Session O1: Strengthening Monitoring Programs through Nonprofit / Government Collaboration

Room A105
3:30 – 5:00 pm

0018
O1-1

Partnering to Support Monitoring Programs at State and Local Level

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This session will address ways in which nonprofits and government entities can work together to support monitoring activities, how each entity benefits from partnerships, and the outcome of one specific partnership.

Beginning in 2007, the nonprofit Stony Brook-Millstone Watershed Association and the New Jersey Department of Environmental Protection partnered to provide funding for water quality monitoring projects throughout the state. The Watershed Association has been providing small grants to nonprofits since 2003 through its Watershed Institute program. These grants have traditionally been awarded for capacity building projects, such as outreach and membership campaigns, and watershed management activities, such as stream cleanups and storm drain stenciling. The program has now been enhanced with funds from the Department to include volunteer water monitoring efforts. This collaboration has enabled the Watershed Association to expand the grant program, the Department to help build monitoring efforts, and monitoring groups statewide to receive much needed funding and guidance. This effort has allowed for the Department to use more volunteer collected data for regulatory decision-making process.

Furthermore, both the Watershed Association and the Department have partnered with World Water Monitoring Day, the New Jersey Water Monitoring Coordinating Council, and the New Jersey Watershed Watch Network Council. They also worked together to hold a workshop on data use for NJ watershed groups.

0029
O1-2

SMART Monitoring – A Proposal for Coordinating Federal, State and Local Monitoring Programs – The Results of a Pilot Program in Massachusetts

Warren Kimball

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The SMART Program (Strategic Monitoring and Assessment for River basin Teams) was developed in 1997 by Mass DEP. The purpose was to modernize the state's existing monitoring program in order to provide better information and enable better environmental decision-making. The SMART strategy seeks efficiency in the use of existing resources by establishing three coordinated layers of monitoring activities, with each layer providing greater resolution, from statewide, to regional, to local issues.

A statewide primary network of fixed stations, sampled continuously, is used for long term status, trends, and export loadings of pollutants. A secondary layer of fixed stations provides more comprehensive spatial coverage is sampled on a 5-year rotating basin schedule for water quality assessments and NPDES renewals. A third layer of stations is operated by volunteers wich targets nonpoint source pollution. The SMART program takes advantage of existing federal, state and local programs and coordinated and integrates their activities.

The primary network is proving useful for detecting climate change, longterm trends in nonpoint source pollution and nitrogen attenuation and loading to estuaries. The secondary network allows the state to focus on NPDES renewals and 305b assessment reports. The local network, run by volunteers, has been proven invaluable in emergencies such as pollution spills.

The talk will discuss the dividing of responsibilities among federal state and local programs, fallback positions for diminishing resources, and finding a meaningful role for volunteers. The use of fixed station sampling verses probabilistic monitoring will also be discussed.

0378
O1-3

Developing a Water Monitoring Consortium to Support NJ's Barnegat Bay Action Plan

Leslie McGeorge, Jill Lipoti, Tom Vernam, Robert Schuster, Patricia Ingelido, Jeffrey Reading and Alena Baldwin-Brown

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A key New Jersey place-based water initiative involves the 660 square-mile Barnegat Bay watershed. Over the last 60 years, population growth, significant land use changes, intensive boating use, impacts of a nuclear generating facility and other stressors have contributed to cumulative, adverse impacts on the ecological health of this 75 square-mile shallow estuarine system. Ecological concerns range from loss of submerged aquatic vegetation, and episodic occurrences of macroalgae and brown tides, to declining hard clams and increasing invasive species. A portion of the Bay has been listed as impaired for dissolved oxygen. In 2010, the Governor's Action Plan (www.state.nj.us/dep/barnegatbay/) to address the Bay's health was announced, including a monitoring plan designed to determine the extent of the impairment, identify nutrient loading targets or numeric criteria, and develop models to direct the Bay's water quality restoration. Other aspects of the Action Plan include research, land acquisition, stormwater mitigation, restrictive fertilizer nutrient standards, soil restoration, and a plan for closure of the nuclear generating facility.

The comprehensive, 2-year monitoring program requires extensive monitoring capacity. The sampling program, which began in June 2011, involves up to once-a-week water quality synoptic grab sampling at 12 tributary and 14 bay stations, continuous in situ water quality monitoring, flow measurements, two 5-day intensive sampling events, and sediment monitoring. Such a comprehensive design exceeds the capacity of NJDEP's water monitoring program. To accomplish the plan, a consortium of dedicated partners was developed, beginning with members of the State monitoring community represented on the NJ Water Monitoring Council. Partners now include: the federal government, water and wastewater utilities, academia, the national estuary program partnership, the county health department, a regional commission, and a technical high school. Key aspects of developing this collaborative network will be discussed, including partner monitoring agreements, training, equipment calibration, quality assurance plan, sample preparation/ transport, partner communication and data access. Selected tributary and bay water quality results from the first six months of sampling will be presented, along with the benefits and challenges of implementing a collaborative monitoring program.

0538
O1-4

Strengthening Regional Monitoring Programs through the Development of a Collaboration Network: The Monitoring California Water Quality Monitoring Collaboration Network

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Water is the most precious natural resource in California; and its value depends on its quality. Cleaner water can be put to greater uses, and requires less treatment prior to use. Every year, hundreds of decisions are made that influence water quality, ranging from local development to statewide policy. These decisions involve hundreds of millions of dollars for water delivery, water treatment, pollution reduction programs, and habitat protection. Good decisions must be based on good information. These decisions however, must me made during times when must ask ourselves "how can we continue training, teaching, and learning when we simply don't have the funds?" To fulfill our stewardship missions, we have to find innovative ways to become more efficient and productive at a lower cost.

To maximize budgets, encourage more orchestrated monitoring efforts, enhance partnerships and increase the pool of water quality information available to decision makers and enthusiasts alike, the California Water Quality Monitoring Collaboration Network was created. This network was formed due to the need for a forum for sharing ideas, successes and common concerns. In response to that need, the California Water Quality Monitoring Council is partnered with the Water Board's Surface Water Ambient Monitoring Program, the Nonpoint Source Program and the US Environmental Protection Agency to initiate this network. The Water Quality Monitoring Collaboration Network began as a voluntary monthly conference call that members of the monitoring community participated in and discussed topics meeting their interests. The conference call format and content varied in response to input from participants and subsequently changed to a webinar format. Sessions are planned to share technical and support tools for monitoring, assessment and reporting; to encourage discussion on common concerns like information management; and to provide a forum for networking.

The California Water Quality Monitoring Professional Network is a LinkedIn Group that further enables water quality monitors and CWQMCN members to have the ability to further collaborate and communicate outside of the current webinar series and emails.

It is envisioned that the Collaboration network will help support a state framework to coordinate consistent and scientifically defensible programs.

http://waterboards.ca.gov/mywaterquality/monitoring_council/collaboration_network/index.shtml