



## Delaware River Basin Commission

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**Steven J. Tambini, P.E.**  
Executive Director

### Minutes

#### Water Quality Advisory Committee

August 24, 2017

#### Members & Alternates:

##### NYS DEC

Sarah Rickard (remotely)

##### EPA

Kuo-Liang Lai

Brent Gaylord (remotely)

##### NJDEP

Frank Klapinski

Biswarup Guha

##### Environmental

Tracey Carluccio (Delaware Riverkeeper Network)

##### Regulated Community Industrial

Bart Ruitter (Chemours) (remotely)

Chris Conroy (Exelon)

##### DNREC

Dave Wolanski

##### PADEP

Tom Barron

##### Academia/Science

John Jackson

##### Local Watershed Organizations

Abigail Pattishall (Wildlands Conservancy)

##### Regulated Community Municipal

Jay Cruz (PWD)

Bryan Lennon (Wilmington Public Works)

##### National Park Service

Not in Attendance

#### Other Attendees:

Angela McFadden (EPA)

Evelyn MacKnight (EPA)

Wayne Jackson (EPA) (remotely)

Gary Walters (PADEP)

Matt Kundrat (PADEP)

John Yagecic (DRBC)

Namsoo Suk (DRBC)

Li Zheng (DRBC)

Tom Fikslin (DRBC)

Elaine Panuccio (DRBC)

Ron MacGillivray (DRBC)

Greg Cavallo (DRBC)

Steve Tambini (DRBC)

Pam Bush (DRBC)

Angela Padeletti (Partnership for the Delaware Estuary)

Susan Rosenwinkel (NJDEP)

Meg McGuire (Delaware Currents)

Eric Vowinkel (Rutgers University)

Michael Dillon (Manko Gold Katcher & Fox)

Marco Alebus (NJDEP)

Abby Jones (Penn Future) (remotely)

Hernan Quinodoz (DRBC)

Jeff Fischer (USGS)

Jean Malafronte (Greeley and Hansen)

Matt Fritch (PWD)

The meeting commenced at approximately 9:40 AM.

#### Minutes

The group reviewed the minutes from the May 11, 2017 WQAC meeting as amended by e-mail comments from several members. John Jackson moved to approve the minutes.

Abigail Pattishall seconded the motion. The WQAC unanimously approved the amended May 11, 2017 minutes.

### **Expert Panel Summary**

Tom Fikslin presented a summary of the Eutrophication Model Expert Panel Meeting held on July 25 and 26, 2017 including Panel recommendations for next steps. Dr. Fikslin indicated that the next WQAC meeting would include the Eutrophication Model Expert Panel members.

Dr. Fikslin's presentation is available at:

[http://www.nj.gov/drbc/library/documents/WQAC/082417/fikslin\\_expert-panel-summary.pdf](http://www.nj.gov/drbc/library/documents/WQAC/082417/fikslin_expert-panel-summary.pdf)

### **Ambient data assessment follow-up**

John Yagecic presented data assessment follow-ups that were provided to the Expert Panel in July, as tasked during the November 2016 Panel meeting. The group discussed areas of desirable additional data collection including dissolved oxygen at multiple depths and nutrient concentrations outside the main channel. The group discussed whether additional nutrient meters resulting from an EPA challenge competition would be available. Mr. Yagecic gave a brief demonstration of a tool for visualizing longitudinal structure of pairs of estuary nutrient concentrations. That tool is available at:

<https://johnyagecic.shinyapps.io/Overplots/>

Mr. Yagecic's presentation is available at:

[http://www.nj.gov/drbc/library/documents/WQAC/082417/yagecic\\_ambient-data.pdf](http://www.nj.gov/drbc/library/documents/WQAC/082417/yagecic_ambient-data.pdf)

### **Recommendations for additional point discharge monitoring**

John Yagecic presented recommendations for additional point discharge monitoring endorsed by the Expert Panel. The group discussed next steps, notification, and coordination with point discharge facilities.

Members reiterated that DRBC would be providing short notice to dischargers if data collection beginning in January 2018 was anticipated. The group debated whether diel point discharge measurements were warranted.

Members asked whether Quality Assurance Project Plans (QAPPs) would be developed for ambient data collection. Mr. Yagecic indicated that individual QAPPs had been developed for ambient monitoring programs as required by funders and would continue to be developed. Members debated the merits of an umbrella QAPP for all data collection. EPA representatives recommended that a modeling QAPP be developed for the project. Mr. Yagecic indicated that while DRBC routinely develops QAPPs for monitoring, this concept does not fit well with modeling and he was aware of several entities that had attempted and abandoned modeling QAPPs for other projects. EPA agreed to send examples of successfully structured and executed modeling QAPPs.

Several participants expressed concern that monitoring appeared to be focused primarily on point discharges and not on ambient conditions. Mr. Yagecic indicated that this particular presentation focused on assessing point discharge results, but that expanded ambient monitoring as discussed at previous meetings was planned and underway and included:

- The Delaware Estuary water quality monitoring program (Boat Run) had been expanded to year-round monitoring beginning in January 2017 continuing through December, 2019;
- Twice-per-month monitoring at the Delaware at Trenton (largest freshwater inflow) commenced in January 2017 and would continue through December 2019;
- Twice-per-month monitoring at the Schuylkill at Philadelphia (2<sup>nd</sup> largest freshwater inflow) would commence in January 2018;
- DRBC assessed tributary nutrient loads using the USGS SPARROW model and commenced quarterly nutrient monitoring of key tributaries in 2017. In 2018 DRBC will expand the number of tributaries to be monitored and expand the frequency;
- DRBC is contracting with USGS for the deployment of spectral analyzers for continuous nitrate monitoring at the Delaware at Trenton and at Chester beginning in January 2018;
- DRBC continues to coordinate with Philadelphia Water Department, which has performed ambient monitoring, SOD and sediment flux monitoring, and deployed continuous monitors for DO and chlorophyll a;
- DRBC will perform additional primary productivity monitoring in summer 2018.

Mr. Yagecic's presentation is available at:

[http://www.nj.gov/drbc/library/documents/WQAC/082417/yagecic\\_point-source-monitoring.pdf](http://www.nj.gov/drbc/library/documents/WQAC/082417/yagecic_point-source-monitoring.pdf)

### **Ultimate Biochemical Oxygen Demand Results and interpretation**

Namsu Suk presented the results of the Ultimate Biochemical Oxygen Demand analyses of effluent samples from 21 point dischargers performed in 2015 and 2016. Dr. Suk described how the results will inform specification of point source loads in the eutrophication model.

Dr. Suk's presentation is available at:

[http://www.nj.gov/drbc/library/documents/WQAC/082417/suk\\_BOD-data-eval.pdf](http://www.nj.gov/drbc/library/documents/WQAC/082417/suk_BOD-data-eval.pdf)

### **Model Development status**

Namsu Suk presented the development status of the hydrodynamic chassis for the estuary eutrophication model. Dr. Suk indicated that the effort has shifted toward a coarse grid EFDC screening model (away from the previous DYNHYD5 1-D model) to allow for improved linkage to the WASP8 water quality model. In addition, DRBC staff will transfer the CH3D-Z grid to EFDC as a template for the final scale model.

The group discussed incorporation of non-point source loads in the model and specification of tributary loads. The group agreed that more detailed discussions and presentations on these topics would be appropriate at future meetings.

Dr. Suk's presentation is available at:

[http://www.nj.gov/drbc/library/documents/WQAC/082417/suk-zheng\\_model-dev-status.pdf](http://www.nj.gov/drbc/library/documents/WQAC/082417/suk-zheng_model-dev-status.pdf)

### **Status of Aquatic Life Use Resolution**

Tom Fikslin recounted the draft resolution published in February 2017 followed by a public hearing in March 2017.

The draft resolution is available at:

[http://www.state.nj.us/drbc/library/documents/Res\\_EstuaryAquaticLifeUses\\_draft022317.pdf](http://www.state.nj.us/drbc/library/documents/Res_EstuaryAquaticLifeUses_draft022317.pdf)

As of the date of the WQAC meeting (August 24, 2017), the resolution was still under deliberation by the Commissioners.

#### **Water Quality Assessment reports**

John Yagecic indicated that DRBC staff are conferring with their state counterparts on the Draft 305(b) Water Quality Assessment Methodology and would publish it to the DRBC web site in the next month or two. Mr. Yagecic indicated that the draft Water Quality chapter of the Technical Report for the Estuary and Basin (TREB) had been submitted to the Partnership for the Delaware Estuary (PDE). The final version of the TREB should be publicly available soon.

#### **Next WQAC meeting**

Tom Fikslin indicated that the next WQAC meeting would be a half-day meeting with the Expert Panel in December 2017 or January 2018. WQAC members and participants will be notified once a date is confirmed with the Expert Panel.

#### **Adjournment**

The meeting was adjourned at approximately 2:00 PM.