer and Assistant General Manager, Los Angeles County Sanitation Districts

Biosketch

Ms. Chan has more than 25 years of experience at the Sanitation Districts including solid waste management research, planning and permitting as well as operations for both solid waste management and wastewater treatment facilities.

She has a B.S. in Civil Engineering from the University of Texas at Austin and an M.S. in Environmental Engineering from the University of North Carolina at Chapel Hill. She is a registered Professional Civil Engineer in the State of California.



SANITATION DISTRICTS OF LOS ANGELES COUNTY



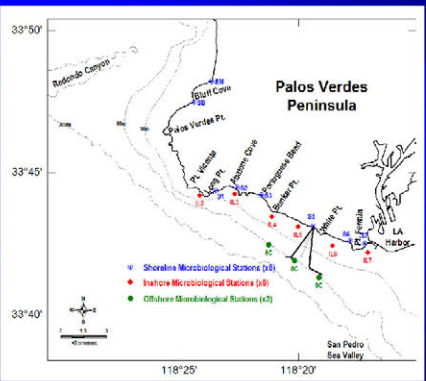
Putting It All Together: A Regulated Agency Perspective

Grace R. Chan
Assistant Chief Engineer & Assistant General Manager

Current Program to Protect Health and the Environment

- Sanitation Districts' Mission
- Current Monitoring Program

Microbiological Sampling Sites



Sanitation Districts Investment in an Ideal Microbial Beach Monitoring Program

- Rapidly determines impacts
- Minimizes risk of exposure to pathogens
- Appropriate monitoring locations
- Accurately represents microbial water quality

Some Concerns

- Premature implementation
 - Selected organisms
 - Selected methods
- Costs