

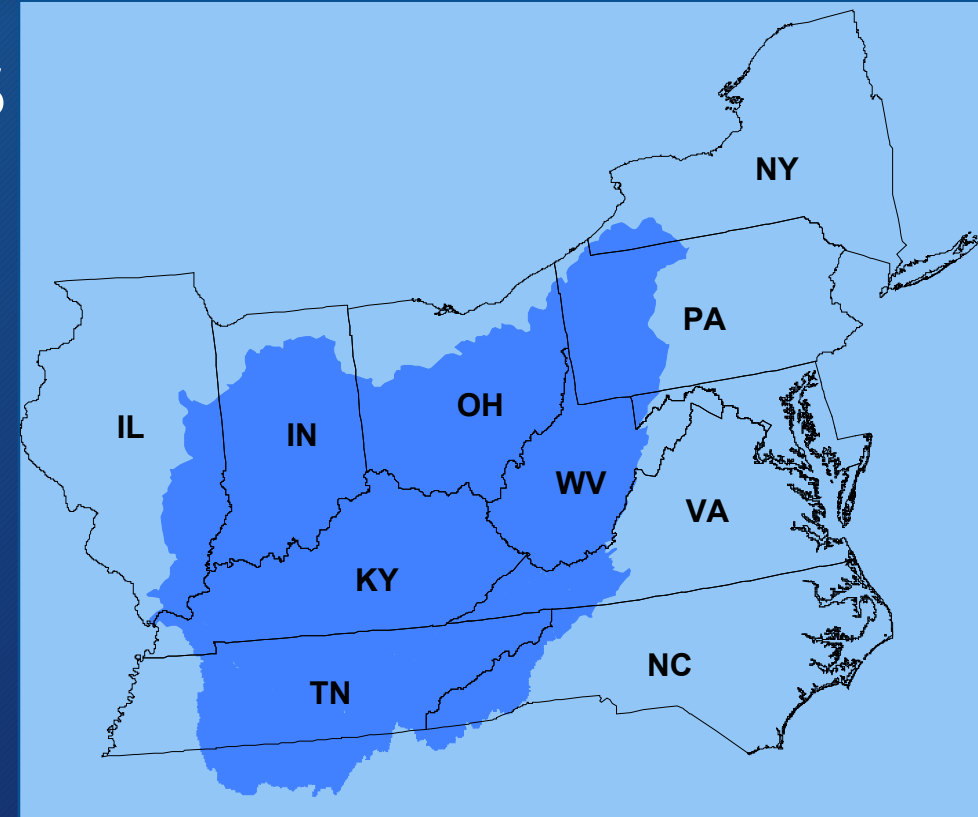
Protecting the Waters of the Ohio River Basin



The Ohio River Valley Water Sanitation Commission
(ORSANCO)

Ohio River Basin

- Basin covers portions of 14 states
 - Over 200,000 square miles
- Mainstem stretches 981 miles
 - Pittsburgh, PA to Cairo, IL
- Home to over 30 million people



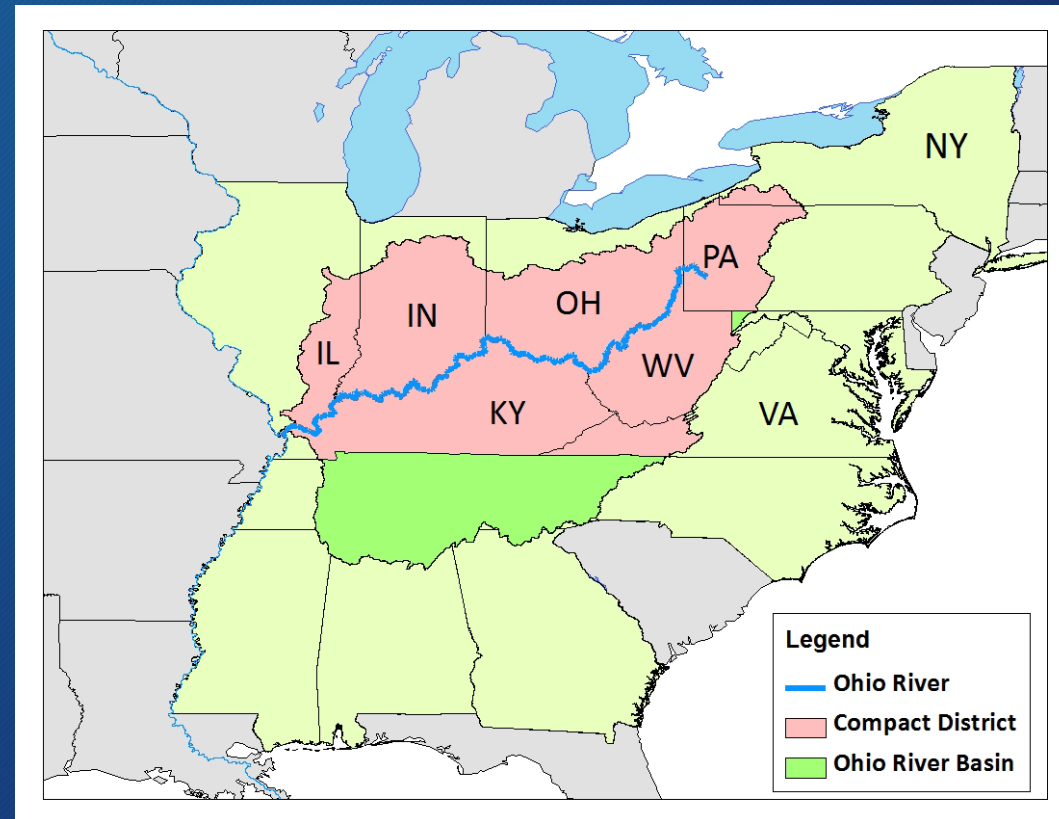
What is ORSANCO?

- Ohio River Valley Water Sanitation Commission
 - In 1920s and 1930s the Ohio River was very polluted
 - Problem was too big for just one city or state to fix
 - Created ORSANCO in 1948, bringing 8 states together to protect the river



Ohio River Valley Water Sanitation Commission

- Established by Compact (1948)
- Ratified by Congress
- Eight signatory states
 - IL, IN, NY, KY, OH, PA, VA, WV



ORSANCO Mission

- Abatement of interstate water pollution in Ohio River Valley compact district.
- Establish minimum WQ standards
- Wastes discharged in one state shall not “injuriously affect” the waters of another state



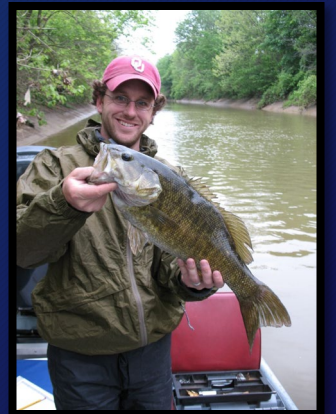
How the Commission Operates

- 27 Commissioners (3 federal and 3 from each state)
 - Ohio Commissioners
 - Anne Vogel
 - Holly Christmann
 - John Hoopingarner
- Funding (\$4.5 million annual budget)
 - States
 - US EPA
- 22 person staff
- Numerous inter-agency and stakeholder advisory committees



What We Do

- Our mission is to protect the uses of the Ohio River.
- We monitor the river to assess if it is:
 1. Safe for drinking water
 2. Safe to recreate
 3. Safe to eat the fish
 4. Safe for aquatic life



Keeping Our Drinking Water Safe

- Drinking water source to 5 million people
- Collect and analyze samples daily
- Track major spills
- Notify water intakes of spills & HABs



Is It Safe To Swim?

- Collect and analyze samples for bacteria and algae weekly during recreation season
- Test samples for special events



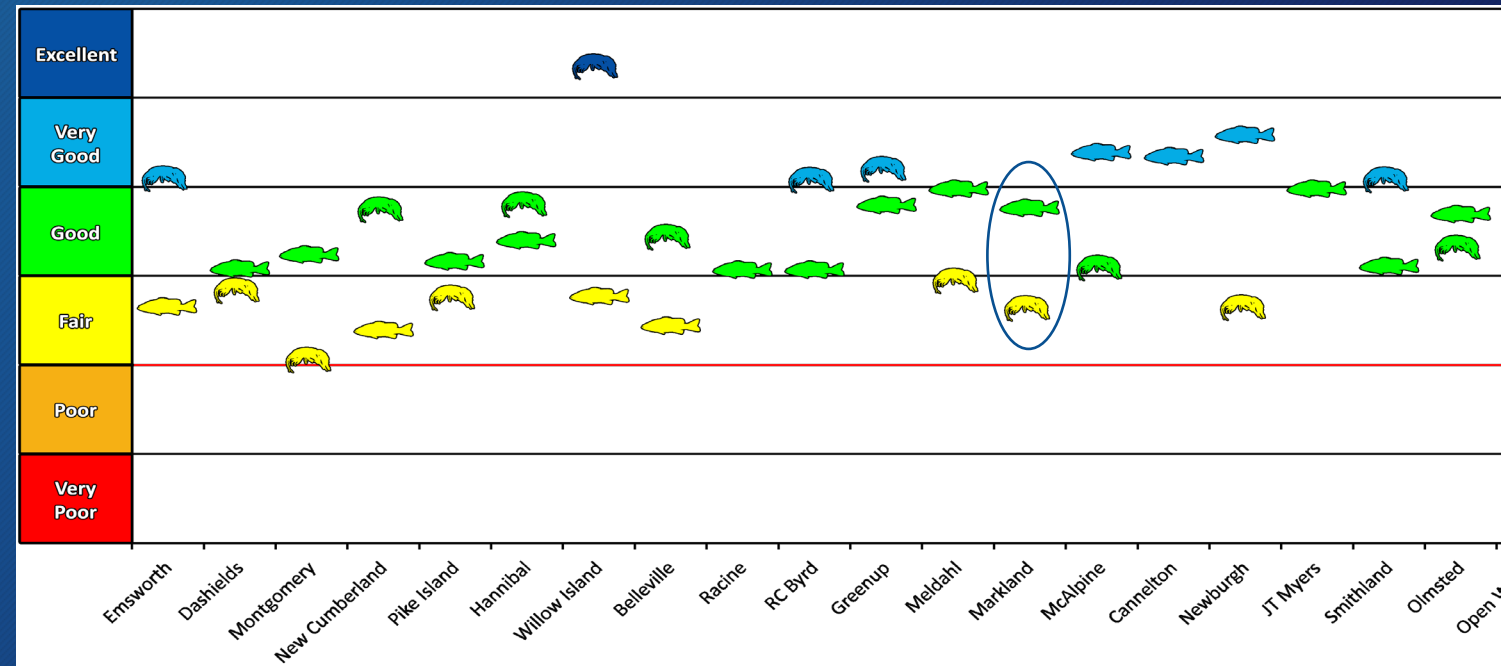
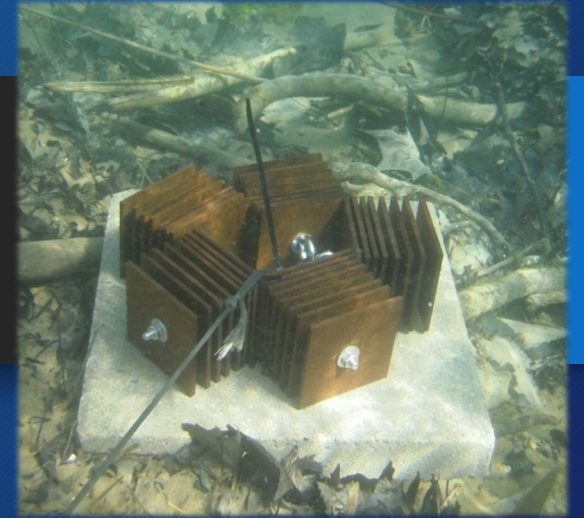
Can I Eat the Fish?

- Collect and analyze fish samples every year.
- Compare pollutant levels in fish to recommended values for food.



Aquatic Life

- Over 130 fish species identified in the Ohio River
- Collect fish and bug population data yearly



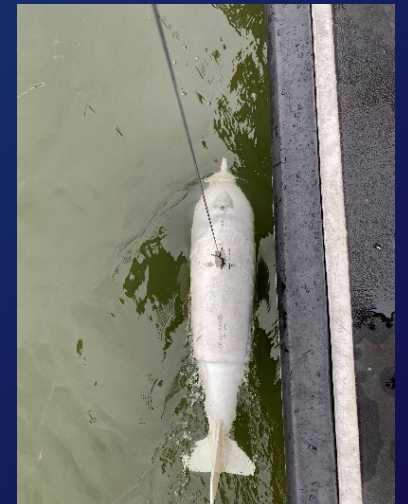
Key Water Quality/Resource Issues

- PFAS
- Harmful Algal Blooms
- Bacteria
- Legacy Pollutants
- Spill Response



PFAS (per- and polyfluoroalkyl substances)

- Group of synthetic chemicals used in industry and consumer products
 - Fire-fighting foams, nonstick coatings, cosmetics, stain-protection products, etc....
- Historic source on Ohio River in Parkersburg, WV
- ORSANCO conducted river-wide survey in 2021
 - Additional sampling in 2023
- Ambient water quality criteria not yet established



Harmful Algal Blooms

- HABs in the Spotlight
 - 2014 Toledo incident has brought issue to the forefront
 - 2015 HAB impacted ~700 miles of the Ohio River
 - 2019 HAB affected Ohio River from Huntington, WV to Louisville, KY
 - Causes are not well understood
- ORSANCO operates HAB monitoring network



Bacteria

- Contact recreation impairment
 - Approx. 2/3 of Ohio River is listed as impaired
 - Combined sewer overflows major source
 - Non-point sources not well quantified
- Consent Decrees
 - Municipalities are on the hook to reduce CSOs
 - Developed Long-Term Control Plans
 - Cost to rate payers in the Billion\$



Legacy Pollutants

- Polychlorinated biphenyls (PCBs) and dioxin
 - Entire length of river listed as impaired
 - Limited fish consumption advisories
 - Persistent, bio-accumulative, possible carcinogens
 - Toxic at very low levels
- Sources are numerous
 - Reductions very difficult to achieve



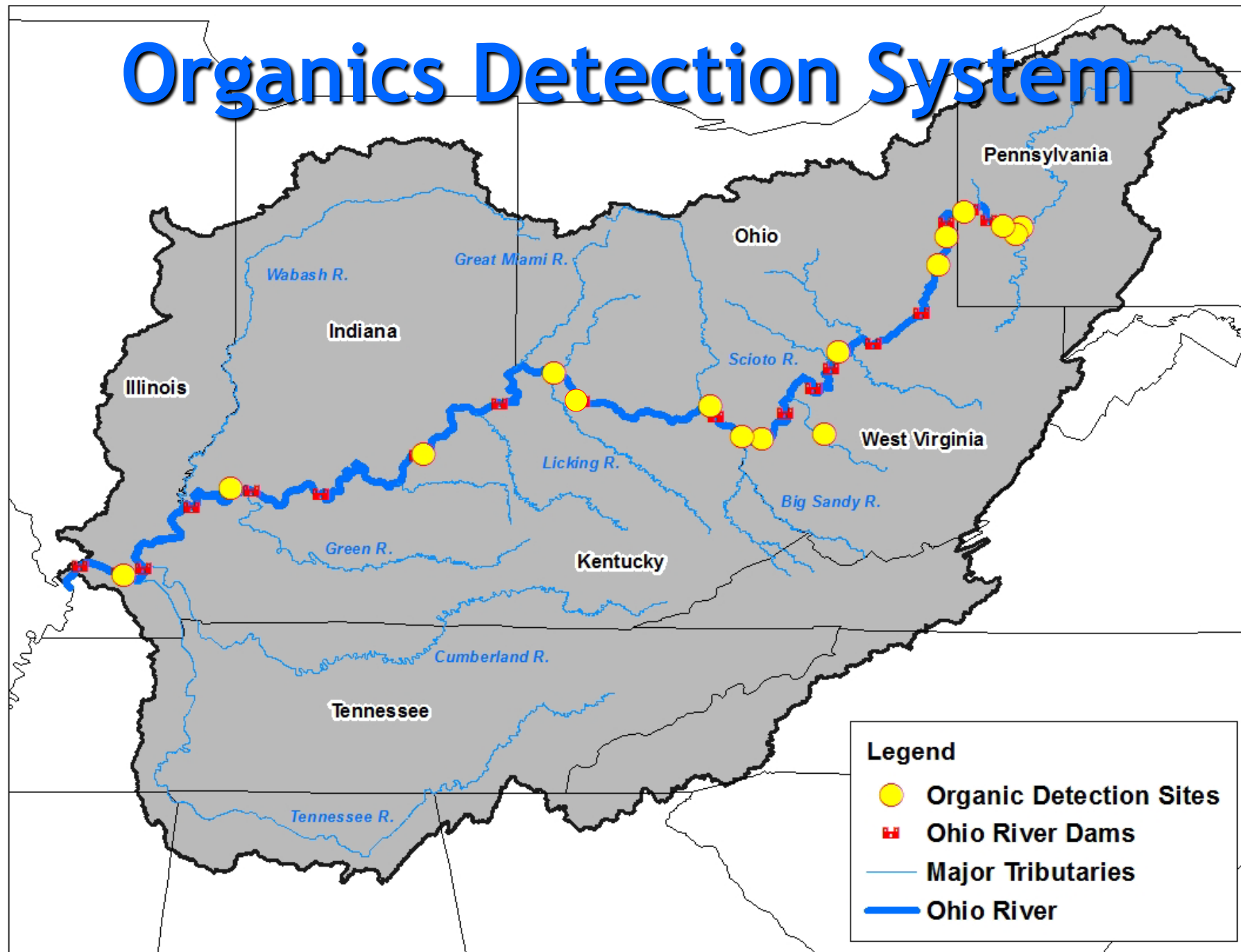
Spill Response



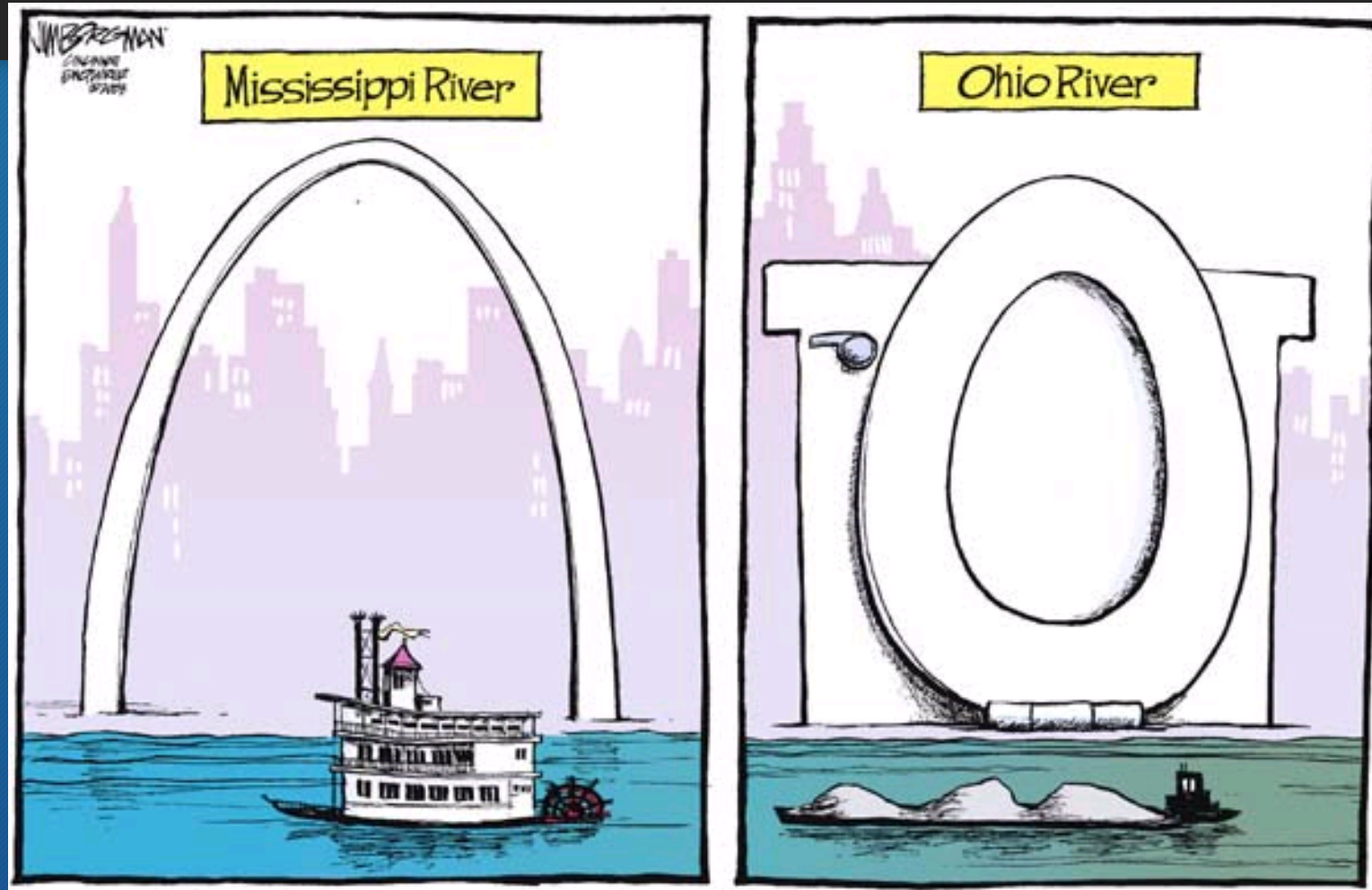
- Facilitate interstate notification & communication during spills
- Time-of-travel plume modeling
- On-river spill monitoring
- Laboratory analysis through Organics Detection System
- East Palestine train derailment highlighted importance of coordinated spill response and communications
 - Water utilities, response agencies, general public, media, and elected officials,



Organics Detection System



Perceptions



Ohio River Health



- Drinking water: 100% full support
- Aquatic life: 100% full support
- Fish consumption: 100% partial
- Contact recreation:
 - 36% full support
 - 40% partial support
 - 24% non-support



Source: Assessment of Ohio River Water Quality Conditions: 2016-2020
(ORSANCO, 2022)

A scenic sunset over a body of water. In the foreground, a dark silhouette of a cliff features a small, white, octagonal pavilion with a dark roof and a spire. The sun is low on the horizon, creating a bright orange glow that reflects on the water. The sky is filled with soft, wispy clouds in shades of orange, yellow, and blue. The overall mood is peaceful and contemplative.

Questions?

Contact Information
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