



**FINAL**

# NJ Water Monitoring Council

Measuring What Counts for Clean & Plentiful Water

**February 3, 2021  
MEETING MINUTES**

Member Attendees

**NJDEP** – *DWM&S*: Bob Schuster, Alena Baldwin-Brown, Bruce Friedman, Brian Henning, Vic Poretti, Helen Pang *DWS&G*: Ray Bousenberry, Jeff Hoffman, Catherine Jedrzejczyk *DSR*: Nick Procopio *OQA* – Grey Respanti

**NJDOH** –

**NJDMAVA** – Sarah Helble

**USGS** – Heather Heckathorn, Pam Reilly

**DRBC** – Namsoo Suk, John Yagecic

**EPA R2** – Phil Cocuzza

**IEC** – Evelyn Powers

**NJ Pinelands Commission** – Marilyn Sobel

**NJ Water Supply Authority** – Heather Desko

**Rutgers (Coop Extension Service)** – Lisa Galloway Evrard

**Rutgers (IMCS)** –

**Rutgers (Env. Bioengineering)** –

**Montclair University** – Meiyin Wu

**Monmouth University/Urban Coast Institute** – Jason Adolf, Jim Nickels

**Stockton University** – Christine Thompson

**NJ Sea Grant Consortium** – Pete Rowe

**NY/NJ Baykeeper** – Allison Fitzgerald

**Meadowlands Environmental Research Institute** – Cheryl Yao

**NOAA** –

**Monmouth County Health Dept.** –

**Barnegat Bay Partnership** – Nicole Peterson

**The Watershed Institute** – Erin Stretz

**Musconetcong Watershed Association** – Christa Reeves

**Raritan Headwaters Association** – Kristi MacDonald

**Great Swamp Watershed Association** –

**American Littoral Society** –

**NJ Harbor Dischargers** – Greg Alber

**Brick Township MUA** – Rob Karl, Will Ruocco

**Member Emeritus** – Leslie McGeorge, Bob Reiser

Guest Speakers/Discussion Leaders

Amie Brady – USGS OH-IN-KY WSC

Steve Domber – DEP DWSG

Roop Guha – DEP DWMS

Melissa Hornsby – DEP OQA

Susan Rosenwinkel – DEP DWQ

Erin Stelzer - USGS OH-IN-KY WSC

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- **Council Business** (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 09/23/20 Council meeting were approved as presented.
- The next meeting will be May 26, as a virtual Teams meeting. The topics recommended by the Council for this meeting are CECs (including 1, 4 dioxane), use of citizen science data for regulatory decision making, and HABs. The Council Steering Committee will discuss these and decide which topic to pursue.

## Information Updates, Presentations and Announcements:

### 1. *Information Updates and Announcements*

#### Member Updates

- Bob Reiser (USGS Co-chair) and Nancy Lawler (MWA) both retired on December 31, 2020. The Council welcomed Heather Heckathorn as the new USGS Co-chair and Christa Reeves as the new MWA representative. The Council also welcomed Zoltan Szabo (additional rep from USGS). In addition, the Council established a new **Member Emeritus** category for long time members who have retired, who attended at least 1 meeting/year while they were still working and are interested in continuing to attend Council meetings now that they are retired. Inaugural members are: Leslie McGeorge, Bob Reiser, Tom Imbrigotta and Jack Gibs.

#### Announcements

- Bob Schuster reminded attendees that the National Water Monitoring Conference, scheduled for the week of April 19, is now virtual. Council members who have submitted ideas for sessions and/or abstracts for presentations include: USGS (PFAS monitoring in groundwater, HABs/cyanotoxins, and downstream transport of HABs in the Raritan River); DRBC (water resource management of shared waters, and modeling on DO dynamics in the Delaware Estuary); IEC (monitoring partnerships in the NY/NJ Harbor); and The Watershed Institute (part of the 5K run planning committee). Additional information on the Conference is available at: [https://www.nalms.org/2021nmc/?utm\\_source=Master+List&utm\\_campaign=fe234fcece-NMC+Call+for+abstracts+20200921+COPY+01&utm\\_medium=email&utm\\_term=0\\_caeffd9c94-fe234fcece-184898553](https://www.nalms.org/2021nmc/?utm_source=Master+List&utm_campaign=fe234fcece-NMC+Call+for+abstracts+20200921+COPY+01&utm_medium=email&utm_term=0_caeffd9c94-fe234fcece-184898553).
- Bruce Friedman announced the reorganization that has taken place between DEP's Water Resource Management and Watershed and Land Management areas. Several programs that were previously with WRM have now transferred to WLM including the Water Quality Restoration Grants (319h), Stewardship, Water Quality Management Planning and Stormwater programs.
- Bruce Friedman also announced the upcoming virtual 2021 HAB Summit, scheduled for March 8. The intent is to share information, updates and progress related to HAB science, monitoring, response, management, treatment and communication. Registration information is expected to be available shortly [NOTE: the Summit was held with 250 stakeholders representing government, lake and other environmental commissions, watershed associations environmental nonprofits, businesses, academics, lakes managers, HAB treatment experts and others. Presentations and other materials are available at: <https://www.nj.gov/dep/hab/summit.html>].
- Alena Baldwin-Brown provided an update regarding the enhancement of the NJWMC website, which was expected to go "live" shortly after the meeting. Council members are encouraged to continue to send photos for inclusion, now or in the future [NOTE: the website went "live" on February 16].
- Leslie McGeorge and Alena Baldwin-Brown shared a thank you and (virtually) presented a Certificate of Appreciation to outgoing USGS Co-chair Bob Reiser for all his work on behalf of the Council.

## *Presentations:*

- A. **2020 HABs Season Review** – Vic Poretti (DEP/DWMS) summarized information from the 2020 HABs season including website and communications enhancements, the new interactive mapping system, development of a new Winter Watch sign, advancements with meter acquisition and partnering, continuous monitoring, as well as a HAB event summary and comparison to previous seasons. [see [https://www.nj.gov/dep/wms/download/NJWMC\\_02-03-21\\_Agenda\\_final.pdf](https://www.nj.gov/dep/wms/download/NJWMC_02-03-21_Agenda_final.pdf) for presentation]

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## **Session – Uses of Continuous Monitoring Data**

- A. ***Types and Uses of Continuous Monitoring*** – Bob Schuster (DEP/DWMS) shared the various types of continuous monitoring that are currently available as well as various uses for the data and information that is generated, including both regulatory and non-regulatory applications. [see [https://www.nj.gov/dep/wms/download/NJWMC\\_02-03-21\\_Agenda\\_final.pdf](https://www.nj.gov/dep/wms/download/NJWMC_02-03-21_Agenda_final.pdf) for presentation]
- B. ***DEP QAPPs and Certifications*** – Melissa Hornsby (DEP/OQA) provided information on QAPPs – what they are, why they're important, what they should include, keys to executing a successful QAPP, as well as DEP resources for QAPP-related questions. [see [https://www.nj.gov/dep/wms/download/NJWMC\\_02-03-21\\_Agenda\\_final.pdf](https://www.nj.gov/dep/wms/download/NJWMC_02-03-21_Agenda_final.pdf) for presentation]
- C. ***DRBC Dashboards, Assessments and Models*** – John Yagecic (DRBC) summarized how DRBC uses continuous real-time data for various dashboards (water quality, flow, upper Delaware temperature, ground water surface elevation trends), models (Delaware Estuary 1D hydrodynamic, basin wide rapid dilution) and assessments (end-of-year, episodic). [see [https://www.nj.gov/dep/wms/download/NJWMC\\_02-03-21\\_Agenda\\_final.pdf](https://www.nj.gov/dep/wms/download/NJWMC_02-03-21_Agenda_final.pdf) for presentation]
- D. ***USGS Ohio Water Microbiology Current Research: Nowcasting, Cyanobacterial HABs and Environmental DNA*** – Amie Brady and Erin Stelzer (USGS/OH-IN-KY WSC) shared the capabilities of the Ohio Water Microbiology laboratory including equipment and capabilities such as culture and molecular methods as well as microbial source tracking, They also provided a brief update regarding Nowcasting and how it is being used in the Great Lakes to measure bacteria (E.coli) in near real-time to determine water quality at recreational lake beaches. In addition, they summarized the CyanoHABs testing methods and research applications that were currently underway including occurrence and distribution, recreational and drinking water source waters modeling, satellite ground truthing, and novel research in Mammoth Cave State Park. Finally, they shared information regarding current eDNA studies using mussels, macroinvertebrates and Asian carp as well as applications including rare species detection, invasive species tracking and biological surveys.
- E. ***Passaic River Nitrate Monitoring*** – Steve Domber (DEP/DWSG) and Susan Rosenwinkel (DEP/DWQ) provided a summary of how the DEP used continuous real-time monitoring to investigate the increase in nitrate + nitrite observed in the Passaic River in 2017, what the data revealed, and actions taken as a result. [see [https://www.nj.gov/dep/wms/download/NJWMC\\_02-03-21\\_Agenda\\_final.pdf](https://www.nj.gov/dep/wms/download/NJWMC_02-03-21_Agenda_final.pdf) for presentation]
- F. ***Regional Drinking Water Supply Indicators*** – Steve Domber (DEP/DWSG) discussed how the DEP Division of Water Supply and Geoscience characterizes drought as well as how it uses real-time hydrologic conditions in each region of the state to monitor water supply conditions and calculate indicators of relative dryness, including drought. [see [https://www.nj.gov/dep/wms/download/NJWMC\\_02-03-21\\_Agenda\\_final.pdf](https://www.nj.gov/dep/wms/download/NJWMC_02-03-21_Agenda_final.pdf) for presentation]
- G. ***Use of Continuous Monitoring for Water Quality Assessment*** – Roop Guha (DEP/DWMS) shared the various uses of continuous monitoring within the DEP, with a particular focus on how continuous monitoring data are used for and/or incorporated into the department's water quality assessment including development of the NJ Integrated Water Quality Assessment Report. [see [https://www.nj.gov/dep/wms/download/NJWMC\\_02-03-21\\_Agenda\\_final.pdf](https://www.nj.gov/dep/wms/download/NJWMC_02-03-21_Agenda_final.pdf) for presentation]

### ➤ **Topic for Next Meeting**

TBD at Steering Committee meeting

### ➤ **Next Meeting**

May 26, 2021 - virtual Teams Meeting

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## Continuous Monitoring-Related Discussion Session Issues/Ideas

- Need for more attention related to consistency in review and quality assurance related to continuous data
- Need for ways to submit data for screening purposes from Community Water Monitoring groups that are interested in participating in continuous monitoring
  - DEP's Bureau of Marine Water Monitoring (BWMM) is willing to assist groups that are considering developing and/or expanding continuous monitoring capabilities
- EcoSheds (<https://ecosheds.org/>) may also be an additional resource to upload/share continuous data
- All groups are encouraged to prepare QAPPS even if the data are not planned for regulatory use. Groups that have questions regarding QAPPS are encouraged to reach out to DEP's Office of Quality Assurance (Melissa Hornsby – [Melissa.hornsby@dep.nj.gov](mailto:Melissa.hornsby@dep.nj.gov))
- Both BFBM and BMWM have their QAPPS on their websites (BFBM - <https://www.state.nj.us/dep/wms/bfbm/index.html>; BMWM - <https://www.state.nj.us/dep/wms/bmw/index.html>) for any groups that would like to use them as models
- EPA's Office of Water also has an internal national workgroup that is working on gathering continuous monitoring QAPPS; anyone interested in sharing theirs should email Esther Nelson at [nelson.esther@epa.gov](mailto:nelson.esther@epa.gov))
- Monmouth University has students that would be available to assist with summer-related sampling efforts