

OHIO RIVER VALLEY WATER SANITATION COMMISSION

MINUTES
217th Meeting of the Technical Committee
The Galt House
Louisville, Kentucky
June 5-6, 2018

Chairman Mike Wilson, Presiding

Call to Order

The 217th meeting of the ORSANCO Technical Committee was called to order by Chairman Wilson at 1:00 pm on Tuesday, June 5, 2018. Six states, three federal agencies, and three Commission advisory committees were represented (for Roster of Attendance see on page 11).

Minutes of 215th Committee Meeting

ACTION: Motion passed to accept the minutes of the 216th Technical Committee meeting.

Chief Engineer's Report

Director Harrison first provided an update on the Ohio River Basin Alliance (ORBA). He noted that ORSANCO is the fiscal sponsor of ORBA. ORSANCO is collaborating with ORBA to establish an Ohio River Basin Restoration Strategy which might ultimately culminate in consideration by Congress, through the USEPA, to give the Ohio River Basin national priority status similar to that of the Great Lakes and Chesapeake Bay initiatives. Working with the basin states, the strategy will pull together water-related priorities for the Basin. Current efforts include working with the USACE on a planning assistance funding effort which requires a 50 percent match but which may also allow for in-kind contributions.

Regarding the FY19 budget, ORSANCO is anticipating receipt of 604b federal grant funding through Indiana and West Virginia for HABs-related projects that will also help offset significant amounts of ORSANCO staff time. Mr. Harrison indicated that he is also working with the states to receive SRF (State Revolving Fund) funding. ORSANCO is also pursuing funding from utilities for source water protection program funding for spills and emergency response efforts. ORSANCO has received pledges from some utilities. Staff will be working to expand that effort, and in combination with SRF funding, hopes to offset operating costs for the source water protection program.

Mercury Mas Balance Project

In 2015, an ad hoc committee on mercury developed a work plan to conduct a mass balance of mercury for the Ohio Basin focusing on Ohio River instream loads of mercury and the contributions of point source and atmospheric mercury loads from fifteen major watersheds to the Ohio River. He indicated that ORSANCO has contracted with Martin Risch (USGS retired) to complete the atmospheric component of the study with the assistance of Bridget Taylor who is on temporary assignment with ORSANCO. Mr. Heath indicated that the main focus of the study was to determine the significant sources of mercury to the Ohio River.

Martin Risch presented an overview of their work plan to provide estimates of atmospheric mercury (Hg) deposition to Ohio River tributary watersheds. Mr. Risch is a retired USGS scientist contracted by ORSANCO because of his extensive experience and publications about atmospheric Hg deposition and Hg in the environment. They noted that the ORSANCO Ad Hoc Committee on Hg studies released a report and recommendations in October 2016. The report stated, among other things, that ORSANCO should estimate atmospheric Hg deposition within each tributary watershed; determine the total amount of Hg flowing in the Ohio River; and identify the

portion of Hg in the Ohio River from atmospheric loads and point source discharges. The work plan for estimating atmospheric Hg deposition is for a study area of 15 major Ohio River tributaries and the Ohio River main stem and a study period November 1, 2015 through October 31, 2016, the time of ORSANCO's monthly Hg load estimates for the 15 tributaries. A series of steps will be completed to compute the annual wet atmospheric Hg deposition from precipitation, annual dry atmospheric Hg deposition to forest landscapes, and annual dry atmospheric Hg deposition to non-forest landscapes. These results will be summed to obtain the annual wet plus dry atmospheric Hg mass loading to each watershed and the Ohio River.

ORSANCO staff, primarily Bridget Taylor, with direction from Mr. Risch, will complete the atmospheric Hg loading estimates using published methods that utilize data from long term monitoring networks of the National Atmospheric Deposition Program. The data will be processed with Geographic Information System spatial analysis and mapping software. The work will be completed by the end of 2018 with a report that explains the methods, results, and uncertainties of the estimates and compares atmospheric and stream Hg loads for the Basin.

Bacteria Trends Assessment

Staff presented a draft Ohio River bacteria trends report which compares bacteria levels in the six major combined sewer overflow communities (i.e. Pittsburgh, Wheeling, Huntington, Cincinnati, Louisville, and Evansville) over the past 20 years. This assessment includes: 1) evaluation of temporal trends in the six CSO communities; 2) comparison of upstream to downstream sites within CSO communities; and 3) evaluation of flow and precipitation to assess seasonality. Staff presented the preliminary findings of the assessment which includes:

1. Highest levels of *E. coli* and fecal coliforms occurred in Pittsburgh, while Cincinnati had the lowest levels.
2. On average, the highest bacteria levels occurred in the month of June with a 40% water quality standard (WQS) exceedance rate. October typically has the lowest levels with a 25% exceedance rate.
3. Bacteria concentrations and WQS exceedance rate increases with precipitation and stream flow. Fecal coliform and *E. coli* levels were approximately four times greater during the highest flow and precipitation periods when compared to dry weather conditions.
4. Fecal coliform and *E. coli* levels are variable over time, however, they show a general declining trend over the twenty year study period. When bacteria levels are normalized for flow there is a steady decline over time.

Staff has requested comments from the Technical Committee by July 31. A final draft report will be presented at the October meeting for approval.

Report of the Ohio River 305b Coordinators Workgroup

Staff presented 2018 Ohio River use assessment methodologies for determining water quality impairments, along with draft results of those assessments, which covers the timeframe 2012 through 2016. The 2018 assessment methodologies were identical to the 2016 methodologies which were approved by TEC in 2016, and the resulting draft 2018 assessment results were almost identical to the 2016 results. The only change was a 2 mile increase in the number of impaired miles for the contact recreational use based on bacteria monitoring data. Draft results includes the entire river fully supporting (no impairments) for the aquatic life use and public water supply use. The entire river is designated as impaired for fish consumption based on levels of PCBs and dioxin in historical water quality samples, and approximately two-thirds of the river is impaired for the contact recreation use based on bacteria monitoring results.

ACTION: Motion passed to approve the report for distribution to the public.

Source Water Protection Program Update

Staff provided an overview of the ongoing activities associated with the Commission's Source Water Protection

programs. This update included an assessment on Ohio River spills, an update on efforts to initiate a contaminant source inventory pilot project, and a presentation on lessons learned from recent spill response efforts. Chris Bobay also provided a progress report on the Water Users Advisory Committee's discussion on planning efforts for the next generation of the Organics Detection System (ODS).

A. Assessment of Ohio River Spills

Staff presented a summary of the National Response Center spill reports received by ORSANCO for calendar years 2013 thru 2017. Spill reports were analyzed for trends, including locations of reported spills, times when spills are most often reported, the most common materials listed in spill reports, and sources of the spills.

Generally, between 225-300 spill reports with potential impacts to the Ohio River are received by ORSANCO per year. More reports are received during the summer months and on week days. Spill reports are most commonly received where population density is highest or where larger tributaries enter the Ohio River. Diesel, hydraulic oil, fuel oil, lube oil and crude oil are the most commonly listed materials, however other compounds show larger volumes released. There is a lot of variability in the amount of material reported as spilled with the vast majority of spills being small in volume. The large spills are typically of most concern. Staff also looked at the source of spills listed on spill reports. Vessels and fixed facilities were the most common sources of spills but other sources also have potential as sources for large spill events.

This approach of reviewing spills relies on the information in the spill report to be correct. It also relies on the direct observation of the spill or knowledge of the spill on the part of the individual who reports it. The information from this analysis will be used in evaluating options for the next renovation of the Organics Detection System.

B. Next Generation Organics Detection System

Mr. Chris Bobay with the Louisville Water Company provided some background on the ODS network, previous upgrades and the need for a next generation evaluation. Then he outlined the scope and objectives for the work group, highlighting their tiered approach to ensure analytical coverage for the main river stem and major tributaries. He discussed the tasks that the work group are working on now and how that will inform a final recommendation. One of the major tasks is a utility survey to help better understand the needs and capabilities of water utilities. This was last completed in 2009. The information will be compiled for the next workgroup meeting and will be used to map out physical assets and evaluate network coverage needs, which will ultimately allow for an evaluation of implementation costs.

Peter Goodman expressed concern that a lot of resources are going into collecting and analyzing volatile organics that are non-detections, and that entire classes of other contaminants are not being monitored. He asked what other technologies are being considered? Mr. Whitteberry commented that we shouldn't be dismissive of non-detections because the risk of a volatile detect is so high that we must be alert and responsive even if most days result in non-detections. He also said that it was the responsibility of the work group to prioritize the chemical classes and match the equipment with the monitoring needs. He stated that this should be one of the primary outcomes of the work group. Mr. Bobay explained that a tiered approach will not fully address Peter's concerns but will certainly help align tools with monitoring needs and capabilities, thus reducing extra work and improving efficiencies. The work group seeks to ensure that utilities have the tools to screen more effectively and get confirmation quickly if they detect anything. Reducing the number of GC-MS sites will also improve efficiencies for ORSANCO staff, and including basic wet chemistry monitoring will enhance the ability to respond to different types of spills.

C. Contaminant Source Inventory Pilot Project

ORSANCO is working with representatives from US EPA, Greater Cincinnati Water Works (GCWW), Northern Kentucky Water District (NKWD) and Corona Environmental to complete a pilot project to evaluate the utility of Corona's WaterSuite software to inventory potential contaminant sources along the Ohio River. The initial geographic focus of the pilot project extends from the NKWD/GCWW water intakes upstream to Maysville, KY (approximately 60 miles). The project entails pulling potential source data from a host of federal, state, and possibly local databases into one standardized GIS-based data management system. Phase 1 is scheduled to be

completed in fall 2018. A second phase has been proposed to expand the coverage area up to Portsmouth, OH or possibly as far as Huntington, WV.

D. Lessons Learned from Recent Spill Response Efforts

Several noteworthy spills to the Ohio which required significant ORSANCO staff involvement occurred between October 2017 and February 2018. Staff provided a review of three of those incidents and discussed lessons learned from the response efforts. The three incidents included: 1) a large warehouse fire in Parkersburg, WV which burned for nearly a week and generated large amounts of firefighting water runoff containing unknown contaminants, 2) a ruptured barge downstream of Cincinnati which released 467,000 gallons of urea ammonia nitrate, and 3) a tow boat that sank on the Big Sandy River releasing an estimated 5,000 gallons of diesel and other oils.

Each spill response incident presents a unique set of circumstances and challenges. In looking back at these incidents collectively, we can draw out a number common takeaways that can be applied to future incidents to improve future response efforts. Common themes from these three incidents include:

1. Illustrated the importance of collecting water quality samples early in the response to characterize the location and magnitude of the release. This eliminates some of the unknowns and allows downstream water users to be better prepared to optimize their response.
2. Demonstrated the value of using screening methods (e.g. using UV-VIS during UAN release and ODS network during Parkersburg fire and tow boat sinking incidents) to get analytical results quickly to response agencies and water utilities for consideration in water treatment decision making.
3. Reinforced the value of the collaborative network of ODS partners to assist fellow utilities with enhanced analytical services and water treatment guidance.
4. Emphasized the importance of engaging state drinking water agency personnel early in the response to ensure water utility needs are met.

Harmful Algae Bloom (HAB) Update

At the previous Technical Committee meeting in February, students from the University of Cincinnati Environmental Engineering program presented an interim status report on their efforts to develop a website and data management platform for collecting and displaying data from real-time multi-parameter probes deployed on the Ohio River by ORSANCO and Marshall University. The capstone project has now been completed and the website is ready for use in a test mode. The system includes a centralized platform for sharing Ohio River data, identifies critical conditions ideal for HABs, and a GIS map with a color coding system to quickly identify monitoring stations in which conditions are favorable for HAB formation. The system is scalable which will allow additional datasondes to be added to the network with minimal additional effort. This feature may prove very useful in the near future as there are grant opportunities in Indiana and Ohio to deploy additional datasondes on the Ohio River.

Kentucky Statewide Bacteria TMDL

The Kentucky Division of Water has previously used a watershed-based approach to developing total maximum daily loads (TMDLs) for bacteria-impaired waters. The watershed approach involved spending two-three years in an impaired watershed, making repeat visits to multiple streams to collect water samples and determine flow. The data was used to determine a critical flow for each impaired stream and calculate a numeric TMDL. With the labor-intensive nature of the watershed approach, the Division realized it would take decades to complete TMDLs for the more than 400 streams currently listed for bacteria impairment.

The Division has streamlined TMDL development using a “segment” method. For each impaired segment, the TMDL and allocations will remain in equation form instead of being solved to yield a numeric load based on the critical condition. While allocations for direct loadings are specified for each source or source category, lumped allocations are given to loadings from upstream and tributary areas.

Both methods start with the assumption that Kentucky's concentration-based water quality criteria (WQC) represent the assimilative capacity of the impaired segment. If all sources contribute bacteria at or below the WQC, in-stream water quality standards should be achieved. The allowable load for the stream is (streamflow (Q), cfs) x (WQC, colonies/100 mL) x (units conversion factor), or $TMDL = Q \times WQC \times CF$ (unit conversion factor). An allowable load for each source uses the same equation, but substitutes the flow contributed by the source for Q. Additional text in the TMDL indicates that compliance of MS4s and CSOs with their allocation is evaluated through the entities' KPDES permit rather than as a numeric load. Conservative assumptions provide an implicit margin of safety.

The draft statewide bacteria TMDL document is organized into a core document, with fundamental information, and appendices for each of 13 major basins, where segment information is provided. The Division expects to complete TMDLs for current listings in about six years.

Ohio's Large River Eutrophication Study

Bob Miltner reported that large rivers in Ohio are among the most eutrophic in the world with sestonic chlorophyll concentrations exceeding 100 ug/l on a routine basis. Chlorophyll concentration greater than 100 ug/l in well-mixed rivers represent large amounts of algal biomass and associated respiratory demand that is characterized by 24-hour swings in dissolved oxygen ≥ 9.0 mg/l and BOD5 levels ≥ 6 . Moreover, the condition these levels represent is associated with altered or impaired assemblages of fish or macroinvertebrates. By arraying together chlorophyll concentrations, BOD5 levels, ranges in 24-h D.O. and biological indicators, thresholds were identified that demarcate boundaries between acceptable conditions, eutrophic conditions, and hypertrophic conditions. A hypertrophic condition is considered generally unacceptable and an impairment of beneficial uses. Eutrophic conditions are considered within a weight-of-evidence context to determine if a waterbody is impaired.

Kentucky's Water Quality Standards Triennial Review

Peter Goodman indicated that the Clean Water Act requires states to review their water quality standards every three years. The USEPA then has approval authority over states' standards. It is anticipated that amendments to their standards will be proposed in August and that a hearing would also be held in August, and that the legislature would consider proposed amendments late in 2018.

Amendments to Kentucky's water quality standards being considered include human health criteria for 94 pollutants, aquatic life criteria for ammonia, cadmium, carbaryl, and selenium, recreational criteria for E. coli, CSO wet weather provisions, allowing use of copper biotic ligand model, and designating 52 new outstanding state resource waters and 29 new exceptional waters. Additional details on each of these amendments under consideration can be found at their website <http://water.ky.gov/waterquality/pages/waterqualitystandards.aspx>.

Ohio River Basin Fish Habitat Partnership (ORBFHP) Update

Donovan Henry remarked that the scientists, biologists, partners, and members of the ORBFHP continue to push our Partnership into the most relevant, valuable, and achievable areas of conservation. Each year we continue to hone in and tackle the root issues and obstacles to restoration of aquatic processes that support our diverse and important fish and mussel fauna in the Ohio River Basin. We are maintaining our implementation of our Strategic Plan and developing projects, programs, partners, and resources in Priority Areas for conservation, restoration, and enhancement of aquatic communities; however, we are also developing innovative approaches to key issues that will have regional or even national utility. A key factor in successfully implementing these innovative approaches is to recognize the interaction between natural resource conservation and societal needs (social, economic, aesthetic, etc.) and our approach is shifting to be openly inclusive of both. As previously reported, the history of our approach gives understanding of how we strive to improve each year in delivering on our conservation goals.

As a next step, the ORBFHP has identified workgroup leaders or "ambassadors" to support project identification and development in our Priority Areas. These Partnership members are active resource professionals within each

of the priority watersheds, and they possess the local knowledge and contacts to move conservation measures forward. As our ambassadors identify needs and partners in their watershed, the 200+ ORBFHP members provide additional support for technical assistance, project design and implementation, monitoring and surveys, permit support, bidding support, oversight, fund development, etc. This allows us to target intensive partner/project/program/funding building efforts and generate top quality projects to address key needs. In the short time this model has been implemented by the ORBFHP, it has been very successful.

Socio-economic and natural resource projects:

- Streams throughout the US are plagued with bank erosion, channel incision, bedload shifting, inability to retain allochthonous matter, and sustain functional processes. The ORBFHP is working with renowned stream geomorphologists to illustrate the very achievable ability to overhaul the high energy stressors that landscape changes have put on the watershed. With a holistic approach, we have found that we can restore stream processes throughout an entire watershed and use this as a model to work throughout our region and beyond. Managing the high energy stressors has direct benefits not only to restoring ecosystem health, but also reduces downstream flooding and erosional processes. The results of this work will be published in a guidebook that can be used when developing urban, suburban, and rural landscapes to reduce or remove the stream stressors, flood risk, and nutrient and soil loss.
- In managing energy in stream runoff, we will also be creating/restoring critical off-channel habitat. These habitats, when restored correctly, offer countless fish, wildlife, flood risk, and recreational benefits. Not only will we finally be meeting our goals of restoring off-channel habitat for the benefit of fish and mussels, but we will be doing it in such a way that there are enormous wildlife, ecosystem, and socioeconomic benefits. This will likely be a cornerstone of our restoration goals moving forward.
- Much of the Ohio River Basin is currently used for agricultural production. The ORBFHP and partners are supporting the evaluation of agricultural Best Management Practices (BMP's) as it relates to aquatic systems as well as economic value to the American producer. The scientific evaluation of these readily implemented and recently developed practices has regional/national significance to agricultural practices, nutrient, sediment, and pollution control, and gulf hypoxia. One of the major benefits of this program is the understanding the economic benefit to the producer. Illustrating cost savings/increased earnings by implementing these water quality friendly practices could ultimately support a shift in industrial agricultural methods.

The ORBFHP participated in a documentary on the perils of low-head dams – “*Over, Under, Gone: The Killer in Our Rivers*”. See video at this link; <https://vimeo.com/192003847>.

The focus is on dams in Indiana, but is applicable across the US. The three Eel River dams seen in the video were removed with support of the ORBFHP. This powerful documentary has had an outpouring of support to remove dams across the Basin. For example, the USACE solicited the ORBFHP to partner on an 11 state program to remove dams on a basin-wide scale.

The ORBFHP and Region 3 National Fish Passage Program were instrumental in completing one of the most revolutionary fish passage projects in the US. At a lowhead dam in Indiana we installed the first of its kind fishway designed for inland stream fishes (see below). This is a prototype fishway that provides an affordable option for fish passage when dams cannot be removed. The fishway has attracted 1000's of visitors in a very short time and had a profound impact on increased public awareness of stream systems and the need for dam removal, as well as an invaluable education tool. The fishway became operational this fall and minutes after being opened, we observed multiple species ascending the structure by the 100's and then 1000's. The first time fish have crossed upstream in 160 years. There is a state of the art monitoring array and monitoring program built around this fishway to clearly define its efficacy. This design can be scaled to size based on the stream species, so it could have wide-ranging utility.

Barrier removal will continue to be a focus of the ORBFHP. In the coming year, we have projects queued up that will open up nearly 2500 additional stream miles and benefit numerous species, including Federal trust fish and mussel species, Eastern hellbender, American Eel, and economically important sport and commercial species. In addition, these projects promote recreation and human safety, restore functional processes, improve water quality

at municipal intakes, and a myriad of secondary benefits. The ORBFHP has built significant momentum in the Ohio River Basin for barrier removal and this will continue to be a focus for the Partnership.

Review of Pollution Control Standards

Staff provided an overview of the current review of the pollution control standards program. In June of 2015, the Commission established an ad hoc committee to review its role in water quality standards. The ad hoc committee developed a set of five alternatives for its future role in standards, along with a preferred alternative and a minority report. The preferred alternative essentially removes all criteria and mixing zone requirements from the standards. The minority report discusses the downside of the preferred alternative and suggests that an enhanced role by ORSANCO in harmonizing states' implementation of standards for the Ohio River is needed.

In October, 2017, the Commission authorized its Pollution Control Standards Committee to open an initial public comment period on the five alternatives under consideration. The public comment period opened on January 10 and concluded on February 24. Staff made its normal public notifications of the public comment period and held two informational webinars. Staff discussed in greater detail each of the five alternatives along with the preferred alternative, the minority report, and the mock-up of the pollution control standards based on the preferred alternative.

Staff then provided a summary of public comments received. There were 783 general "third-party" emails opposed to the preferred alternative, fourteen detailed comments opposed to the proposal, and seventeen detailed comments in favor of the proposal. The Pollution Control Standards Committee met on May 11 to review the comments and fourteen "key themes" developed from the comments. The committee voted to recommend to the Commission moving forward with a second public review of the standards, based on the standards being revised pursuant to the preferred alternative, and to reaffirm that the Commission's commitment to cooperation and collaboration on state and federal standards programs for the Ohio River. The PCS Committee expects that the Technical Committee will serve a vital role in this collaborative process. A proposed schedule for the second public review was presented.

Member Updates and Interstate Water Quality Issues

Watershed Organizations Advisory Committee (WOAC)

Rich Cogen suggested that, following the discussion on the ODS renovation, that ORSANCO might seek funding from industries discharging along the Ohio River. He also indicated that the WOAC is highly interested in the vote on the standards regarding alternative #2, and they look forward to ongoing dialog with the Commission on the issue.

United States Environmental Protection Agency

Linda Holst reported that Jim Payne is the Acting Deputy Regional Administrator for Region 5. Jim was formerly the Regional Counsel with US EPA Region 6. She reported that her current manager, Chris Korleski, who is the Region 5 Water Division Director, will be moving back to the Great Lakes National Program Office. As a result of this change and others, there are currently three senior leadership positions currently open at Region 5.

Indiana

Eileen Hack reported that the Vectren AB Brown power plant will be fully closed by the end of 2023, and their Cully power plant will close one of its two units also by the end of 2023. The Sabic power plant is in the process of permit renewal and their 316b thermal permit is currently on public notice. The Clifty Creek power plant's 316b thermal study is due in July and their 316a impingement/entrainment study is due January, 2019. The ALCOA Warrick facility's permit is also up for renewal. 316a and 316b studies have been received and IDEM will need to make a Best Available Technology determination for the facility. Regarding municipal permits, the cities of Evansville and Jeffersonville have approached IDEM about modifications to their combined sewer overflow long term control plans. Regarding water quality standards, IDEM is in the process responding to comments from a second public review and will probably need to conduct a third review. They are also in the process of responding to comments regarding a triennial review of their standards and will then issue a report to USEPA Region 5. They are also planning a first public notice regarding their standards to harmonize to the extent

possible their aquatic life methodologies between the Great Lakes Basin and the remainder of the state. This might also include updates to their human health and aquatic life criteria.

Pennsylvania

Dana Drake reported on the following items:

Triennial Review of WQS – PADEP is reviewing the many comments received on the proposed rulemaking that was published October 21, 2017. There were 4 public hearings and the comment period was extended to February 16, 2018. The proposed changes include incorporation of the 2013 EPA ammonia criteria, 2012 Recreational Water Quality Criteria for E. coli, and updates to the human health criteria for toxic substances. DEP anticipates draft recommendations on final rulemaking to advisory committees in the fall with presentation of final rulemaking to EQB in early 2019.

Manganese PWS Criterion – The state’s administrative code was amended to require that the EQB promulgate regulations to apply the manganese criterion at the point of public water withdrawal and not in all surface waters as it currently exists. The current criterion is based on the protection of public water supplies. DEP published notice of advanced rulemaking to solicit information on manganese toxicity for other protected water uses as well as the effect on public water systems if the point of compliance is moved to point of potable water withdrawal.

Coal Barges on Monongahela River, Rankin Borough, Allegheny County: On May 24, approximately 15 loaded coal barges broke loose from their moorings on the Monongahela River near Rankin Borough. During the incident, as a precaution, downstream bridges were closed in case one of the barges would hit the bridge piers and cause structural damage. At least 2-3 of the barges sank or were partially submerged near River Mile 9.0 on the river. By May 29, all barges were recovered. This was a widely publicized event and downstream water supplies were aware of it. PAWC conducted testing on intake quality throughout the event and no anomalies were observed. **Allegheny County Sanitary Authority (ALCOSAN)** – Negotiations continue between DEP, EPA and ALCOSAN to extend the CSO compliance date in a previously executed Consent Decree. The CD is being amended to allow for incorporation of more green infrastructure projects.

Coal Fired Power Plants – Settlement of lawsuit to draft a number of administratively extended permits. 8 of 10 are in the Ohio River Basin, of which three have been drafted.

Pipelines – Pipelines continue to be a hot topic in PA. There has been significant publicity associated with the Sunoco Mariner East 2 pipeline due to impacts to private water supplies and a number of inadvertent returns. Now garnering attention is the ethane pipeline that Shell Pipeline Company is proposing to construct to feed the Shell Petrochemical Complex that is currently under construction in Monaca PA. DEP held three public hearings in April on the proposed water obstruction and encroachment and construction permits associated with the pipeline. Concerns largely focus on the potential impacts associated with HDD such as inadvertent returns and impacts to water supplies as well as pipeline safety.

Kentucky

Katie McKone reported the following:

The 2016 Integrated Report was submitted to USEPA on March 1st, 2018 and is now available on our website. The 303d list has not yet been approved. Regarding 2018 305(b) Assessments of Ohio River, for segments where no new data was collected, assessment units and attainment will carry forward. For segments where new data collected, there will be a few locations where ORSANCO’s 305(b) says full support while KY’s says non-support due to differences in assessment methodologies and Kentucky’s standards. Regarding the fish consumption use, they are working on updates to the methodology for assessing fish consumption using fish tissue data. Based on an initial review, some pools will be listed as impaired for fish consumption due to methylmercury in fish tissue. There is also evidence to list for PCBs in fish tissue based on FDA’s recommendations which is referenced in KY’s current listing methodology. Regarding the public water supply use, KY’s assessment will match ORSANCO’s (full support at all applicable segments). Regarding aquatic life, currently in the 2016 report, KY has 24 assessment units along the Ohio River listed as partial support for the aquatic life designated use due to iron. New data collected by ORSANCO does not support delisting for iron. There are also exceedances of KY’s water quality standard for lead. pH data provided by ORSANCO has been flagged as unusable per ORSANCO’s recommendation and therefore cannot be used to calculate un-ionized ammonia (which otherwise would have multiple exceedances). However, KY is still determining how to extrapolate water chemistry data collected at the dams along the Ohio River for aquatic life use attainment. We acknowledge that this is a topic that has been discussed previously, but would like to put this back on the table as a potential topic for the 305(b) and monitoring committees.

KY is currently updating their permitting regulations. This will include corrected references to other regulations and statutes and some citations, clarification of spills, bypasses, and upset reporting requirements for permitted facilities versus reporting requirements for non-permitted facilities, and including a five mile policy in regulation language and aligning this with the policy in drinking water regulations.

The wastewater lab certification manual is being updated. Regarding permits, all permits for coal-fired power plants that are subject to 316(b) have been issued (about 15), and there are no comments from EPA or the public, only from the applicants. In addition, the KPDES permit backlogs has been virtually eliminated (~50). There are some lingering older permits being addressed, there are some in litigation or under enforcement, and some facilities that continue to negotiate with us.

West Virginia

Scott Mandirola reported that WVDEP is currently conducting a triennial review of its standards. Issues on the table include allowance of overlapping mixing zones, use of harmonic mean flow for permitting human health criteria, updating their human health criteria using USEPA recommended criteria and WV's fish consumption rates study, allowing for the use of water effects ration (WER) and biotic ligand model (BLM) within the permitting process instead of having to go through the standards rulemaking process, and putting into the regulations an assessment methodology for the biological component of their narrative criteria. The Chemours permit has gone out to public notice which includes permit limits for PFOA/PFOS and GenX. PFOA/PFOS limits are based on USEPA's health advisory limits and GenX is based on North Carolina's criterion. They are setting up a call with Region 3, Region 5, and Ohio to discuss primarily atmospheric issues surrounding this facility. There are three major pipelines under construction in West Virginia (Atlantic Coast Pipeline, Mountain Valley Pipeline, and Mountaineer Express Pipeline). The Mountaineer Express Pipeline represents the most exposure to the Ohio River and it has minimal issues associated with it. Kentucky, Ohio, and West Virginia have been in communication regarding permitting issues around a brine impoundment facility along the Ohio River in Ohio related to creation of an underground ethane storage facility. Kentucky and Ohio have indicated to USEPA that they will defer to Ohio on these issues. Finally, WVDEP is currently being inundated with stormwater construction permits which is primarily associated with the pipeline construction.

Power Industry Advisory Committee

Cheri Budzynski reported that the Ohio Utility Group and the Utility Water Act Group (UWAG) submitted comments on whether a point source could be regulated under the Clean Water Act if pollutants reach waters of the United States via groundwater. UWAG will also be submitting comments on USEPA's transparency policy regarding the use of scientific studies where publicly available. Finally, she reported that the Stuart and Killan power plants have both closed effective May of this year.

United States Geological Survey

Donna Francy presented information on the USGS Super Gage program and HABs research. In the Ohio River and major tributaries, there are four Super Gage sites and two to be installed in 2018 (Kentucky River and Wabash River); seven additional Ohio River Watershed sites are part of the Indiana Super Gage network. Super Gages are used to develop surrogate models to estimate concentrations and loads of constituents that are not easily measured in real-time, such as total nitrogen, total phosphorus, and suspended sediment. In Ohio, models are being developed to provide estimates of microcystins (caused by HABs) at recreational and drinking-water treatment plant sites. At an inland lake and Lake Erie site, continuous monitor measurements of pH and phycocyanin were significantly correlated to microcystin concentrations, making them promising factors to be used in regression models. These types of models could be developed for sites in the Ohio River basin.

United States Army Corps of Engineers

Eric Emery reported that they are facing significant budget cuts to their water management programs which may result in a reduction in gages funded by the Corps. The occurrence of HABs this year in Corps reservoirs to date has been less than in recent years. Finally, he reported that the Olmsted Dam ribbon cutting ceremony is scheduled for August 29.

Water Users Advisory Committee

Bruce Whitteberry reported that Rich Cogen attended the recent Water Users Advisory Committee meeting which may lead to more collaboration between WUAC and the Watersheds Organization Advisory Committee in the future. He also reported that WUAC continues to be highly engaged with the ODS renovation committee as their work progresses on the next renovation of the ODS..

New York

Jeff Konsella reported that in 2018 NY has allocated \$65 million in grants to better understand and address HABs across the state. Twelve priority lakes have been identified, of which Chautauqua Lake is included. A HAB action plan for the lake has been prepared which includes management activities to reduce nutrient inputs.

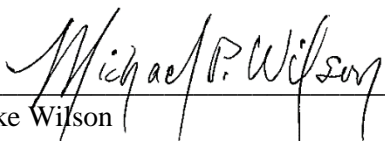
Ohio

Bob Miltner reported that Ironton's wastewater permit has been public noticed. Permits for Cincinnati MSD's Little Miami, Mill Creek, and Muddy Creek treatment plants are soon to be public noticed. OEPA is in the process of developing a water quality standard for pericedic acid which the City of Steubenville will be using for disinfection of its wastewater discharge. They have recently completed a draft report of their statewide nutrient mass balance project. Finally, they are seeking a partial delegation of authority from the USEPA regarding the coal combustion residuals rule.

Adjournment

The 217th meeting of the ORSANCO Technical Committee was adjourned by Chairman Wilson at 11:50 am on Wednesday, June 6, 2018.

Approved:



Mike Wilson

Prepared by Jason Heath, P.E., BCEE with contributions from Ryan Argo, Sam Dinkins, Stacey Cochran and Rob Tewes.

(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 Mike Wilson
Illinois	Not present
Indiana	Eileen Hack
Kentucky	Katie McKone
New York	Jeff Konsella
Ohio	Bob Miltner
Pennsylvania	Jennifer Orr
Virginia	Not present
West Virginia	Scott Mandirola
US Army Corps of Engineers	Erich Emery
US Environmental Protection Agency	Linda Holst
US Geological Survey	Donna Francy
Power Industry Advisory Committee	Cheri Budzynski
Public Interest Advisory Committee	Not present
Water Users Advisory Committee	Bruce Whitteberry
Watershed Organizations Advisory Committee	Rich Cogen
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), Aaron Herzig (Counsel), John Hoopingarner, John Kupke, Ron Lovan, Scott Mandirola (proxy), Jennifer Orr (proxy), Ron Potesta, and Mike Wilson.

Staff

Dave Bailey, Lisa Cochran, Sam Dinkins, Joe Gilligan, Richard Harrison, Jason Heath, Bridget Taylor (intern), and Lila Ziolkowski.

Guests

Colin Arnold	KY DOW
Melanie Arnold	KY DOW
Chris Bobay	Louisville Water Company
Hui Chen	KY DOW
Becky Clark	KY DOW
Tim Hagerty	Frost Brown Todd LLC
Donovan Henry	US FWS
Patrick Hoban	KY DOW
Alicia Jacobs	KY DOW
Joe Lapcevic	First Energy Corporation
Lauren McDonald	KY DOW
Emily McKinney	Frost Brown Todd LLC
Collin Moratz	US FWS
Judy Petersen	PIACO
Martin Risch	USGS (retired)
Lauren Schnorr	KY DOW
Adrienne Southworth	KY Lt. Govenor's Office
Kacie Tackett	KY DOW
Daymond Talley	Louisville MSD
Erin Wagoner	Louisville MSD