



232nd Technical Committee Meeting

Scott Mandirola, Chair

Presiding

June 27-28, 2023



The meeting will begin at 1:00 P.M. (Eastern) on June 27. 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."*



Chair's Welcome & Roll Call

Scott Mandirola
Chair, Technical Committee

TEC Members Roll Call



- IL – Scott Twait *
- IN – Brad Gavin *
- KY – Katie McKone *
- NY – Damianos Skaros *
- OH – Melinda Harris *
- PA – Kevin Halloran *
- VA – Jeffrey Hurst *
- WV – Scott Mandirola*
- USACE – Erich Emery *
- USCG – Michael Franke-Rose*
- USEPA – David Pfeifer *
- USGS – Jeff Frey *
- CIAC – Vacant
- PIAC – Cheri Budzynski
- PIACO – Betsy Bialosky
- POTW – Reese Johnson
- WOAC – Chris Tavenor
- WUAC – Chris Bobay
- Chair – Scott Mandirola *
- Executive Director – Richard Harrison *

* Voting member

Agenda for the 232nd Meeting of the Technical Committee



CHAIRMAN'S WELCOME AND ROLL CALL (June 27, 1:00 P.M.)

ACTION ITEMS AND REPORTS

1. Action on Minutes of 231st Technical Committee Meeting – Chair Scott Mandirola *
2. Chief Engineer's Report– Director Harrison
3. Continuing Review of ORSANCO's Monitoring Program
4. Technical Program Outcomes from May 11 Program and Finance Committee Meeting
5. Biological Programs Update
6. Source Water Protection Programs Update
7. East Palestine Spill Debriefing

ADJOURN/RECONVENE WEDNESDAY MORNING (8:30-9:45 A.M.)

8. TEC Member Roundtable Reports
-

OTHER BUSINESS

- Comments by Guests
 - Announcement of Upcoming Meetings
-

ADJOURNMENT (9:45 A.M.)



Agenda Item 1:

Request for action on minutes of the 231st Technical Committee Meeting

Chair Mandirola

The minutes were emailed with the agenda package on June 8 , 2023



Agenda Item 2: Chief Engineer's Report

Executive Director Richard Harrison

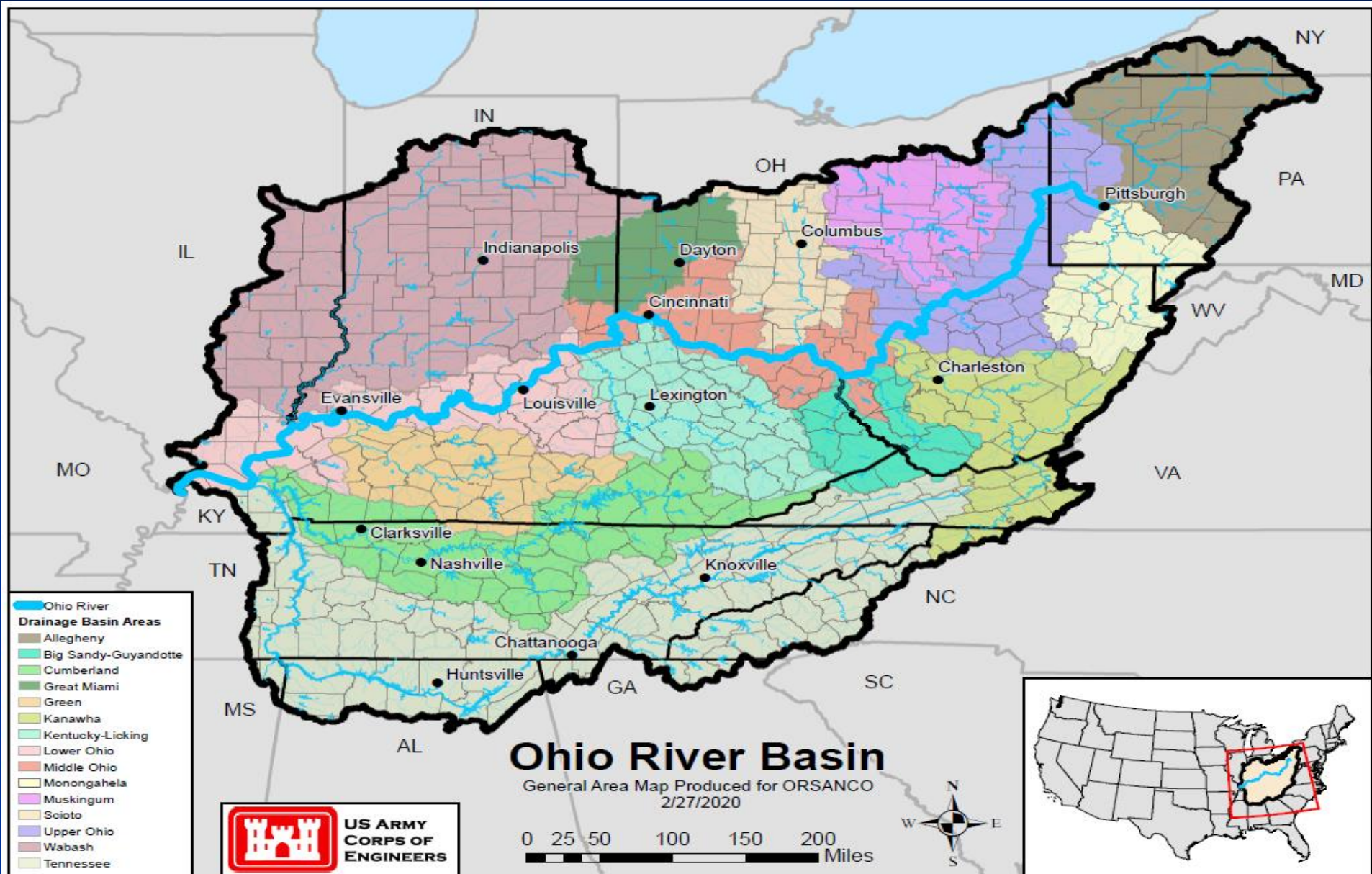
OHIO RIVER VALLEY WATER SANITATION COMMISSION

Ohio River Basin Restoration Initiative

ORSANCO Technical Committee
June 27, 2023
Richard Harrison, ORSANCO
Chief Engineer's Report



Ohio River Basin



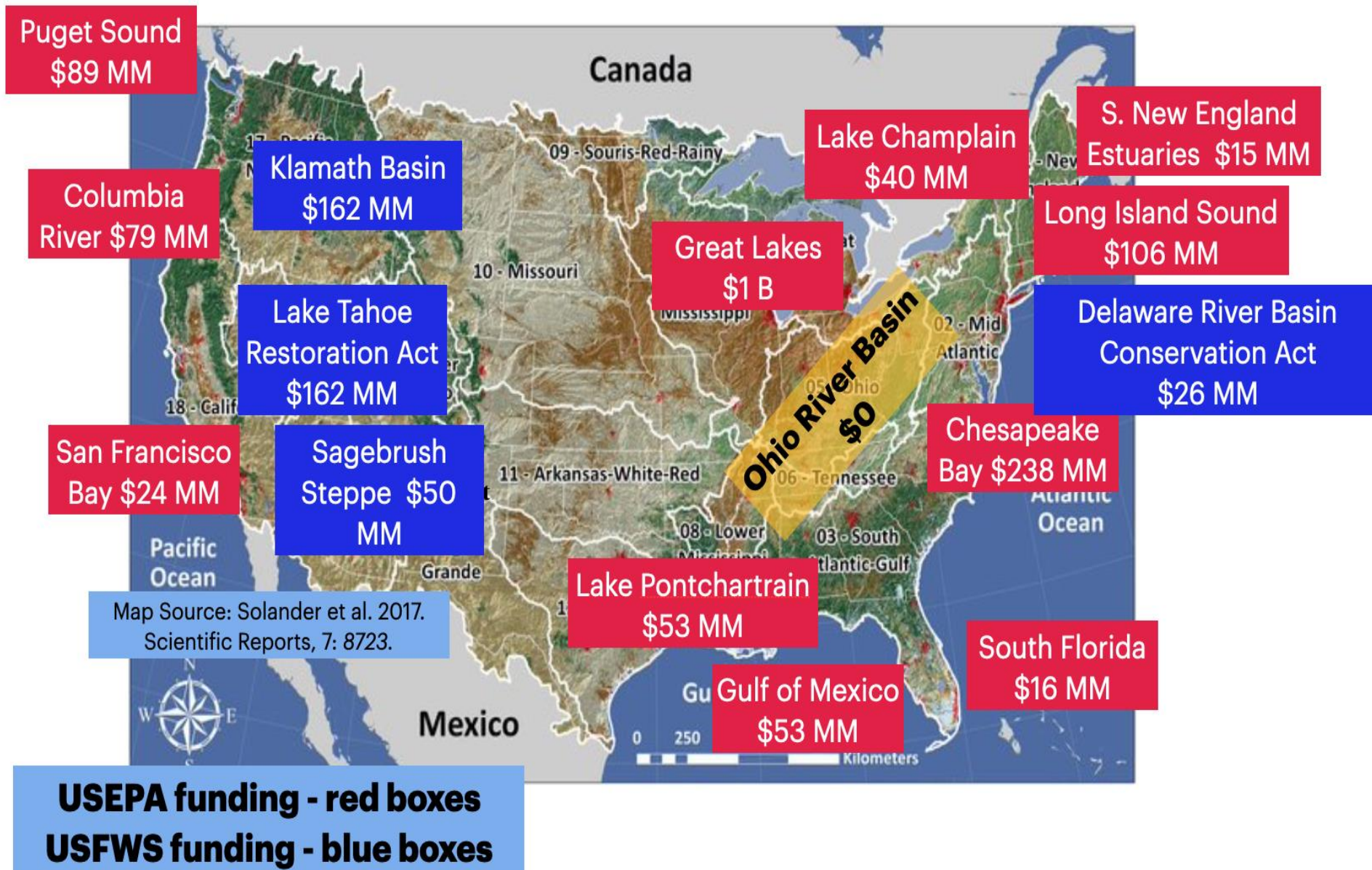
Ohio River Basin Restoration Plan/Initiative

- The Ohio River Basin Restoration Plan is a very broad effort to identify and improve ecological and water quality for the waters of Ohio River Basin
- The restoration plan, once delivered to the U.S. Congress, will set the stage for a future **Ohio River Restoration Initiative** that will provide federal funding and resources to implement the plan, similar to other federal geographic funding initiatives, e.g. Great Lakes, Chesapeake Bay, Florida Everglades, etc
- Ohio River Basin Restoration Plan/Initiative is a single project-priority that is currently the Abundant Clean Water and Healthy and Productive Ecosystems Work Group number one priority out of many different projects

RESTORATION PLAN COMPONENTS

- Acid mine drainage
- Climate Change
- Environmental Justice
- Extensive Listening Session's Summary Report
- GIS Basin Mapping System
- Habitats and Species
- Invasive Species
- Nonpoint Source (NPS) pollution (nutrient management, HAB's, nutrient trading)
- Toxic Pollution (PFAS)
- Water infrastructure (drinking water and wastewater)

Geographic Ecological Restoration Funding in Infrastructure Investment and Jobs Act



Where is the Ohio River Basin?

DEPARTMENT OF THE INTERIOR, ENVIRONMENT, AND
RELATED AGENCIES APPROPRIATIONS BILL, 2020
USEPA Geographic Program Funding Levels:

| | |
|------------------------------------|--------------|
| Great Lakes Restoration Initiative | - \$320 M |
| Chesapeake Bay | - \$ 85 M |
| Puget Sound | - \$ 33 M |
| Long Island Sound | - \$ 21 M |
| Gulf of Mexico | - \$ 17.55 M |
| Lake Champlain | - \$ 13.39 M |
| Southern New England Estuaries | - \$ 5.4 M |
| San Francisco Bay | - \$ 5.019 M |
| South Florida | - \$ 3.504 M |
| Columbia River Basin | - \$ 1.1 M |

Example Restoration Focus Areas

- Toxic Substances and Areas of Concern
- Invasive Species
- Nonpoint Source Pollution Impacts
- Habitat and Species

Great Lakes Restoration Initiative Funding (Does not include \$1B of funding from Infrastructure Bill)

Table 1: GLRI FY2010–FY2021 Focus Area Allocations (as of Aug 6, 2021)

| Focus Area | FY 2010 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 |
|---|----------------------|------------------------|------------------------|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Toxic Substances and Areas of Concern | \$146.9M | \$100.4M | \$107.5M | \$111M | \$105M | \$120.2M | \$106.6M | \$107.5M | \$105.6 | \$107.4 | \$116.9 | \$121.4 |
| Invasive Species | \$60.3M | \$57.5M | \$56.9M | \$45M | \$54.6M | \$53.6M | \$56.4M | \$62.2M | \$56.7 | \$57.0 | \$62.9 | \$65.7 |
| Nonpoint Source Pollution Impacts on Nearshore Health | \$97.3M | \$49.3M | \$54.3M | \$45M | \$59.3M | \$51M | \$51.7M | \$47.9M | \$50.6 | \$51.2 | \$51.0 | \$53.0 |
| Habitat and Species | \$105.3M | \$63M | \$57.2M | \$65.5M | \$60.6M | \$49M | \$54.2M | \$49.5M | \$52.4 | \$51.4 | \$54.5 | \$56.5 |
| Foundations for Future Restoration Actions | \$65.2M | \$29.3M | \$23.5M | \$17M | \$20.5M | \$26.2M | \$31.1M | \$32.9M | \$34.7 | \$33.0 | \$34.7 | \$33.4 |
| TOTAL | \$475 million | \$299.4 million | \$299.5 million | \$283.5 million | \$300 million | \$300 million | \$300 million | \$300 million | \$300 million | \$300 million | \$320 million | \$330 million |

The percentage of total funding allocated to each focus area has stayed largely the same year to year.

Listed Impaired Streams in the Ohio River Basin (ORB)



Impaired Streams: 120,932 Miles
All Assessed Streams: 274,701 Miles
Percent Stream Miles Impaired in ORB: 44%

Data Source: ATTAINS
Date: September 2022
Cartographer: ORSANCO

-  Impaired Streams
-  Impaired Ohio Watershed
-  Ohio River Basin
-  States

0 50 100 200 Miles

VGIN, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, Esri, CGIAR, USGS

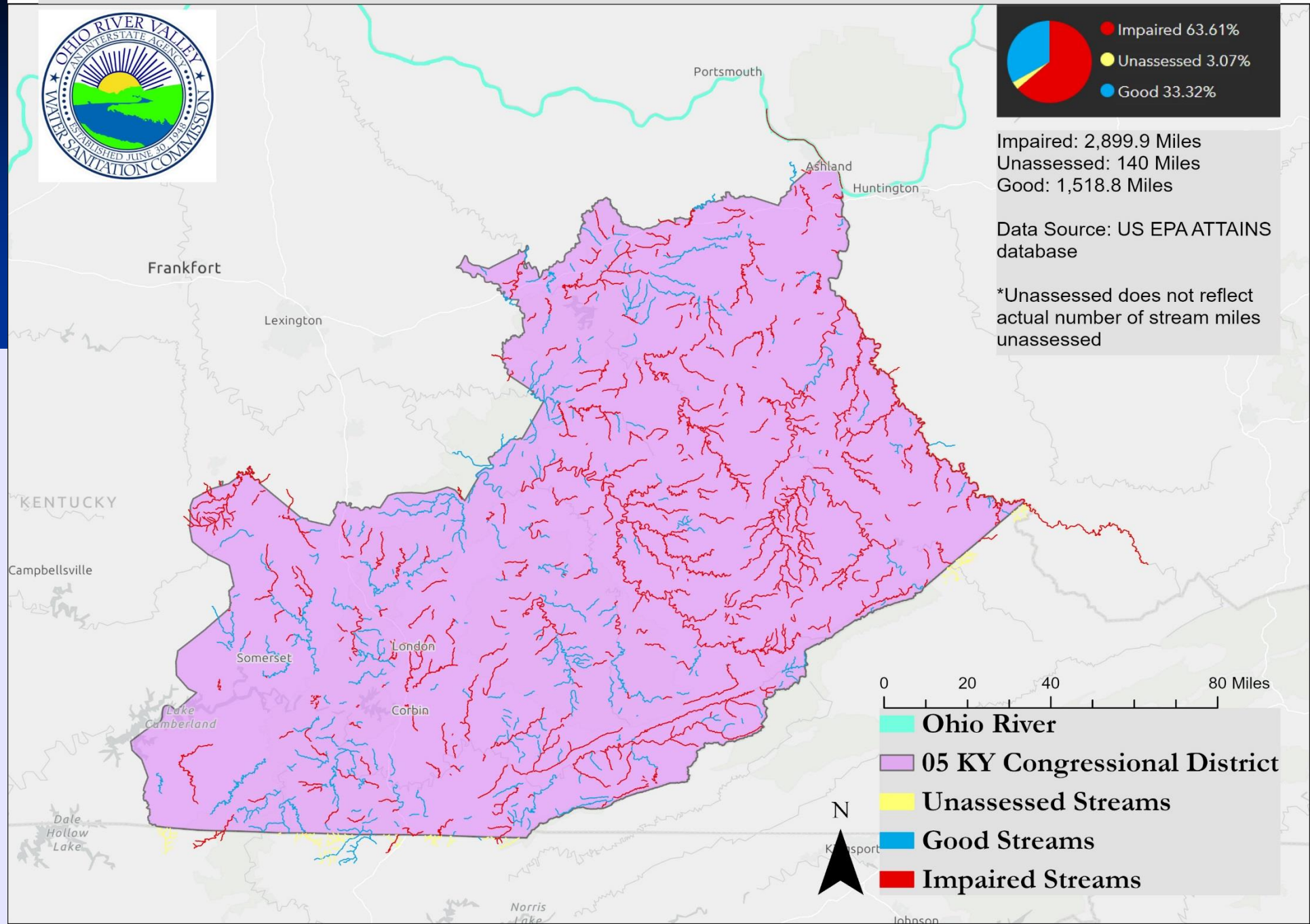
Kentucky's 5th Congressional District: Water Quality Assessments



Impaired: 2,899.9 Miles
Unassessed: 140 Miles
Good: 1,518.8 Miles

Data Source: US EPA ATTAINS database

*Unassessed does not reflect actual number of stream miles unassessed



Need for Ohio River Basin Restoration Plan

- ORSANCO and ORB states rely heavily on Clean Water Act 106 Grant funding to conduct necessary monitoring and assessment of interstate waters of the ORB including the Ohio River
- The federal 106 Grant funding comprises approximately 50% of ORSANCO's core budget
- ORSANCO's 106 Grant allocation has ranged between \$1,417,900 in 2011 to and estimated 1,444,000 in 2023
- This is a total increase of 1.8% over 13 years or an annual increase of about 0.1%
- Inflation has increased by nearly 32% over the same period
- Our 106 Grant would total \$1,871,600 (\$428,000 more than actual) currently if it had kept up with inflation (historically low inflation)

Need for Ohio River Basin Restoration Plan (Continued)

- Funding for Geographical Programs appears to have taken the place of sustained increases in 106 grant programs and other Congressional Clean Water Act grants
- The total funding included in the FY 22 Consolidated Appropriations Act includes \$231 M in 106 grant funding for the entire nation including all 50 states, tribes and interstate commissions such as ORSANCO
- The total FY 22 funding for the 6 largest Geographical Programs is \$541 M or roughly 2.35 times the total allocation for 106 grant funding for the entire nation
- The Great Lakes Restoration Program alone has received approximately \$4B through Geographical Program funding over the past 10 years including FY 21 Infrastructure Bill funding of \$1B
- It would take ORSANCO approximately 2,800 years to reach that funding amount assuming there was no additional funding provided to this single geographical program
- It is clear that we will struggle to meet the mission of our Compact and the requirements of the Clean Water Act without this type of program funding in the future
- Without the ORB having a Geographical Program line item, we will not be able to receive special appropriations for the ORB such as those received through the FY21 Infrastructure Investment and Jobs Act



Five Year Moderate Revenue & Expenditure Forecast with 0% FY22 - FY23, 2% FY24 and 1% FY25 - FY27 State

| | Funding Increase | | | | | |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 |
| Payroll | 1,357,563 | 1,450,292 | 1,489,422 | 1,557,084 | 1,626,911 | 1,698,972 |
| Benefits | 710,331 | 672,209 | 735,689 | 774,124 | 815,034 | 853,904 |
| Travel | 292,796 | 276,423 | 299,429 | 280,455 | 274,847 | 279,156 |
| Supplies/Utilities/Mgt. | 392,368 | 352,354 | 346,903 | 348,135 | 351,264 | 358,363 |
| Equipment | 168,500 | 172,000 | 74,000 | 114,000 | 149,000 | 63,000 |
| Analytical lab Services | 281,758 | 367,236 | 361,023 | 371,116 | 403,299 | 421,081 |
| Contractual Services | 467,255 | 651,476 | 587,940 | 525,851 | 477,846 | 498,430 |
| Total Expenditures | 3,670,571 | 3,941,990 | 3,894,406 | 3,970,765 | 4,098,201 | 4,172,905 |
| State Funding | 1,439,700 | 1,439,700 | 1,468,494 | 1,483,179 | 1,498,011 | 1,512,991 |
| Federal 106 Funding | 1,332,000 | 1,332,000 | 1,332,000 | 1,332,000 | 1,332,000 | 1,332,000 |
| Additional 106 Funding Increases | 150,000 | 213,400 | 402,400 | 263,800 | 60,000 | - |
| SRF Set Aside (Sourcewater Protection) | | | 100,000 | 100,000 | 100,000 | 100,000 |
| Other Federal Funding | 233,013 | 302,357 | 259,475 | 252,927 | 285,927 | 285,927 |
| Ohio River Stakeholder Contribution | 180,000 | 180,000 | 200,000 | 225,000 | 250,000 | 250,000 |
| Ohio River Restoration Initiative | | | | | 250,000 | 250,000 |
| Other & Special Project Funding | 320,308 | 277,094 | 295,938 | 299,272 | 305,806 | 312,244 |
| Total Revenues | 3,655,021 | 3,744,551 | 4,058,307 | 3,956,178 | 4,081,744 | 4,043,162 |
| Net Income (Loss) Before Transfers | (15,550) | (197,439) | 163,900 | (14,587) | (16,456) | (129,743) |
| Carryover into Fiscal Year | 3,752,377 | 3,736,827 | 3,539,388 | 3,703,288 | 3,688,701 | 3,672,245 |
| Encumbrd Project Resources; Use or Add | - | (14,643) | - | - | - | - |
| Capital Equipment; Use or Add | (53,966) | (2,796) | 26,000 | (14,000) | (43,000) | 34,875 |
| Unencumbered Resources; Use or Add | 38,416 | (180,000) | 137,900 | (587) | 26,544 | (164,618) |
| Restricted Reserves; Use or Add | | | | | | |
| Carryover Into Next Fiscal Year | 3,736,827 | 3,539,388 | 3,703,288 | 3,688,701 | 3,672,245 | 3,542,502 |
| Encumbered Project Resources | \$278,527 | \$263,884 | \$263,884 | \$263,884 | \$263,884 | \$263,884 |
| Capital Equipment | \$403,747 | \$400,951 | 426,951 | 412,951 | 369,951 | 404,826 |
| Restricted Reserves | \$600,000 | \$600,000 | \$600,000 | \$600,000 | \$600,000 | \$600,000 |
| Unencumbered Resources | \$2,454,553 | \$2,274,553 | \$2,412,453 | \$2,411,866 | \$2,438,410 | \$2,273,792 |
| | \$3,736,827 | \$3,539,388 | \$3,703,288 | \$3,688,701 | \$3,672,245 | \$3,542,502 |

Ohio River Basin Restoration Plan Development Schedule

- Plan being drafted with goal of having a final draft completed by the end of summer of 2023
- Ohio River Basin Restoration Initiative (ORBI) federal legislation needs to be drafted and introduced to the House and Senate
- Aspects of the plan related to Toxic Substances, Invasive Species, Nonpoint Source Pollution Impacts, Habit and Species and possibly other areas would be included in legislation

Sub-Committee Leads

- **Species and Habitat**

Ryan Argo, Ohio River Valley Water Sanitation Commission, rargo@orsanco.org

John Kanter, National Wildlife Federation, KanterJ@nwf.org

- **Acid Mine Drainage**

Jason Heath, Ohio River Valley Water Sanitation Commission, jheath@orsanco.org

- **Toxic Pollution**

Michael Murray, Augusta University/University of Michigan, mwmurray@umich.edu

Jason Heath, Ohio River Valley Water Sanitation Commission, jheath@orsanco.org

- **Non-point**

Greg Youngstrom, Ohio River Valley Water Sanitation Commission, gregy@orsanco.org

Jeff Thomas, Electric Power Research Institute, jthomas@epri.com

- **Water Infrastructure**

Sam Dinkins, Ohio River Valley Water Sanitation Commission, sdinkins@orsanco.org

- **Hydrology**

Jonathan Czuba, Virginia Tech University, jczuba@vt.edu

Lisa Hollingsworth-Segedy, American Rivers, LHollingsworth-Segedy@americanrivers.org

- **Invasive Species**

Brent Murry, West Virginia University, brent.murry@mail.wvu.edu

- **Climate Change**

Debbie Phillips, Rural Action, debbie@ruralaction.org

Jana Heisler White, Battelle, heislerwhite@battelle.org

- **Environmental Injustice**

Sally Gutierrez, EPA, Gutierrez.Sally@epa.gov

Jordan Lubetkin, National Wildlife Federation, Lubetkin@nwf.org

Questions?



6 7:23 PM



Agenda Item 3:

Continuing Review of ORSANCO's Monitoring Programs



Ongoing Review of ORSANCO's Monitoring Programs

Results of Monitoring Strategy Committee Meetings in April & June, 2023



Meeting Objectives

- 1) Continuing Review of ORSANCO's Monitoring Programs
- 2) Discuss Options for FFY24 Monitoring Initiative Funds of approx. \$79,000. These funds are not for ongoing, routine monitoring programs, but more to fill short-term needs. For the period Oct 2023 through Sept 2024.



Review of April 17, 2023 Monitoring Strategy Review Committee Meeting



April 17 Meeting

I. 305b Workgroup Has Been Recommending Monitoring Programs to Update Bacteria, PCBs, and Dioxin Data for Use in Future Ohio River 305(b) Assessments. Priority on Bacteria.

II. PFAS Monitoring as an Alternative Use of Monitoring Initiative Funds.

The mixed input received on these alternatives led to a follow up meeting in June.

Contact Recreation Use Assessments/Bacteria

- Vast majority of 305b Report Contact Recreation Use Assessment based on longitudinal bacteria surveys collected up until 2008.
- Based on that data, 2/3 of the Ohio River designated as impaired. Impairments can be highly variable depending on precipitation prior to sampling.
- Longitudinal surveys were comprised of 5 rounds of sampling, collected every 5 miles for 981 Ohio River miles, 4 staff & mobile lab, 15 weeks to complete.
- **Considered evaluating some alternative technologies:**
 - **Real-time tryptophan sensors with algorithms to estimate bacteria**
 - **Proteus & Turner**
- **Fluidion is a 7 bay sampler utilizing Colilert-type technology; USGS is evaluating this technology**



At the June 16 Meeting, we
discussed a larger set of
alternatives

Alternative Projects & Rankings

| | IL | IN | KY | PA | WV | |
|-----------------------------------|------------|---------|---------|--|-----------|---|
| Monitoring Strategy | | 2 | 1 | 1 | | * |
| Long-term Trends | 3 | 2 | 1 | 2 | | * |
| PFAS | 2 Water | 1 tribs | 2 tribs | 4 – passive 6 – eval of grabs needed | 1 | * |
| Evaluate Bacteria Technologies | 1 Fluidion | | | 3 Proteus | 2 Proteus | * |
| PCBs/Dioxin | | | | | | |
| Mussel Survey | | | | 5 | | |
| Tributary Metals | | | 3 | | | |
| Data Mgnt/Systems | | | 4 | | | |

- Monitoring Strategy & Long-term Trends are all staff time and therefore best for the budget.
- Benefits of Monitoring Strategy that it will allow us a further evaluation of all alternatives.
- PFAS water sampling analytical \$43K-45K plus shipping. Remainder for staff time.
- Proteus/Turner real-time monitors may not be suitable to replace 305b/303d listing data.



Agenda Item 4:

Technical Program Outcomes for
FY2024 from May Program &
Finance Committee Meeting



Technical Programs





Technical Program Highlights

Water Quality Monitoring Programs

Water Quality Assessment Programs

Biological Programs

Source Water Protection Programs

PCS

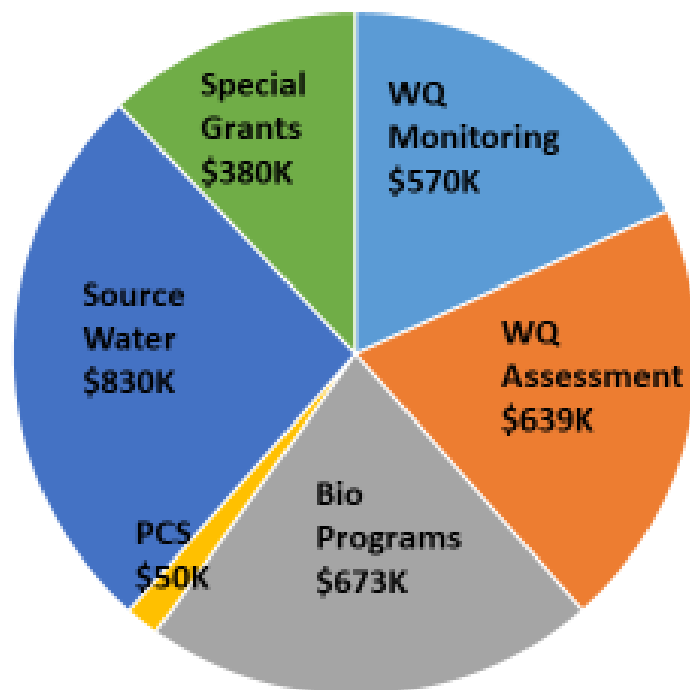
Special Projects Grants

| Budget Comparison FY23 vs. FY24 | | | | |
|--|--------------------|--------------------|----------------------|------------------|
| | FY23 | FY24 Proposed | Difference FY23-FY24 | |
| <u>Water Quality Monitoring</u> | | | | |
| Clean Metals | \$139,518 | \$130,232 | | -\$9,286 |
| Bimonthly Sampling | \$145,688 | \$120,974 | | -\$24,714 |
| Bacteria Monitoring | \$100,172 | \$116,379 | | \$16,207 |
| Supplemental | \$66,000 | \$66,000 | | \$0 |
| QA / QC | \$21,729 | \$35,196 | | \$13,467 |
| Algae/Nuts | \$96,441 | \$117,667 | | \$21,226 |
| Total | \$569,548 | \$586,448 | | \$16,900 |
| <u>Water Quality Assessment</u> | | | | |
| Monitoring Strategy Dev | \$123,409 | \$137,489 | | \$14,080 |
| Watershed Protection | \$291,139 | \$285,551 | | -\$5,588 |
| TMDL | \$5,801 | \$6,117 | | \$316 |
| Urban Wet Weather | \$2,947 | \$3,130 | | \$183 |
| Work Groups | \$110,086 | \$117,895 | | \$7,809 |
| Special Studies | \$4,277 | \$4,593 | | \$316 |
| WQ Assessment | \$101,382 | \$109,106 | | \$7,724 |
| Total | \$639,041 | \$663,881 | | \$24,840 |
| <u>Biological Programs</u> | | | | |
| Macro Studies | \$131,140 | \$107,733 | | -\$23,407 |
| Fish Tissue | \$76,193 | \$67,970 | | -\$8,223 |
| Fish Population | \$260,730 | \$257,659 | | -\$3,071 |
| Bio Studies | \$205,270 | \$215,243 | | \$9,973 |
| Total | \$673,333 | \$648,605 | | -\$24,728 |
| <u>Standards</u> | | | | |
| PCS Administration | \$23,910 | \$35,660 | | \$11,750 |
| PCS Development | \$26,121 | \$5,187 | | -\$20,934 |
| Total | \$50,031 | \$40,847 | | -\$9,184 |
| <u>Source Water</u> | | | | |
| ODS | \$480,342 | \$462,171 | | -\$18,171 |
| Spills | \$72,801 | \$91,151 | | \$18,350 |
| Emergency Response | \$60,306 | \$105,019 | | \$44,713 |
| Source Water Assessment | \$216,168 | \$257,149 | | \$40,981 |
| Total | \$829,617 | \$915,490 | | \$85,873 |
| <u>Special Project Grants</u> | | | | |
| IDEM 604b | \$150,502 | \$153,793 | | \$3,291 |
| IDEM Fish Tissue | \$16,762 | \$19,326 | | \$2,564 |
| NRSA | \$138,397 | \$337,213 | | \$198,816 |
| WV604b | \$22,393 | \$28,015 | | \$5,622 |
| OEPA 604b | \$51,650 | \$98,457 | | \$46,807 |
| Total | \$379,704 | \$636,804 | | \$257,100 |
| Grand Total | \$3,141,274 | \$3,492,075 | | \$350,801 |

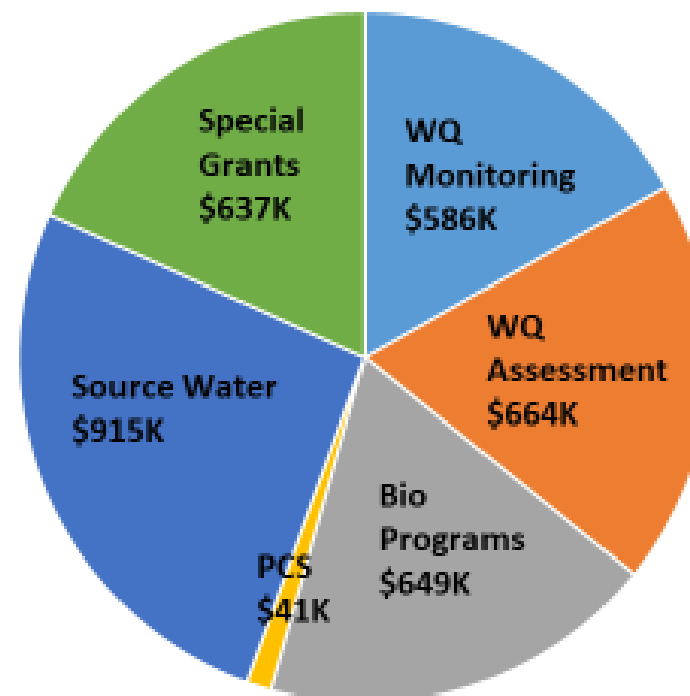


Technical Programs

FY23: \$3,141,274



FY24: \$3,492,075



Technical Program Highlights



Personnel

- Converting an NRSA Contract Position to Fulltime Biologist.
- New Chemist/ES2 Position.

Biological

- NRSA for next 2 years. As a result, we will be doing 2 bio pool surveys for next 2 years.
- Contributes significantly to budget outlook.
- Added PFAS to Fish Tissue Contaminants Program.
- Limited mobile aquarium events; in-house training of additional staff.

Monitoring & Assessment

- Long-term Goal to Update BacT, Dioxin, PCBs, PFAS data for 305b purposes.
- Monitoring Initiative Grant (\$66K) budgeted to evaluate real-time bacteria sensor technology. This may change based on input from Monitoring Committee.
- Initiate Database Upgrade.
- 305b Reporting Year.

Source Water

- Support for Spill Model, New Flows Database, ODS Alert System.
- Enhanced Emergency Response Training for Existing Chemist Position.
- Relocate Maysville & Kanawha River ODS Stations.

Technical Program Highlights



Special Projects Grants

- Ohio 604b (\$99K) Supports ODS Network.
- IDEM 604b (\$153K) supports HABs Continuous Monitoring Program.
- IDEM Fish Tissue (\$19k) supports additional tissue collection for PFAS, other.
- WVDEP 604b (\$28K) supports additional bacteria monitoring at WV Contact Rec Monitoring sites.

Anticipated New Special Projects Grants

- Expect continued IN, OH, and WV 604b grants for FY24.
- There may be additional WV604b dollars available for FY24 &/or FY23.
- Proposal to WVVRI for USGS 104G Grant for additional PFAS EDI vs. Discrete sampling. Would act as contractor. Would contribute \$35K Personnel Costs.
- Anticipating Gulf of Mexico/HABs Grant (\$100,000 per year for 4 Years) from EPA. 1st Year Potential Project to Collect Monthly Nutrients Data to Support Loading Analyses at Bimonthly Sampling Stations. Establish NPS Committee to meet three times annually.
- Confirmed Special Projects Contribute \$320K to ORSANCO's Bottom Line Budget Outlook for FY24 (covers personnel costs).



Agenda Item 5: Biological Programs Update

Informative Item – No Action Required

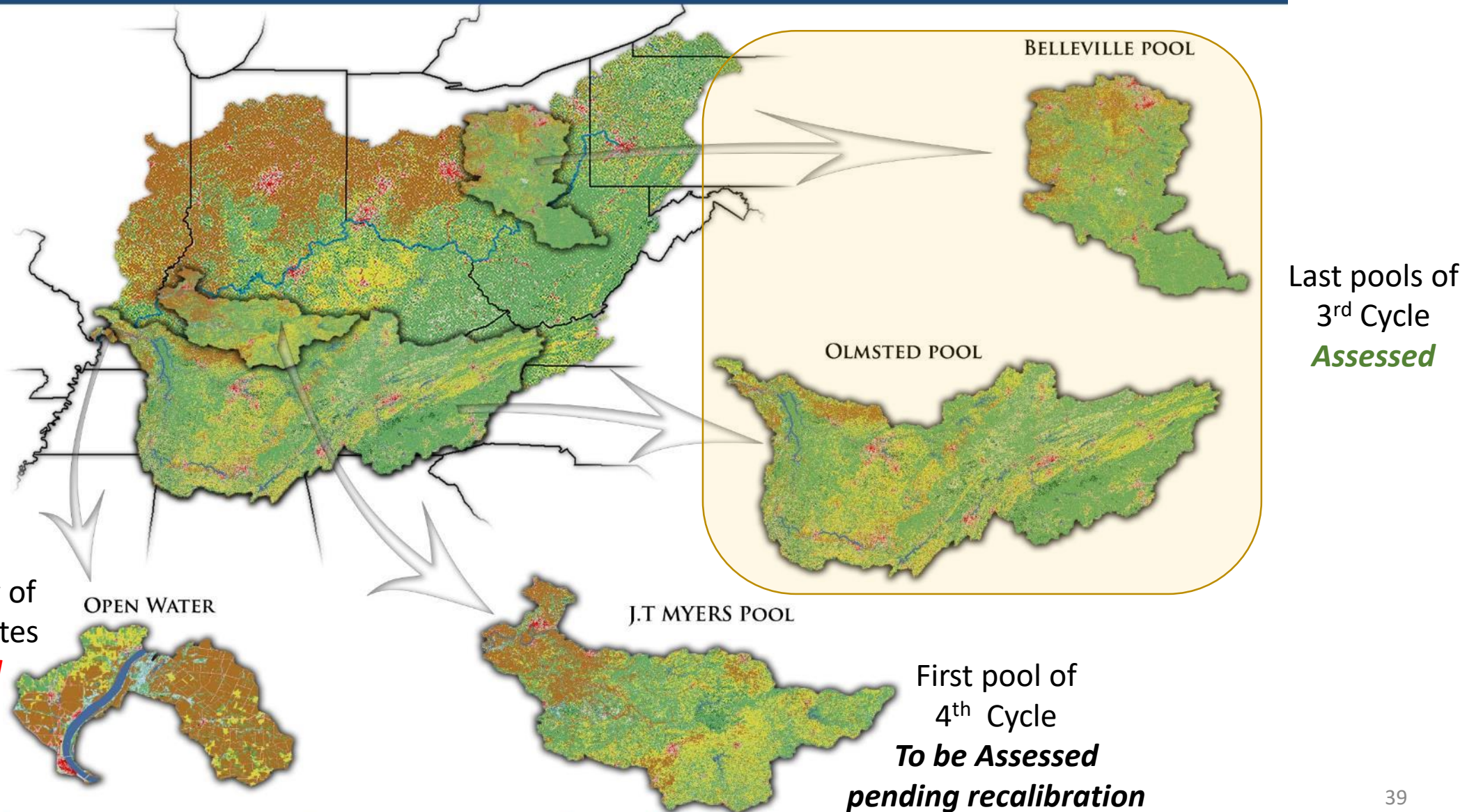
Ryan Argo

rargo@orsanco.org



2022 POOL SURVEY RESULTS

The results of the 2022 biological surveys are detailed in the following pages (relative pool locations shown below). Included are brief descriptions of the land use & hydrology, site level mORFIn & ORMIn ratings, summaries of notable catches & instream habitat, and the overall biological condition of each pool.



BELLEVILLE POOL (2022) - HEALTHY CONDITION

DOMINANT MACRO GROUPS



Dicrotendipes modestus/tritonus



Hydrobiidae sp.



Dreissena polymorpha



Gammarus fasciatus



Stenacron interpunctatum

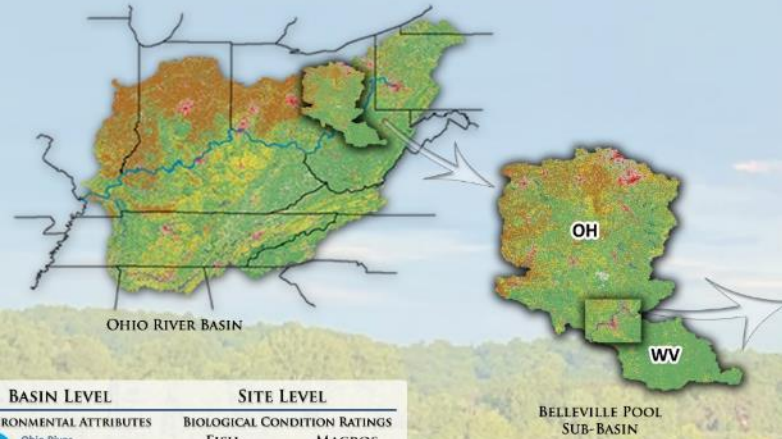


Boulder 4.1%



www.orsanco.org

The Belleville Pool is 42.2 miles long, extending from Willow Island Locks and Dam (ORM 161.7) to Belleville Locks and Dam (ORM 203.9). The pool has a gradient drop of 0.5 feet per mile and averages 1,327 feet wide and 24 feet deep (ORSANCO 1994). The pool is bordered by West Virginia and Ohio and lies in a portion of the Ohio River moderately influenced by industry and barge activity. The largest cities along the pool are Marietta, OH (the oldest city in the state) and Parkersburg, WV. The Belleville pool has three large tributaries, the Muskingum and Hocking Rivers in Ohio and the Little Kanawha River in West Virginia. Combined, these tributaries drain an area of over 10,000 square miles. The pool has multiple islands scattered throughout its reach, providing a variety of habitats for aquatic species. The watershed is primarily forested (55.72%), and is also comprised of pasture lands (18.28%) and row crops (11.87%).



| BASIN LEVEL | SITE LEVEL | |
|-----------------------------|------------|--------|
| ENVIRONMENTAL ATTRIBUTES | FISH | MACROS |
| Ohio River | | |
| Tributaries | | |
| Locks & Dam | | |
| Most Populous Cities | | |
| Developed Areas | | |
| Agricultural/Pastoral Lands | | |
| Natural Forests | | |



Belleville L & D

BELLEVILLE POOL

DOMINANT FISH FAMILIES



Gizzard Shad



Channel Shiner



Bluegill



River Carpsucker



Freshwater Drum

AQUATIC INVASIVES WATCH



SURVEY SUMMARY

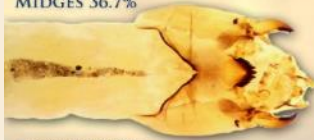
Electrofishing sampling took place over one week in early July at the beginning of the index period (July-Oct). Sampling conditions were favorable marked by low flows and high Secchi readings; however water temperatures were the highest on record (avg=24.9; max=32.6 degrees C). Three species considered to be "irruptive species" comprised 75.9% of the total catch: Gizzard Shad (*Dorosoma cepedianum*, n=1,034), Channel Shiner (*Notropis wickliffi*, n=318), and Emerald Shiner (*Notropis atherinoides*, n=278). Notable catches included one Ohio species of concern (River Redhorse, *Moxostoma carinatum*, n=1) and one individual that typically inhabits small-medium rivers was captured in between the Muskingum and Little Kanawha Rivers at RMI 176.4 (Silverjaw Minnow, *Notropis buccatus*). Of the 2022 macroinvertebrate assessments, the highest species diversity was observed in the Belleville Pool, with 118 unique taxa collected. Notable macroinvertebrate collections from Belleville Pool include Alderflies (*Sialis* sp.; n=2), eight different species of Dragonflies and Damselflies (Order: *Odonata*), and 29 different EPT taxa including Winter Stoneflies (*Taeniopteryx* sp.; n=16) which are sprawler/clinger detritivores that are generally intolerant to pollution, though some species are adapted to large polluted rivers. Independent biological indices were used to apply numeric values to important components of fish and macroinvertebrate assemblages and assess their relative status. The results (see above map) show that, on average, fish populations in Belleville Pool were in 'Fair' condition and macroinvertebrate populations were in 'Good' condition.

BOULDER 4.1% COBBLE 4.6% GRAVEL 15.2% SAND 27.5% FINES 43.7% HARDPAN 2.4% OTHER 2.3%

POOL SUBSTRATE COMPOSITION

DOMINANT MACRO GROUPS

MIDGES 36.7%



Dicrotendipes lucifer

CADDISFLIES 33.4%



Cyrnellus fraternus

MUSSELS 10.5%



Dreissena polymorpha

SCUDS 8.3%



Gammarus fasciatus

MAYFLIES 6.0%



Hexagenia limbata

BOULDER 1.4% COBBLE 1.5%



www.orsanco.org

OLMSTED POOL (2022) -

HEALTHY CONDITION

The Olmsted Pool is 46.3 miles long, extending from Smithland Locks and Dam (ORM 918.5) to Olmsted Locks and Dam (ORM 964.8). The pool has a gradient drop of 0.3 feet per mile and averages 3,500 feet wide and 20 feet deep. The pool flows adjacent to Kentucky and Illinois and lies in a portion of the Ohio River with a large amount of barge activity. It has two major tributaries: the Cumberland and Tennessee rivers with drainage areas of 17,920 and 40,910 square miles, respectively. The pool's watershed is primarily forested (57.9%) but also has a considerable amount of pasture lands (19.3%) and row crops (5.5%).



DOMINANT FISH FAMILIES

DRUM 42.1%



Freshwater Drum

GARS 16.2%



Longnose Gar

TEMPERATE BASSES 12.4%



Morone sp.

HERRING & SHAD 12.1%



Gizzard Shad

SUCKERS 8.0%



River Carpsucker

OTHER 0.4%

AQUATIC INVASIVES WATCH



SURVEY SUMMARY

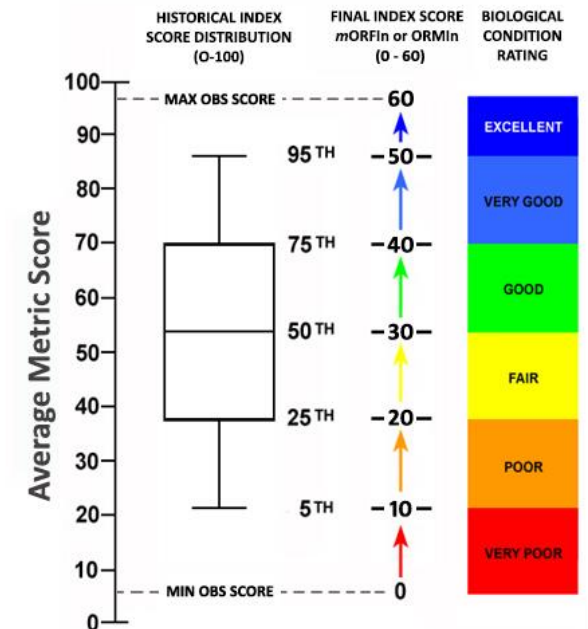
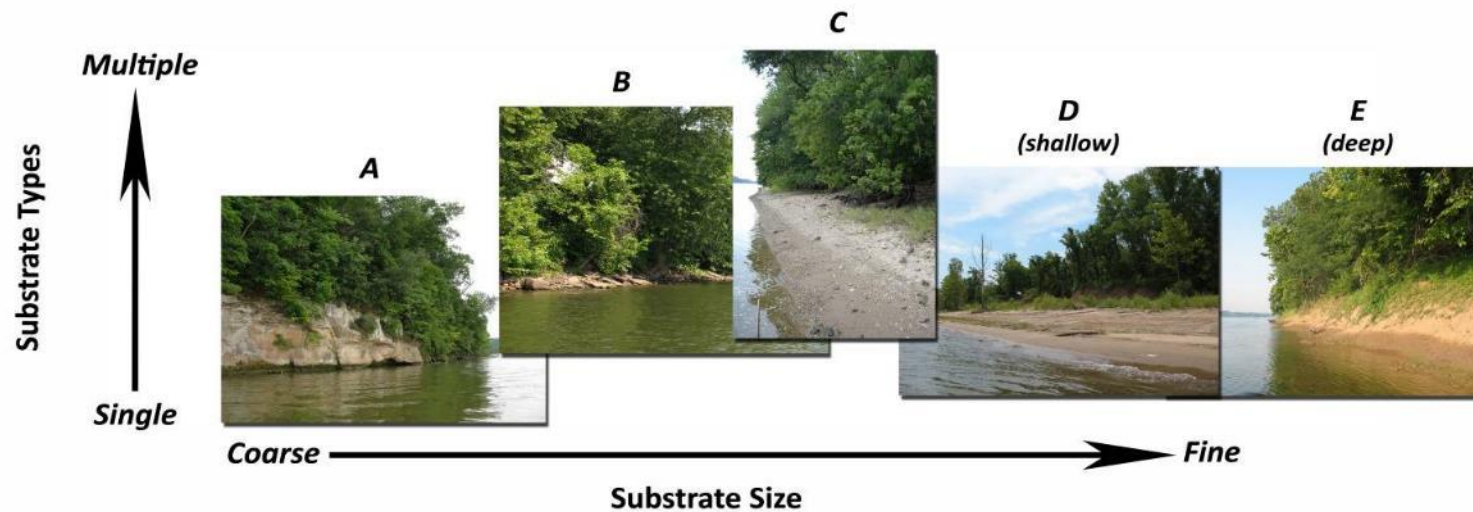
Electrofishing sampling occurred during normal sampling conditions with roughly half of the sites surveyed at the end of July and the other portion completed at the end of August. Notable observations over the last three assessment cycles included an increased abundance of Freshwater Drum (*Aplodinotus grunniens*, n=576) and Longnose Gar (*Lepisosteus osseus*, n=140). Declines in Sauger (*Sander canadensis*, n=10), Channel Catfish (*Ictalurus punctatus*, n=35), and Smallmouth Buffalo (*Ictiobus bubalus*, n=17) numbers were observed. Notable catches include KY threatened species Mississippi Silverside (*Menidia audens*, n=1) and KY species of concern, Black Buffalo (*Ictiobus niger*, n=9). Notable macroinvertebrate collections included 18 different EPT taxa including a high percentage of tolerant Trumpetnet/Tubemaking Caddisflies (*Cyrnellus fraternus*) and Common Net-Spinner Caddisflies (*Hydropsyche orris*). The Dragonhunter Clubtail Dragonfly (*Hagenius brevistylus*; n=4) has occurred four times in the history of ORSANCO macroinvertebrate surveys, one of these observations being in the Olmsted Pool during the 2022 surveys. This large predatory species is a sprawler and is often imperiled in areas with high zebra mussel density due to mussel colonization on their wide abdomen. Independent biological indices were used to apply numeric values to important components of fish and macroinvertebrate assemblages and assess their relative status. The results (see above map) show that, on average, fish in Olmsted Pool were in 'Fair' condition and the macroinvertebrates were in 'Very Good' condition. Overall, these results indicate that Olmsted Pool harbored healthy aquatic communities.

POOL SUBSTRATE COMPOSITION



Biological Index Recalibration

Addressing the Emergence of Submerged Aquatic Vegetation



Overview –Datasets & Methods PI: Bridget Borrowdale, Aquatic Biologist

Qualitative Dataset (2004-2022; n=777)

- Assess existing habitat classes with more recent data than original mORFIn calibration dataset
- Original 80 habitat variables
- Added 2 *qualitative* SAV and Woody Cover variables



Quantitative Dataset(2016-2022; n=248)

- Assess existing habitat classes with more comprehensive SAV data
 - Original 80 habitat variables
 - Added 15 *quantitative* SAV variables
- Further investigate SAV
 - Impacts on biology and mORFIn metrics



| | | | Species Name (abbreviate & circle rake fullness observed) | | | | | | | | | |
|--------------------------|-----------|-------------|---|---------|---------|---------------|---------|---------|----------------|---------|---------|--------|
| Transect | DFS (ft) | Device | | | | | | | | | | |
| 100 | 0 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 10 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 20 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 30 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 40 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 50 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 60 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 70 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 80 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 90 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| 100 | 100 | P R | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | 0 1 2 3 | |
| Voucher Type | | | Photo | Sample | Photo | Sample | Photo | Sample | Photo | Sample | Photo | Sample |
| Visual Veg. Observation: | | | | | | | | | | | | |
| Transect | 100 - 200 | Emergent %: | Emergent Type: | | | Submergent %: | | | Woody Cover %: | | | |

| Fullness Rating | Coverage | Description |
|-----------------|----------|--|
| 0 | | No plants present. |
| 1 | | Only few plants. There are not enough plants to entirely cover the length of the rake head in a single layer. |
| 2 | | There are enough plants to cover the length of the rake head in a single layer, but not enough to fully cover the tines. |
| 3 | | The rake is completely covered and tines are not visible. |

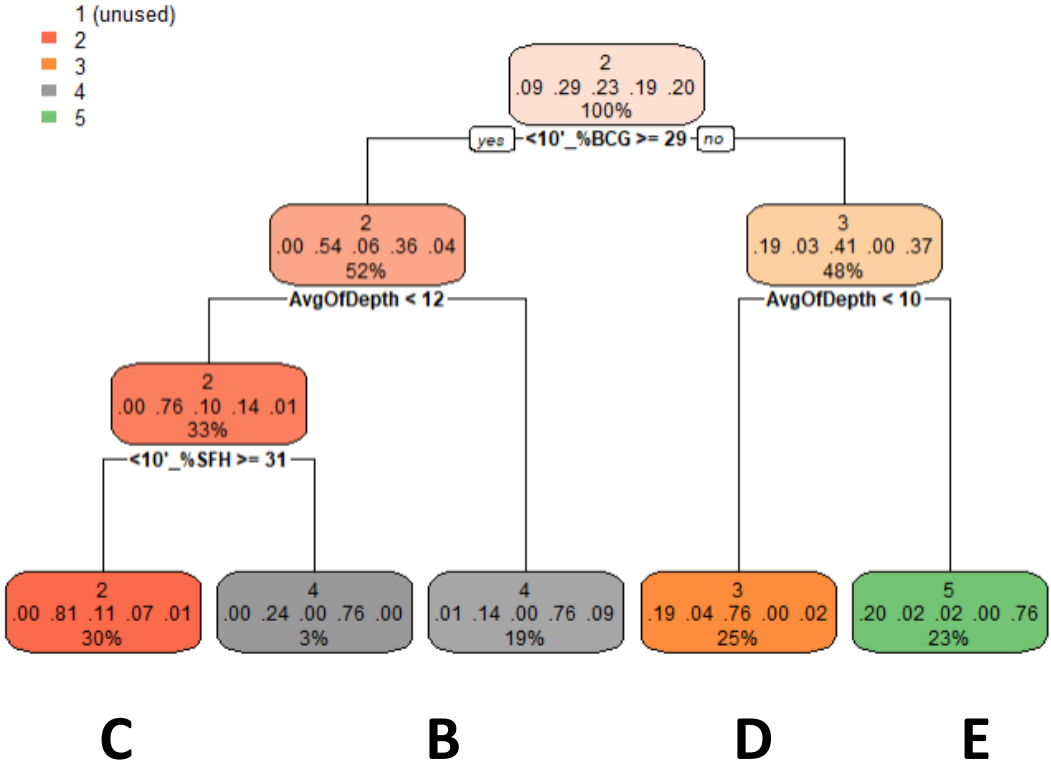
Figure 3. Illustration of rake fullness ratings modified from Hauxwell et al. 2010.

Used K-means Clustering, Principal Components Analysis, CART Analysis, and **Breakpoint Analysis**

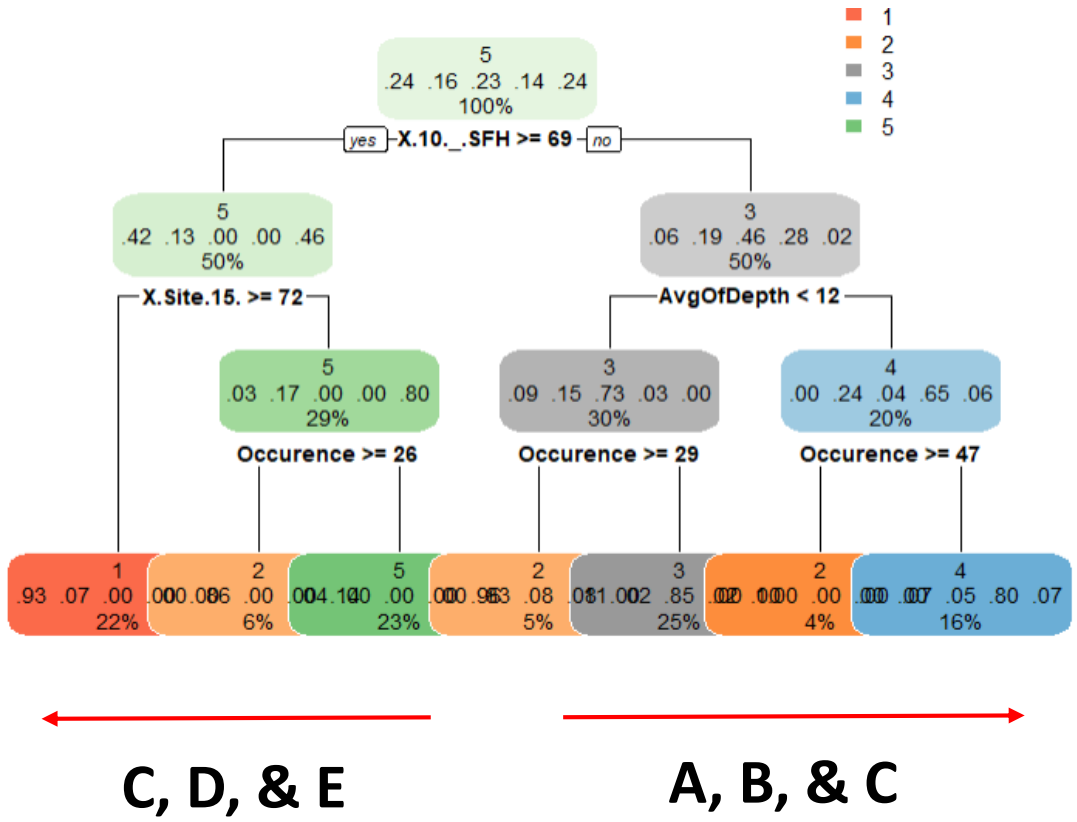
Finding 1: CART Analysis confirmed existing Habitat Classes



Qualitative SAV

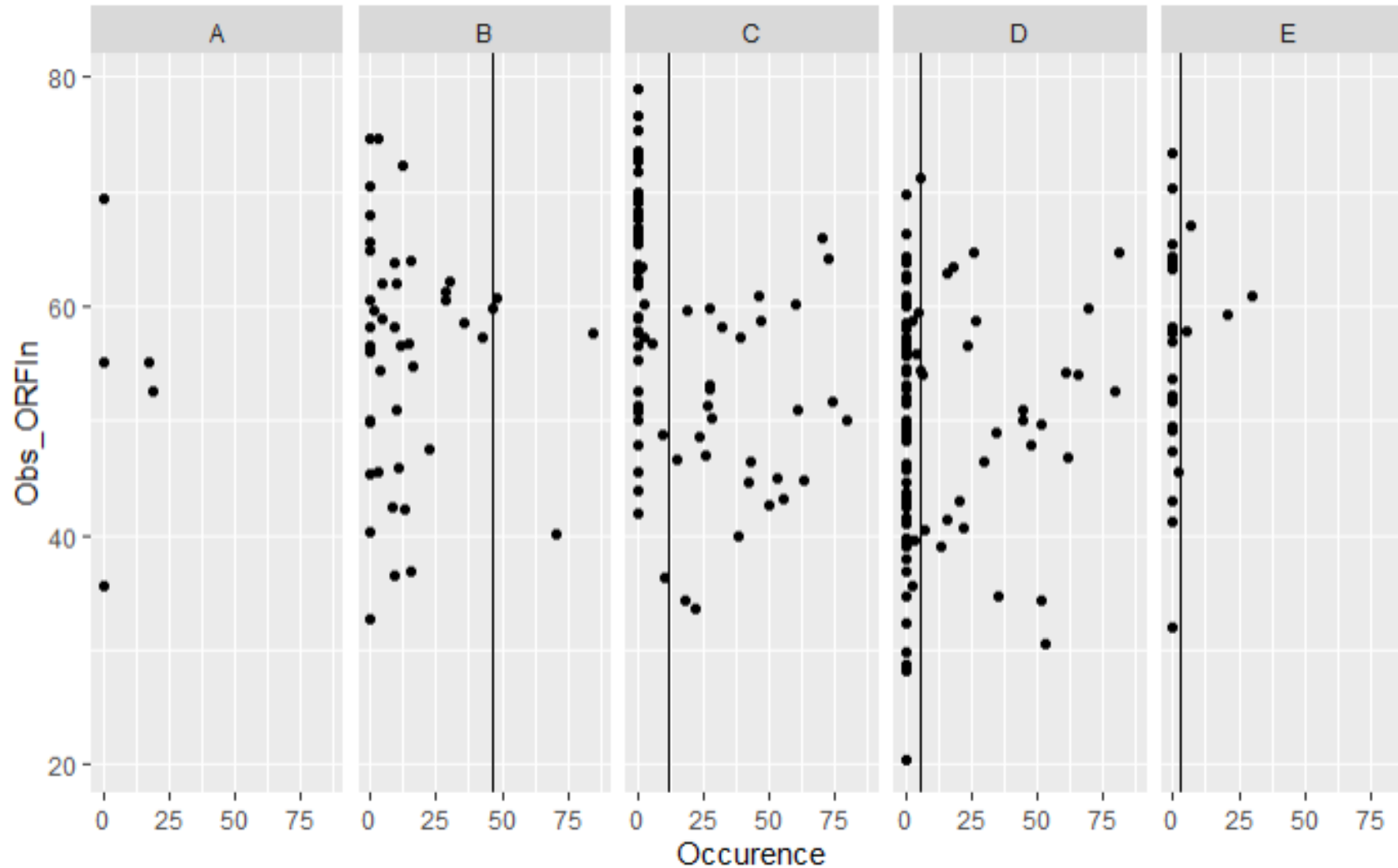


Quantitative SAV



Visual SAV not as valuable as measured occurrence

Finding 2: Breakpoint analysis showed ORFI_n and raw fish metrics decreasing beyond 15-25% SAV Occurrence



Value needs further investigation / More Data

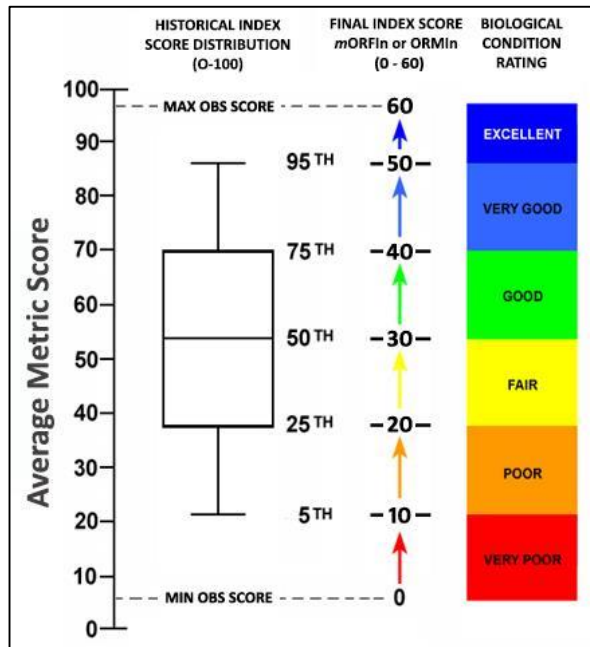
Biological Index Recalibration

Retained

- 13 original ORFIn fish metrics
- 8 original ORMin bug metrics
- River-mile adjustments
- Continuous metric scoring (0-100)

Updated

- Created SAV subcategories for each Habitat class
 - Based on Presence/Absence
 - **Not enough data for %Occurrence**
- Calculated new scoring thresholds for subcategories with SAV



All
Prob
Sites

SAV Present



Assessed two different ways

- only raising thresholds
- using new thresholds regardless of directionality

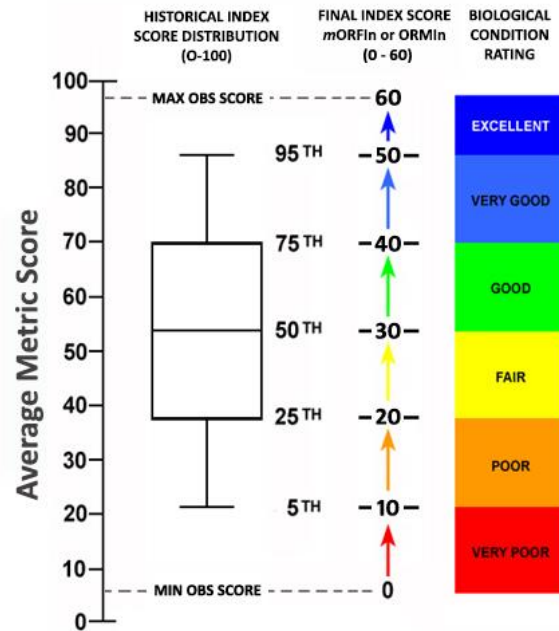
NO SAV



Assessed with original thresholds

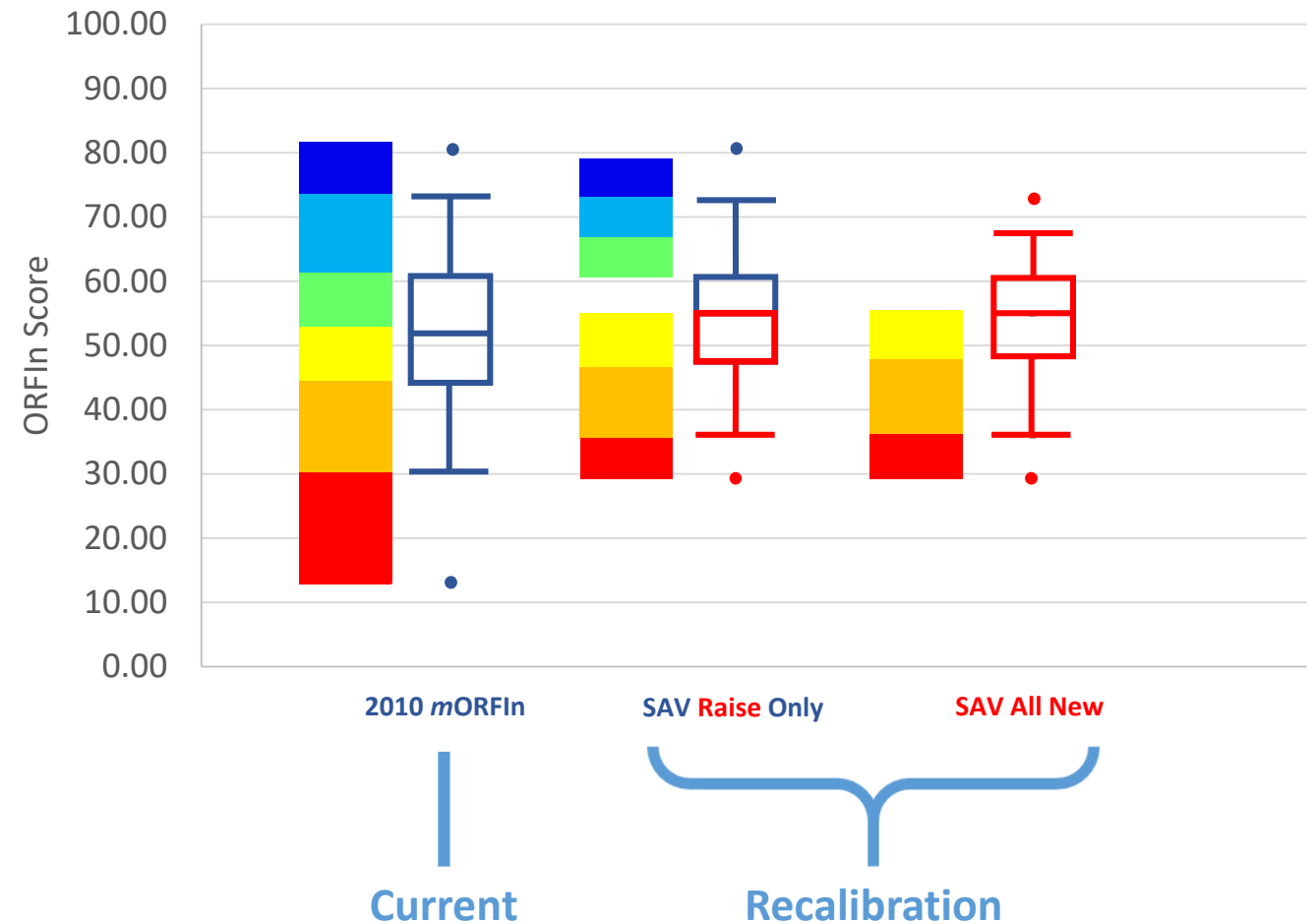
Biological Index Recalibration: EXAMPLE

Retained Scoring Methods

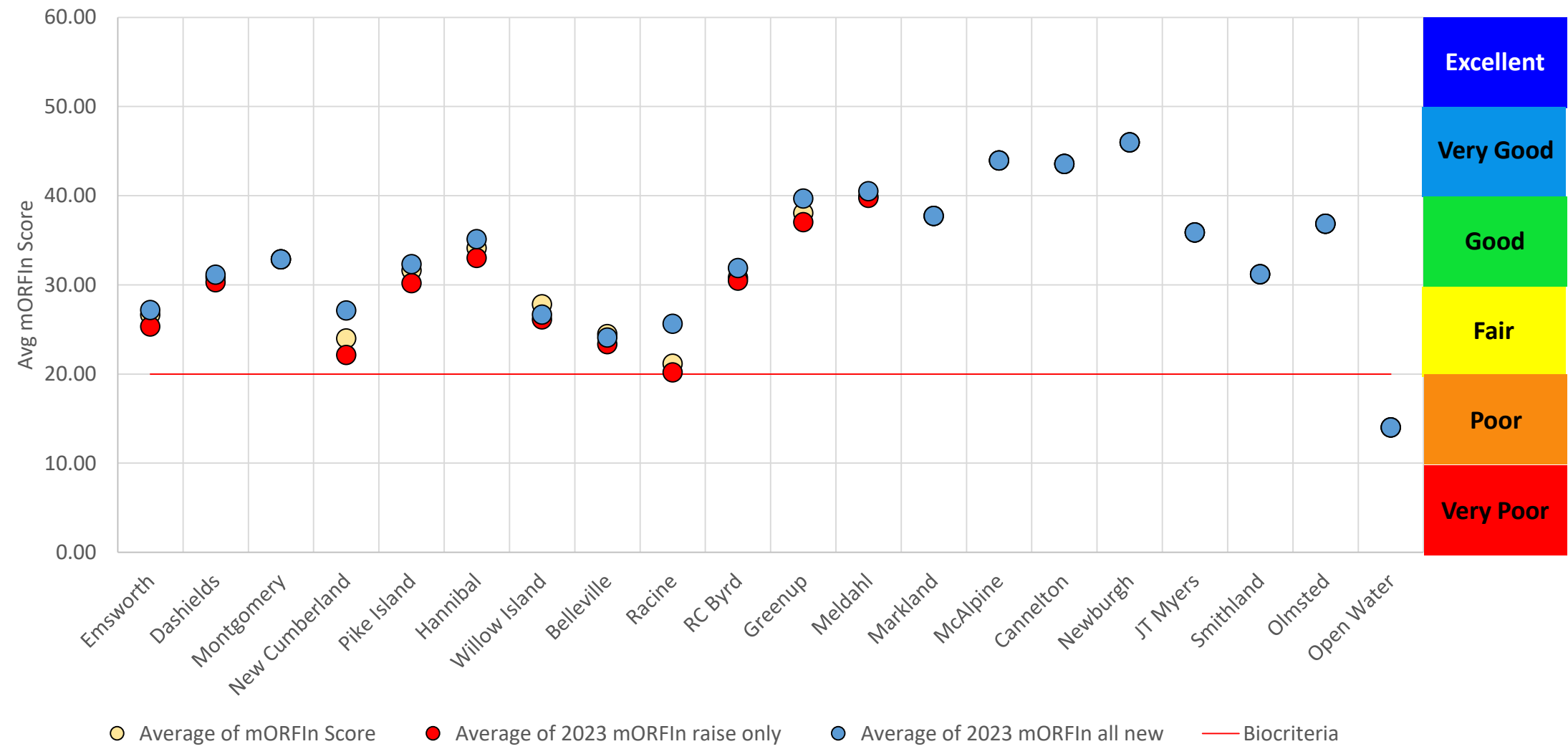


Just included recent data and SAV subcategories to adjust for effects

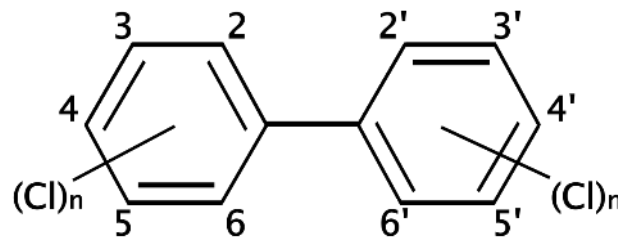
Statistical Thresholds for Habitat "C"



Finding 3: Recalibrated indices account for known SAV effects



2nd Assessment Cycle 2010 - 2014



PCBs in Channel Catfish Tissue Report Update

Select Results & Conclusions

- PCBs decreased over time across all but the smallest data group
 - Compound mobility + natural degradation = decreased exposure
 - Lipid content also decreased over time
 - Observed across fresh and marine ecosystems possible climate change link
- Steepest rates of decline in older data groups, declining river mile trend
 - Tracks with historic sources & moratorium on PCB production

Report Timeline

- January 25th - Draft out for review by BWQSC members
- Staff near completion incorporating comments – will submit to TEC
- Consideration for approval at Oct. TEC meeting





2023 Biological Survey Schedule

- **National Rivers and Streams Assessments (NRSA)**
 - Index period is **June – September 30th**
- **Reduction to two Ohio River Pool Surveys**
 - Electrofishing begins in **July**
 - Fixed Stations Surveys conducted in **August**
 - Macroinvertebrate HD's are set and SAV collections in **September**
 - Retrieval of HD's and multi-habitat kicks in October
- **BWQSC has afforded staff the ability to prioritize normal activities**
 - Staff will continue to communicate with the BWQSC should further adjustments be required.

ORSANCO 2023-24 NRSA Sites

92 Events

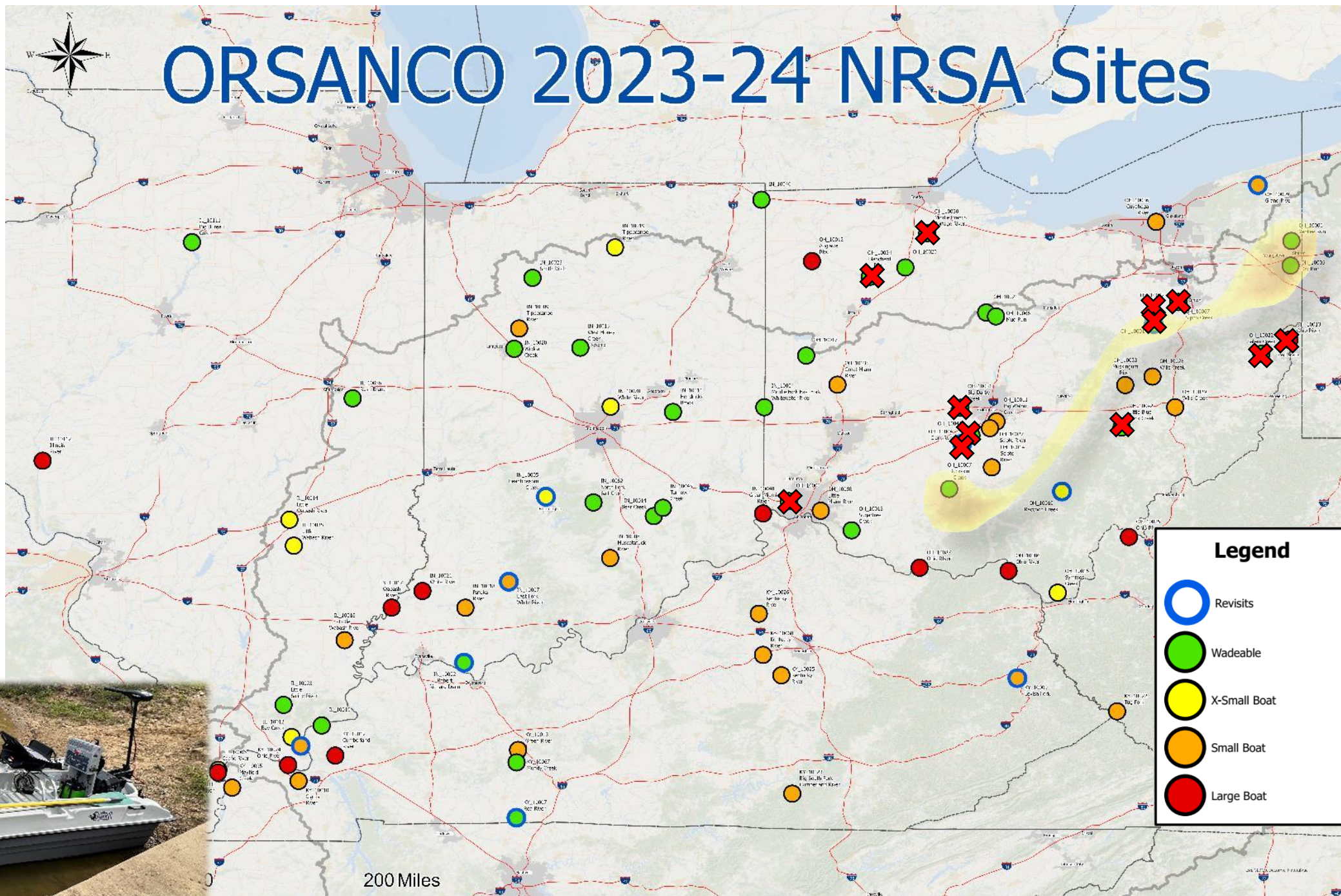
- OH (40)
- KY (16)
- IN (23)
- IL (13)

Site Lengths

- 150m – 4km

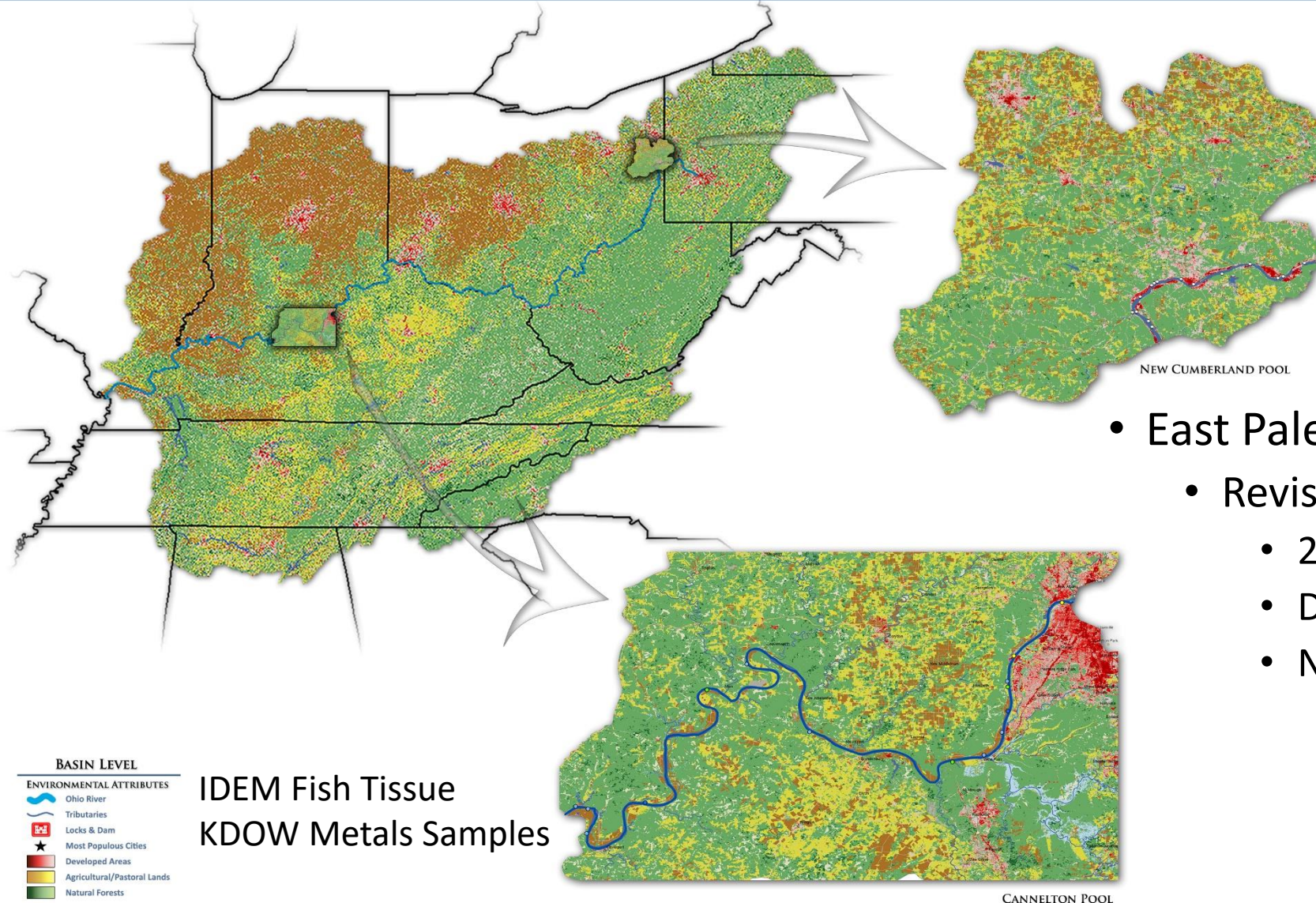
Dedicated Staff

- Six ORSANCO
- Six Seasonal



2023 POOL SURVEYS

The results of the 2023 biological surveys are detailed in the following pages (relative pool locations shown below). Included are brief descriptions of the land use & hydrology, site level mORFin & ORMIn ratings, summaries of notable catches & instream habitat, and the overall biological condition of each pool.



- East Palestine Follow-up
 - Revisit Lower Little Beaver Creek
 - 2017: Two 500m sites
 - Day-time electrofishing only
 - No fish tissue

For more detailed catch, metric, and index scores visit www.orsanco.org/programs/biological-programs





Agenda Item 6:

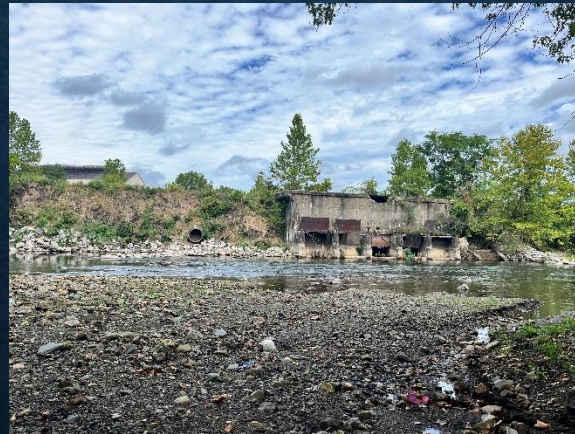
Source Water Protection & Emergency Response Programs Update

Sam Dinkins

SOURCE WATER PROTECTION & EMERGENCY RESPONSE

Technical Committee

June 27-28, 2023

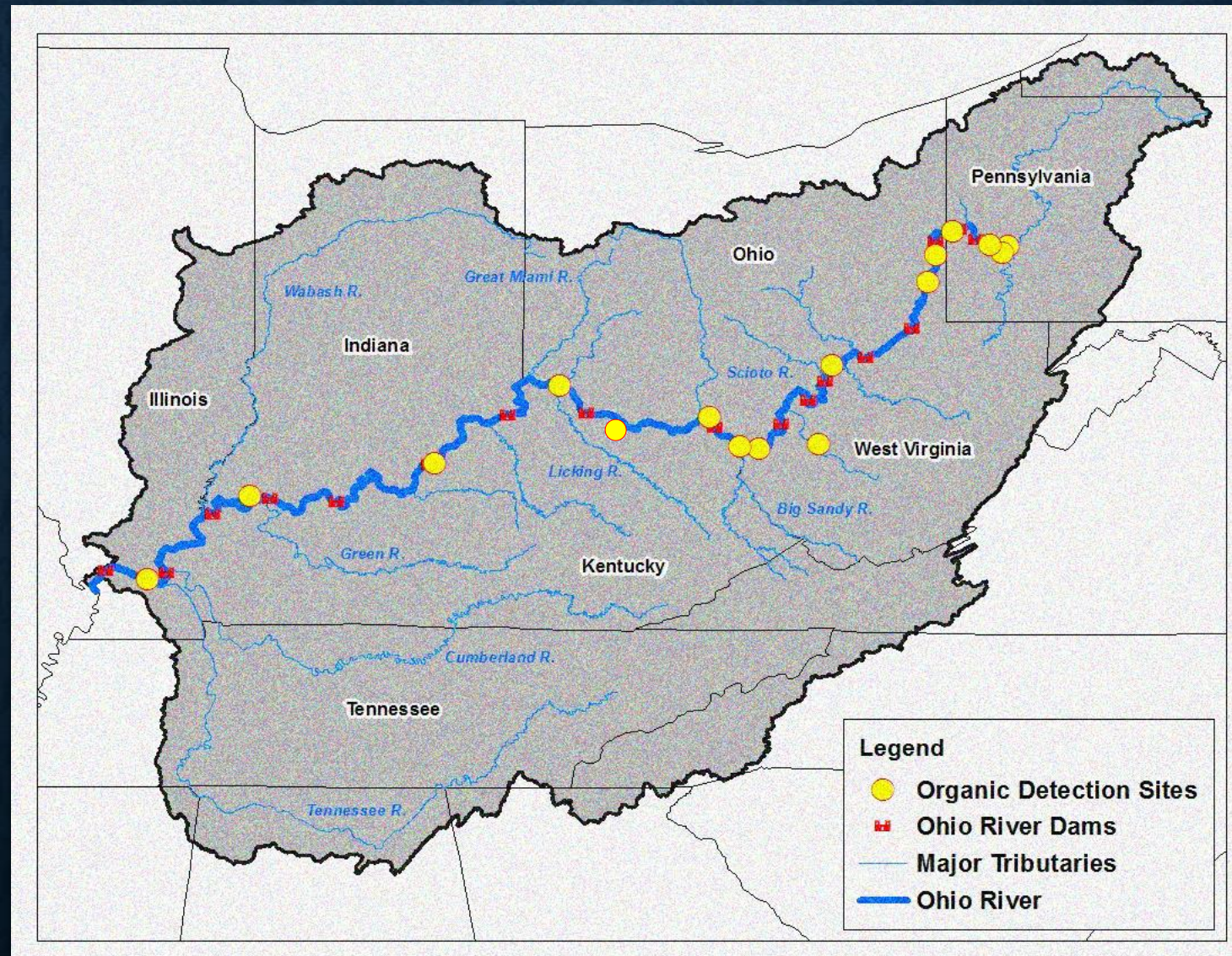


OUTLINE

- Source Water Protection
 - Organics Detection System Status
 - Upper Ohio River Basin Activities
- Emergency Response
 - Mahoning River Benzene Detections
 - Methanol Barge Incident



ORGANICS DETECTION SYSTEM MAP



ORGANIC DETECTION SYSTEM UPDATE

- Recurring issues with CMS5000 units
- Purchased GC/MS Instrument
 - Demo unit discounted to roughly 1/3 retail cost
 - Installed at Portsmouth, Ohio site
- Parkersburg Site
 - Chronic issues with instrument
 - Host offered to replace and maintain entire unit
- Data Management & Alert System Project
 - Develop centralized data management system and automated alert system to notify staff when detections occur
 - Initiated December 2022; Phase I completion anticipated late 2023



UPPER OHIO RIVER BASIN SOURCE WATER PROTECTION

- Exploring potential expanded role for ORSANCO to address source water protection needs in upper basin
- Potential areas for expanded activities ???
 - Create Southwest PA Water Users Committee
 - Develop spill notification directory
 - Extend spill notifications to upper basin tributaries
 - Extend spill response services to tributaries
 - Source water protection planning assistance
 - Centralized hub WaterSuite Contaminant Source Inventory software
- Ongoing discussions regarding need/desire and possible funding mechanisms
 - Participated in Allegheny & Monongahela Regional Source Water Protection meetings (March 2023)
 - Presenting at upcoming Southwest PA Source Water Protection Conference (Sept 2023)



MAHONING RIVER BENZENE

- Feb 1, 2022: Benzene & toluene first detected at Midland, PA
- Subsequent detections at numerous downstream ODS stations
- Source isolated to 4-mile stretch of Mahoning River
- Detections persisted for months
- Detections resumed during winter months
- On-going investigation to determine specific source



METHANOL BARGE INCIDENT MCALPINE LOCKS & DAM MARCH 28, 2023

- 10 barges broke away from tow boat just upstream of McAlpine Locks & Dam
- State, federal, and local authorities quickly setup command post
- National & local media coverage
- 3 barges pinned against dam
 - 1 barge loaded with 10,000 barrels of methanol
 - Other barges involved loaded with corn and soybeans
- High-flow conditions hampered recovery
- Methanol barge freed on April 7 (10 days after incident)
- KYDEP water & air sampling all non-detect





Agenda Item 7: East Palestine Spill Debriefing

EAST PALESTINE, OHIO TRAIN DERAILMENT



**Ohio River Valley Water Sanitation Commission
(ORSANCO)**



EAST PALESTINE DERAILMENT PRESENTATION & DISCUSSION

- 1) Incident & Response Overview
- 2) Challenges
- 3) Lessons Learned
- 4) Open Discussion



INCIDENT OVERVIEW & RESPONSE

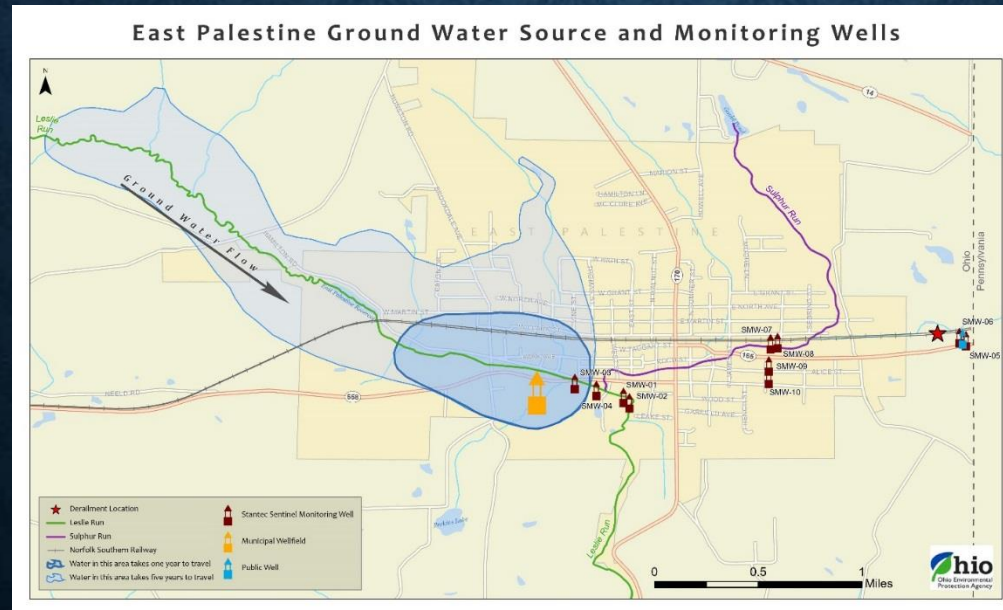
East Palestine Train Derailment



TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

Feb 3, 2023 – Train derails in East Palestine, OH at 20:55

- 50 cars derailed (10 haz mat tankers)
- NRC report received 23:12 indicating derailed cars on fire
 - Potential release of unknown materials



TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

Feb 4, 2023 –

- Fire ongoing, but reduced
 - 5 vinyl chloride tankers derailed (at least 2 engulfed)
 - Other hazmat railcars also burned
 - Unknown materials/quantities released
 - Sulphur Run to Leslie Run impacted by runoff
 - Fish kill observed
 - Incident location is 19 stream miles to the Ohio River
 - Enters Ohio River at ORM 39.6
-
- ORSANCO notified water utilities from East Liverpool, OH to Weirton, WV
 - Spill report emailed to distribution list



Melissa Smith via AP

TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

Feb 5, 2023 –

- Pressure buildup noted in vinyl chloride railcar due to damaged relief valve
- EPA/RP conducting water sampling in creeks
- Press conference indicates material contained and none has reached Little Beaver Creek

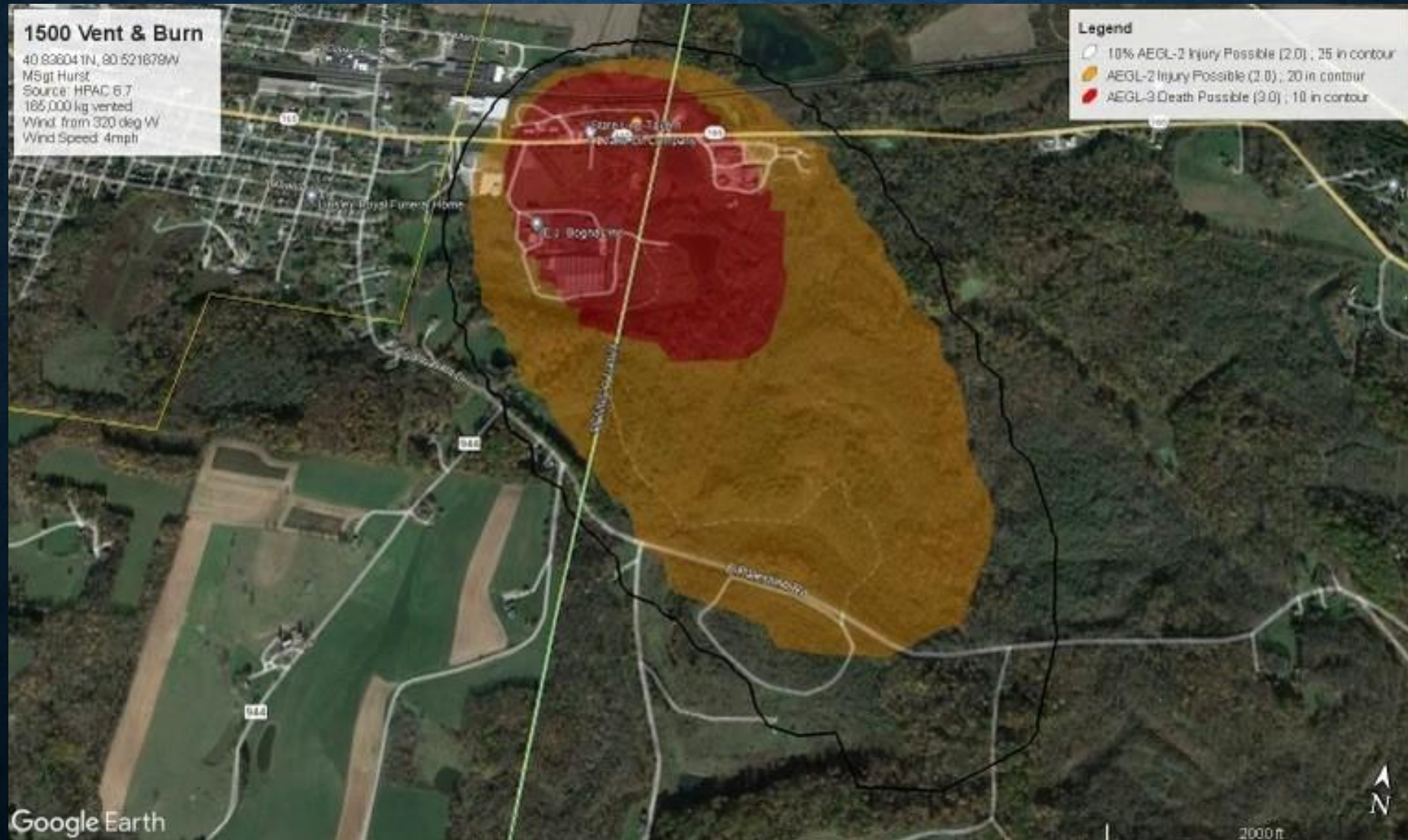
Feb 6, 2023

- Products being transported reported to include:
 - Vinyl chloride
 - Butyl acrylate
 - Benzene residue
 - Combustible liquids
- Still no volumes associated with release
- OEPA believes some butyl acrylate released into the creek and escaped containment
- Weirton, WV ODS station running samples every 2 hours
- All Ohio River water samples non-detect as of XX:YY



Gene J. Puskar / AP

EVACUATION ZONES FOR CONTROLLED RELEASE



TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

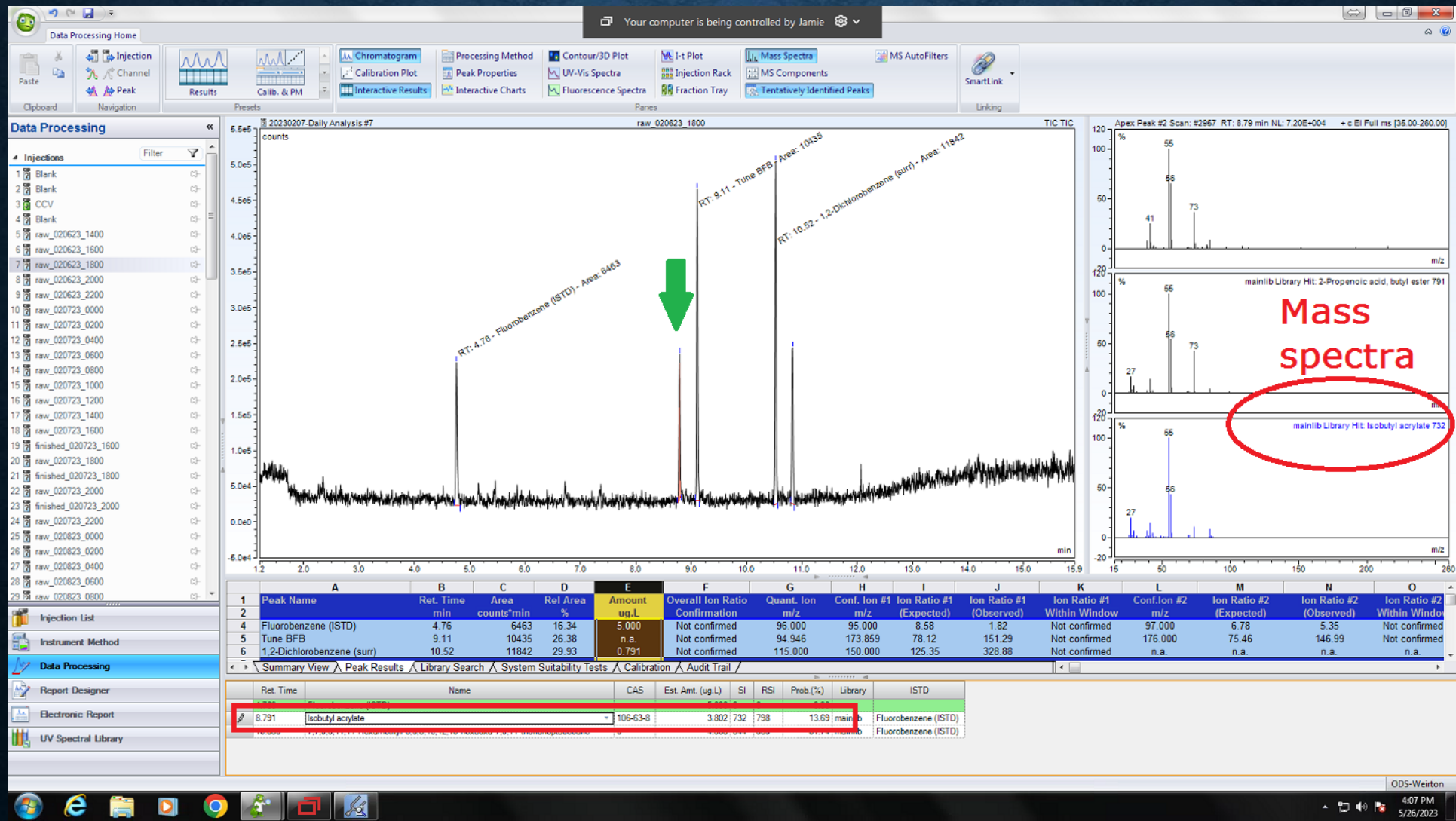
Feb 7, 2023 –

- ORSANCO briefs Technical Committee
 - No detections at that time
 - Shortly thereafter first detection observed
- Butyl acrylate detected at Weirton in sample collected at 1600 on Feb 6
- All surface water utilities from East Liverpool, OH to Wheeling, WV notified by phone of detections
- ORSANCO water quality field crew mobilized



INITIAL DETECTION AT WEIRTON, WV

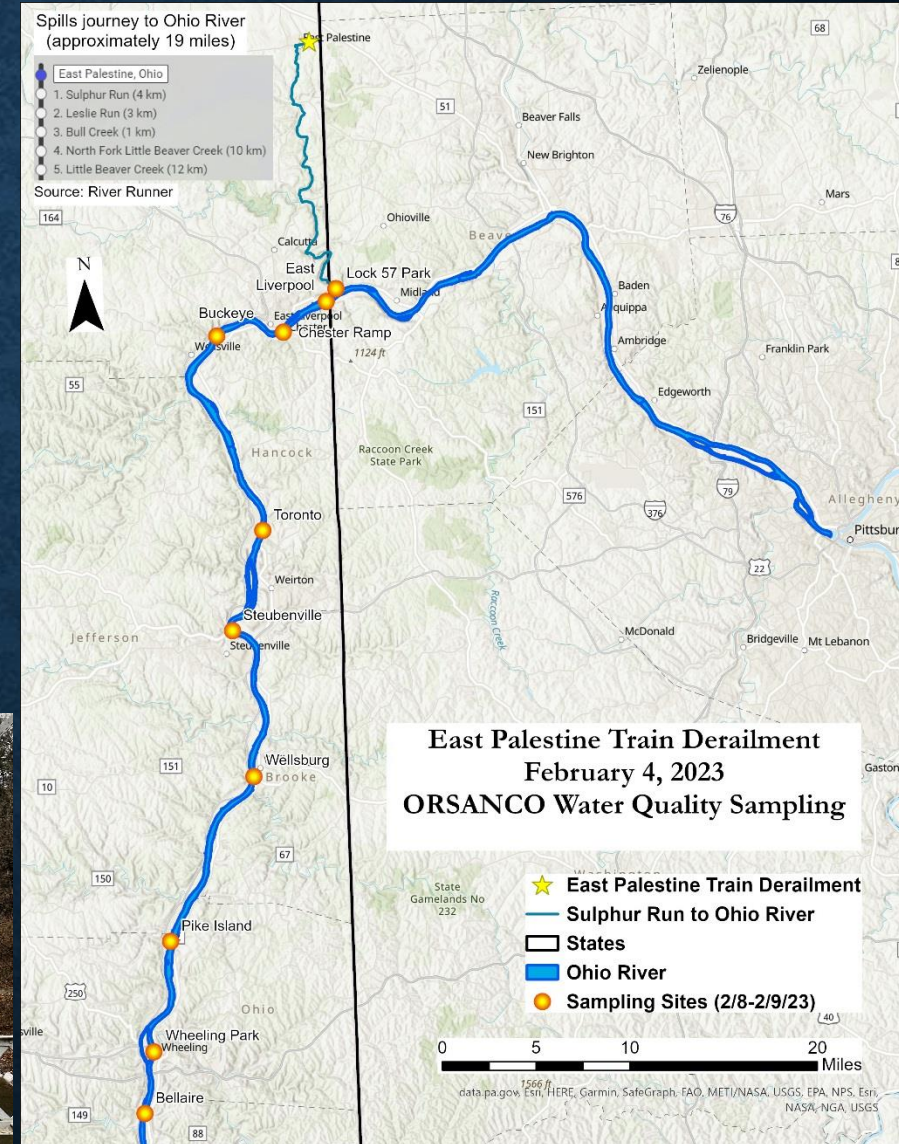
FEB 6, 2023 AT 1600



TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

Feb 8, 2023 –

- ORSANCO crew sampled Little Beaver Creek to Bellaire, OH
- Samples collected in triplicate
 - 1 for local ODS
 - 1 for GCWW
 - 1 for ORSANCO
- Second crew deployed to Incident Command
- Received train manifest
- Ordered butyl acrylate standard



TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

Feb 9-10, 2023 –

- ORSANCO met with response agencies & RP at Command Center
- Repeated similar sampling approach as done on Feb 8
 - Little Beaver Creek to Wheeling+
 - Samples run at Wheeling Water
- WV water intakes shut down
 - Needed 2 non-detects in finished to reopen

Feb 11, 2023 – ATSDR releases Health
Guidance Values

- n-butyl acrylate: 560 ppb
- 2-ethylhexyl acrylate: 500 ppb



TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

Feb 11-19, 2023 –

- Transitioned sampling to tracking leading edge
 - Sampled 50 to 120 miles per day
 - Early on plume traveled ~25 miles/day
 - Later, velocities increased to ~100 miles/day
- Daily routine:
 - Daytime - Collect samples
 - Evening - Drop samples off at ODS lab for analysis
 - Late night - Get set of samples to GCWW
 - Late night – Receive results from ODS lab
 - Late night – Run Time-of-Travel Model
 - Repeat cycle



TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

Feb 19-20, 2023 –

- Fixed station sampling at Markland Locks & Dam
 - Sampled every two hours from lockwall
 - Samples analyzed by Louisville Water

Feb 21-22, 2023:

- Fixed station sampling at Cannelton Locks & Dam
 - Sampled every two hours from lockwall
 - Samples analyzed by Evansville Water

All samples from Markland & Cannelton non-detect



TIMELINE OF EAST PALESTINE TRAIN DERAILMENT RESPONSE

Feb 22-23, 2023 –

- Contacted by OEPA re: partial loss of containment on Sulphur Run due to precipitation / high-flow
- ORSANCO crew sampled morning of Feb 23
- Low-level hits on Little Beaver Creek and Leslie Run
 - Butyl acrylate
 - 2-ethyl hexanol
 - 2 ethylhexyl acrylate

March-April

- Coordinated water quality sampling and analysis with several water utilities along length of river
- All results non-detect



TRAIN DERAILMENT RESPONSE



INCIDENT REVIEW PERSPECTIVES

- View incident from different perspectives to improve future responses
 1. 20/20 Hindsight
 2. What If Scenarios
 3. What You Know, When You Know It

CHALLENGES

East Palestine Train Derailment

COMMUNICATION CHALLENGES

- 1) Limited/inaccurate incident details during early stages
- 2) ORSANCO not privy to response agency reports
- 3) Unified Command not established early
- 4) Struggled to get a coordinated sampling plan
- 5) Misleading social media led to undue public alarm
- 6) Many do not understand nature of their drinking water source
- 7) Inundated with information requests
- 8) Intense media and political interest
- 9) Consistent messaging on dioxin slow to develop

ANALYTICAL CHALLENGES

- 1) Initially unknown materials released
 - What to test for?
- 2) ODS not calibrated for butyl acrylate and other compounds released
 - Needed standards to calibrate
- 3) Unusual detections at Wheeling ODS
 - Detections interspersed with non-detects
- 4) ODS capabilities and utility not understood by some agencies

DATA CHALLENGES

- 1) Which data to distribute and publish?
 - ODS screening vs GCWW
- 2) How to best report peaks less than PQL?
- 3) Consistent messaging with partners
- 4) Keeping up with sample info, mapping and analytical results
- 5) Connectivity issues with electronic devices

LESSONS LEARNED

Partial List

LESSONS LEARNED

AREAS FOR IMPROVEMENT

- 1) Be proactive to post contact info and incident details online
- 2) Response agencies unfamiliar with key attributes of ODS network
 - Prepare materials detailing ODS capabilities, applications, and limitations to share with response agencies
- 3) Develop spill response toolbox to standardized data collection/reporting and improve spill response readiness
- 4) Need common understanding among partners regarding data reporting
 - Screening level vs certified results
 - Reporting data for peaks <PQL ???

LESSONS LEARNED

AREAS FOR IMPROVEMENT

- 5) Proactively determine need for Command Center engagement and water quality sampling
- 6) Staff resources stretched to limits
 - Need staff cross-cross training for necessary redundancy
 - Sampling, GIS, data management, ODS, Incident Command
- 7) SWIGs want to be on spill updates
- 8) Engage ATSDR early if unregulated materials involved

QUESTIONS?

An aerial photograph of a town, likely Orsanco, with a massive, dark, billowing plume of smoke or ash rising from the background, suggesting a volcanic eruption. The town is densely packed with houses and buildings, surrounded by trees and fields. The sky is overcast with a layer of grey clouds.

Contact Information
Sam Dinkins
sdinkins@orsanco.org
513/231-7719



232nd Technical Committee Meeting

Scott Mandirola, Chair

Presiding

June 27-28, 2023



The meeting will reconvene at 8:30 A.M. (Eastern) on June 28, and conclude by 9:45 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."*

Agenda Item 9: TEC Members Reports



- IL – Scott Twait
- IN – Brad Gavin
- KY – Katie McKone
- NY – Damianos Skaros
- OH – Melinda Harris
- PA – Kevin Halloran
- VA – Jeffrey Hurst
- WV – Scott Mandirola
- USACE – Erich Emery
- USCG – Michael Franke-Rose
- USEPA – David Pfeifer
- USGS – Jeff Frey
- CIAC – Vacant
- PIAC – Cheri Budzynski
- PIACO – Betsy Bialosky
- POTW – Reese Johnson
- WOAC – Chris Tavenor
- WUAC – Chris Bobay

Other Business:

- Comments by Guests
- Announcement of Upcoming Meetings
- Adjourn

Chair, Scott Mandirola