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NJ Water Monitoring Council

Measuring What Counts for Clean & Plentiful Water

MAY 26, 2021
MEETING MINUTES

MEMBER ATTENDEES (Alphabetical by Organization) & GUESTS

- **American Littoral Society:**
- **Barnegat Bay Partnership:** Nicole Petersen
- **Brick Township MUA:** Rob Karl
- **DRBC:** Namsoo Suk, John Yagecic (*steering committee*), Karen Reavy
- **EPA R2:** Emily Nering, Rachael Leta-Graham
- **Great Swamp Watershed Association:** Sandra LaVigne (speaker)
- **IEC:** Evelyn Powers
- **Meadowlands Environmental Research Institute:** Ying (Cheryl) Yao
- **Monmouth County Health Dept:**
- **Monmouth University/Urban Coast Institute:**
- **Montclair State University:** Meiyin Wu (speaker)
- **Musconetcong Watershed Association:** Christa Reeves (speaker)
- **NJDEP**
 - **DWM&S:** Bob Schuster (speaker, *co-chair*), Alena Baldwin-Brown (*coordinator*), Jenna Krug (*coordinator*), Bruce Friedman, Vic Poretti (speaker, *steering committee*), Helen Pang, Dean Bryson, John Vile, Kimberly Cenno, Biswarup Guha, Marzooq Alebus, Frank Klapinski, Deborah Kratzer, Chris Kunz, Paul Morton, Jack Pflaumer (speaker), Yaso Sivaganesh, Brett Wiley
 - **DWS&G:** Ray Bousenberry (*steering committee*), Catherine Jedrzejczyk
 - **DSR:** Nick Procopio (*steering committee*), Sandra Goodrow, Heidi O'Neill, Robert Newby
- **NJDMAVA:** Sarah Helble
- **NJDOH:**
- **NJ Harbor Dischargers:**
- **NJ Pinelands Commission:**
- **NJ Sea Grant Consortium:**
- **NJ Water Supply Authority:** Heather Desko, Angela Mostwill
- **NOAA:**
- **NY/NJ Baykeeper:**
- **Raritan Headwaters Association:** Kristi MacDonald, Maria Berezin Dowling (speaker), Mara Tippet
- **Rutgers (Coop Extension Service):** Lisa Galloway Evrard
- **Rutgers (Env. Bioengineering):**
- **Rutgers (IMCS):**
- **Stockton University:** Christine Thompson
- **The Watershed Institute:** Erin Stretz (speaker)
- **USGS:** Heather Heckathorn (*co-chair*), Pam Reilly
- **Member Emeritus:** Leslie McGeorge, Jack Gibs
- **Guests:** Michelle DiBlasio (The Nature Conservancy)

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- **Council Business (Bob Schuster, DEP/DWM&S and Heather Heckathorn, USGS NJWSC):**
 - Copies of the agenda, minutes and most presentations will be available on the Council's webpage, under "Meeting Information" - <http://www.state.nj.us/dep/wms/wmccmeetinginfo.html>
 - Minutes from the 02/03/21 Council meeting were approved as presented.
 - **Next meeting will be held on September 22**, either as a virtual Teams meeting or possibly a Hybrid. The topics recommended by the Council for this meeting include pathogen monitoring and trackdown, fish kills in the news and microbial population tracking; eDNA, groundwater eDNA (was a session on this at the national water monitoring meeting- extensive platforms set up already, focused on specific functional groups) - Council Steering Committee will discuss these and decide which topic to pursue.
 - **Retirements & New Members** - Alena Baldwin-Brown (Council Coordinator, NJDEP) will be retiring at the end of this month (May 2021). Lovely toasts acknowledging Alena and her accomplishments were given by Leslie McGeorge and Bob Reiser (read by Heather Heckathorn). A Certificate of Appreciation will be presented to Alena for all of her work on behalf of the Council. The Council welcomed Jenna Krug as the new Coordinator. Paul Morton & Jack Pflaumer (both with NJDEP/DWMS) are also retiring at the end of the month.

- **Information Updates, Presentations and Announcements:**
 - **Council Member Updates:**
 - Pam Reilly (USGS) gave an update on the NJWSC May 2021 publication which was shared with council members after the meeting; send Pam an email to be added to the Listserv for publications (Jankowsk@usgs.gov)

 - **Presentations & Announcements:**
 - **MSU Phytoplankton Project Update** (Meiyin Wu, Montclair State University) – Dr. Wu presented an update on their phytoplankton project and introduced a new website on freshwater cyanobacteria in NJ [<https://www.montclair.edu/water-science/phytoplankton-lab/>]. She noted that most of their samples are surface grab samples and not from multiple water depths to be able to look at relationship of DO to CO₂; suggests using water sampler to collect at different depths and profiling, however time and budget are always a concern. Suggests using phycocyanin sensor to decide where to take the sample if possible.
[see https://www.nj.gov/dep/wms/download/NJWMC_05-26-21_Agenda_fnl.pdf for presentation]
 - **HABs Update** (Vic Poretti, NJDEP/DWMS) – Vic summarized information from the current HABs season and the new instrumentation and sampling efforts for 2021 including continuous monitoring buoys; mentioned that the 2021 strategy was released on May 25 and a notice was sent out. There was a suggested to look into other metrics to try to predict or characterize HABs and to look into freezing over and the effect on HAB presence/timing; there was a HAB in Mountain Lake with an unusual community possibly due to colder winter weather this year. A comment to correlate weather data with HAB presence; Meiyen mentioned HABs are consistent through winter and you shouldn't only look at cell count but community and community shifting through the year and dominant taxa. Heather H. suggested prioritizing a meeting to coordinate all HAB sampling activity and efforts.
[see https://www.nj.gov/dep/wms/download/NJWMC_05-26-21_Agenda_fnl.pdf for presentation]
 - **12th Annual National Monitoring Conference Discussion and Shared Experiences**
Leslie received the 2021 Barry A. Long Award, an award that honors an individual who has demonstrated exceptional perseverance, positive spirit, and significant contributions to water resource protection. Congratulations, Leslie! Participants discussed their experiences and presentations. Meiyin Wu (Montclair State U.) attended with several students and shared the 6 projects that were presented. Heather Heckathorn (USGS) attended and discussed downstream production, persistence and potential transport of cyanobacteria and cyanotoxins in the Raritan basin water supply complex, NJ, results could be presented at a future council meeting. Presentations are available via Whova (Contact Heather H. if help is needed). Pam Reilly (USGS) presented on a microbial source tracking project. Sandra LaVigne (GSWA) presented on

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microplastics work in the Passaic River and community outreach, methods used to sample small headwater streams for microplastics, high numbers from areas they were using as control/reference areas. Zoltan attended a groundwater session with interesting concepts put forth, half session about emerging contaminants; summary of pesticide degradant component of groundwater and health risks (seemed to not be adding a lot of risk); gave presentation and recently published a paper on first data set on set of contaminants lead-210 and polonium-210; Lead corresponded to radon. Discussion of groundwater trends, changes in public supply wells when over pumping. Namsoo Suk (DRBC) mentioned that it was difficult to participate completely when in virtual compacity, DRBC made 2 presentations, session for water monitoring in Delaware River Basin, can share presentation when project winds down and results available.

- **Principles of Pollution Source Trackdown** (Bob Schuster, DEP/DWMS) – Bob presented some of the work that Bureau of Marine Water Monitoring has done on pollution source tracking. Sandra LaVigne asked about where you could find information on equipment to use and how to determine which equipment would be best for the sampling efforts needed.
[see https://www.nj.gov/dep/wms/download/NJWMC_05-26-21_Agenda_fnl.pdf for presentation]
- **2018/2020 Web-based Integrated Report – Layout, Capabilities and Use of Community Water Monitoring Data** (Jack Pflaumer, DEP/DWMS) – Jack gave a summary of the work he and his colleagues have done on the new web-based Integrated Report, including a background on the Report, its purpose, data sources, data processing, assessment methods document, 2018/2020 overall assessment, results and long-term trends, and the benefits of a web-based Report.
[see https://www.nj.gov/dep/wms/download/NJWMC_05-26-21_Agenda_fnl.pdf for presentation]

➤ **Session: Using Community Water Monitoring Data for Regulatory Decisions**

- The following organizations gave excellent presentations summarizing their citizen science monitoring programs including location, types of data collected, training programs, tools and instruments used, and what is still needed:
 - *The Watershed Institute* (Erin Stretz)
 - *Musconetcong Watershed Association* (Christa Reeves)
 - *Great Swamp Watershed Association* (Sandra LaVigne)
 - *Raritan Headwaters Association* (Maria Berezin Dowling)
 - *EPA's Equipment Loan Programs* (Emily Nering and Rachael Leta-Graham, EPA R2)[see https://www.nj.gov/dep/wms/download/NJWMC_05-26-21_Agenda_fnl.pdf for presentations]
- **Discussion** – Erin Stretz (The Watershed Institute) mentioned that they are looking to implement more community sampling statewide, the southern are of the state in particular is in need of further community monitoring efforts; also brought up that volunteer samplers want their data to be useful and the sampling audits, volunteer training and standard qapps that are needed/implemented. Heather H – are most samples collected as point samples or cross section of a channel? Sandra Lavigne – most grab samples, not composite, samples taken during both base and storm flow conditions (at least one storm flow per year); Leslie – comments about how impressive the watershed monitoring community has become over the years; what have been the biggest reason for the ability to expand your monitoring programs? Erin Stretz – needed a champion inside the dep and now they have that relationship with the department that was needed to expand community monitoring in the state; Alena – Lean Six Sigma project, Erin and Debbie, DWMS and DSR – enhancing the process by which the dept can receive community water monitoring data that can be used for regulatory purposes, what might it mean for some of the watershed associations part of the council; Erin – re-establishment of trust between community groups and the DEP, opened lines of communication to feel comfortable and establish a good working relationship.