

**MINUTES
221st Meeting of the Technical Committee
Hilton Richmond Downtown
Richmond, VA
October 8-9, 2019**

Chairman Bruno Pigott, Presiding

Call to Order

The 221st meeting of the ORSANCO Technical Committee was called to order by Chairman Pigott at 1:00 pm on Tuesday, October 8, 2019. Six states, three federal agencies, and four Commission advisory committees were represented (for Roster of Attendance see on page 8).

Minutes of 220th Committee Meeting

ACTION: Motion passed to accept the minutes of the 220th Technical Committee meeting.

Chief Engineer's Report

Director Harrison reported that staff has been working with ORSANCO's member states in response to the current Ohio River HABs event, and has been implementing the response and communications strategy as outlined in the 2015 plan. He welcomed any feedback from the states on the effectiveness of the weekly information updates provided by staff.

He reported that the Covington Rotary Club was selected by the One World Program, which is a Department of Defense funded program, to bring young scientists from Russia to the Cincinnati/Northern Kentucky area to learn about watershed management. They were hosted by ORSANCO, USEPA, Northern Kentucky Water District, the Sanitation District No. 1, and Thomas More University, among others.

Ohio River Basin Strategic Plan Update

- Director Harrison provided an update on the Ohio River Basin Strategic Plan, a partnership between the US Army Corps of Engineers, ORSANCO, the Ohio River Basin Alliance, and USEPA. The goal is to develop a collaborative strategy enabling the Ohio River Basin to "speak" with one voice for the purposes of gaining leverage, influence, and funding. There are eight major areas under the strategy, including: 1) Valuable river transportation, 2) Vibrant economy, 3) Healthy, productive ecosystems, 4) Abundant clean water, 5) Flood control and risk reduction, 6) Timely change adaption and resilience, 7) Knowledge-informed decisions, and 8) World-class nature-based recreation. The abundant clean water goal is to ensure the quality and quantity of water in the Ohio River Basin is adequate to support the economic, social and environmental functions that are dependent on it. The strategic actions identified to meet the abundant clean water goal includes:
- Advocating for ORSANCO, in collaboration with the States of the Ohio River Basin, to lead in the development and dissemination of flow and water quality data and information necessary for implementing drinking, storm and wastewater management programs.
- Advocating for the State's and US EPA's efforts to implement the provisions of the Clean Water Act.
- Encourage ORSANCO to identify and advance solutions to water management and infrastructure challenges.
- Advocating for Clean Water Program funding for States and other environmental agencies.
- Work on emerging contaminants.
- Work on nonpoint source pollution challenges.
- Source Water Protection.
- Raise awareness of the fundamental value of water and the need for infrastructure improvements.
- Advocating for federal funding to support the HTF Strategy.
- Stabilize USGS super gauges in regards to the installation and maintenance for ORB rivers and critical watersheds.
- Development of an ORB GIS platform mapping system that incorporates current water quality monitoring status.

HABs Update

Staff provided an update on recent program activities concerning harmful algal blooms (HABs). This included an update on the 2019 Ohio River HAB event, a review of the ORSANCO HAB Communication and Monitoring plan, and a summary of US EPA's efforts to develop a HAB risk characterization tool:

2019 HAB Update

On September 11, Kentucky Division of Water field staff observed an algal bloom on the Ohio River near the water intake in Russell, KY. Sampling on the following day confirmed the bloom was *Microcystis wessenbergii* with microcystin concentrations near 8 ug/L. Since that time, *Microcystis* blooms have been observed in numerous locations along the river from Point Pleasant, WV to Louisville, KY. The highest concentrations found to date were observed in Cincinnati at over 1,000 ug/L. Recreational advisories have been issued by Kentucky, Ohio, and Indiana for the McAlpine, Markland, and Meldahl pools. These pools collectively span 265 river miles from Louisville to Greenup, KY. ORSANCO staff will continue to actively coordinate with state and federal agencies to monitor the harmful algal bloom (HAB) until the bloom has subsided and all advisories are lifted.

Review of ORSANCO HAB Communications and Monitoring Plan

ORSANCO developed the Ohio River HAB Communication and Monitoring Plan following the 2015 Ohio River harmful algal bloom. Staff presented an overview of the plan for the Technical Committee's review. Key elements of the plan cover drinking water and recreational HAB advisory criteria, sampling, and communications during HAB events. An update to the plan will include adding new criteria developed by the States and US EPA and enhanced monitoring capabilities instituted since the plan was originally drafted.

US EPA HAB Risk Characterization Tool

Four years after the 2015 Ohio River HAB, water resource agencies and researchers continue their efforts to better understand the critical factors which led up to the bloom. To address this knowledge gap, US EPA has been working with ORSANCO and other agencies to develop a risk characterization tool through analysis of routinely collected water quality and hydrologic data. Initial efforts have focused on statistical analysis of river stage and flow that compares current water level patterns to 2015 flow conditions to characterize the risk of a repeat bloom. The next phase of the project to be completed in FY20 will entail incorporating data from additional flow monitoring stations and integrating water quality data from continuous monitoring stations maintained by ORSANCO and Marshall University.

Biological Programs Update

Staff provided a summary of the final 2018 assessments which included the results of both the electrofishing and macroinvertebrate surveys from Emsworth and Pike Island Pools. These results were reviewed with the BWQSC in late spring of this year once the macroinvertebrate data were made available. The BWQSC recommended the acceptance of these results which indicated that both 2018 pools were in Full Support of their aquatic life use designation. The 2019 sampling season is ongoing but to date staff have completed surveys of the remaining 38 NRSA events, the entire suite of 18 fixed stations, and all electrofishing and submerged aquatic vegetation sites in the probabilistic pools of R.C. Byrd and Smithland. Other activities detailed by staff included a summary of fish tissue collections, nine aquarium displays, and dissolved metal samples collected from Smithland pool on behalf of the Kentucky Division of Water. The results of these surveys along with the nutrient, continuous dissolved oxygen, and macroinvertebrate data, yet to be collected, will be presented at the February TEC meeting.

Source Water Protection Programs

A status update was provided on ORSANCO's Source Water Protection and Spill Response Programs. Staff has recently participated in a number of emergency response preparedness exercises and other planning activities. An update was also provided on the Contaminant Source Inventory project which includes development of a GIS-based data management system to inventory potential contaminant threats and their associated risk to drinking water utilities. The next steps for the Organics Detection System (ODS) Next Generation evaluation were also presented. This includes an evaluation of expanding the analyte list of volatile organic compounds, pilot testing semi-volatile organic analysis at two or three existing ODS sites, and evaluating the potential utility of hosting a web-portal to facilitate water quality data sharing among drinking water utilities.

Ohio River Water Quality Conditions

Each October staff provides the Technical Committee with an overview of Ohio River water quality conditions observed during the preceding field season. The 2019 field sampling season saw above average precipitation and river flow conditions for May through July in all reaches of the river. Conditions became much drier in August and drought conditions extended through September.

Frequency of exceedances of the single sample bacteria criterion ranged from 27 to 37 percent in the six largest combined sewer overflow communities along the Ohio River. Dissolved oxygen (DO) levels remained above 5.0 mg/L throughout most of the summer with exception of a several instances where DO dropped below the threshold in late August and throughout September at Markland L&D. Water temperatures consistently remained below the temperature criteria throughout the field season river-wide.

PCB TMDLs in Virginia – Development and Implementation

Mark Richards with VADEQ provided the following presentation. There are numerous waterbodies listed in Virginia as impaired with fish consumption advisories from Polychlorinated Biphenyls (PCB). To restore the use in these impaired waters, as of 2019 the Virginia Department of Environmental Quality (DEQ) has developed five PCB Total Maximum Daily Loads (TMDL). The TMDL studies employed the use of the Environmental Protection Agency's (EPA) high-resolution, low level PCB method (1668) for 1) screening selected permitted dischargers for PCB contamination, and 2) generating PCB data from ambient river water to assist with the development of TMDL models and to help locate on-going PCB sources. PCB loadings were allocated with assigned reductions to point sources (selected NPDES permitted outfalls and MS4s) and non-point sources (atmospheric deposition, contaminated sites such as CERCLA and RCRA Corrective Action sites, Pollution response spill sites, and railyards). PCB loads in sediment were also recognized but for the existing TMDLs, no reductions were assigned due to the ubiquitous distribution of the contamination.

The PCB TMDL featured during the discussion included a recent study performed on the New River, as this river system is part of the larger Ohio River watershed. For the more heavily contaminated river segment located below the impoundment identified as Claytor Lake, approximately 70% of the loading was attributed to point sources, including MS4s. The Virginia DEQ is in the process of developing guidance to foster implementation within the NPDES Program using non-numeric Best Management Practices (BMPs) in order to attain measurable reductions from identified sources. Using the robust dataset from EPA's analytical Method 1668 allows techniques such as "PCB fingerprinting" to be used to hone in on specific source areas on different spatial scales. Upon identification of the source areas, appropriate actions emphasizing BMPs are utilized to eliminate or reduce PCBs. A success story from another PCB impaired watershed (Roanoke River watershed) was discussed:

https://www.deq.virginia.gov/Portals/0/DEQ/Water/TMDL/Success/Other/Burlington_Hurt_PCB_Roanoke.pdf?ver=2017-05-30-104117-617 .

Mercury Mass Balance Project

In June, 2015, an Ad Hoc Mercury Committee was established to identify the information needs regarding mercury in the Ohio River, and to recommend studies to fill those information needs. The committee identified source apportionment as a top priority to help determine the extent to which sources contribute to mercury in the Ohio River, and they recommended a study to account for point source and atmospheric contributions, while relying on existing data and studies to the extent possible. Preliminary results were presented to TEC. Following is a project status report:

The Ad Hoc Mercury Committee & TEC have had multiple opportunities to comment on the written report. Many comments have been received and incorporated into the report. Staff has maintained a log of comments with their disposition. Updated point source data has been received and is still needed from one state. The report has been updated with all revised point source data received. Identification of storm water and non-contact cooling water discharges is needed in order to exclude those from the point source loadings. Future report revisions would include updated point source data. The report title will be changed to "Ohio River Basin Mercury Loading Analysis." Additional discussion of project relevancy and limitations is needed for the report. A revised draft is anticipated to be available at the February, 2020 TEC meeting. Concurrently, the Commission has established an ad hoc committee to begin working on an approach to public messaging once the report has been finalized.

Ohio River PFAS Study

ORSANCO is in the process of designing a PFAS survey to characterize ambient conditions of the Ohio River relative to PFAS at 20 sites during two separate sampling events to capture conditions under different flows/seasons. The 20 sites have been selected using a systematic-probabilistic site selection method. The river was divided into 20 equal segments. A site was randomly selected in the most upstream segment, and the remaining 19 downstream sites equally spaced. After the 20 sites were selected, they were adjusted as needed for practical reasons such as obstructions within a selected cross-section. USEPA will be performing the analytical work and are still working on analytical methods that may ultimately be used to analyze Ohio River samples for PFAS. The primary remaining question is the collection approach to be utilized at each sample location. The USGS is in the process of evaluating the equipment used in their EDI sampling method, and the outcome of that evaluation may be forthcoming in the future. In the meantime, staff is considering alternative sampling methods used by other agencies. Sample collection may begin in 2020.

Member Updates and Interstate Water Quality Issues

WOAC

Angie Rosser commented the Watershed Organizations Advisory Committee has been focused on the Pollution Control Standards and are eager to hear about the implementation procedures being considered by the Commission. The Committee has also been working to get reorganized and has developed a set of standard operating procedures for membership. There is a new leadership team in place with Rich Cogen as Chair, Angie Rosser as Vice-Chair, and Heather Davis as a Coordinator. The WOAC has established six sub-committees including: 1) Mercury, 2) Nutrients and Harmful Algal Blooms, 3) Public Notice, 4) PCS, 5) PFAS, and 6) Ohio River Basin Funding. In West Virginia, they are active in reviewing the proposed Human Health criteria. Several of the WOAC members are concerned with the build-out of the petrochemical industry and the potential for emerging contaminants that could be discharged to the river.

West Virginia

Scott Mandirola reported the following:

Water Quality Standards

The legislature had removed the Human Health update that was proposed and required the DEP to take additional information from interested parties until Oct 1, 2019. To date, two sets of comments have been received on the issue. The state plans to proceed with a water quality standards meeting in November to discuss the two different proposals that were submitted. DEP is required to submit a proposal to the legislature for the 2021 session so the rules have to be ready to go to notice by April of 2020.

Modification of the 401 for the Nationwide 404 permit

The 401 nationwide permit modification was approved by the US EPA, but are still waiting to hear from the USACE. We are hoping for a decision by the end of the year.

Storm Water Permitting

The reissuance of the storm water construction permit and the storm water construction for Oil & Gas activity have both been appealed. The settlement went back to public notice for the NPDES storm water permit and is waiting on EPA input. The Oil & Gas storm water permit should be going back out to notice shortly. These two permits regulate all construction activity in the state.

Also, currently within the public notice period is the re-issuance of the Multi Sector storm water permit for industrial sites. The notice for the re-issuance of the MS4 permit is also being prepared for release.

Legislature

There is not much in the way of rules going to the legislature for consideration this year. Water quality standards are not going in and just standard updates for Air. Other rule updates are minor. Also, the Governor has established a Petrochemical Task Force to seek petrochemical industry development along the Ohio River.

Pennsylvania

Kevin Halloran reported that Pennsylvania has completed the initial round of PFAS sampling of 67 public water suppliers for a suite of six PFAS chemicals. PFAS compounds were only detected in the source water at 19 of those sites and none were above 70 ng/L. There is not a final report yet, but the results are available on the PA DEP website.

The ALCOSAN Consent Decree has now been finalized after 11 years. This agreement represents a two billion dollar investment in the infrastructure in Allegheny County and will address 255 CSO outfalls, including 29 directly to the Ohio River. Also, the NPDES permit for the Shell petrochemical facility is up for renewal even though the plant is still under construction and not yet operational. There are currently 6,000 construction workers onsite daily. The plant construction is on schedule to begin wastewater treatment in spring 2020 and full production in spring 2021.

Water quality criteria proposed through the triennial review has gone to the Environmental Quality Board. The final draft changes have been written and should be approved at the EQB's November meeting.

PA DEP staff conducted monitoring during the recent Ohio River HAB event. Sampling did not reveal any HAB activity in the Pennsylvania stretch of the Ohio River.

PIACO

Betsy Mallison reported that the Committee met by phone on September 19th. Key discussion items included promotion and sponsorship of the Life Below the Waterline program and public relations strategies for HABs, bacteria trends, PFAS and the mercury report.

Illinois

Scott Twait reported that Illinois EPA is developing a PFAS study of surface water and ground water public water supplies. IEPA is also working on ammonia criteria and continuing to work with USEPA on developing a variance for all small systems. Approximately 80 percent of the small systems cannot meet the new ammonia criteria.

United States Environmental Protection Agency

Dave Pfeifer reported that US EPA Region 5 was still sorting out the effects of the agency realignment. They are hiring to fill a number of vacancies. Joan Tanaka is the current acting Water Division Director. Her term ends Oct 22, so there will be a new division director shortly. Dave has been appointed as the new Watersheds and Wetlands Branch Chief. CSO UAA's have also recently become a significant issue of interest. The Ohio River pathogen TMDL is currently with the Regional Administrator for review.

Power Industry Advisory Committee

Cheri Budzynski reported that Rob Reash has retired and as such the Committee will be looking for a new Chairperson.

Indiana

Eileen Hack reported that while IDEM did not have any pending NPDES permits under review for Ohio River facilities, they were in the process of reviewing 316A & 316B applications for ALCOA-Warrick and Cliff Creek. There was a USGS-led PFAS sampling effort in Indiana of the Ohio River alluvial aquifer completed this summer. Probabilistic biological sampling was conducted on the Ohio River tributaries this field season. Metals rulemaking continues to be underway. IDEM recently met with US EPA to discuss the final language.

Citizens Energy Group recently submitted the first UAA application for the City of Indianapolis. The UAA was approved by IDEM in September 2019. The applicant demonstrated that a qualifying storm event rendered the stream unsafe for 96 hours due to stream flow and velocity which exceeded the USGS safety rule.

IDEM is in the planning and development stage for PFAS monitoring in the state. Ms. Hack noted one of the first issues they are working on in this area is to develop a communication strategy and to coordinate with the state health department.

Kentucky

Katie McKone reported that Kentucky was experiencing some drought issues. Due to very hot air temperatures in September and low stream flows, there have been some water treatment issues associated with taste and odor problems. Several water systems have reported lower than normal lake supplies, but levels are not critically low. There have also been some HAB occurrences in the Ohio River which led to recreational advisories for the McAlpine, Markland, and Meldahl pools.

Kentucky just completed a PFAS study of public water supplies. The survey included analysis of the five PFAS analytes that were included in the UCMR3, plus three additional PFAS parameters. No significant occurrences of PFAS in finished water were discovered. A report of the findings is expected to be released at the end October.

The 2018 triennial review of WQS is nearly complete. The regulations were filed June 12, 2019 and the public comment period ended July 31. The Administrative Regulation Review Sub-committee is scheduled to meet in November.

CSO Policy Workgroup – The goal of this effort is to provide an off ramp for CSO communities that have post LTCP CSO discharge outfalls.

Regarding general permits, the Eastern and Western Kentucky coal general permit became effective October 1, 2019. The storm water general construction permit is at public notice. The concrete and asphalt general permit as well as the non-coal mining general permit are set to go to public comment in the next week.

Kentucky is currently updating its nutrient reduction strategy. This year marks the 25th anniversary of the Kentucky Agriculture Water Quality Act, so there is a significant focus on this milestone. They are also developing an optimization approach for defining nutrient limits on POTWs that will begin in 2020.

KY has been working with ORSANCO staff to collect additional samples for metals analysis at the Commission's Clean Metal Program sampling locations. The data are coming in, but have not been assessed yet. Results of this effort will be provided at a future Technical Committee meeting.

Work on the 2018/2020 Integrated Report is in progress. Staff is currently in the process of analyzing data to begin the assessment. The fish consumption assessment methodology update has been completed.

USGS

John Jastram reported that the USGS recently formed a HABs capability team in the Northeastern Region to better bring together HAB expertise and resources. This effort will include publishing guidance for HAB monitoring methods and develop an event response team that can provide monitoring when blooms occur.

USGS recently conducted a groundwater monitoring effort that included sampling 60 wells and analyzed for over 500 constituents as part of the NAWQA program. This included analyses for pesticides, VOCs, hormones, bacteria, cyanotoxin and PFAS. No results yet for PFAS. Interestingly, two wells in West Virginia had detections for microcystin. These wells were close to the Ohio River.

Some additional sampling supported by DHHR will be conducted in WV. This effort will include sampling at 12 additional wells and four sites along the Ohio River to better evaluate surface water influences on public supply wells.

United States Army Corps of Engineers

Erich Emery reported that the USACE has been busy dealing with HABs in the Ohio Basin and nationally. They continue to research and develop tools for enhanced remote sensing technologies. The Chief of Engineers recently tasked the Environmental Advisory Board to advise and provide recommendations on what the USACE should be doing to address HABs.

Ohio

Audrey Rush reported that Governor DeWine had launched a new initiative called H2Ohio which is a directive for the various resource departments to work with agriculture to develop nutrient reduction solutions. They are currently working through the final action plan for H2Ohio. After that is complete the nutrient reduction strategy will be updated. They will then likely move forward with large river nutrient criteria development. She noted that nutrient reduction is so challenging because 80% of the problem comes from non-point sources which the state has no regulatory authority to control.

The HAB in the western basin of Lake Erie was not as severe as in years past. However, some lakes which have not historically had problems, experienced blooms this year.

Human health criteria are moving forward to the proposed rule stage. There are three rules that have HH criteria in them. Also, Ohio has had a backlog of TMDLs due to a lawsuit. That has now been resolved and TMDLs can now move forward. Like Illinois, Ohio is currently working on a variance rule for small systems for ammonia. The aquatic life criterion for ammonia will likely not go to rule making until the variance rule update is complete.

Ohio has developed a fish consumption advisory interactive map for the general public. They are currently working on a mobile app version of the fish consumption advisory map. Ohio is also changing the way it assesses aquatic life. In the past the approach was to conduct intensive surveys in five basins each year. Now a probabilistic study design has been proposed to replace that method. The draft plan has already gone out for public comment and the monitoring plan is being finalized now.

The MS4 general permit rule has gone through sign-off and will be put out for public comment soon.

Regarding PFAS, Gov. Dewine has ordered OEPA to work with ODH to develop an action plan to sample public and private water systems. The plan is due by Dec 1. OEPA's laboratory is gearing up to add PFAS analytical capabilities.

Virginia

Melanie Davenport noted that a key undertaking in Virginia this year is the Phase 3 Watershed Implementation Plan for the Chesapeake Bay TMDL. The plan has over 50 initiatives that have been proposed to reduce nutrients to the Bay. If the voluntary efforts fail to achieve the necessary reductions by 2025, VA is committed to requiring nutrient management plans for farms and stream fencing.

With respect to PFAS, VA is in the planning process to recommend a strategy of short, mid, and long term actions to address the issue.

The construction general permit and industrial storm water permit have been reissued. There were no challenges.

Another issue occupying DEQ's time is responding to EO6, which is an Executive Order issued by Gov. Northam early in his term which seeks to revitalize DEQ. The agency has struggled with funding challenges and has lost 74 positions since 2001. This effort entails evaluating what DEQ could do if funding was restored.

Pollution Control Standards Update

At the previous Commission meeting on June 6, 2019, the Commission took an action directing ORSANCO to conduct an evaluation of its current programs, including those contained in the March 1, 2019 proposed rules that involve implementation of the Pollution Control Standards and evaluation and protection of uses for any necessary scientific and/or policy modifications and to provide a report to Commissioners containing the results of this evaluation. To accomplish this, past Commission Chairman Potesta appointed an Ad Hoc Committee on PCS Implementation. The ad hoc committee held 2 conference calls to work on a document which addresses ORSANCO's permit review process. A document was drafted for the Commission's consideration at the October 10, 2019 Commission meeting.

Adjournment

The 221th meeting of the ORSANCO Technical Committee was adjourned by Chairman Pigott at 12:17 pm on Wednesday, October 9, 2019.

Approved:

Bruno Pigott

Prepared by Jason Heath, P.E., BCEE with contributions from Ryan Argo, Sam Dinkins.

(Recording of proceedings available at Commission Headquarters)

PowerPoint presentations from this meeting are available on the Commission website at www.orsanco.org.

Roster of Attendance

Technical Committee

Chairman	Commissioner Bruno Pigott
Illinois	Scott Twait
Indiana	Eileen Hack
Kentucky	Katie McKone
New York	Not present
Ohio	Audrey Rush
Pennsylvania	Kevin Halloran
Virginia	Melanie Davenport
West Virginia	Scott Mandirola
US Army Corps of Engineers	Erich Emery
US Environmental Protection Agency	David Pfeifer
US Geological Survey	John Jastram
Chemical Industry Advisory Committee	Not present
Power Industry Advisory Committee	Not present
Public Information Advisory Committee	Betsy Mallison
Publicly Owned Wastewater Treatment Works Advisory Committee	Not present
Water Users Advisory Committee	Not present
Watershed Organizations Advisory Committee	Angie Rosser
NPDES Subcommittee	Brad Gavin
ORSANCO Chief Engineer	Richard Harrison
Staff Liaison	Jason Heath

Commissioners/Proxies

Stuart Bruny, Craig Butler, Doug Conroe, Charles Duritsa, George Elmaraghy, David Flannery, Toby Frevert, Peter Goodmann (proxy), John Kupke, Ron Lovan, Jennifer Orr-Greene (proxy), Ron Potesta, Mike Wilson and Davitt Woodwell.

Staff

Ryan Argo, Dave Bailey, Sam Dinkins, Richard Harrison, Jason Heath

Guests

Kenny Akins	Westlake Chemical
Mark Richards	VA DEQ
Heather Davis	NWF