The meeting will begin at 8:00 A.M. Below are a few tips to effectively navigate the meeting:

- Confirm that your first and last name is entered correctly in the GoToMeeting software.
- Mute your microphone at all times unless speaking.
- Disable your camera unless you are a Technical Committee member.
- The presenter will prompt participants for verbal questions, or use the Chat feature.
- Detailed GoToMeeting instructions and important information can be found in the previously emailed document, “ORSANCO Virtual Technical Committee and Commission Meeting Instructions.”
- If you need assistance during the meeting, please call our office at 513-231-7719 ext. 100.
Chairman’s Welcome & Roll Call

Commissioner Bruno Pigott
Chairman, Technical Committee
TEC Members Roll Call

- IL – Scott Twait *
- IN – Eileen Hack *
- KY – Katie McKone *
- NY – Melanie Stein *
- OH – Audrey Rush *
- PA – Kevin Halloran *
- VA – Melanie Davenport*
- WV – Scott Mandirola *
- USACE – Erich Emery*
- USCG – Josh Miller *
- USEPA – David Pfeifer *
- USGS – Jeff Frey *
- CIAC – Vacant
- PIAC – Cheri Budzynski
- PIACO – Betsy Mallison
- POTW – Alex Novak
- WOAC – Angie Rosser
- WUAC – Bruce Whitteberry
- Chairman – Commissioner Pigott *
- Executive Director – Richard Harrison *

* Voting member
TECHNICAL COMMITTEE MEETING AGENDA

CHAIRMAN’S WELCOME AND ROLL CALL (8:00 A.M.)

ACTION ITEMS AND REPORTS

1. Action on Minutes of 226th Technical Committee Meeting*
2. Chief Engineer’s Report
3. Ohio EPA’s First Far-Field Nutrient TMDL (Western Lake Erie Basin)
4. PFAS Project Status
5. Report of the 305b Work Group
6. TEC Member Roundtable Reports

OTHER BUSINESS

- Comments by Guests
- Announcement of Upcoming Meetings

ADJOURNMENT (NOON)
Agenda Item 1: Request for action on minutes of the 226th Technical Committee Meeting

Chairman Pigott

The minutes were emailed with the agenda package on September 16, 2021
Agenda Item 2:
Chief Engineer’s Report

Executive Director Harrison
Agenda Item 3:

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

Tiffani Kavalec
Agenda Item 4:

Ohio River Ambient PFAS Survey

Dinkins, Heath
Project Oversight

• PFAS Work Group
  • States
  • Federal – USEPA, USGS, USACE
  • Water Utilities
  • ORSANCO Advisory Committees
  • ORSANCO Commissioners

• All aspects of the project reviewed by work group, reported in detail to ORSANCO’s Technical Committee, and regular updates to Commission.
Study Objective

• Characterize ambient conditions relative to PFASs in the Ohio River at 20 locations
  • Two rounds of sampling (different seasons)
  • Probabilistic-systematic approach used for site selection.
  • Outside of any regulatory mixing zones.

• The survey is not intended to focus on drinking water, but rather develop ambient baseline conditions for the Ohio River.

• Results may inform states, EPA, utilities & other interested parties on Ohio River ambient water quality conditions. The Commission is developing a communication plan.
Survey Design

• PFAS Sample Collection
  • 20 Ohio River ambient sites
  • 2 tributaries (Allegheny & Monongahela)
  • 9-point discrete sample collection at 3 sites
  • Conduct test run with field blanks (Spring 2021)

• Survey Timing
  • Round #1: Summer 2021
  • Round #2: Fall 2021
  • Each round requires 6 weeks to complete
Systematic-Probabilistic Approach
Sample Collection Methodology

- Use EDI (Equal Discharge Increment) method for all Ohio River and tributary sampling locations
  - Flow-weighted, depth integrated cross-sectional sampling provides for a more representative sample collection method
- Discrete samples to be collected at 3 existing sampling sites
  - Analyze discrete samples separately to gain understanding of vertical and lateral distribution of PFAS in the water column
Discrete Sampling at 3 Transects

- Below diagram represents one transect from the 20 selected sites.
- 9 discrete samples will be collected using a peristaltic pump and silicone tubing
- The purpose is to investigate how PFASs are distributed in the water column.
- Discrete samples will be collected on the same day as the EDI composite sample.
Sample Analysis

• Analysis performed by US EPA contractor Battelle Laboratories
• Newly developed DoD lab method (LC-MS/MS)
• 28 PFAS analytes (includes Gen-X)
• QA/QC Samples
  • Equipment blanks – 1 per site
  • Replicates and Matrix Spikes – 3 per round
  • Field blanks & Trip blanks – 1 per week
Since Last Update

1. Round #1 Completed
   • June 15 – July 21, 2021
   • 20 Ohio River + 2 tributary sites
   • Discrete sampling at 3 sites
   • Still awaiting final analytical results
   • Preliminary results indicate low levels present
   • Only 5 of 28 analytes detected >LOQ

2. Round #2 begins next week
   • September 28 – October 28, 2021
   • Increasing number of discrete sampling sites to 5
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Observations from Round 1 Preliminary Data

• 5 of 28 PFAS were above the laboratory level of quantification (~ 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 – not much stands out in terms of PFAS distribution in the water column.
Preliminary Data: QA Results

• Equipment blanks were collected with every sample
  • 1 PFAS detected <1ppt at each of 2 sites.
  • PFHxA & PFPeA

• 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 based on EPA recommendation.
Questions or Comments?
Agenda Item 5: 305b Workgroup Update
Assessment Methodology Review

Ryan Argo
227th TEC Meeting - Virtual
October 6th, 2021
305b Assessment Methodology Review

• March 2021 – Staff provided workgroup members a summary of methodologies and 2020 report to review

• August 2021 – Virtual meeting to discuss comments and proposed revisions to current methodologies and potential generation of a new HAB assessment approach

• Adopted changes largely focused on assessment thresholds
  • e.g. designating different thresholds for toxic & conventional pollutants
305(b) ALU Assessment Methodology - Updated

**Fully Supporting**
- Conventional Water Pollutant - <10% criteria exceedance for any one water pollutant
- Toxic Water Pollutant - No exceedances or 1 exceedance and/or
- Biota - mORFln and ORMln scores are greater than or equal to 20.0
  - (i.e. a condition rating of ‘Fair’, ‘Good’, ‘Very Good’, or ‘Excellent’)

**Partially Supporting - Impaired**
- Conventional Water Pollutant - >10% and <25% criteria exceedance for any one water pollutant
- Toxic Water Pollutant - >1 exceedance, AND <10% of samples and/or
- Biota - one of the indices scores ‘Fair’ or better (>20.0) and, the other index scores ‘Poor’ (10.0 - 19.9)

**Not Supporting - Impaired**
- Conventional Water Pollutant - >25% criteria exceedance for any one water pollutant
- Toxic Water Pollutant - >1 exceedance AND >10% of samples and/or
- Biota - pool in which both indices score ‘Poor’ (<20.0) or, in which either index scores ‘Very Poor’ (<10.0)
Public Water Supply Use Assessment Methodology - Updated

**Fully Supporting**
- Conventional Water Pollutant - <10% criteria exceedance for any one conventional pollutant
- Toxic Water Pollutant - No exceedances or 1 exceedance
- Survey/USEPA DB - and there are no finished water MCL violations caused by Ohio River water quality

**Partially Supporting - Impaired**
- Conventional Water Pollutant - >10% and <25% criteria exceedance for any one pollutant (toxic or conventional), and there was a corresponding finished water MCL violation caused by Ohio River water quality, OR
- Toxic Water Pollutant - >1 exceedance, but <10% of samples, OR
- Survey - Frequent intake closures due to elevated levels of pollutants are necessary to protect water supplies and comply with provisions of the Safe Drinking Water Act (meet MCLs), OR
- Survey - Frequent “non-routine” additional treatment was necessary to protect water supplies and comply with provisions of the Safe Drinking Water Act (meet MCLs)

**Not Supporting - Impaired**
- Conventional Water Pollutant - >25% criteria exceedance for any one pollutant, AND
- Toxic Water Pollutant - >1 exceedance AND >10% of samples, AND
- Survey - There was a corresponding finished water MCL violation caused by Ohio River water quality
Contact Rec. Use Assessment Methodology - Current

**Fully Supporting**
- Water - $\leq 10\%$ $E.\ coli$ criteria exceedance

**Partially Supporting - Impaired**
- Water - $>10\%$ and $\leq 25\%$ $E.\ coli$ criteria exceedance

**Not Supporting - Impaired**
- Water - $>25\%$ $E.\ coli$ criteria exceedance
Contact Recreation Use Assessment

• Most stringent state criteria used for assessment for any particular stretch

• Vast majority of river is assessed based on historical *E. coli* longitudinal surveys
  • 15 historical river-wide longitudinal surveys (2003-2008)
  • Criteria assessed as percentage of *individual samples*

• Contact recreation data from the past 5 years collected Apr-Oct in the 6 largest CSO communities –
  • Assessed as percentage of *monthly geo mean* exceeding criteria

• *Ongoing review of how ORSANCO applies each specific criteria*
Fully Supporting
• Water - No exceedances or 1 exceedance (PCBs and Hg)
  or
• Fish Tissue - The average consumption-weighted MeHg conc. for a pool ≤ 0.3 mg/kg

Partially Supporting - Impaired
• Water - >1 exceedance, but ≤10% of samples (PCBs and Hg)

Not Supporting - Impaired
• Water - >1 exceedance AND >10% of samples (PCBs and Hg)
  or
• Fish Tissue - The average consumption-weighted MeHg conc. for a pool > 0.3 mg/kg
305b Workgroup Recommendations

1. Update Longitudinal Bacteria (E. coli) Dataset
   - 305b assessment based on current program samples from 6 largest CSO communities b/w Apr-Oct
     - Heavy reliance on historical data (2003-2008) collected during an intensive longitudinal survey
   - Goal: Update/Replace the historical dataset used for 305b assessments to extent practicable
   - Establish a workgroup to assist in the development of a monitoring design and propose to TEC

2. WV requests adding fecal coliform collections from sites along WV portion of the Ohio River
   - WV only has a fecal coliform standard with which to assess Recreational Use
305b Workgroup Recommendations

   • Less priority than Bacteria Monitoring
     • All values were greater than two magnitudes higher than the criteria
     • The origin sources and nature of these parameters suggest these values haven’t likely changed significantly
   • **Goal**: Update/Replace the historical dataset to extent practicable, in the future

4. Postpone development of an Ohio River HAB assessment methodology
   • ORSANCO possesses limited algal bloom data
     • 4 monitoring stations (D.O, pH, conductivity, temperature, chlorophyll, phycocyanin)
     • Data used along with USEPA HAB Risk Tool in the application of the ORSANCO HAB Plan
   • Most mainstem states are not in development of HAB assessment methodologies
   • **Recommend**: Continue to detail ORSANCO’s HAB Management Plan and any HAB occurrence in future 305b reports
Agenda Item 6:

TEC Members Reports

- IL – Scott Twait
- IN – Eileen Hack
- KY – Katie McKone
- NY – Melanie Stein
- OH – Audrey Rush
- PA – Kevin Halloran
- VA – Melanie Davenport
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- POTW – Alex Novak
- WOAC – Angie Rosser
- WUAC – Bruce Whitteberry
Other Business:

- Comments by Guests
- Announcement of Upcoming Meetings
- Adjourn

Chairman Bruno Pigott