



NJ Water Monitoring Coordinating Council

Measuring What Counts for Clean & Plentiful Water

January 21, 2009
MEETING MINUTES

Attendees

Leslie McGeorge, Alena Baldwin-Brown, Randy Braun, Bob Connell, Tom Fikslin, Lisa Galloway Evrard (for Chris Obropta), Jack Gibs, Nancy Immesberger, Mike Kennish, Ed Konsevick, Todd Kratzer, Rick Kropp, Al Korndoerfer, MaryAnne Kuserk, John Kushwara, Karl Muessig, Steve Nieswand, Manisha Patel, Bob Reiser, Boris Rukovets (for Howard Golub), Ed Santoro, Bob Tudor, Eric Vowinkel, Paula Zevin

Absent

Kirk Barrett, Gary Buchanan, Danielle Donkersloot, Jawed Hameedi, Judy Louis, Diana Morgan (for Chris Obropta - NJWRI), Nick Procopio, Mike Serfes, Bill Simmons

Guest Speakers/Discussion Leaders

Julia Barringer – USGS NJ Water Science Center
Ray Bousenberry – NJDEP/NJGS
Paul Morton – NJDEP/W&S

Guests

Ashley Pengitore – PVSC

➤ **Council Business**

- Revised Minutes from the 9/12/08 Council meeting were approved.
- Lisa Galloway Evrard informed the Council that Chris Obropta is replacing Joan Ehrenfeld as the Director of the NJ Water Resources Research Institute. She also mentioned that, in addition to being Chris' NJAES rep on the Council, she would also now be the NJ Sea Grant rep.
- Ashley Pengitore was asked if, at a future Council meeting, she would provide an update on the NJ Harbor Dischargers' ambient monitoring program. She agreed to do so.
- Delaware Estuary Pilot Project Update: Bob Tudor mentioned that the proposal to fund wetlands condition assessment, as part of this project, was funded by EPA.
- December 2008 National Water Quality Monitoring Council Meeting Information – Eric Vowinkel provided a recap of important information from the December National Water Quality Monitoring Council meeting. Among those items mentioned were: the next National Monitoring Conference will be held in April 2010 in Denver; the NWQMC has developed a list of 21 “Action Items” which will guide the future work/focus of the National Council (Eric will seek permission to distribute the list of these items to the NJ Council); a fact sheet is being developed on the National Monitoring Network effort; and some anticipated discussions for the next National Council meeting (Salt Lake City – March) about merging the National Monitoring Network effort with the NEST efforts.
- Water Quality Data Exchange Project: Paul Morton provided an update on both new methods for accessing EPA and USGS data (e.g., how to use their new web services) as well as development

of the overall NJ Water Quality Data Exchange System, including the NJ Water Monitoring Inventory. Testing for the “data in” portion of the WQDE system is scheduled to take place February 2-20. Todd Kratzer (NJWSA), Kirk Barrett (Montclair/PRI), Ed Konsevic (MERI) and Ray Bousenberry (NJGS) volunteered to be part of the Inventory testing. DRBC, IEC and USGS also indicated that they would send representatives. [NOTE: Greg Cavallo – DRBC, Nick Protosaltis- IEC, and Kathy Hibbs - USGS have been participating in testing. Ashley Pengitore (PVSC) has also been participating.] Paul’s presentation is available on the Council’s website.

- Data Solicitation for 2010 NJ Integrated Water Quality Monitoring & Assessment Report : Nancy Immesberger gave a brief update on progress in finalizing the 2008 Integrated Water Quality Monitoring and Assessment Report (Integrated Report) as well as an overview of the process that DEP is using for soliciting data for the 2010 Report. Nancy reported that NJDEP expects to submit the draft final 2008 report to EPA in mid-February, at which time EPA will have 30 days to approve the Integrated List of Impaired Waterbodies (303(d)) portion of the report. [NOTE: the draft final report was submitted to EPA, by NJDEP, in April.] Nancy agreed to present the key findings from the final report at a future Council meeting. For the 2010 report, in conjunction with development of the NJ Water Quality Data Exchange System (discussed above), NJDEP is asking external organizations, who plan to submit data for the report, to initially provide an “Intent to Submit” form which will allow preliminary information about the organization and data to be recorded in the WQDE system. The actual data are expected to be submitted using the finished WQDE system. Since the “Intent to Submit” form was available via the NJDEP Water Monitoring & Standards webpage, Nancy provided a demo of how to access it, what it asks for and how/where to submit it. Completed forms will be accepted by NJDEP until April 4.
- EcoComplex Lab Update: Manisha Patel reported that the EcoComplex lab is now certified for nutrients (nitrogen & phosphorus), TDS, TSS, and micro (e.coli, fecal coliform, enterococcus, fecal strep). Manisha also told the Council that she is working with several volunteer monitoring groups and watershed associations (Crafts Creek, Pompeston Creek) and has field meters (as well as instructions for use) that she is willing to loan to other groups who need them. She is working on announcements regarding the expanding capabilities of the lab, including development of a website. [NOTE: the website is now available - <http://ecocomplex.rutgers.edu/watertestinglab/>].
- Emerging Contaminants Subcommittee: Eileen Murphy has stepped down as the chair of this subcommittee. Ray Bousenberry reported that the subcommittee is still working on drafting a white paper which is expected to include policy and research recommendations for areas including sources of contaminants, etc. Ray agreed to Co-chair the group but requested another Co-chair be added. He also agreed to call a meeting of the subcommittee before the next Council meeting (May 20). Eric Vowinkel also mentioned that the Methods Board is forming a Contaminants Workgroup (including Emerging Contaminants) which will develop a list of published methods that are nationally transferrable.
- Announcements:
 - o **Nutrient Criteria Enhancement Plan Information Session**: Leslie announced that NJDEP would be hosting an information session regarding the draft Nutrient Criteria Enhancement Plan at the Rutgers EcoComplex on January 22. The draft plan, which addresses both fresh and coastal waters, has aspects that relate to monitoring. As such, Council members were invited to attend the information session and/or submit comments on the plan.
 - o **USGS Mid-Atlantic Cooperators Roundtable**: Rick announced that this meeting would be occurring in early February, in Philadelphia. As USGS cooperators, Leslie & Karl Muessig would be attending/presenting at the meeting. Rick agreed to share the final report from this meeting with the Council when it is available.
 - o **Rutgers Workshop on Wind Energy/Ocean Waters**: Mike Kennish announced that Josh Kohut & Scott Glenn are coordinating this workshop which is slated to take place in mid-February.

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

The Council heard technical presentations on the following related to National Emerging Contaminants Updates as well as Continuous Monitoring (continued):

Emerging Contaminants

National Update - Herb Buxton (USGS NJ Water Science Center)

Herb Buxton provided an update on national activities related to Emerging Contaminants. Herb reported that areas being investigated include: Selective Serotonin Reuptake Inhibitors (SSRIs or antidepressants) in wastewater effluent, antibiotics in animal feeding operations, and new methods for hormones in solids and biosolids. There is also work on a national animal feeding operations survey which will look at nutrients, pathogens, endocrine disruption, antimicrobial resistance, and other effects. In addition, there is work on Pharmaceutical & Personal Care Products (PPCPs) in drinking water (both source water and ground water) – results, to date, indicate that these contaminants are reduced via treatment. Herb is working on a white paper on these national issues and agreed to share it with the Council once it's published.

Continuous Monitoring (continued from September)

A. *Summary of September Discussions* – Leslie McGeorge (NJDEP/WM&S)

Leslie McGeorge provided a summary of the continuous monitoring-related discussions that occurred at the September Council meeting. Additionally, she committed that a final version of the Inventory of Council member agencies' continuous monitoring activities, and a resulting map of monitoring site locations generated from lat/long information provided, would be completed and posted on the Council's webpage prior to the May Council meeting.

B. *Methods and Data Comparability Board (Sensors Workgroup) Update* – Eric Vowinkel (USGS NJ Water Science Center)

Eric Vowinkel updated the Council on activities of the Sensors Workgroup, which is a subgroup of the National Council's Methods Board Workgroup. The Sensors Workgroup deals with issues such as technologies, field applications, data management, and QA/QC. The group is currently undertaking a Field Monitoring QA Initiative the objective of which is to create a guidance document for field water quality sensors that provides information on collecting and sharing data of documented quality. Sensor measurements covered within the document include DO, conductivity, temperature, pH, turbidity (plus depth), and ORP (oxidation reduction potential). Three outputs – guidance matrix for each sensor, site selection & deployment guide, minimum metadata elements - are expected, in draft, by late Summer 2009, in final by end of 2009, and to be presented at the 2010 National Water Monitoring Conference. There is a link to the Methods Board website from the Council's webpage.

C. *Continuous Diurnal DO and Temperature Monitoring in Freshwaters* – Paul Burt (NJDEP/WM&S)

Paul Burt provided an overview of the continuous freshwater diurnal DO monitoring that NJDEP's WM&S performs in a variety of NJ streams. Information from this monitoring is being used to develop an ambient surface water DO database which can be used to define critical DO concentrations in a variety of streams, develop a resource of daily high/low concentrations, as well as support the proposed nutrient assessment method. Paul also detailed the monitoring and data quality requirements for this effort. In addition, Paul summarized the continuous temperature monitoring also performed by NJDEP's WM&S which, among other uses, allows for the capture of the highest daily water temperature – something that is not known from routine ambient monitoring. This information is needed for surface water quality criteria evaluations as well as for assessment of impacts resulting from changes in air temperature, rainfall, severe drought, etc.

D. *Data Logger Use by Rutgers in the Mullica River-Great Bay System* – Mike Kennish (Rutgers/IMCS)

Mike Kennish provided a presentation on how Rutgers/IMCS' uses data loggers for continuous monitoring in the Mullica River – Great Bay area. He showed the locations of the loggers as well as explained the parameters measured (temperature, salinity, DO, pH, turbidity, depth). In addition, he

showed and compared results from the loggers (particularly by season of the year) and explained how they are used in various management-related decisions.

E. *Continuous Monitoring of the Hackensack River : Data Usage* – Ed Konsevick (MERI)

Ed Konsevick provided an overview of MERI's environmental monitoring network in the Hackensack River. The network consists of four (4) stations whose data is published immediately to the web. Known users of the information/data include consultants, government & academia. Screen shots of the type of information available on the web from this network were also provided. Ed shared that the network has some data management/data quality issues and Eric Vowinkel offered to try to assist, via the National Methods Board, in their resolution. Ed also briefly summarized an oyster reef sustainability study in the NY/NJ Harbor Estuary as well as a Berry's Creek study in which continuous monitoring is being used.

F. *Summary of Diurnal Monitoring Workshop at NJDEP* – Julia Barringer (USGS-NJ Water Science Center)

Julia Barringer provided a summary of the presentations that were given at a December 2008 Diurnal Monitoring Workshop. The aim of the workshop was to present and discuss the causes of diurnal cycling of a variety of chemical constituents and what such cycles mean to data collection efforts. Presentations included: an Overview of Diel processes in streams (Montana Tech); Diel cycles for As and metals (USGS MT); Diel cycling of nutrients (Montana Tech); Diel patterns of organic matter transport in a PA Piedmont stream (Stroud Water Research Center); Diel metal cycles: temporal variability in alkaline streams (USGS MT); Diel processes in low pH streams (Montana Tech); Diurnal cycling of persistent organic pollutants in the atmosphere (Rutgers University); As, Metals, and Nutrients in the Wallkill River – natural and induced diurnal cycles (USGS NJ Water Science Center); Diurnal DO concentrations (NJDEP – DWM); Diel metal cycles – toxicity considerations (USGS MT); Diurnal data uses for the NJ Integrated Water Quality Monitoring and Assessment Report (NJDEP – WM&S); Continuous diurnal do water monitoring (NJDEP – WM&S); and NJ Watershed Watch Network's use of diurnal monitoring (NJDEP – WM&S).

➤ **Technical Topics for Next Meeting**

Private Well Testing Act Results

➤ **Next Meeting**

May 20, 2009 at DRBC