

# Memo

## Ohio River Valley Water Sanitation Commission

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**Since 1948**  
*Improving Water Quality in the  
Ohio River for over 70 Years*

**DATE:** January 20, 2022

**TO:** Technical Committee

Scott Mandirola, Chair	Josh Miller, USCG
Scott Twait, IL	David Pfeifer, USEPA Region 5
Brad Gavin, IN	Jeff Frey, USGS
Katie McKone, KY	<b><u>Ex Officio</u></b>
Melanie Stein, NY	Cheri Budzynski, PIAC
Audrey Rush, OH	Betsy Mallison, Chair, PIACO
Kevin Halloran, PA	Alex Novak, Chair, POTW
Melanie Davenport, VA	Angie Rosser, Chair, WOAC
Erich Emery, USACE	Chris Bobay, Chair, WUAC
	Richard Harrison, Chief Engineer

**SUBJECT:** Announcement of 228<sup>th</sup> Technical Committee Meeting, February 8-9, 2022, Embassy Suites RiverCenter, Covington, KY, and GoToMeeting Virtual

**FROM:** Jason Heath, P.E., BCEE

Scott Mandirola, Technical Committee Chair, wishes to welcome everyone to the 228<sup>th</sup> meeting of the Technical Committee, which will take place at the Embassy Suites RiverCenter, in Covington, KY, or virtually, on Tuesday, February 8, from 1:00-5:00 P.M. (eastern), and on Wednesday, February 9, from 8:30 AM to Noon.

Approximately one week prior to the meetings, Technical Committee members, Commissioners, ORSANCO staff, and registrants will receive an email that includes detailed information and instructions on how to participate in the TEC meeting virtually. Those planning to attend in person can still expect to receive this email. For virtual participation with the TEC meeting, TEC members do not need to register; however, members of the public and other interested parties will be required to register to attend virtually by Monday, February 7th. To register, please visit [www.orsanco.org/registration](http://www.orsanco.org/registration) and submit the registration form. A link to register is also available on [www.orsanco.org](http://www.orsanco.org) under the “News” section.

The Technical Committee meeting will be held in conjunction with the 232<sup>nd</sup> Commission meeting being held on Thursday, February 10, also in-person as well as virtual. Notes on agenda items are as follows:

**Item 1: Minutes of the 227<sup>th</sup> Technical Committee Meeting**

Draft minutes of the 227<sup>th</sup> Technical Committee meeting are attached. Chairman Mandirola will ask TEC members for revisions or approval of the minutes.

**Item 2: Chief Engineer’s Report**

Executive Director Harrison will report on selected items including the ORBA strategic plan abundant clean water objective.

**Item 3: 2022 Biennial Assessment of Ohio River Water Quality Conditions (305b)**

Ryan Argo will be presenting draft 305b use attainment assessments as developed by the Ohio River 305b Coordinators. There were no significant changes to the assessments from the previous reporting cycle. TEC will be asked to endorse the Ohio River assessments as proposed by the Coordinators. Recommendations of the work group will also be presented.

**Item 4: National Weather Service Ohio River Forecast Center Climate Change Analysis for the Ohio River Basin: An Update on the Ohio River Basin Climate Change Hydrology Project 2022**

Mr. Jim Noel with the National Weather Service Ohio River Forecast Center will present its climate change analysis and the predicted effects on stream flows in the Ohio River Basin. The National Weather Service Ohio River Forecast Center working with USACE, USGS, EPA, other federal and local partners delivered the Ohio River Basin Climate Change (ORBCC) project in 2017 which was funded and supported by USACE. The data used for this project included the Coupled Model Intercomparison Project data version 3 (CMIP3). There have been two version updates since then. He will discuss the differences and any impacts since CMIP3 to the Ohio Valley.

**Item 5: Technical Committee Member Roundtable Reports**

TEC members are asked to report on water quality issues of importance to their organization.

**Item 6: Status Update for the Source Water Contaminant Threat Inventory on the Ohio and Allegheny Rivers**

Steve Allgiers with the USEPA, Office of Research and Development in Cincinnati will present this agenda item. In 2017, U.S. EPA launched a project in partnership with ORSANCO and several public water systems that use the Ohio River as a source to develop a comprehensive inventory of source water contamination threats. The inventory includes a segment of the Ohio River, and major tributaries, beginning at the intake for Louisville Water and extending 25 miles upstream of the intake for Huntington WV. In 2020, U.S. EPA extended this inventory to include the Lower Allegheny River, from Pittsburgh to New Kensington. The project is currently in its final year and will conclude on June 30, 2022.

**Item 7: Source Water Protection Program Update**

Sam Dinkins will provide an overview of the ongoing activities associated with the Commission's Source Water Protection and Emergency Response programs. This update will include a status report on the Organics Detection System (ODS) operations and a review of recent spill incident planning and response activities.

**Item 8: Biological Programs Update**

Staff will provide an update on the 2021 biological field season, including results of pool surveys and fish tissue surveys. Plans for the 2022 field season will be discussed, as well as an analysis of PCBs in fish tissue.

**Item 9: Preliminary Results of Ohio River Ambient PFAS Survey**

Two rounds of sampling have been completed at twenty Ohio River sites, and one site each on the Allegheny and Monongahela Rivers, for twenty eight PFAS compounds. Preliminary data to characterize ambient conditions relative to PFASs will be discussed.



**228<sup>th</sup> Technical Committee Meeting  
Embassy Suites RiverCenter  
Covington, Kentucky  
GoToMeeting Virtual  
February 8-9, 2022  
Beginning at 1:00 P.M. (ET)**

**Chair Scott Mandirola, Presiding**

## **TECHNICAL COMMITTEE MEETING AGENDA**

### **CHAIRMAN'S WELCOME AND ROLL CALL (1:00 P.M.)**

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### **ACTION ITEMS AND REPORTS**

1. Action on Minutes of 227<sup>th</sup> Technical Committee Meeting \* – Chair Mandirola
2. Chief Engineer's Report – Director Harrison
3. 2022 Biennial Assessment of Ohio River Water Quality Conditions (305b) \* – Ryan Argo
4. National Weather Service Ohio River Forecast Center Climate Change Analysis for the Ohio River Basin: An Update on the Ohio River Basin Climate Change Hydrology Project 2022 – Jim Noel, NOAA/National Weather Service
5. TEC Member Roundtable Reports

### **ADJOURN/RECONVENE WEDNESDAY AT 8:30 A.M.**

6. Status Update for the Source Water Contamination Threat Inventory on the Ohio and Allegheny Rivers – Steve Allgeier, USEPA
  7. Source Water Protection Program Update – Sam Dinkins
  8. Biological Programs Update – Ryan Argo, Daniel Cleves
  9. Preliminary Results of Ohio River Ambient PFAS Survey – Sam Dinkins, Jason Heath
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### **OTHER BUSINESS**

- Comments by Guests
  - Announcement of Upcoming Meetings
- 

### **ADJOURNMENT (NOON)**

\*Attachment

**MINUTES  
227<sup>th</sup> Meeting of the Technical Committee  
Virtual Meeting  
October 6, 2021**

**Chair Bruno Pigott, Presiding**

**Call to Order**

The 227<sup>th</sup> meeting of the ORSANCO Technical Committee was called to order by Chair Pigott at 8:00 A.M. on Wednesday, October 6, 2021. Seven states, four federal agencies, and five Commission advisory committees were represented (for Roster of Attendance see on page 12). Chair Pigott welcomed all to ORSANCO's virtually-held meeting of the Technical Committee. This meeting was abbreviated to one four-hour day instead of the typical 2 four-hour days, in order to facilitate a virtual field trip of the Shell Polymers petrochemical facility on Tuesday.

**Minutes of 226<sup>th</sup> Committee Meeting**

**ACTION:** Motion passed to accept the minutes of the 226<sup>th</sup> Technical Committee meeting.

**Chief Engineer's Report**

Director Harrison welcomed Melanie Stein as a new proxy Commissioner and TEC member for New York. He reported that this field season has been very productive, particularly in light of COVID, including the PFAS survey, biological monitoring programs, bimonthly/clean metals sampling, bacteria monitoring and HABs surveillance. He reported that Emilee Harmeling was hired as a new staff member to assist with the HABs and other monitoring programs.

Regarding the Ohio River Basin Alliance initiative, he reported that a report is expected to be completed this spring which will be used to launch the initiative to focus federal funding in the Ohio River Basin. He also reported that he is working with KYDEP on the farm bill as relates to source water protection, by trying to capture nutrient reductions achieved through farm bill activities.

**Ohio EPA's First Far-Field Nutrient TMDL (Western Lake Erie Basin)**

Tiffani Kavalec with Ohio EPA gave a presentation on the agencies first far-field nutrient TMDL to address HAB impairments in Western Lake Erie from the Maumee River Basin. The TMDL stakeholder process involves development of a study plan, a biological and water quality report, a loading analysis plan that sets targets for needed pollutant reductions, preliminary modeling results, and a draft TMDL report. The near-field nutrients TMDLs completed or underway in the basin are not sufficient to eliminate HABs impairments in Western Lake Erie.

The Maumee River watershed is located in northwestern Ohio. It drains a total of 5,024 square miles in Ohio and flows through all or part of 18 counties. Major municipalities partially or fully in the watershed include Toledo, Defiance, Findlay, Lima, Van Wert, Napoleon, and Perrysburg. The watershed is predominantly comprised of cultivated crops with some urban development, hay and pasture lands, and forest. The Maumee River is a major tributary to the western Lake Erie basin. A total of 194 HUC12 sub-watersheds compose Ohio's portion of the watershed.

Ninety percent of the Maumee's phosphorus load is estimated to be from unregulated nonpoint sources, so projects aimed at nutrient load reductions will focus on these sources. A number of load projects are currently funded in Ohio's portion of the basin. Additionally, the Maumee Basin extends into Indiana and Michigan. OEPA is currently working on the Loading Analysis Plan phase of the project. They have developed a public website for the project.

### **Ohio River Ambient PFAS Survey**

The Technical Committee was briefed on the status of the Ohio River PFAS monitoring project to characterize ambient levels of PFAS compounds in the Ohio River. Twenty Ohio River sites were selected using a probabilistic design and located outside of any regulatory mixing zones. Two rounds of sampling under different seasonal conditions will be completed. One site each on the Allegheny and Monongahela rivers were also sampled on behalf of the WV Water Research Institute. All sites are sampled using the USGS cross-sectional composited collection methodology. Three sites also include discrete sampling for the purposes of investigating how PFASs may be distributed in the Ohio River water column.

All samples are analyzed for 28 PFASs by a USEPA contract laboratory (Battelle Labs) using a DoD compliant analytical method. Equipment blanks were collected with every sample to identify any contamination. The first round of sampling was completed in June and July. Some broad observations based on the first round of preliminary data are:

- 5 of 28 PFAS were above the laboratory level of quantification (LOQ~ 5 PPT).
  - PFOA (8 sites)
  - HFPO-DA (GenX) (9 sites)
  - PFBA (1 site)
  - PFBS (3 sites)
  - PFPeA (5 sites)
- 12 of 28 PFAS were above the detection level.
- PFOA & GenX had the largest number of samples above LOQ.
- GenX had the highest value (32ppt).
- There were detections of 1 or more PFAS at every site.
- 9 discrete samples collected at 3 sites – in terms of PFAS distribution in the water column, initial results will be better assessed when combined with round two samples.
- Equipment blanks were collected with every sample, and 1 PFAS was detected at <1ppt at each of 2 sites. These are very good blank results.
- 4 sets of replicates all had good agreement.
- Preliminary data is subject to an external review prior to being considered final.
- 2 samples arrived at the lab out of temperature range. We did not repeat those samples based on EPA recommendation.

The second round of sampling began on September 28. Two additional discrete sampling sites were selected with the hopes of obtaining additional information on the distribution of PFASs in the Ohio River water column. Staff hopes to be able to report final QA'd data from both rounds of sampling at the February TEC meeting.

### **Report of the 305b Work Group**

Staff provided an update on the 305b workgroup's review of current assessment methodologies for use in the upcoming 2022 Biennial Report. The workgroup met virtually in August to discuss comments provided by members and approve changes to the methodologies. Most comments and relative changes focused on incorporating USEPA guidance on assessment thresholds for toxic pollutants. This update affects the assessments of the Aquatic Life, Public Water Supply, and Fish Consumption uses, which now include separate thresholds for toxic and conventional pollutants. The Contact Recreation assessment methodology remains under review as workgroup members confirm staff's application of state *E. coli* criteria. West Virginia does not have an *E. coli* standard and has requested that ORSANCO resume collection of fecal coliform data from the stations in their waters; staff are currently assessing the feasibility of this request. Lastly, the workgroup concluded that staff should postpone work towards a Harmful Algal Bloom (HAB) assessment methodology. Instead staff should continue to detail ORSANCO's HAB Management plan and document HAB occurrence in future 305b reports.

### **Member Updates and Interstate Water Quality Issues**

#### ***Illinois***

Scott Twait reported previously that Illinois developed a monitoring plan for sampling PFAS of the finished water at the public water supplies. The Agency began the PFAS sampling in the middle of September 2020.

- 986 out of 1,018 systems (97%) have been sampled.
- 14% of the sampled systems had detections.
- 6% of the sampled systems had detections greater than the Guidance Level.
- The analysis consists of 18 PFAS chemicals.

The Agency has a webpage for PFAS, which can be found on our website:

<https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>

An interactive map showing the community Water Supply Sampling can be found at:

<https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-statewide-investigation-network.aspx>

#### **PFAS Statewide Health Advisory**

- PFNA – 21 ng/L
- PFOS – 14 ng/L
- PFBS – 2,100 ng/L
- PFOA – 2 ng/L
- PFHxS – 140 ng/L
- PFHxA – 560,000 ng/L

Illinois has two water supplies from the Ohio River: Cairo and Rosiclare (ground water under direct influence of surface water). Cairo has a detection of PFOA and PFOS. The PFOS value was 4.0 ng/L, the PFOA value was 3.1 ng/L which was over the Health Advisory number of 2.0 ng/L. Rosiclare has been sampled, but the results are not available yet. Rosiclare is groundwater under the influence of surface water. For those facilities above the Health Advisory, ILEPA is asking them to monitor the finished water for PFAS and determine what can be done to decrease the concentration of PFAS. ILEPA is looking to develop an MCL for PFAS. As part of this effort, USGS is developing an occurrence and prevalence document based on the data collected.

## ***Indiana***

Eileen Hack reported on the following items:

### COVID Update

IDEM returned to the office full time on July, 2021.

### IDEM Water Quality Standards

#### *Metals Rulemaking*

The Environmental Rules Board voted for final adoption of IDEM's metal rulemaking on August 11, 2021. This rule will update Indiana's aquatic life and human health surface water quality criteria for metals and was initiated in 2014. Since the first notice, EPA updated several aquatic life criteria for metals. We are adopting the updated selenium and cadmium (both 2016) aquatic life criteria but not the aluminum criteria (2018). The aluminum criteria will be adopted in a future rulemaking. The final rule must be reviewed and approved by the Attorney General's office, signed by Governor Holcomb, and approved by EPA.

#### *2021 Water Quality Standards Review (aka, Triennial Review)*

IDEM completed a triennial review this year. The public comment period ended May 23, and a public hearing was conducted on May 12 during an Environmental Rules Board hearing. IDEM completed an internal review of priorities to revise and update our rules, and a written record of the review was submitted to USEPA on July 22, 2016.

#### *CSO Wet Weather Limited Use Designation*

Indiana approved a second application for a CSO wet weather limited use designation (Fort Wayne). The CSO wet weather limited use designation suspends the recreational criteria after a qualifying rainfall event in specific stream segments downstream of CSOs for not more than four days after the date the overflow discharge ends.

IDEM is drafting a wet weather limited use subcategory rule that will be presented to IDEM's Environmental Rule Board (ERB) at their November 10, 2021 hearing. Once the ERB approves the rule, IDEM will submit it to EPA for review and approval.

### NPDES Updates

*NPDES WWTF Permits - Industrial Ohio River dischargers 2021:*

Permit renewals received/expected in the remainder of 2021:

- Countrymark Refining and Logistics (October 2021)
- Lawrenceburg Power (submitted September 2021)
- AB Brown Generating Station -Vectren (October 2021)
- FB Culley Generating Station - Newburgh – Vectren (October 2021)
- Indiana Kentucky Electric Corporation-Clifty Creek (November 2021)

### General Permits

- USEPA approved IDEM’s Draft MS4 General Permit. IDEM is addressing public comments and the draft may have to go back to EPA for final approval.
- Coal General Permit is in the draft stage.

### PFAS

#### Sampling PFAS at Community Water Systems

IDEM initiated a project to collect and analyze source and finished water at all non-transient public water systems in May 2021. The first round of sampling is the 133 Indiana community water systems that serve 3300-9999 customers, and is almost complete. So far, no finished water sample has reported a detection of PFAS. Participation in the project is voluntary, and for the first round ~90% of systems participated. IDEM is preparing to move to the second round of sampling and has contacted the 570 community water systems that serve less than 3300 about participating in the project. Our third and final round will include the 86 community water systems that serve greater than 10,000 customers; these systems were sampled as part of the 2012 UCMR 3, between 2013 and 2015. IDEM and Indiana Department of Health (IDOH), who will analyze the water samples, are partnering on this effort. IDOH has received equipment, finalized quality control criteria, and has started analyzing samples.

#### Sampling PFAS in Fish Tissue

Fish tissue has been collected for PFAS for four years, as part of IDEM’s fish tissue monitoring program. Generally, fish tissue samples selected for PFAS analysis are collected during probabilistic monitoring, at sites near potential source areas (e.g., fire training areas). Analyzing the fish tissue samples for PFAS is limited by funding.

- IDEM and IDOH apply the Great Lakes Consortium Best Practice for assessing whether fish consumption advisories are warranted for a waterbody. This Best Practice applies the USEPA RfD of  $2 \times 10^{-5}$  for calculating a lifetime health advisory.

**Table 1. Levels of PFOS in Fish and Corresponding Meal Advice Categories for all Populations**

PFOS in Fish ( $\mu\text{g}/\text{kg}$ )	Meal Frequency
$\leq 10$	Unrestricted
> 10-20	2 meals/week
> 20-50	1 meal/week
> 50-200	1 meal/month
> 200	DO NOT EAT

- After results from the 2018 sampling season were reported, IDOH posted two fish consumption advisories based on PFOS fish tissue results: a “do not eat advisory (fish tissue sample  $>200 \mu\text{g}/\text{kg}$  in fillet and  $>700 \mu\text{g}/\text{kg}$  in whole fish from sampling conducted near a former DoD fire training area; and “one meal per month advisory ( $56 \mu\text{g}/\text{kg}$ )” based on a fish tissue result collected near paper manufacturing facilities).
- IDEM collected fish tissue samples for PFAS analysis from tributaries of the Ohio River in 2020, including Tanners Creek, Laughery Creek, Silver Creek, Indian Creek, and Anderson River. Results are preliminary and will be shared at the next ORSANCO TEC meeting.
- Fish tissue sampling will take place in the West Fork and Lower White River Basin as well as the Patoka River basin in 2021.

## IDEM Assessment and Monitoring

- Supplemental Clean Water 106 Grant: IDEM has been awarded \$83,000 in Supplemental Clean Water Act 106 funding to work with ORSANCO for additional fish tissue monitoring in five of the six navigation pools adjacent to Indiana's boarder. This monitoring will augment ORSANCO's existing fish tissue data set with additional sampling that includes two trophic feeding guild levels (TL3 and TL4) analyzed for Methylmercury and PCBs. The purpose is to provide IDEM a more robust dataset for making CWA 305(b) assessments, particularly with regard to PCBs. Previous assessments for PCBs have relied on water samples. By providing fish tissue data, this project will allow a more direct measure of fish consumption use support. This project will also include additional analyses for PFAS, which will provide the initial results needed to begin evaluating the current concentrations of PFAS in mainstem Ohio River fish. ORSANCO will conduct all the monitoring for this project over a five-year period (2021-2024) coinciding with its regular monitoring schedule for fish tissue.
- Program development:
  - a. IDEM worked with U.S. EPA Region 5 and Tetra Tech to develop a Diatom Index of Biotic Integrity for rivers and streams, which is in final draft for review.
  - b. IDEM initiated the Coolwater Index of Biotic Integrity (IBI) project with U.S. EPA Region 5 and Tetra Tech to revise the biological indices for coolwater streams. In April 2021, IDEM began deploying temperature loggers at 90 sites statewide for a two-year duration. Over that two-year period, IDEM will collect macroinvertebrates and fish at least once, and water chemistry sampling three times. IDEM will have 45 additional sites for water chemistry and biological sampling in 2021 and 2022.

## ***Kentucky***

Katie McKone reported the following:

- Had a final meeting on the Generic Groundwater Protection Plan for the Oil & Gas industry. The GPP is now ready for Public Notice.

## Water Quality Branch

- 60-day comment period closed on August 3 for the combined 2018/2020 303(d) impaired waters list.
- Working on steps for final submittal of the 2018/2020 Integrated Report to congress
- Received EPA's Floyds Fork LSPC/WASP nutrient model
- Continue to work on assessments for the 2022 Integrated Report, where we will be updating assessments to the Ohio River, where appropriate

## Surface Water Permits Branch

- Our Surface Water Permits Branch continues to develop a KPDES permitting strategy for nutrient optimization for POTWs
- They are also exploring the possibility of addressing nutrients via the MS4 program.

## Water Resources Branch

- Bullock Pen: Dam work is complete and spillway is operational. Serves as primary drinking water source for Bullock Pen Water District
- DOW is participating in FEMA Hazard Mitigation Grant Program (HMGP) briefings related to the two federally declared disasters from earlier this year – one for the ice storm and the other for the March flooding.
  - Permit decisions issued for 177 of 177 flood damage applications received to date from the March Flooding events.

### Watershed Management Branch

- Updated 319(h)/NPS Grant Guidance for FY22 cycle and submitted EPA-required reporting
- Ag Water Quality Planning Tool in development

### Water Infrastructure Branch

- The 2021 Drinking Water Infrastructure Needs Survey Assessment (DWINSA) is under way, which will end in October.
- The Draft 2022 Clean Water and Drinking Water State Revolving Fund IUP's are available for public review and comment from September 22, 2021 through October 22, 2021.
- The Cleaner Water Grant Program Call for Projects began June 1, 2021. Funded by the American Rescue Plan Act and administered by the Kentucky Infrastructure Authority (KIA), \$250 million has been appropriated for clean drinking water and wastewater grants to fund projects across Kentucky.
  - Information about both can be found at <https://kia.ky.gov/Pages/index.aspx>

### ***New York***

Melanie Stein reported that New York just released for public comment, water quality guidance values for PFOA, PFOS, and 1,4-Dioxane, which are more stringent than currently adopted MCLs. The agency will be limiting phosphorus at a large cheese manufacturing facility which will reduce loadings to the Allegheny Basin. She reported that New York is also working on new phosphorus guidance that would apply to a greater number of facilities.

### ***Ohio***

Audrey Rush reported on the following items:

### Staff

The Division of Surface Water has been reorganized as follows:

Brian Hall, Assistant Division Chief retired effective Aug 31, 2021.

Archie Lunsey, Assistant Chief - Standards, Monitoring and Assessment, and Stormwater

David Emerman is Assistant Chief - PTI, Biosolids, Compliance, 401, and Enforcement

NPDES, nonpoint source, IT, and fiscal report to Tiffani Kavalec, Chief

Chris Skalski retired.

### Surveys

Continued Large River Survey in 2021. Finishing up fish and fish tissue sampling.

Planned large river survey sampling includes the Scioto, Hocking, Tuscarawas, Mahoning, Sandy Creek, Mohican, Walhonding, Killbuck, Wills Creek, Olentangy, Big Darby Creek, Salt Creek, Paint Creek, and Raccoon Creek.

Planning targeted basin surveys for 2022.

### Rules

1. Beneficial Use Designations – Wave 2 [3745-1-09, -16, -17, -21]
  - a. Scioto, SE Ohio Tribs,
  - b. SW Ohio Tribs,
  - c. Great Miami RiverInterested Party Review (IPR) began 06/07/21 – comment period ended 7/7/2021, extended to August 6. Comments from two parties received. Preparing proposed rule signoff package.
2. Beneficial Use Designations – 2020 [3745-1-08, -15, -18, -22].

Updates to four basin rules (Hocking, Little Beaver, Little Miami, Chagrin) IPR in sign off.

3. Biocriteria Narrative (new rule– 3745-2-03), and Use Designations and Biological Criteria 3745-1-07 – the implementation piece for NPDES that was formerly in -07 has been moved to a new NPDES rule. Clarifies when biocriteria can be used in permit decisions. IPR began 5/19/2021, comment period ended 6/18/2021. Comments received from 10 parties. Working on response to comments.
4. Definitions and Analytical Methods, References 3745-1-02, -03. ESO began 5/24/21. Adding ORSANCO biosurvey methods to rule 03.
5. Triennial review – Internal comments ranked, preparing for public distribution.

### ***Pennsylvania***

Kevin Halloran reported on the following:

He invited everyone to reach out to him if there were any questions on the Shell virtual tour. All of their permits can be found on PADEP's website. He reported that USEPA had approved water quality criteria for ammonia, E. coli, and 73 toxic substances, while they are still considering public comments received on manganese. Regarding PFAS, sampling at all public water supplies has been completed, and the data can be found on PADEP's website. Two sites were found to be above health advisory levels. They have proposed draft MCLs for PFOS (18 ng/L) and PFOA (14 ng/L). He thanked Chuck Duritsa for his years of service representing Pennsylvania with ORSANCO.

### ***West Virginia***

Scott Mandirola reported the following:

#### ***Aquatic Life Assessment Rule***

EPA determined that the Procedural rule on how to make assessment decisions would be considered a WQS change. DEP determined that it would withdraw the rule and keep the assessment methodology as a policy, so it has been withdrawn from rulemaking.

#### ***WV PFAS Study update***

USGS has completed all sampling of the 279 PWS, schools and daycare sites and has received data. The QA/QC is being reviewed as it is being received, to date no changes to the initial results have occurred, all data is preliminary until QA/QC is reviewed. The USGS will publish on the USGS Date Release for dissemination of data. (Estimated: Oct. 2021). Complete Publication summarizing the findings of the project (Estimated: July 2022).

- Of the preliminary results received we have 5 sites with levels above the EPA health advisory for PFOA or PFOS.

#### ***WQS Update***

July of this year the DEP filed the WQS rule changes for HH criteria as required by the legislature in 2021, with the SOS and legislative rulemaking review. We have proposed to update the remaining 35 criteria that we currently have in the rule, which EPA updated in 2015. The 24 proposed last session passed. The Environmental Protection Advisory Committee met monthly from June 2020 through May 2021. The group has made recommendations to the Secretary that include updating all 35 criteria, based on EPA recommendations and include a paragraph outlining a path to update any one with additional scientific data. The group did not agree on all approaches but recommended both to the Secretary. Laura Cooper, WQS program manager, has left the agency and Brian Bridgewater is acting program manager.

### Spill investigation

The spill identified in the August monthly report from Natrium was investigated by EE and was determined to be Bentonite clay from outlet 007 which was being used while conducting a molluscicide treatment to control zebra mussels in their water intakes. This discharge was not authorized and an NOV has been issued to the company.

### ***US Army Corps of Engineers***

Erich Emery reported that the Corps is working on a project to investigate the effects of reservoir flow augmentation on Ohio River flows during low-flow conditions, and they will be attempting to evaluate the economic value of this. They are currently analyzing historical flow data which will then be passed to a team of economists. The report may be completed in approximately one year. Two other projects are part of the Corps' Sustainable Rivers Program which is a partnership between the Corps' and Nature Conservancy. One is evaluating the effectiveness of managing dams operations and reservoir releases to maximize the ecological benefits of Ohio River flows. The other project is to evaluate how mainstem dams manipulate upstream pool levels to meet ecological benefits.

### ***United States Environmental Protection Agency***

Dave Pfeifer reported that the USEPA has issued draft guidance on selenium for public comment. A report on HABs was recently released by the Office of the Inspector General which may be of interest. The standards and monitoring group is working with ORD on sample analysis for cyanotoxins.

### ***US Geological Survey***

Jeff Frey reported that the USGS has a couple of new gauges, on the Hocking River in Lancaster, OH, and on Geist Reservoir in Indiana. They are operating a new super gauge on the Salt River at West Point as part of an effort to develop a larger network of continuous monitors. Funding is available to continue monitoring the Ohio River at Ironton and Olmsted, the Licking River at Alexandria, Kentucky River at Lockport, the Salt River, and the Green River at Spottsville. And the Wabash River at New Harmony. Several super gauges include HABs monitoring that will include development of a Nowcast for HABs on the Ohio River. He pointed out new USGS reports that are now available on Bighead Carp in the Ohio River, and nutrient transport in the Lake Erie Basin.

### ***Power Industry Advisory Committee***

Cheri Budzynski reported that October 13, 2021 is the deadline for the Notice of Planned Participation to comply with the new Effluent Limitation Guidelines. She also reported that the administration will be revisiting the ELGs rulemaking in the fall of 2022.

### ***Public Information Advisory Committee***

The Committee conducted a virtual meeting on September 23, 2021.

The Committee welcomed Lily Jones, Communications Coordinator for the Pennsylvania Environmental Council, as a new Committee member.

Staff provided an update on ORSANCO staffing, reporting that over the past several months the Foundation's Director, and ORSANCO's Communication's Coordinator departed for other opportunities. In addition, Nick Callahan has joined staff as Environmental Education and Outreach Coordinator.

Staff provided an update on activities since the last meeting and reported that a more robust communications strategy will be developed as an outcome of current strategic planning activities.

Staff provided a detailed status of the 2021 River Sweep program, being conducted in a mini-Sweep format, indicating that this format has shown to be very successful this year. Feedback from sponsors and coordinators has been very positive. The Committee discussed ways to build on this year's success to enhance and promote this valuable program.

In summary, the Committee supports staff moving forward with the following activities:

1. The Committee supports developing a broad-based plan for River Sweep using a mini-sweep approach throughout the watershed and focusing on efforts to increase media attention, and identifying a particular day, such as World Rivers Day, for special Sweep promotion.
2. Continue partnering with ORBA on mutually beneficial projects such as the Discussion Series and the Economic Valuation study.
3. Explore strategies to increase social media presence.

### ***Watershed Organization Advisory Committee***

Angie Rosser reported the following:

1. **Quarterly meeting.** The committee met on September 29 and discussed:
  - ORSANCO updates from Richard Harrison
  - WOAC leadership succession
  - WOAC strategic planning
  - Items for WOAC's October report
2. **ORSANCO Strategic Plan.** WOAC is interested in reviewing and providing further input into, as appropriate, ORSANCO's strategic plan. We are particularly interested in how the triennial reviews of the PCS will be handled, and how issues of climate and environmental justice will be included in the plan. We recommend that ORSANCO adopt community engagement processes that reach communities most impacted by environmental harms in a proactive manner. WOAC can provide examples and detail of how such efforts could be designed.
3. **Infrastructure Investments.** Some WOAC members are heavily involved in advocating for strong investments in the region currently being considered by Congress in the bipartisan infrastructure bill and budget reconciliation process. We see transformational opportunities for these investments to improve the health of the river and benefit surrounding communities. We recommend that ORSANCO actively support these investments and prepare to play an important role in prioritization and implementation in a way that has maximum impact on restoring and protecting the river.
4. **State Roll-backs of Clean Water Protections:** WOAC members are concerned about basin states rolling back clean water protections. Indiana passed legislation weakening protections for wetlands and Ohio is considering legislation to strip protections for ephemeral streams. We oppose such actions, and urge ORSANCO to take an active role in educating policymakers on the importance of strong protections for streams and wetlands to water quality and to the overall restoration of the Ohio River basin ecosystem.

## ***Water Users Advisory Committee***

Chris Bobay reported the following:

The Water Users Advisory Committee (WUAC) last met on September 21 via video conference. We had hoped to resume meeting in person, but members preferred to continue meeting virtually.

With recent changes to committee leadership and an increase in virtual participation, we took some time to check in with individual committee members to learn about their roles and some of the key projects they are working on. Several members discussed ongoing WaterSuite utilization for source water protection. Several members also shared about ongoing efforts to prepare for the new Lead and Copper Rule revisions. A new CMS-5000 portable analyzer is being installed at Huntington. None of the facilities reported any abnormal challenges or concerns with river conditions in their stretch of the river.

PA American is working closely with USEPA and Corona Environmental on the next phase of the WaterSuite mapping and inventory project. They are actively working with PA to obtain Tier II hazardous chemical inventory records to support this effort.

USEPA is looking for a small tributary or wadable stream to test DNA tracer recovery ahead of the spring 2022 tracer study. Jim Goodrich is the point of contact on that project.

Sam Dinkins reports that ORSANCO staff are preparing for round 2 of the PFAS sampling study which they hope to complete in 5 weeks starting in late September.

Sam Dinkins also provided a summary of spill notification procedures. Staff use “best professional judgment” when determining scope and timing of notifications. We discussed a few examples of how these procedures work in practice and how ORSANCO can support facilities during emergency response for “significant and imminent” threats. ORSANCO also maintains a Spill Response Directory that is updated yearly. Facilities can reach out to Sam to request a copy and update contact info.

ORSANCO continues to maintain 4 HAB monitoring stations. The good news is that no HABs have been reported this year. Ohio River conditions have been ideal for most of the summer growing season.

The Committee’s next meeting is scheduled for January 25. We will continue to meet virtually until a majority of members prefer meeting in person.

### **Adjournment**

The 227<sup>th</sup> meeting of the ORSANCO Technical Committee was adjourned by Chair Pigott at 12:09 P.M. on Wednesday, October 6, 2021.

Approved:

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Scott Mandirola

## Roster of Attendance

### *Technical Committee*

Chair	Commissioner Bruno Pigott
Illinois	Scott Twait
Indiana	Eileen Hack
Kentucky	Katie McKone
New York	Melanie Stein
Ohio	Audrey Rush
Pennsylvania	Kevin Halloran
Virginia	Not present
West Virginia	Scott Mandirola
US Army Corps of Engineers	Erich Emery
US Coast Guard	Not present
US Environmental Protection Agency	David Pfeifer
US Geological Survey	Jeffrey Frey
Chemical Industry Advisory Committee	Not present
Power Industry Advisory Committee	Cheri Budzynski
Public Interest Advisory Committee	Betsy Mallison Bialosky
POTW Advisory Committee	Not present
Water Users Advisory Committee	Chris Bobay
Watershed Organizations Advisory Committee	Angie Rosser
NPDES Subcommittee	Brad Gavin
ORSANCO Chief Engineer	Richard Harrison
Staff Liaison	Jason Heath

### *Commissioners/Proxies*

Douglas Conroe, Charles Duritsa, George Elmaraghy, David Flannery, Toby Frevert, John Hoopingarner, Carey Johnson, Tiffani Kavalec, John Kupke, John Lyons, Ron Potesta, Mike Wilson, Davitt Woodwell

### *Staff*

Ryan Argo, Dave Bailey, Sam Dinkins, Tracey Edmonds, Nick Guthier, Richard Harrison, Jason Heath, Adam Scott, Bridget Taylor, Lila Ziolkowski

### *Guests*

Peter Goodmann	Louisville Water Company
John Hirschfield	Westlake Chemical
Kristina Peacock-Jones	PADEP

# OHIO RIVER VALLEY WATER SANITATION COMMISSION

Agenda Item 3  
228<sup>th</sup> Technical Committee Meeting  
February 8-9, 2022

## **2022 Biennial Assessment of Ohio River Water Quality Conditions – 305(b) Report**

ORSANCO completes an assessment of Ohio River designated uses every two years in cooperation with the Ohio River 305(b) Coordinators Work Group. The uses which are assessed include aquatic life, contact recreation, fish consumption and public water supply. The states use ORSANCO's assessments in developing their integrated lists of waters requiring total maximum daily loads (303d lists). Not all states' 303(d) lists will coincide exactly with ORSANCO's 305(b) assessments. The assessment period for the 2022 assessments covers the period 2016 through 2020.

### Weight of Evidence Approach

A weight of evidence (WOE) approach was used in the 2022 Ohio River use assessments as recommended by the Technical Committee. A WOE approach can incorporate all relevant data and allow for some data to override potentially conflicting information. The WOE approach is directly opposed to US EPA's policy of independent application, which stipulates that if any one data set indicates impairment, then the water body should be designated as impaired. The US EPA supports a policy of independent application where impairment indicated by any data would result in an impaired assessment. The WOE approach was applied to the aquatic life, public water supply and fish consumption use assessments of this cycle.

### Assessment Summary – Number of Ohio River Miles Impaired by Use

States	River Miles	Number Miles Use is Impaired				
		Aquatic Life	Contact Recreation	Public Water Supply	Fish Consumption for PCBs & Dioxin	Fish Consumption for Mercury
PA	0.0-40.2	0	40.2	0	40.2	0
OH-WV	40.2-317.1	0	245.1	0	276.9	0
OH-KY	317.1-491.3	0	67.1	0	174.2	0
IN-KY	491.3-848.0	0	243.6	0	356.7	0
IL-KY	848.0-981.0	0	40.6	0	133.0	0
TOTAL	981.0	0	631.6	0	981.0	0

### Aquatic Life Use (ALU)

The ALU assessment involves comparing water chemistry data collected at Bimonthly and Clean Metals monitoring sites, in addition to biological data, to applicable criteria for the protection of aquatic life. Probabilistic fish and macroinvertebrate population surveys over the past five years indicate full support of the aquatic life use. At the same time, there were aquatic life water quality criteria violations for iron in multiple samples at a number of monitoring stations which alone would indicate impairment. Applying the WOE approach, the more direct

measure of aquatic community health through biological surveys would override the chemical criteria violations. The workgroup supported assessing the entire as fully supporting the aquatic life use.

### Contact Recreation Use

Bacteria data from river-wide longitudinal surveys conducted several years ago, along with contact recreation data from the past five years, collected annually in the six largest CSO communities, were used in the assessment. Because ORSANCO's bacteria criteria are less stringent than every state's criteria, the most stringent criteria applicable to a segment of the Ohio River was used to assess the data. Bacteria criteria violation rates in excess of ten percent results in a designation of impairment. Approximately two-thirds of the river is designated as impaired for contact recreation. This assessment is consistent with previous assessments.

### Public Water Supply

Impairment would be designated for utilities having MCL violations resulting from Ohio River water quality conditions as reported to the USEPA Safe Drinking Water Information System database or via ORSANCO's Public Water Supply survey results solicited from utilities along the Ohio R. Violations of human health criteria would also represent impairment. Several utilities had MCL violations for trihalomethanes and one utility had an MCL violation for total haloacetic acids. All of these violations are attributed at least in part to the treatment process and therefore should not result in a designation of impairment of Ohio River source water. The entire river is designated as fully supporting for the public water supply use.

### Fish Consumption

The entire river is designated as partially supporting the fish consumption use for PCBs and dioxin based on historic monitoring results that were two or more orders of magnitude greater than the applicable criteria. In addition, ORSANCO has been monitoring for methylmercury in fish tissue for several sampling seasons now and has sufficient data to make an adequate assessment for the fish consumption use. The assessment uses US EPA's consumption-weighted approach for determining impairment based on methyl mercury in fish tissue. That methodology is documented in the USEPA's "Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion." Results of that assessment indicate full support for the entire river. Violations of the mercury water quality criterion in excess of one exceedance (for total mercury in water) alone would indicate impairment for much of the lower half of the river. However, application of the WOE approach where the direct measure of mercury in fish tissue is given preference to water quality criterion violations, the entire river is designated as fully supporting the fish consumption use for mercury.

### TEC Action Requested

TEC will be asked to endorse the 305(b) use assessments for the 2022 Biennial Assessment of Water Quality Conditions for the Ohio River.