



Delaware River Basin Commission

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Kristen Bowman Kavanagh, P.E.
Executive Director

Minutes Water Quality Advisory Committee April 23, 2024

Members & Alternates:

NYS DEC

Sarah Rickard

EPA

Greg Voigt

NJDEP

Frank Klapinski

Environmental Professional

Maya van Rossum

Regulated Community Industrial

Lisa Pfeifer (Pepco Holdings)

National Park Service

Peter Sharpe

DNREC

Bhanu Paudel

PADEP

Josh Lookenbill

Academia/Science

John Jackson

Local Watershed Organizations

Erin Landis

Regulated Community Municipal

Jay Cruz (PWD)

Other Attendees:

Mike Heller (DRBC)

Sarah Beganskas (DRBC)

Elba Deck (DRBC)

Elaine Panuccio (DRBC)

John Yagecic (DRBC)

Namsu Suk (DRBC)

Chad Pindar (DRBC)

Jeremy Conkle (DRBC)

Amy Shallcross (DRBC)

Kate Schmidt (DRBC)

Pam Bush (DRBC)

Kristen Bowman Kavanagh (DRBC)

Chris Main (DNREC)

Wayne Jackson (EPA)

Thomas Amidon (DRBC)

Fanghui Chen (DRBC)

James Ray (EPA)

Kevin Pregent (DRBC)

Jessica Martinsen (EPA3)

Kelly Anderson (PWD)

Garret Kratina (PAFBC)

Kuo-Liang Lai (EPA)

Nicole Lick (EPA)

Kristen Schlauderaff (PADEP)

Erik Silldorff (DRN)

Ben Lorson (PA Fish & Boat)

Helen Pang (NJDEP)

Stephen Seeberger (NJDEP)

Bill Brown (PADEP)

Sheila Eyler (USFWS)

Biswarup Guha (NJDEP)

Susan Rosenwinkel (NJDEP)

Marzooq Alebus (NJDEP)

Carol Collier (ANS)

Bryan Lennon (Wilmington)

Maggie Reilly (Aqua)

Abby Jones (Penn Future)

Leslie McGeorge (retired NJDEP)

Meg McGuire (Delaware Currents)

Eileen Althouse (CDM Smith)

Phil Duzinski (PWD)
Ashley Ebrahimi (PWD)
Alex Ridyard (Sage Services)
Andy Thuman (HDR)
Jacob Metch (HDR)
Scott Hinz (LimnoTech)
Paula Kulis (CDM Smith)
Kinman Leung (PWD)
Joseph Boring (GCUA)
Frank Borsuk (EPA)
Scott Schreiber (CCMUA)
Chris McCann (DRBC)
Lilia Pettit (HDR)
Pat Rago (DRBC)
Skelly Holmbeck (WRADRB)
Jonathan Zerbe (Exelon)
Byrne Remphry (TYLin)
Timothy Walsh (GHD)
Michael Miller

Brenda Gotanda (Manko, Gold, Katcher & Fox)
Verna Harrison (Verna Harrison Associates)
Carl DuPoldt (Green Buildings Solutions)
Greg Wacik (USACE)
Jason Fry (CCMUA)
Doug Mauro (Liberty Coke)
Dana Craft (GCUA)
Micah Blate (Hazen & Sawyer)
Tim Dillingham (Littoral Society)
Dalia Ghobrial (City of Trenton)
Kathryn Flynn (EPA2)
Brent Gotsch (NYC DEP)
Nick Pagon (Riverways)
Ramona McCullough (Sci Tek)
Alyssa Lutgen (DRBC)
Taylor Krolik (EPA3)
Rebecca Vicaretti Serrano (Eagle Creek Reservoir)
Louis Kleinman

Welcome and Call to Order

The meeting was called to order by Jay Cruz at approximately 1:05PM. Voting members were asked to introduce themselves.

Election of New Chair

Jay Cruz's term as chair of the WQAC had expired and a new chair was needed. Mr. Cruz nominated Sarah Rickard of NYSDEC as chair, and Peter Sharpe seconded the nomination. Ms. Rickard accepted the nomination. All voted in favor and Ms. Rickard assumed the chair effective immediately and ran the remainder of the meeting.

Meeting Minutes

Minutes from the prior 2 meetings held on November 15, 2022 and March 23, 2023 were previously provided to the group for review and comment.

Frank Klapinski moved that the minutes from November 15, 2022 meeting be approved and Lisa Pfeifer seconded the motion. John Jackson abstained and all others voted in favor and the November 2022 minutes were approved.

Frank Klapinski moved that the minutes from March 23, 2023 meeting be approved and Peter Sharpe seconded the motion. John Jackson abstained and all others voted in favor and the March 2023 minutes were approved.

Water Quality Standards Update

Dr. Jeremy Conkle presented a brief update of DRBC's deliberations regarding updating its water quality standards. Dr. Conkle indicated that DRBC was coordinating with states and EPA and that more information would be provided in future meetings.

Kinman Leung asked if updates to standards would be subjected to a public comment process. Several DRBC staff responded, that yes any update to standards would undergo a full public participation process.

Aquatic Life Designated Use Rulemaking

Dr. Namsoo Suk briefly updated the group on the status of Aquatic Life Designated Use Rulemaking. Slides from that presentation are posted on the DRBC web site at https://www.nj.gov/drbc/library/documents/WQAC/042324/suk_ALDU_RulemakingUpdate.pdf

Dr. Suk relayed the schedule the timeline of events to that point including issuance of the proposed rule by EPA, two public hearings by EPA, and the end of the comment period. Dr. Suk reminded the group that EPA is leading the rulemaking effort.

Dr. Suk updated participants on related activities including a webinar held by PWD in December 2023 regarding a proposed sidestream ammonia removal project which would result in a decrease of effluent ammonia from the PWD Southwest treatment plant of approximately 25%. In addition, DELCORA had withdrawn a previous proposal for an expansion which would have increased their permitted flow from 44 to 70 MGD.

At EPA's request, DRBC had performed three updated model simulation runs of simulation year 2019 reflecting 1) baseline conditions at actual flows, 2) baseline conditions at design flows, and 3) restored conditions at design flows.

Jay Cruz asked if the model scenarios provided to EPA would also be provided to other stakeholders. Greg Voigt indicated that the scenarios would be characterized in the final rule.

Draft Water Quality Assessment Report 2024

John Yagecic presented the results of the draft 2024 Water Quality Assessment Report on behalf of Jake Bransky. Slides from that presentation are posted on the DRBC web site at: https://www.nj.gov/drbc/library/documents/WQAC/042324/yagecic_WQ-Assessment2024.pdf

Mr. Yagecic reminded participants that DRBC's Water Quality Assessment Report compares water quality observations to criteria during a 5-year windows and is prepared each even numbered year. At the beginning of the process, DRBC publishes a methodology describing how the data will be assessed and solicits feedback. Mr. Yagecic reviewed the water quality management zones and the designated uses corresponding to each zone.

Mr. Yagecic then highlighted key assessment results. The Aquatic Life Use, for example, includes assessment against criteria for dissolved oxygen (DO), pH, turbidity, water temperature, total dissolved solids (TDS), alkalinity, toxics, and biological monitoring thresholds. Most criteria were achieved for most parameters, but all parameters had some violations. Detailed assessment results are included in the slides at the link above.

The Public Water Supply use is assessed against criteria for hardness, chlorides, toxic pollutants, and drinking water administrative closures. Again, most criteria were met for most parameters,

with some violations. Mr. Yagecic noted that in 2023, a spill in Zone 2 of the Estuary resulted in precautionary drinking water closures. While intakes were briefly shutdown, drinking water was never tainted and service was not interrupted for customers in the affected area. Therefore, for the Assessment Period, there were no administrative closures to drinking water intakes as a result of water quality issues or violations.

For recreational uses, Mr. Yagecic indicated that there were exceedances of the Enterococcus criteria for Primary Contact recreation in Zone 2, but that all other zones met applicable criteria for Fecal Coliform and Enterococcus.

Mr. Yagecic indicated that the draft Water Quality Assessment Report had been shared with EPA and the basin States for review and comment. Once finalized, the report would be published on the DRBC web site.

Peter Sharpe asked how states determine if shellfish waters were deemed opened or closed. Frank Klapinski responded that states perform intensive monitoring to determine open or closed status for shellfish waters. Frank Klapinski provided a [link](#) to New Jersey's shellfish sanitation program.

Leslie McGeorge observed that biological monitoring impairments were noted in Zones 1C, 1D, and 1E, and wondered if other water quality parameters showed evidence of impairment in those same zones. Ms. McGeorge also asked if results from the current assessment had changed from the previous assessment. Mr. Yagecic indicated that results were similar.

Delaware Estuary Recreational Uses

John Yagecic provided an update on recreational uses in the Delaware Estuary, including regulations, combined sewer overflow (CSO) and ambient data, status of the co-regulator strategy, and plans for upcoming monitoring. Slides from that presentation are posted on the DRBC website at:

https://www.nj.gov/drbc/library/documents/WQAC/042324/yagecic_RecUseUpdates.pdf

The Delaware River has a designated use of "Recreation" for all water quality management zones except for Zone 3 and the upper portion of Zone 4, where the designated use is "Recreation – secondary contact." The "Recreation" designated use includes all water contact sports, while the "Recreation – secondary contact" use pertains to activities where the probability of contact or water ingestion is minimal, including activities such as boating and fishing.

In 2012, EPA released recreational water quality criteria for bacterial indicators of fecal contamination which included nationally recommended criteria for Enterococcus and E. Coli. Options within the new recommended criteria included two different levels of illness rate (32 and 36 illnesses per 1,000 primary contact recreators) and both geometric mean criteria (to be compared to the geometric mean of multiple observations) and statistical threshold value criteria (comparable to individual observations).

Mr. Yagecic reviewed CSO discharge volumes provided by the CSO utilities, showing that the volumes associated with the Philadelphia system were substantially higher than the CSO discharge volumes from all the other utilities discharging CSO water to the Delaware River Estuary combined. Within the Philadelphia CSO system, 90% of all CSO volume is discharged by one third of the CSO outfalls. Mr. Yagecic compared rainfall and CSO volume totals from the Philadelphia system to look for evidence of changes in the ratio of CSO to rainfall volumes since the initiation of Philadelphia's long term CSO control program in 2012. This evaluation suggested a slight decline in the volume of CSO discharge as a percentage of total rainfall over that period. However, a review of long-term ambient bacteria data spanning the period from before the implementation of the Philadelphia long-term CSO control program through the present showed no evidence of decline in ambient concentrations. A review of ambient data by river mile suggested that E. Coli showed elevated concentrations in the vicinity of CSO outfalls, Enterococcus concentrations did not. Both E. Coli and Enterococcus showed some elevation at the upper end of the estuary, suggesting influence from the non-tidal portion of the river.

Mr. Yagecic reviewed the near-shore bacterial monitoring initiated in 2019. A review of that data indicated that Enterococcus, Fecal Coliform, and E. Coli demonstrated substantially higher concentrations from samples collected near-shore than samples collected in the same reaches during the same months from the center channel. A review of near-shore and center-channel turbidity results, however, showed no substantial differences.

Mr. Yagecic reviewed the status of the Co-Regulator strategy initiated in 2021. Of the 12 near-term activities outlined in the strategy, 4 were completed, 7 were in progress, and 1 had not yet been initiated. Long-term activities under the strategy had not been initiated.

Mr. Yagecic also summarized past sampling efforts and outlined planned cooperative sampling with Pennsylvania and New Jersey for summer 2024.

John Jackson expressed concern that regulators were sending mixed messages regarding contact recreation and expressed a desire for more discussion on the progress that has been made so far. In addition, Dr. Jackson recommended that the sequential ties between various near-term actions in the strategy be highlighted, to make clear how one action might lead to the next action and how near-term actions supported long-term actions.

Louis Klein asked if the impact of separate storm sewers (MS4s) was known. Mr. Yagecic indicated that while additional bacterial load from MS4s was expected conceptually, data was scarce. Leslie McGeorge inquired about the performance of microbial source tracking (MST) monitoring. Mr. Yagecic indicated that MST monitoring was performed in 2022, but the results were ambiguous with 98% of the Bacteroides DNA having originated from a host organism other than humans, cows, horses, Canada geese, deer, and dogs and that EPA's lead expert on QPCR analytical techniques had indicated that QPCR was not appropriate for source apportionment. Tim Dillingham noted that the strategy was a list of tasks rather than a comprehensive integrated plan for improving bacterial water quality. Louis Klein stated that recreators don't care about the source of the pollution but instead care about not becoming ill from water recreation. John Jackson asked if any specific local data had been collected documenting illness rates among recreators. Participants were unaware of such data.

Peter Sharpe provided a [link](#) to a real-time bacterial alert system in the Chattahoochee River and noted that the National Park Service (NPS) was exploring this option in other rivers with elevated bacteria levels to help inform the public engaged in boating/swimming/fishing activities.

Chloride Management and Monitoring

Elaine Panuccio presented on chloride management and monitoring in the Delaware River Basin. Slides from that presentation are posted on the DRBC website at https://www.nj.gov/drbc/library/documents/WQAC/042324/panuccio_chlorides_SIFT.pdf

Ms. Panuccio summarized nationwide trends in chloride concentrations in surface water and the conceptual understanding of the sources of elevated chloride in surface water including road deicing. Ms. Panuccio summarized the impacts of elevated surface water chloride on aquatic life and human health. Ms. Panuccio reviewed local trends from both long-term monitoring at Trenton and under DRBC's Special Protection Waters (SPW) program and explained the structure and function of the SPW program.

Ms. Panuccio updated the group on deliberations of DRBC's *Salinity Impacts Freshwater Toxicity* (SIFT) Workgroup. Lessons learned from the SIFT from the experiences of multiple participants included that getting departments of transportation (DOTs) engaged in salt reduction efforts had proved challenging, that concerns about public safety had taken precedent over concerns about water quality among decision-makers, and that where salt reduction programs were in place, those programs were largely voluntary.

Ms. Panuccio summarized previous apparent exceedances of DRBC's chloride criteria in Zone 2. Because apparent Zone 2 exceedances were inferred using measurement of specific conductance and states have historically required direct measurement of the analytical parameter violating criteria, historic apparent violations did not result in inclusion of Zone 2 on state 303d lists. Ms. Panuccio described planned monitoring in Zone 2 which would include direct measurement of chloride for at least 15 consecutive days (including weekends and holidays) which would support future listing decisions.

Leslie McGeorge asked if DRBC knew the proportion of chloride in surface water originating from road deicing and what impact climate change might have on chloride loads. Ms. Panuccio indicated that road deicing was expected to be a substantial portion of the overall load of chloride and that future data collection might help refined estimated proportions. Conceptual discussions at the SIFT and elsewhere have flagged the idea that warming temperatures could potentially reduce the need for road deicing.

Peter Sharpe recommended tracking the amount of salt purchased by DOTs over time. Louis Kleinman asked that if standards for chloride were changed, that the revised standards be shared with interested NGOs. Sarah Rickard provided a [link](#) to the NY salt reduction task force.

Adjournment

John Jackson moved to adjourn the meeting, and Frank Klapinski seconded the motion. All voted in favor and the meeting was adjourned at approximately 3:30 PM.