



NJ Water Monitoring Coordinating Council

Measuring What Counts for Clean & Plentiful Water

January 31, 2007
MEETING MINUTES

Attendees

Leslie McGeorge, Rick Kropp, Alena Baldwin-Brown, Bob Connell, Becky Cosgrove (for Bill Simmons), Danielle Donkersloot, Lisa Galloway Evrard (for Chris Obropta), Nancy Immesberger, Mike Kennish, Ed Konsevic, Al Korndoerfer, MaryAnne Kuserk, Judy Louis, Diana Morgan (for Joan Ehrenfeld), Nick Procopio, Bob Reiser, Boris Rukovets (for Howard Golub), Ed Santoro, Mike Serfes, Amy Shallcross, Dave Stedfast, Bob Tudor, Eric Vowinkel, Paula Zevin

Absent

Lisa Barno, Kirk Barrett, Randy Braun, Gary Buchanan, Jack Gibs, Jawed Hameedi, John Kushwara, Karl Muessig, Steve Nieswand, Mike Weinstein

Guests

Tom Atherholt – NJDEP/DSRT
Diane Calessio – EPA Region 2
Helen Grebe - EPA Region 2
Debra Hammond – NJDEP/WM&S
Virginia Loftin – NJDEP/DWM
Paul Morton – NJDEP/WM&S
Loel Muetter - NJDHSS
Caitlyn Nichols – IEC

➤ **Old Business**

- Revised Minutes from the 9/27/06 Council meeting were approved.

➤ **National Water Monitoring Council Meeting**

Leslie & Eric Vowinkel (USGS NJ Water Science Center) provided a summary of the National Council meeting that was held in October in Florida. Updates included status of the National Water Quality Monitoring Network including potential pilot areas that are being considered by the Steering Committee, new developments with the Methods Board, as well as planning for the 2008 National Conference.

National Network - there is a core group, from the NWQMC (including Chuck Spooner, Gail Mallard & Jawed Hameedi), who will be making the decisions as to areas chosen for the 3 pilots. They are planning to make the announcement regarding the pilots around the time of the spring NWQMC meeting (March). Eric mentioned that there is a small group that is developing a proposal for the Delaware Basin. Council members interested in participating should contact Eric.

Methods Board – Eric mentioned that the Methods Board is working with American Chemical Society's Green Chemistry Institute to explore analytical chemistry methods that use fewer harmful solvents, use safer chemicals, and minimize waste and, if successful, add them to NEMI (National Environmental Methods Index). He also mentioned that the Methods Board, through a Cooperative Research and Development Agreement (CRADA), is looking for potential partners to provide funding and assistance for the following activities: 1. support the search for, and entry into the database of, new methods that can be included in NEMI; 2. suggest new types of regulatory information to include; and 3. determine outreach approaches and prepare materials to broadcast the usefulness of NEMI in professional journals, newsletters, and on the Web.

National Conference – May 18-22, 2008, Philadelphia. Theme – “Monitoring: Keystone to Knowing our Waters”. A Tuesday evening event, at the Philadelphia Water Company, is under development. Eric announced that “Save the Date” and “Call for Abstracts” communications would be going out soon. He also indicated that the planning committee would be reaching out to the NJ Council as well as NJ academics for assistance. Council members were asked to contact Eric if they had ideas for or would be interested in doing a session at the Conference.

[NOTE: since the NJ Council meeting, the location for the '08 conference has been changed due to unexpected conflicts with the Philadelphia Convention Center. The '08 Conference will now be held in Atlantic City, at the Atlantic City Convention Center.]

➤ **Technical Presentations** (Copies of all of the following presentations have been posted to the Council's webpage - <http://www.state.nj.us/dep/wmm/wmccmeetinginfo.html>)

The Council heard technical presentations on the following related to Pathogen Monitoring & Recreational Use Assessment:

A. *Microbial Indicators & Pathogen Monitoring: Overview* – Tom Atherholt (NJDEP/DSRT)

Tom Atherholt provided an overview of various microbial water quality indicators and associated pathogen monitoring. He presented the different types of bacteria, viruses, and parasites, the various risks of human infection from contact with human vs. domestic animal vs. wild animal feces, as well as available treatment options. Tom also explained use of various indicators of fecal pollution. In addition to briefly detailing laboratory tests used for these fecal indicators, he also provided a history of the development of pathogen criteria, current uses, as well as discussed an upcoming EPA WQ Criteria workshop, designed specifically to address pathogen criteria. Tom promised to come to a future Council meeting to report on results from this workshop.

B. *NJ's New Pathogen Criteria & Recreational Use Assessment* – Nancy Immesberger (NJDEP/WM&S)

Nancy Immesberger provided an overview of the switch from fecal coliform to E. coli & Enterococci as the preferred recreational assessment indicators (E.coli for freshwaters; entero for marine waters). In addition, Nancy also briefly detailed how these new criteria will be used in assessing whether or not a waterbody meets the recreational designated use.

C. *Freshwater Pathogen Monitoring in NJDEP* – Al Korndoerfer (NJDEP/WM&S)

Al Korndoerfer presented a summary of the freshwater pathogen monitoring that has been occurring in NJDEP as part of the Ambient Stream Monitoring Network, including parameters and sampling frequency. He also provided an overview of the bacterial-impaired waterbody TMDL monitoring project that has been ongoing around the state since 2004, as well as a smaller source trackdown study that was completed in the Shark River.

D. *NJ's Coastal Cooperative Monitoring Program* – Virginia Loftin (NJDEP/DWM)

Virginia Loftin presented NJ's Coastal Cooperative Monitoring Program, involving NJDEP, NJDHSS, as well as various county & local health departments. Virginia provided an overview of the CCMP program which involves weekly monitoring of bathing beaches for entero, aerial surveillance of the NJ coast, regular inspections at coastal sewage treatment plants, and public notification of

beach conditions. She also provided brief overviews of CCMP's complementary programs – the Clean Shores and Adopt-a-Beach programs – including recent data from each of the 3 programs.

E. Monitoring Coordination under NJ's Lakes Beach Monitoring Program – Loel Muetter (NJDHSS)

Loel Muetter, who coordinates DHSS' Public Recreational Bathing program, briefly described the responsibilities of this program which include freshwater lake monitoring (primary contact only). He explained that his program writes the rules and regulations for recreational bathing, provides technical oversight for the counties, provides guidance/assistance in determining if an area can be used for recreational bathing, as well as provides support to county/local health departments. His program, however, is not the technical repository for lake monitoring results – these records are maintained by the county/local health departments. He did also indicate that a potential opportunity for coordination between NJDEP & NJDHSS on county/local reporting issue will be during the redraft of the Public Recreational Bathing Beach rules (which sunset in 2009). (**NOTE:** With the addition of NJDEP's Coastal Cooperative Monitoring Program to Water Monitoring & Standards in March, WM&S will be reaching out to DHSS in the near future regarding the lakes beach monitoring program.)

F. County Beach Monitoring – Becky Cosgrove (Monmouth Co. Health Dept)

Becky Cosgrove provided an overview of the type(s) of recreational bathing monitoring and analyses that are performed by the Monmouth County Health Department. She explained the various types of phytoplankton as well as microbiological work that is performed, including EPA Method 1600 for enterococcus, fecal coliform., and HPC. This is important for determining the need for coastal recreational beach closures during the summer bathing season. She also explained that MCHD is a participating CEHA agency, with a NJDEP-approved QAPP, who submits its data to NJDEP for use in development of the Integrated Water Quality Monitoring & Assessment Report.

G. Applications of Source Tracking Techniques – Bob Connell (NJDEP/WM&S)

Bob Connell presented several projects where microbial source tracking was used to determine the source of pollution in coastal areas. He described the source trackdown process as well as the different testing methods (coliphage, MAR, optical brighteners) used to determine the pollution source(s). The particular projects that were presented included Jarvis Sound/Sunset Lake (Cape May County), Seaside Heights, Upper Navesink River (Red Bank), Parvin Lake, and Maurice River/Maurice River Cove.

H. IEC's Microbial Monitoring Program – Boris Rukovets (IEC)

Boris Rukovets provided an overview of the microbial monitoring activities undertaken by IEC. As he explained, IEC does not have a permanent network of monitoring stations but, rather, focuses on intensive surveys designed to meet regional priorities. Types of microbial monitoring performed by IEC include: effluent monitoring (for NJPDES compliance), ambient monitoring for NEP programs (pathogens monitoring for HEP, Hudson River transect monitoring, etc), ISSC compliance, POTW by-pass effects on shellfish beds, as well as special projects such as investigations of point & non-point pollution sources in bi-state waterways and bacterial contamination trackdown in specific locations (e.g., Great Kills).

I. Development of Genetic Fingerprinting & PCR Capabilities for Enterococci Analyses for Use in Fresh & Marine Waters – Diane Calessio (EPA Region 2)

Diane Calessio gave a presentation regarding laboratory techniques that are being developed at EPA Region 2 which may have multiple uses in microbial monitoring efforts. These techniques include genetic fingerprinting and qPCR, which are expected to support TMDL and NPDES programs as well as implementation of the BEACH Act. Diane also detailed several Enterococci-specific qPCR studies that had recently been completed (fresh as well as marine waters) in other parts of the US and then explained that a similar study using NJ coastal beaches would be occurring in summer 2007.

Council Input to Long-Term Strategy re: Pathogen Monitoring & Recreational Use Assessment

Areas that were discussed for possible future action/information to fill gaps in the strategy included:

- Tom Atherholt agreed to come to a future Council meeting to report on results from the EPA WQ Criteria workshop, designed specifically to address pathogen criteria.

- Tom's summary of this workshop can be made available to Council members upon request. Council members interested in receiving the summary should contact Alena.
- Better coordination, between NJDEP and NJDHSS, is needed regarding lakes beach monitoring.

➤ **Data Management/Data Exchange**

Paul Morton, NJDEP/WM&S, provided an update on data management/data exchange activities with regards to Ambient Water Quality Data Exchange project that is being spearheaded by NJDEP (via an EPA grant). Many Council organizations have been participating in the initial phase of this project, the Business Process Analysis meetings. Participating Council organizations include: NJDEP, USGS, DRBC, IEC, and Monmouth County HD. As Paul explained, the benefits expected to be realized from development of the water quality data exchange system include easier access to data for decision-making purposes, reduction/elimination of data reformatting, and wider dissemination of NJ ambient monitoring activities/information at a state, regional and national scale. The BPA phase will conclude in Feb, a report will be generated from which actual design decisions regarding system components will be made. The next phase of the project – System Requirements – is expected to begin sometime during the spring, with the projected final completion and release of the system in August 2008.

➤ **Member Updates**

The following updates were announced by Council members:

- *Delaware Estuary Science Conference* – Bob Tudor announced that 60 different papers from the conference are available via the Partnership for the Delaware Estuary website (<http://www.delawareestuary.org/>).
- *National Water Monitoring Network Proposal* – Bob Tudor announced that he was convening a meeting to discuss using the Delaware Basin as a pilot. A conference call on this was to be held on Friday, February 2. Council members interested in participating were asked to contact Bob.
- *New Council Rep* – Diana Morgan has replaced Jeannine DerBedrosian as the representative for Joan Ehrenfeld (NJWRRI) on the Council.

➤ **Topics for Next Meeting**

Integrating National, Regional and State Monitoring Efforts

➤ **Next Meeting**

May 30, 2007 at DRBC.