



# The Internet of Water at EPA

2023 National Training  
Workshop (Shepherdstown)



# IoW Origins



## INTERNET OF WATER: SHARING AND INTEGRATING WATER DATA FOR SUSTAINABILITY

A REPORT FROM THE ASPEN INSTITUTE  
DIALOGUE SERIES ON WATER DATA



- A 2017 report by the Aspen Institute helped document the need for an IoW
- Recommendations:
  - Enable and increase open and discoverable water data
  - Integrate existing public water data with tools to facilitate connections from data producers to users
  - Connect regional data sharing communities
- National IoW Coalition now led by the Lincoln Institute





## Most popular questions EPA receives:

Is it safe to drink?

Is there enough water?

Can I swim in it?

Can I eat the fish I catch?

Is it polluted?

If it is polluted, what are you doing about it?

If it isn't polluted, what are you doing to protect it?

What can I do to help?

# IoW Principles

- **Standards**
  - Creates consistent quality
- **Metadata**
  - Promotes efficiency and secondary use
- **Common Hydrography**
  - Enhances data indexing
- **Discoverable/Searchable**
  - Supports distribution, equity, and reproducibility

# Implementation

- How's My Waterway
- Water Quality eXchange (WQX) data standards
- ATTAINS and Water Quality Portal (WQP) web services

The screenshot displays the 'How's My Waterway' web application interface. At the top, the location is identified as '501-599 S Ave, Boone, Iowa, 50036' with the watershed name 'WATERSHED: Montgomery Creek (070801050303)'. Navigation tabs include Overview, Swimming, Eating Fish, Aquatic Life, and Drink. The Overview section shows summary statistics: 2 Waterbodies, 16 Monitoring Locations, and N/A Permitted Dischargers. A legend indicates waterbody conditions: Good (green circle), Impaired (red circle), and Condition Unknown (purple triangle). A summary box states 'Overall condition of 2 waterbodies in the Montgomery Creek watershed.' Below this, two waterbodies are listed: Montgomery Creek (State Waterbody ID: IA 03-SSK-6508) and Prairie Creek (State Waterbody ID: IA 03-SSK-6598). The interface also features a search bar, a 'Choose a place to learn about your waters:' section with buttons for Community, State & Tribal, and National, and an 'Explore Topics:' section with buttons for Swimming, Eating Fish, Aquatic Life, and Drinking Water. A map on the right shows the watershed boundary in red and the surrounding area in light blue.



# Advance Water Mapping and Analytics Initiative

- Interagency workgroup partnering to align water resource interests to accelerate improvements to hydrographic data
- [StoryMap](#) available online

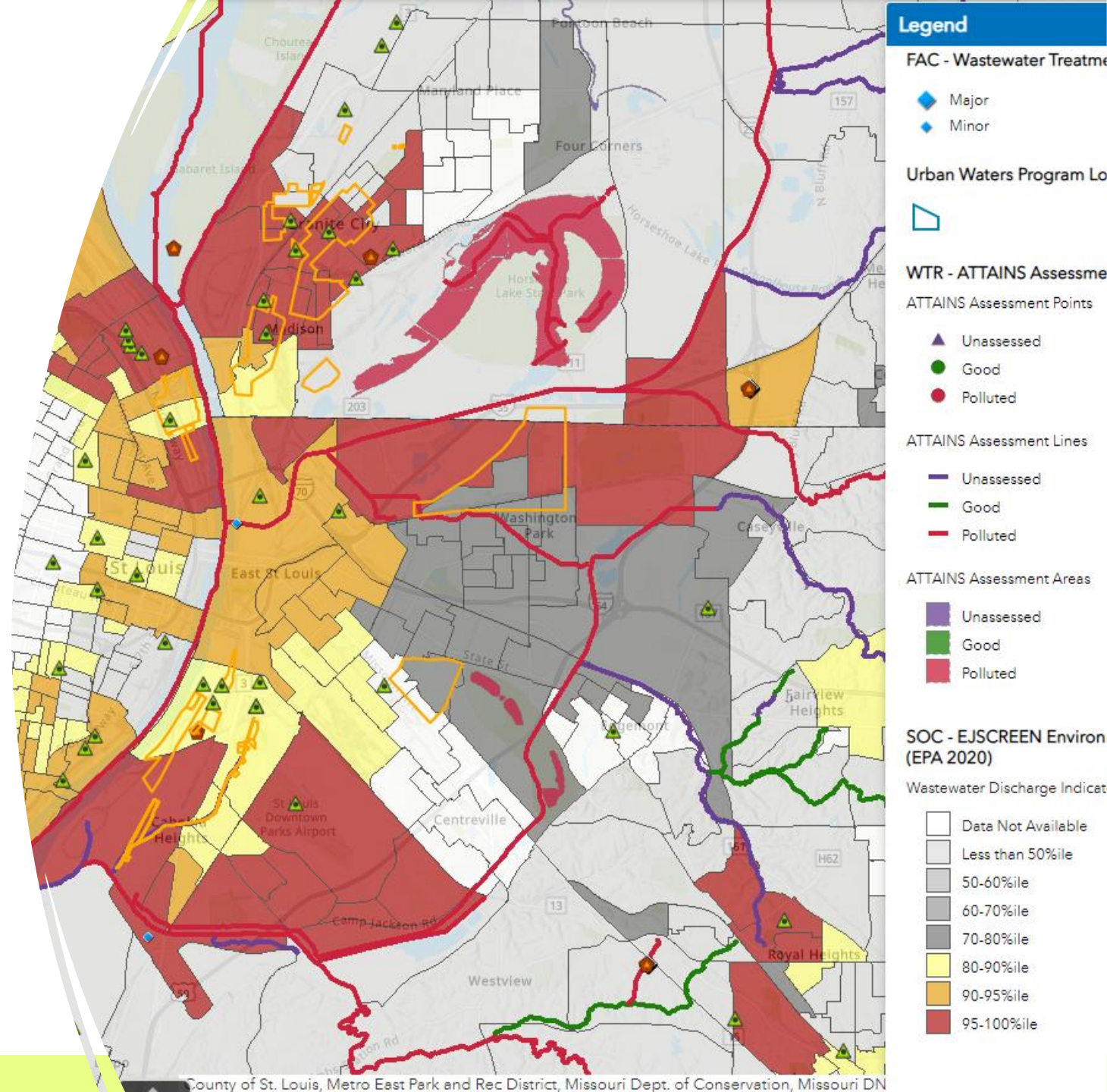
## Advanced Water Mapping and Analytics

Accelerating Science for Improved Water Resource Management



# OW-OLEM Agency Priority Goal (APG)

- Cross-media APG for clean water and reduction of exposure to hazardous materials
- IoW Community of Practice subgroup
- Established a web map screening tool for identifying 10 pilot communities
- 40+ programmatic datasets from both OW and OLEM in a curated layer list







Water Data  
Are  
Foundational

