



NJ Water Monitoring Coordinating Council

Measuring What Counts for Clean & Plentiful Water

May 30, 2012
MEETING MINUTES

Member Attendees

NJDEP – *WM&S*: Leslie McGeorge, Alena Baldwin-Brown, Danielle Donkersloot, Bruce Friedman, Debra Hammond, Vic Poretti, Bob Schuster, Ann Witt *NJGWS*: Karl Muessig

NJDHSS – Doug Haltmeier

USGS – Jack Gibs, Bob Reiser

DRBC – Bob Tudor

EPA R2 – John Kushwara, Paula Zevin

IEC –

NJ Pinelands Commission – Nick Procopio

NJ Water Supply Authority – Todd Kratzer

Rutgers (Coop Extension Service) –

Rutgers (IMCS) –

Montclair University – Natalie Sherwood

Monmouth University/Urban Coast Institute – Jim Nickels

Meadowlands Environmental Research Institute –

NOAA –

Monmouth County Health Dept –

Barnegat Bay Partnership –

Stony Brook-Millstone Watershed Association – Alyse Greenberg

Musconetcong Watershed Association – Nancy Lawler

NJ Harbor Dischargers – Ashley Slagle

Brick Township MUA – Rob Karl

Guest Speakers/Discussion Leaders

Dave Bushek – Rutgers/Haskin Shellfish Lab

Jeff Fischer – USGS NJWSC

Heidi Hoppe - USGS NJWSC

Jill Lipoti – NJDEP/WM&S

Jim Manuel – NJDEP/Emergency Response

Brian McCallum – USGS GA

Paul Schorr – NJDEP/DWSG

Mary Skopec – IA DNR

Kara Watson – USGS NJWSC

John Yagecic - DRBC

Guests

Bryan Hewins – Monmouth University

Laura Tessieri – DRBC

Shelby Whitebread – Monmouth University

➤ **Council Business**

- Minutes from the 01/25/12 Council meeting were approved.
- Member Announcements:
 1. Technical Session Theme Suggestions for upcoming NJWMC meetings – The following were suggested as potential technical session themes: dam removal, ground water levels (quality and quantity), USGS’ reservoir network, sediment monitoring, stormwater monitoring, water quality indices/report cards, and a NJWMC retrospective. Stormwater monitoring was chosen for the October 3 meeting.
 2. Continuous Monitoring Inventory – Alena Baldwin-Brown reported that updates and/or additions to the Continuous Monitoring Inventory had been received from USGS, DRBC (inc. NOAA PORTS info for the Delaware Bay), the NJ Harbor Dischargers, and Monmouth University. Additionally, new information from the Pequannock River Coalition had also been provided. A suggestion to add information from the Cape May-Lewes Ferry monitor was also made as well as NOAA PORTS information from the Atlantic Ocean and Stevens Institute’s NYHOPS data. These suggestions will be investigated.
 3. 2012 NJ Water Monitoring Summit – Leslie McGeorge announced that the 2012 Summit has been scheduled for Nov 28 and 29 at the Rutgers EcoComplex, in Columbus, NJ. Once again, the NJWMC will be a co-sponsor. In response to requests from the 2011 Summit evaluations, this year’s program will include a section on QAPP-related training. A Planning Committee, for both presentations/posters as well as training, is being formed. Bob Reiser, Vic Poretti, Nancy Lawler, and John Kushwara agreed to join Leslie, Danielle Donkersloot and Debra Hammond as NJWMC reps on the Planning Committee [Note: John Yagecic offered to assist with the training and Meiyin Wu has also joined the Committee]. Alena Baldwin-Brown will be coordinating the Summit this year. Additional NJWMC members interested in joining the Committee should reach out to Alena. A suggestion was made to hold the 2013 Summit at a location near the coast – Jim Nickels offered to explore potential locations.
 4. Information from National Water Monitoring Conference – Leslie McGeorge briefed the Council on key pieces of information from the National Water Monitoring Conference (April 30-May 4, Portland, OR). These included: highlights of the NJWMC poster that was presented; a brief summary of the State/Regional Councils Workshop (that Leslie and Alena helped organize and in which Leslie represented the NJWMC); release of several products/pieces of information such as Statistical NEMI, the Water Quality Portal and the NWQMC white paper on integrating water quality monitoring; as well as mention of several topics which received significant attention during the conference (e.g., mercury, cyanobacteria, partnerships/collaborations, water quality indices/report cards, etc.). Leslie’s summary is available on the Council’s website. Danielle Donkersloot, Bruce Friedman, Alyse Greenberg and Nancy Lawler – who also attended the Conference - provided feedback on other pieces of the Conference that they found particularly informative/useful. Presentations from the Conference are expected to be posted to the NWQMC webpage sometime during the summer. [NOTE: the agenda as well as many of the presentations and posters have been posted]
 5. National Aquatic Resource Surveys: NJ 2012 NLA & 2013/2014 NRSA – Vic Poretti provided a summary of NJ’s 2012 participation in the National Lakes Assessment, including lakes and parameters being sampled, as well as NJ’s planned participation for the National Rivers and Streams Assessment which will occur in 2013/2014, again including potential sites and parameters to be sampled. If any Council member orgs would like to partner with DEP for the 2013/2014 NRSA, members should contact either Vic or Leslie. Vic’s presentation is available on the Council’s website.
 6. Barnegat Bay Monitoring Project Update – Leslie updated the Council with regards to both what’s new for Phase 2 activities of the Cooperative Monitoring Project (which runs Apr-Dec 2012). She also shared highlights of the Barnegat Bay Project presentation that she made at the National Conference – the primary focus of which was partnerships. Leslie’s presentation is available on the Council’s website.

7. *Didymo in the Delaware Basin* – John Yagecic summarized the status of the Didymo bloom that's been occurring in the Delaware River in 2012 that DRBC has been tracking. Included in the summary was information regarding where it has been found, how to differentiate Didymo from other freshwater algae, as well as proper cleaning techniques for equipment and gear that has been used in areas where Didymo has been found so as to avoid possible contamination of non-affected streams. John's presentation is available on the Council's website. Danielle Donkersloot requested that this information be provided as a webinar for local watershed associations. John agreed to pursue this with Erik Silldorff, the DRBC scientist who has been tracking the Didymo bloom [Note: a webinar was recorded and is expected to be available on DEP's Freshwater & Biological Monitoring webpage shortly].

8. *Announcements* – 1. Natalie Sherwood announced the upcoming 5th Passaic River Symposium scheduled for Friday, October 19 at Montclair University. Additional information can be found online at: www.montclair.edu/csam/passaic-river-institute/conferences-symposiums/. 2. Paula Zevin announced the Regional Citizen Science Workshop, being held June 20, in Edison, NJ. 3. Danielle announced a Volunteer-related Study Design/Results Presentation Workshop that was taking place on June 6. 4. Debra Hammond announced that the Volunteer-related Lake Watch effort (described at the Jan NJWMC meeting) is underway and that the forms and guidelines are available on the DEP Water Monitoring and Standards webpage (www.state.nj.us/dep/wms).

- **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>)

Enhanced Process: 2012 NJ Integrated Water Monitoring & Assessment Report – Debra Hammond (DEP/WM&S)

Debra Hammond shared information on the enhanced process that was used to develop the draft 2012 NJ Integrated Water Monitoring & Assessment Report (Integrated Report), as well as highlights from the draft Integrated Report. The enhanced process involved bringing multiple DEP programs together to evaluate water quality data, existing listings, proposed changes and new information on a HUC-14-by-HUC-14 basis so as to do a comprehensive assessment of each watershed. Highlights of the draft report included a designated use assessment results comparison, a summary of new de-listings, a listing of the top 10 pollutants and impairments (by # of Assessment Units), as well as the current schedule for finalization of the Integrated Report.

Flood-related Monitoring

A. *Summer 2011 – Hurricane Irene/Tropical Storm Lee* – Jill Lipoti (NJDEP/WM&S)

Jill Lipoti summarized monitoring-related efforts that occurred during and after Hurricane Irene, including lessons learned as well as potential future direction/collaboration in the area of flood-related emergency response monitoring.

B. *B. Flooding Impacts of Hurricane Irene/Tropical Storm Lee on Water Supply Facilities & other Potential Water Quality Impacts* – Paul Schorr (DEP/DWSG)

Paul Schorr provided an overview of the impacts on water supply facilities that resulted from Hurricane Irene and Tropical Storm Lee. These included flooding at the NJ Water Supply Authority's Pump Station at Millstone & Raritan and the D&R Canal, the D&R Canal Lock, and the D&R Canal Raritan Millstone Wastewater Treatment Plant. He also shared ideas for designing, managing and monitoring water supply and treatment systems to avoid system failure in the event of extreme weather as well as examples of existing monitors.

C. *Emergency Response Experiences from Hurricane Irene/Tropical Storm Lee* – Jim Manuel (DEP/ER)

Jim Manuel shared information about DEP's Emergency Response management and procedures in general (including interactions with the State Police Emergency Operations Center – EOC) as well as how operations were handled during Hurricane Irene and Tropical Storm Lee. Jim detailed issues that were faced both during as well as after the hurricane/storm (e.g., road closures, oil in yards, sediment in basements, contaminated water, mold, etc.), informational materials that are available for dealing

with these issues, as well as Lessons Learned - including areas where better information (e.g., pre-developed message templates for various scenarios, internal vs. external websites specific to the event) or access to existing information is needed (e.g., State Police EOC now has access to DEP GIS and stand-alone data as well as GIS “resource” staff for questions and/or issues).

D. USGS NAWQA Sampling During Hurricane Irene – Jeff Fischer (USGS NJWSC)

Jeff Fischer summarized the NAWQA, DEP, and EPA sampling that occurred at various times during Hurricane Irene at: Delaware River at Trenton, Raritan River at Queens Bridge, Raritan River at Manville, and at 8 sites in the Passaic River Basin. In addition to discharge at Delaware River @ Trenton & Raritan River @ Queens Bridge, parameters sampled included: major ions, nutrients, sediment & bacteria (Delaware River @ Trenton & Raritan River @ Queens Bridge), VOCs and metals (Raritan River @ Queens Bridge and Manville) and Bacteria and 1 VOC (Passaic River Basin).

E. Monitoring Inland Storm Tide & Flooding from Hurricane Irene Along the Atlantic Coast in Aug 2011 – Brian McCallum (USGS GA)

Brian McCallum provided an overview of the USGS Inland Storm Tide Monitoring Program and how it was used along the Atlantic Coast during Hurricane Irene. The program, which augments existing fixed station networks, is a mobile storm-surge network used to capture information of the timing, extent, and magnitude of storm tide. It consists of 40-70 water-level and barometric-pressure monitoring devices that are deployed in the days and hours just prior to hurricane landfall. It also assists in determining whether flooding is due to storm tide or storm surge. Hurricane Irene’s deployment, which was the largest ever, consisted of devices being deployed from S. Carolina to Maine and required the involvement of 10 USGS Water Science Centers. Information was transferred to a new “Irene Mapper” which included data files, photos and graphs (both USGS & non-USGS data). The report from Hurricane Irene is available online at:

http://water.usgs.gov/osw/programs/storm_surge1.html.

F. Iowa’s Flood Water Quality Monitoring Experiences – Mary Skopec (IA DNR)

Mary Skopec shared lessons learned from the 2008 widespread flooding and resulting water quality issues that were experienced in Iowa. Flood monitoring was initially performed to understand the long-term impacts, develop a status & trends for IA as well as the effects from the Gulf of Mexico Hypoxia. Its purpose, however, shifted to real-time decision making and public health and safety. Water monitoring-related lessons learned included needs for: increased information to front-line responders, examination of information transfer methods, prepared guidelines for clean-up, human vs. environmental health, concentrations vs. loads, and ways to improve monitoring (e.g., faster results, targeted areas of concern, etc.).

G. Flood Inundation Mapping in the Passaic River Basin – Heidi Hoppe and Kara Watson (USGS NJWSC)

Heidi Hoppe and Kara Watson described the existing USGS flood warning system, gages, as well as the flood inundation mapping efforts that had been developed in the Passaic River Basin. Also included were brief tutorials on using USGS’ WaterAlert and StreamMail and how to subscribe to them so users can be alerted when certain parameters exceed self-defined thresholds.

H. Delaware River Flood Warning Enhancements – Bob Tudor (DRBC)

Bob Tudor presented the latest flood warning enhancements that have been put in place by DRBC. These enhancements were part of a list of recommendations from the Interstate Flood Mitigation Task Force and included: an inventory and evaluation of precipitation and stream gage networks, extension of rating curves, gage hardening, education and outreach, flash flood forecasting improvements, and inundation mapping. Other enhancements, from the recommendations list, will be pursued as additional funding is made available.

I. Shellfish Bed Closures Related to Hurricane Irene/Tropical Storm Lee – Bob Schuster (DEP/WM&S)

Bob Schuster summarized the events of Hurricane Irene which led to the statewide closure of all shellfish harvesting beds as well as the continued impact on these waters from Tropical Storm Lee, which followed shortly after. Bob also summarized the steps that were put in place to, incrementally, reopen the waters as quickly as possible, including the leveraging of resources with both the Atlantic and Delaware Bay Shellfish Councils to obtain the necessary water and shellfish samples.

J. Salinity Issues Related to Oyster Mortality in Delaware Bay – Dave Bushek (Rutgers/Haskin Shellfish Lab)

Dave Bushek provided an overview of the oyster mortality and disease in the Delaware Bay resulting from Hurricane Irene and Tropical Storm Lee. Dave explained that the above average precipitation from both storms severely depressed the salinity in the Bay. While the depressed salinity pushed oyster-related diseases (MSX, Dermo) further down in the Bay, it also led to significant oyster mortality – especially in the uppermost beds where the freshwater influence was greatest. The mortality also resulted in reduced oyster quotas for 2012 and closed the upper-most beds to the fishery (possibly for a decade). This translates into an estimated \$5.3 million direct loss to fishermen assuming the oysters recover within 10 years.

➤ **Action Items**

- Develop flood monitoring approach for the State of NJ - *DEP (with Council assistance)*
- Explore addition of Cape May-Lewes Ferry, NOAA PORTS (for the Atlantic Ocean) and Steven's Institute's NYHOPS information to Continuous Monitoring Inventory - *Alena*
- Explore possible coastal location(s) for 2013 Water Monitoring Summit – *Jim Nickels*
- Didymo: record and post webinar – *DEP (with DRBC)*

➤ **Technical Topic for Next Meeting**

Stormwater Monitoring

➤ **Next Meeting**

October 3, 2012 at the Delaware River Basin Commission