



NJ Water Monitoring Coordinating Council

Measuring What Counts for Clean & Plentiful Water

**January 25, 2012
MEETING MINUTES**

Member Attendees

NJDEP – *WM&S*: Leslie McGeorge, Alena Baldwin-Brown, Bruce Friedman, Debra Hammond, Helen Pang *NJGWS*: Karl Muessig, Ray Bousenberry *OS*: Gary Buchanan, Judy Louis

NJDHSS – Doug Haltmeier

USGS – Jack Gibs, Bob Reiser

DRBC – Tom Fikslin

EPA R2 –

IEC – Caitlyn Nichols

NJ Pinelands Commission – Nick Procopio

NJ Water Supply Authority – Todd Kratzer

Rutgers (Coop Extension Service) – Lisa Galloway Evrard, Diana Morgan

Rutgers (IMCS) –

Montclair University –

Monmouth University/Urban Coast Institute –

Meadowlands Environmental Research Institute –

NOAA –

Monmouth County Health Dept –

Barnegat Bay Partnership – Jim Vasslides

Stony Brook-Millstone Watershed Association –

Musconetcong Watershed Association – Nancy Lawler

NJ Harbor Dischargers – Ashley Slagle

Brick Township MUA – Rob Karl

Guest Speakers/Discussion Leaders

Alyssa Arcaya – EPA Region 2

Jennifer Coffey – Stony Brook Millstone Watershed Association

Steve Domber – NJDEP/NJGWS

Sandy Krietzman, NJDEP/DWSG

Jim Kurtenbach – EPA Region 2

Jill Lipoti – NJDEP/WM&S

Vic Poretti – NJDEP/WM&S

John Yagecic - DRBC

Guests

Katherine Axt – NJDEP/WM&S

Johannus Frankin – NJDEP/WM&S

Sarah Helble – NJDEP/WM&S

Ron MacGillivray – DRBC

Jeff Reading – NJDEP/WM&S

Brian Taylor – NJDEP/WM&S

➤ **Council Business**

- Minutes from the 09/21/11 Council meeting were approved.
- Member Announcements:
 1. *New Member* – The NJ Department of Health & Senior Services (DHSS) has joined the Council. Doug Haltmeier will be the DHSS representative.
 2. *Member Introductions* – During the member introductions, 1 member from each organization also provided a brief summary of the types of monitoring &/or research that the organization performs and the location(s) of these activities.
 3. *Information from November NWQMC Meeting* – Leslie McGeorge briefed the Council on key pieces of information from the November National Water Quality Monitoring Council (NWQMC) meeting. National Conference (April 30-May 4, Portland, OR) planning and abstract review was a major activity. DEP, USGS, DRBC, Stony Brook Millstone Watershed Association and Musconetcong Watershed Association have all had abstracts approved for presentation. Other key NWQMC information included: CUAHSI, National Reference Network and NEMI updates, development of a new National Integration of Water Monitoring Programs paper and initiation of a Water Quality Indices Survey. Leslie's update is available on the Council's webpage.
 4. *2011 NJ Water Monitoring Summit* – Debra Hammond (Planning Committee lead) summarized the 2011 NJ Water Monitoring Summit, held Dec 1 & 2, at the new DHSS laboratory facility. The agenda, listing of posters, as well as the presentations are available on the Summit's webpage: http://www.state.nj.us/dep/wms/2011_summit.htm. In addition to sharing highlights and feedback from the event, Debra also solicited NJWMC member recommendations for the 2012 Summit. Suggestions included an interest in a training/session on QAPP basics. Suggestions were requested regarding how to make the poster sessions better. Additional suggestions for the 2012 Summit (including offers to assist in its planning) should be shared with Leslie, Alena Baldwin-Brown or Debra. Debra's summary is available on the Council's webpage.
 5. *Barnegat Bay Update: Cooperative Monitoring Project & Data Access* – Leslie updated the Council with regards to the end of Phase 1 for the Cooperative Monitoring Project and the beginning of Phase 2, including briefly outlining the overall increased sampling schedule and the 2 intensive weeks of sampling planned for the summer (weeks of July 9 and August 13). Alena demo'd the enhancements to the Barnegat Bay Monitoring Interactive Map, which now include the ability to access qa'd data by individual monitoring station. The map can be accessed, online, at: <http://www.state.nj.us/dep/barnegatbay/plan-wqstandards.htm>.
 6. *Status of WaterSMART Efforts* – Bob Reiser provided an update on the WaterSMART efforts that Eric Evenson spoke about at the September Council meeting. The update included a summary of 2011 funding applied to the 5 top-level work items and how the 2012 funding will be applied across the Nationwide Analysis System, Water Use, Ecological Flow, Groundwater, & Special Focus Area Studies categories (including the Delaware River Basin). Regarding the Delaware River Basin study, a Draft Workplan is being developed following the Stakeholder Meeting that was held in September 2011. The Workplan is expected to be completed in February 2012. Plans call for improved water use information by watershed, estimated ecological flow needs on tributaries, and a daily rainfall/runoff model for tributaries. Questions should be addressed to either Eric Evenson (national coordinator for WaterSMART) or Jeff Fischer (USGS-NJWSC – Delaware Basin Coordinator). Bob's update is available on the Council's webpage.
 7. *Natural Gas Monitoring* – Tom Fikslin announced that the November 8, 2011 version of the draft DRBC regulations are available on the DRBC website. He also announced that these regs are on hold pending actions by the DRBC Commissioners.

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

Lakes: 2012 National Lakes Assessment, NJ's Lakes Monitoring Program and Local/Volunteer Assessments

A. *2012 National Lakes Assessment* – Jim Kurtenbach (EPA Region 2)

Jim Kurtenbach provided overall background on the National Lakes Assessment (NLA) survey as well as a summary of planned activities for 2012, which will be the second time that NLA has been done. In 2007 (the first NLA), 1028 unique lakes (+ 124 reference lakes and 100 resample visits) were sampled to represent ~50,000 lakes nationally. Indicators used were: biological integrity, trophic state, recreational use, habitat quality, chemical stressors and change over time. For 2012, several study design as well as indicator modifications are being implemented. NJDEP participated in the 2007 sampling effort and will, again, participate in 2012. Information about NLA is available on the EPA website at: www.epa.gov/lakessurvey.

B. *NJ's Lakes Monitoring Program* – Vic Poretti (DEP/WM&S)

Vic Poretti summarized NJ's Ambient Lakes Monitoring Program including its purpose and use, design criteria and target population, how a probabilistic design is used to select the lakes in the network, sampling frequency and parameters, as well as how the Carlson's Index is used to assess the trophic status of a lake. Vic also provided statewide results from 1st round of network sampling, including estimates on lakes attaining the applicable Surface Water Quality Standards and potential stressors that may be contributing to observed trophic status. Additionally, he briefly highlighted items that are in development including a diatom index and some statistical analysis activities. He also elaborated on NJDEP's participation in NLA – both in 2007 as well as what is planned for 2012 – as well as described lake monitoring efforts that have been undertaken by the DEP Volunteer Monitoring Program, including development of a visual assessment protocol.

C. *Local/Volunteer Assessments* – Debra Hammond and Sarah Helble (DEP/WM&S)

Debra Hammond and Sarah Helble shared information on the Volunteer Monitoring Program's upcoming "Lakes Blitz", scheduled for May. The Blitz is designed gather information on existing uses as well as any current problems with weeds and algae from the general public (e.g., citizens, non profit organizations, environmental commissions, lake communities, schools, etc). A form to gather this information is under development but will be posted on the Volunteer Monitoring website, for download, prior to May.

Indicators of Water Quality & Quantity

A. *Background on Environmental Water Indicators* – Leslie McGeorge (NJDEP/WM&S)

Leslie McGeorge presented a general overview of environmental indicators including common definitions, frequently used criteria for developing indicators, indicator models and uses as well as an example of a water-related indicator.

B. *DEP's Sustainability Initiative, Water Indicator Candidates and Environmental Trends* – Leslie McGeorge & Debra Hammond (DEP/WM&S), Steve Domber (DEP/NJGWS), Judy Louis (DEP/OS) & Sandy Krietzman (DEP/DWSG)

Leslie McGeorge provided brief summaries of 3 DEP indicator-related initiatives/activities – the sustainability initiative (lead by Economic Growth & Green Energy), the performance measures activities (lead by the Office of the Deputy Commissioner), and the DEP environmental trends report (lead by the Office of Science). [Note: a presentation on the Environmental Trends Report will take place at a future NJWMC meeting.] Leslie, Steve Domber, Debra Hammond, Judy Louis and Sandy Krietzman also presented (and requested feedback on) three (3) proposed, high level primary water sustainability indicators as well as five (5) secondary indicators, which all fall across surface water, drinking water and water supply. Feedback was received on both the drinking water and water supply indicators, which will be used as these indicators are further developed.

C. *EPA's Strategic Water-related Performance Measures* – Alyssa Arcaya (EPA Region 2)

Alyssa Arcaya briefed the Council on EPA's Strategic Plan, its Water-related component (Goal 2), as well as the associated objectives, sub-objectives and performance measures. These performance measures are a combination of outcomes and outputs and (for Water) can be found in the National Water Program Guidance document. There are 120-130 water measures overall and, of these, Region 2 is responsible for reporting on ~70 (many of which rely on state-level information). Of those 70, ~35 measures relate to ambient water quality and/or monitoring work. Both the Strategic Plan and

National Water Program Manager Guidance are available online via EPA's Planning, Budget and Results webpage (http://water.epa.gov/resource_performance/planning/index.cfm).

D. *Indicators in the State of the Estuary/State of the Basin Technical Reports* – John Yagecic (DRBC)

John Yagecic provided an overview of the technical reports for the State of the Estuary/State of the Basin. The reports contain chapters covering a variety of issues including: watersheds and landscapes, water quantity, water quality, sediments, aquatic habitats, living resources, climate change and restoration. The primary water quality indicators include both tidal and non-tidal measures such as DO, nutrients, contaminants, fish contaminant levels, salinity, pH, temperature and emerging contaminants. The final reports are expected to be published shortly.

E. *Barnegat Bay Indicators Used in the State of the Bay Report* – Jim Vasslides (Barnegat Bay Partnership)

Jim Vasslides reviewed the indicators that were used in the 2011 State of the Bay report, including the rationale behind how each was chosen. In the 2011 report, there are 4 main sections - water quality, water supply, habitat & living resources and climate change - that contain 19 indicators (e.g., DO, shellfish bed closures, shallow groundwater quality, wetlands, etc). Information for many of these indicators came from many Council member organizations (e.g., DEP, USGS, Brick MUA, Pinelands Commission, Rutgers IMCS). Gauges are used to display each indicator's status (very good, good, average, degraded, etc) as well as trends (if known), along with accompanying text about the indicator. The report is used to tie management and planning efforts in the BB watershed. It is available on the BBP webpage at: <http://bbp.ocean.edu/pages/345.asp>.

F. *Water Quality Measures from the NY/NJ Harbor Dischargers* – Ashley Slagle (Passaic Valley Sewerage Commission)

Ashley Slagle summarized the long term ambient water quality monitoring conducted by the NY/NJ Harbor Dischargers group including locations sampled and parameters measured. These include: temp, pH, salinity, secchi depth, bacteria (e. coli, fecal coliform, enterococcus), nutrients (nitrogen, phosphorus), organic matter, and solids. She also provided 2009-2010 comparisons for 3 of the parameters: fecal coliform, enterococcus and dissolved oxygen. This information will be used in the forthcoming NJHDG Water Quality Report.

G. *Indicators of Pinelands Ecology* – Nick Procopio (Pinelands Commission)

Nick Procopio provided a summary of the watershed assessments that have taken place in the Pinelands and the indicators that have been used to determine whether or not alterations to Pinelands ecology have occurred. These include water quality monitoring, fish surveys, vegetation surveys, and frog and toad surveys, and their relationship to land use patterns/activities. Conclusions show that relationships exist between upstream land use, water quality variables and biological community gradients as well as between water quality parameters and biological community gradients. Additionally, while individual indicators are good, a multiple indicator approach is better for characterizing a monitoring site.

H. *Indicators Used and Actions Taken with Stony Brook-Millstone Watershed Association's State of the Watershed Report* – Jennifer Coffey (Stony Brook-Millstone Watershed Association)

Jennifer Coffey provided an overview of the indicators that were used in the development of the 2010 State of the Watershed Report. SBMWA's StreamWatch Water Quality Monitoring Program has been collecting chemical and biological data for over 20 years from 42 sites within the watershed. Water quality indicators used by SBMWA in its report are: bacteria, temperature, total suspended solids, nitrates, orthophosphates, aquatic life and dissolved oxygen. The information in the report is designed for both SBMWA members as well as for mayors and planning boards within the watershed. Its intent is both educational as well as to influence watershed-wide policy and ordinances which include stream corridor protection, septic system management, forest protection, and land use. The report is available on online at: <http://www.thewatershed.org/resource-center/reports-and-materials/>.

➤ **Technical Topics for Next Meeting**

Flood-Related Emergency Response Monitoring

- **Next Meeting**
May 30, 2012 at USGS NJ Water Science Center