



Delaware River Basin Commission

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Steven J. Tambini, P.E.
Executive Director

Minutes
Water Quality Advisory Committee
May 18, 2022

Members & Alternates:

NYS DEC

Sarah Rickard

EPA

Greg Voigt
Wayne Jackson

NJDEP

Frank Klapinski

Environmental

Maya van Rossum (DRN)

Regulated Community Industrial

Lisa Pfeifer (Pepco Holdings)

National Park Service

Peter Sharpe

DNREC

Bhanu Paudel

PADEP

Josh Lookenbill

Academia/Science

Not Present

Local Watershed Organizations

Not Present

Regulated Community Municipal

Bryan Lennon (PWD)

Other Attendees:

Steve Tambini (DRBC)
John Yagecic (DRBC)
Namsoo Suk (DRBC)
Fanghui Chen (DRBC)
Amy Shallcross (DRBC)
Bailey Adams (DRBC)
Beth Brown (DRBC)
Chad Pindar (DRBC)
Michael Thompson (DRBC)
Jake Bransky (DRBC)
Elaine Panuccio (DRBC)
Pam Bush (DRBC)
Sarah Beganskas (DRBC)
Kevin Pregent (DRBC)
Elba Deck (DRBC)
Kristen Bowman Kavanagh (DRBC)
Li Zheng (DRBC)
Tom Amidon (DRBC)
Jay Cruz (PWD)
Scott Krasner (PWD)
Paula Kulis (CDM Smith)
Tom Schevtchuk (CDM Smith)
Kinman Leung (PWD)

Garret Kratina (PAFBC)
Biswarup Guha (NJDEP)
Susan Rosenwinkle (NJDEP)
Helen Pang (NJDEP)
Jean Malafronte (ANDRIS Consulting)
Marco Alebus (NJDEP)
Steve Seeberger (NJDEP)
Leslie McGeorge (retired from NJDEP)
Scott Northey (Chemours)
Eloise Gibby (Greeley and Hansen)
Josh Ferguson (Greeley and Hansen)
Ken Warren (Warren Environmental Counsel)
Charles Hurst (DELCORA)
Chris Ferdik (HRG)
Christa Reeves (Musconetcong Watershed Assoc.)
Eliot Meyer (Hazen and Sawyer)
Verna Harrison (Verna Harrison Associates)
Eileen Murphy (NJ Audubon)
Meg McGuire (Delaware Currents)
Preston Luitweiler (WRADRB)
Michael Dillon (Manko, Gold, Katcher & Fox)
Eileen Althouse (CDM Smith)
Steve Jandoli (American Littoral Society)

Kuo-Liang Lai (EPA)	Kurt Cheng (PDE)
Denise Hakowski (EPA)	Erik Silldorff (DRN)
Gregory Wacik (USACE)	Therese Wilkerson (DRN)
Irene Fitzgerald (DELCORA)	B. Boylan
Colleen Walters (River Network)	James Ray
Melanie Murphy (PWD)	Nick Pagon

Welcome and Call to Order

The meeting was called to order by Dr. Namsoo Suk of DRBC at approximately 9:35AM. Voting members were asked to introduce themselves.

Review of WQAC Minutes from April 27, 2022

Draft minutes from the April 27, 2022 meeting were distributed the previous day for review and comment. Minor corrections were recommended and made in real-time. Frank Klapinski made a motion to accept the corrected minutes. Jay Cruz seconded the motion. Members approved the minutes unanimously. The approved April 27, 2022 minutes are posted on the DRBC web site at <https://www.nj.gov/drbc/library/documents/WQAC/042722/minutes.pdf>

Election of Chair

John Yagecic indicated that the chair position was open and asked for nominations for chair. Frank Klapinski nominated Jay Cruz from Philadelphia Water Department. Jay indicated that he was available to serve as chair. Peter Sharpe made a motion to elect Jay Cruz as the chair. Frank Klapinski 2nded the motion. Members voted unanimously to approve Jay Cruz as the chair.

Maya van Rossum asked about election of the vice chair and noted that in the past, the vice chair was next in line to be chair. Yagecic noted that the WQAC had not elected a vice chair in several years. Maya van Rossum questioned whether the rules of the WQAC required election of vice chair. Mr. Yagecic said he would check the resolutions and report back next meeting.

Analysis of Attainability

Thomas Amidon and Sarah Beganskas presented a status update on the Analysis of Attainability for aquatic life use. The full presentation is posted on the DRBC web page at https://www.nj.gov/drbc/library/documents/WQAC/051822/amidon-beganskas_analysis-attainability-method.pdf

The purpose of the Analysis of Attainability, Mr. Amidon stated, is to determine how much the dissolved oxygen (DO) condition could be improved, and that DRBC would determine the Highest Attainable Dissolved Oxygen (HADO) condition. He reviewed the core modeling elements of the Analysis of Attainability (design condition, test scenarios, and metrics) and subsequent elements for future discussion. Design condition will be based on the hydrology and climate from the year 2012, which presented the most critical conditions over the last 10 years. Mr. Amidon described in general terms the anticipated test scenarios for evaluating pollutant reduction scenarios and characterizing DO sensitivity to sources, as well as the types of metrics that will be used to compare dissolved oxygen condition amongst test scenarios.

Dr. Sarah Beganskas described one of the metrics under development, namely a DO stress index. The purpose of the DO stress index is to quantify and compare the frequency, magnitude and duration of predicted low dissolved oxygen events amongst test scenarios. The stress index would equate 1 stress unit to a DO deficit of 1 mg/L below a threshold for 4 hours during the critical propagation period from May 1 to October 15.

Jay Cruz asked if the same stress index approach could be applied to observed data. Mr. Amidon indicated that an effort to do so was under development. Frank Klapinski asked if the Model Expert Panel had weighed in on the stress index approach. Mr. Amidon noted that coordination with the Model Expert Panel was ongoing, including development and refinement of the stress index. Bryan Lennon asked about adding weighting factors to the stress index, and Erik Silldorff noted that 3 mg/L is more stressful than 4 mg/L so some level of weighting factor would be necessary. Paula Kulis asked what model input conditions were in these analyses. Biswarup Guha asked for a written explanation of the concept. Jay Cruz wondered if results could be produced using DO saturation as a benchmark. Mr. Amidon expressed appreciation for the feedback.

Petition to EPA

Greg Voigt of EPA noted that EPA had received a petition regarding the aquatic life designated use and dissolved oxygen. The petition was submitted on April 29, 2022 and signed by Delaware Riverkeeper Network, PennFuture, Penn Environment, Environment New Jersey, and Clean Air Council. The petition asked EPA to proceed with rulemaking on propagation as the designated use and associated new DO criteria. Mr. Voigt indicated that EPA is reviewing the petition. Maya van Rossum indicated that the petition was submitted because DRBC has not made this project a priority.

Later in the meeting, Steve Tambini disagreed that DRBC had not made the aquatic life use project a priority. He emphasized that the aquatic life use project has been a priority project in DRBC since the adoption of the Resolution 2017-4.

Draft Socio-Economic Study

John Yagecic presented results of draft study on the socio-economic factors affecting the attainment of aquatic life uses in the Delaware River Estuary. The presentation is posted on the DRBC web site at https://www.nj.gov/drbc/library/documents/WQAC/051822/yagecic_socio-economic-eval_update.pdf

The Socio-Economic study was called for in Resolution 2017-04 and is part of the Analysis of Attainability. The resolution cited 40 CFR 131.10(g)(1)-(6) which is the Clean Water Act section describing Use Attainability Analysis (UAA) requirements. Yagecic explained that DRBC was not seeking to remove a use but using that template to perform the socio-economic study and communicate the results. The study utilized primarily the “Proposed 2022 Clean Water Act Financial Capability Assessment” Guidance published by EPA in February 2022 and “Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector” published in April 2019 by the American Water Works Association (AWWA) and others. Yagecic noted that the EPA guidance had changed between 2021 and 2022. Jay Cruz noted that among water utilities there was dissatisfaction with the 2022 guidance and that it had excluded important metrics that were part of the 2021 guidance. Mr. Yagecic indicated that DRBC would go back and consider the excluded 2021 metrics. Mr. Yagecic also noted that the Census

Bureau's American Community Survey was updated to include 2020 and the onset of covid-19. DRBC was using this more current data set.

Mr. Yagecic noted that presented results were draft and the known changes were underway. Mr. Yagecic described mapping census tracts to wastewater service areas and presented metrics including the household affordability score, residential indicator, several utility metrics, and comparisons of unemployment rate and median household incomes to the national average. Yagecic described the process of estimating the residential and non-residential sewage flow and coordination meetings held with Wilmington, DELCORA, and Trenton. Meetings had also been scheduled but not yet held with PWD and CCMUA. Next steps would include preparation of the draft technical report and a possible all-utilities meeting.

Biswarup Guha asked if DRBC had an anticipated year that wastewater treatment upgrades would be completed and an associated population estimate at that year. Mr. Yagecic indicated that DRBC did not have estimates of either the upgrade completion year or population change at that year. Leslie McGeorge asked how the report would factor in ongoing periodic water and wastewater rate hikes. Mr. Yagecic indicated that the report represented a snapshot at the time it was developed. There was additional discussion about whether the 2021 or 2022 EPA guidance document represented the best current approach. Charles Hurst of DELCORA asked how the Commissioners would use this report. Mr. Yagecic indicated that DRBC staff had discussed adding staff recommendations but admitted that the Commissioners would make their own deliberations. Tom Schevtchuk of CDM Smith noted that projected future capital costs for CSO control should be considered and that property tax considerations were not appropriate for authorities and others using rate-based revenue bonds.

Recreational Use Status

John Yagecic presented an update on recreational uses. The full presentation is posted on the DRBC website at

https://www.nj.gov/drbc/library/documents/WQAC/051822/yagecic_recreational-use_update.pdf

During summer 2022, DRBC will add microbial source tracking (MST) to its existing bacterial monitoring. MST monitoring can differentiate bacteria originating from human, dog, deer, cow, horse, and Canada goose sources. DRBC will target three wet-weather and three dry-weather sampling events and monitor the same 9 shore-based sites monitored for standard bacterial analysis. Standard shore-based monitoring and boat run monitoring will continue in 2022.

Mr. Yagecic recounted activity at the WQAC regarding recreational uses since 2018 and noted that it did not appear that a consensus was developing. DRBC convened a group of coregulators from EPA, NJDEP, PADEP, DNREC and DRBC who met periodically throughout 2021 and 2022. The coregulators share a combined long-term goal of designating primary contact recreation as the applicable recreation use for Zones 3 and upper Zone 4 of the Delaware Estuary. They outlined a series of near-term and long-term activities including:

Near Term Activities (5 years)

- Assess whether existing criteria are protective of primary contact recreation in Zone 2 and lower Zone 4- Zone 6. If necessary, establish new criteria that are protective of the primary contact designated use.

- Assess guidance on primary and secondary contact recreation according to activity and location as it would apply to Zones 3 and upper 4 of the Delaware Estuary.
- Continue data collection to define which areas are more or less likely to support primary contact recreation.
- Continue data collection to differentiate proportions of human-derived versus animal-derived bacteria especially during dry weather.
- Evaluate the duration of bacteria exceedances and relationship to wet weather.
- Develop bacteria models that simulate current and projected bacteria loads.
- Evaluate hazard report developed by PWD and other stakeholders.
- Explore and evaluate hazard mitigation and risk reduction recommendations for recreational use in this area.
- Review and consider results of the University of Pennsylvania Water Center Study.
- Evaluate performance of the Fluidion® (near real-time) bacterial monitors deployed by USGS at sites in the Delaware Estuary.
- Assess whether existing criteria are protective of secondary contact recreation in Zones 3 and upper Zone 4. If necessary, establish new criteria that are protective of the secondary contact designated use.
- Continue and/or enhance CSO permit oversight, enforcement and compliance assistance
 - a. Use existing regulatory and enforcement tools to ensure implementation of LTCPs .
 - b. Forecast post-LTCP water quality conditions.
 - c. Identify funding opportunities for CSO infrastructure upgrades.

Long Term Activities (+ 5 years)

- Upon completion of the above Near-Term Activities and where the data and evaluation support it, the DRBC would recommend site-specific locations and conditions for rulemaking to revise the designated use to primary recreation.
- As appropriate, evaluate the positive impacts of green and gray infrastructure on bacterial water quality given the ongoing execution of CSO Long Term Control Plans (LTCPs) and wet weather flow treatment enhancements.
- As major CSO controls are implemented and at conclusion of CSO LTCP implementation, assess CSO permittee sampling plans and results of CSO Post Construction Compliance Monitoring to verify compliance with water quality standards and protection of designated uses as well as to ascertain the effectiveness of CSO controls.

Maya van Rossum asked about the hazard study. Kelly Anderson indicated that PWD was working with the Maritime Exchange, Army Corps of Engineers, NJ State police, and Coast Guard on the hazard study. Ms. van Rossum asked for detailed time-lines and responsibilities for the near and long-term activities to create some level of enforceability. Mr. Yagecic indicated that he would take that question back to the coregulators and report back at a future meeting.

Adjournment

The meeting was adjourned at approximately 12:35 PM.