

# Using EPA's Drinking Water Mapping Application (DWMAPS) for Source Water Protection Planning

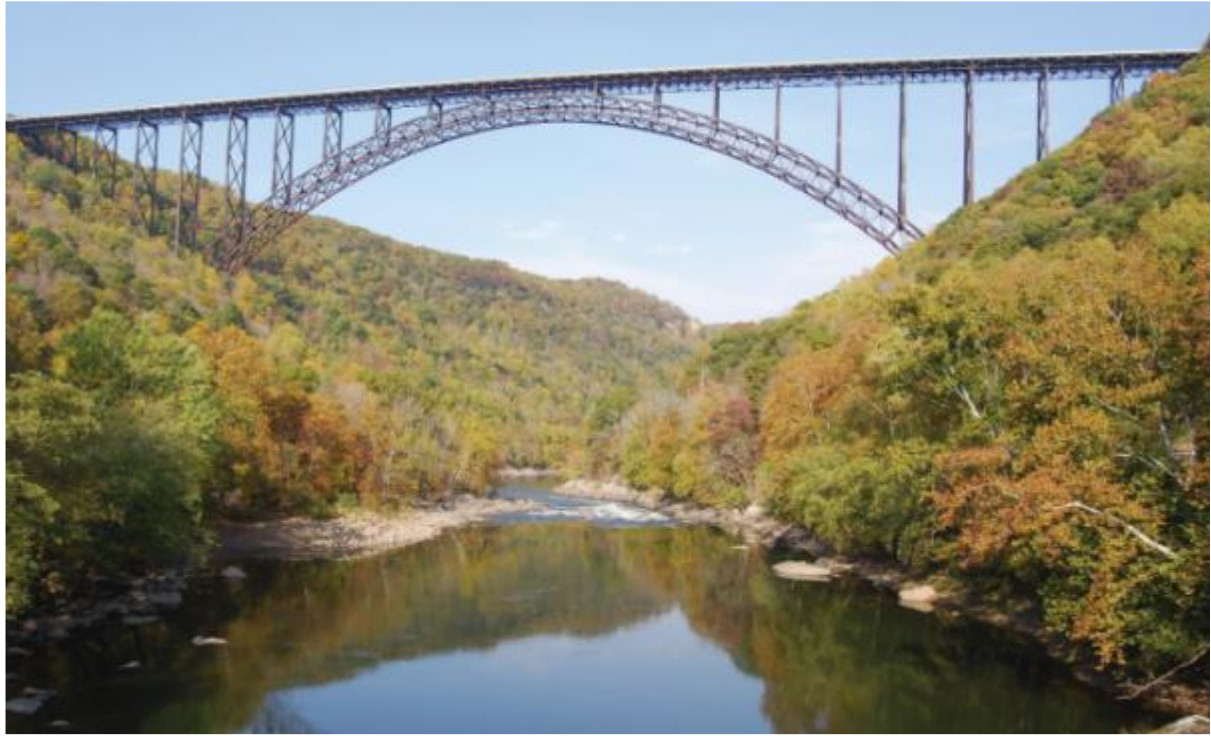
Ground Water Protection Council  
Annual Forum  
September 16, 2019



WEST VIRGINIA  
AMERICAN WATER







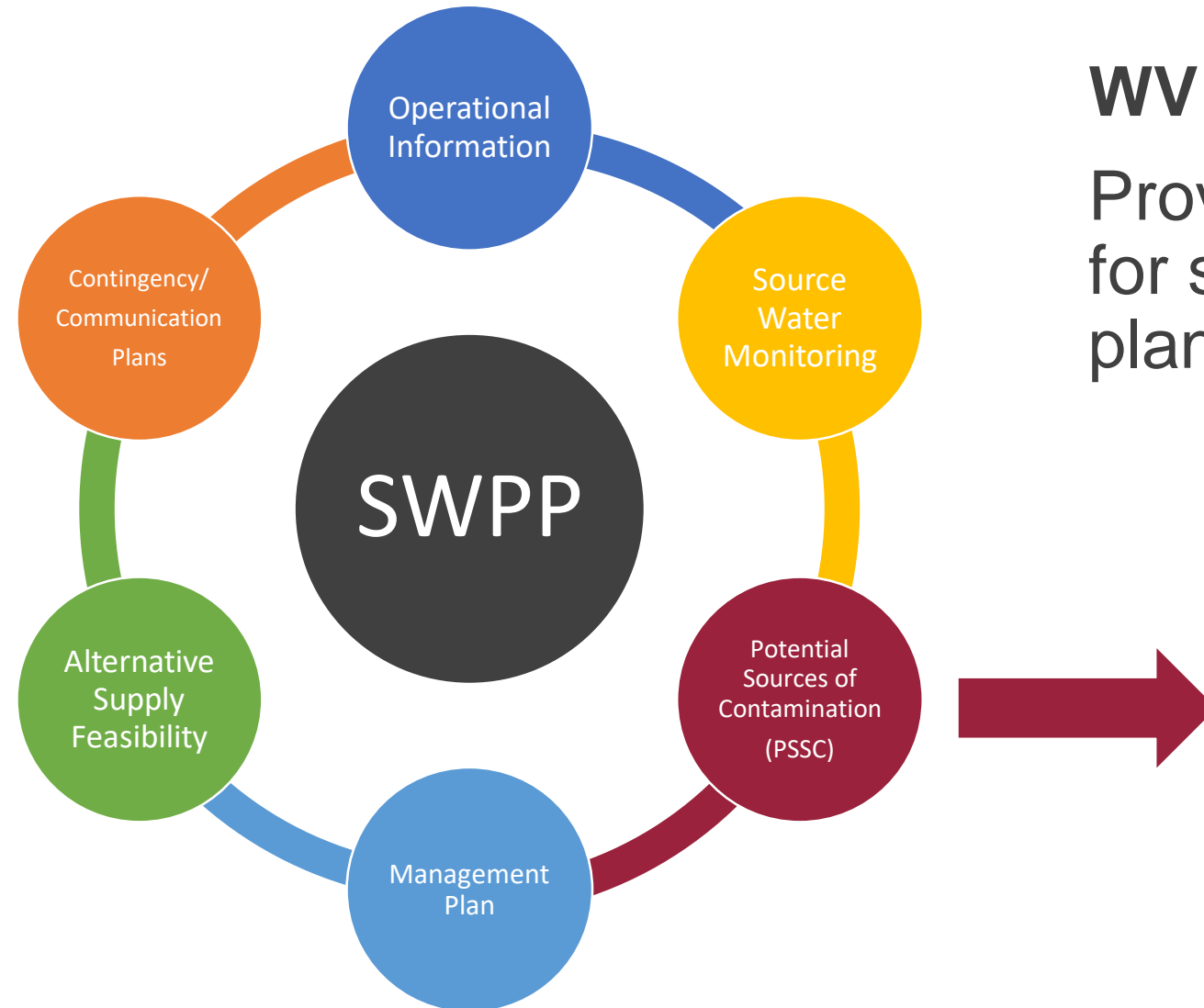
# Regulatory Framework

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- **Federal Safe Drinking Water Act**
  - Requires states to conduct source water assessments
  - SWP planning a voluntary, state-led effort
- **WV Senate Bill 373**
  - Passed March 8, 2014
  - Established SWP planning requirements for utilities
  - Initial AST regulations (to be changed with SB423)
- **WV Senate Bill 423**
  - Passed March 14, 2015
  - Primarily changes AST rules with indirect implications for SWP



# SWP Plan Components



## WV Senate Bill 373 (2014)

Provides required components for source water protection plans and 3 year updates

List of PSSCs within ZCC provided by state agencies and other resources

# Potential Sources of Contamination

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## Goals

- Understand the watershed
- Prioritize potential risks
- Mitigate risk
- Manage implementation

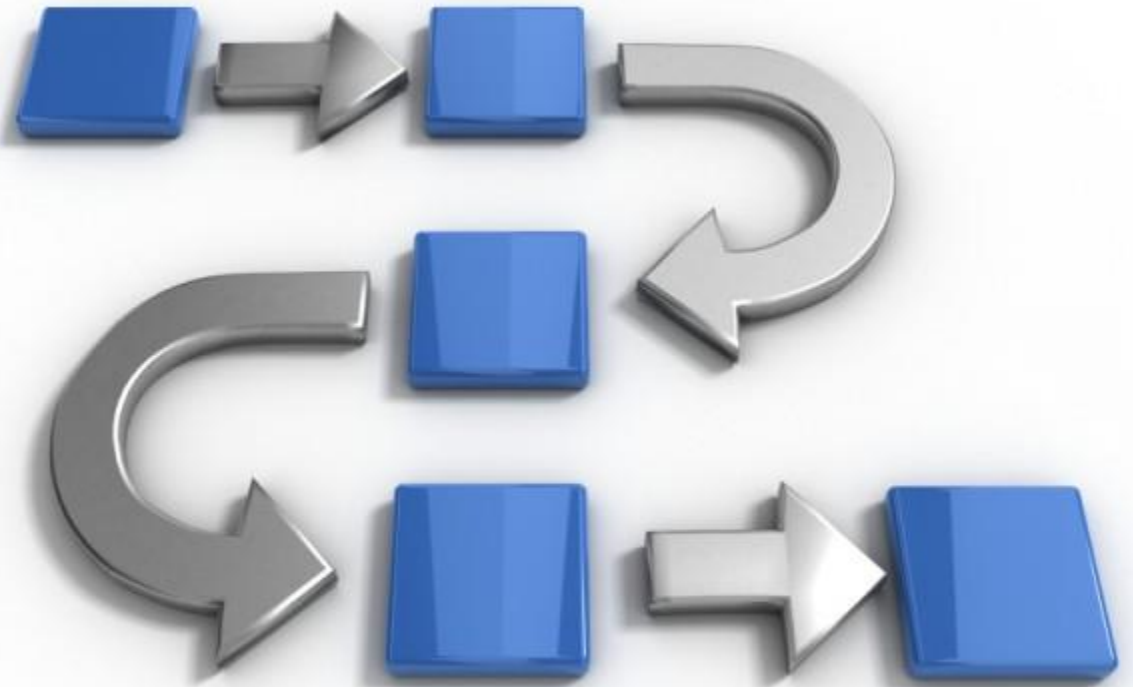


# Potential Sources of Contamination

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## Process

1. Review available data
2. Seek stakeholder input
3. Identify & prioritize PSSCs
4. Communicate with PSSCs
5. Manage information– contacts, files, contaminates, etc.
6. Educate & prepare operations



# Mapped Delineation Zones



Basemap Source: Esri World Street Map. Delineation zones were provided by WVBPH.



# Utilizing DWMAPS

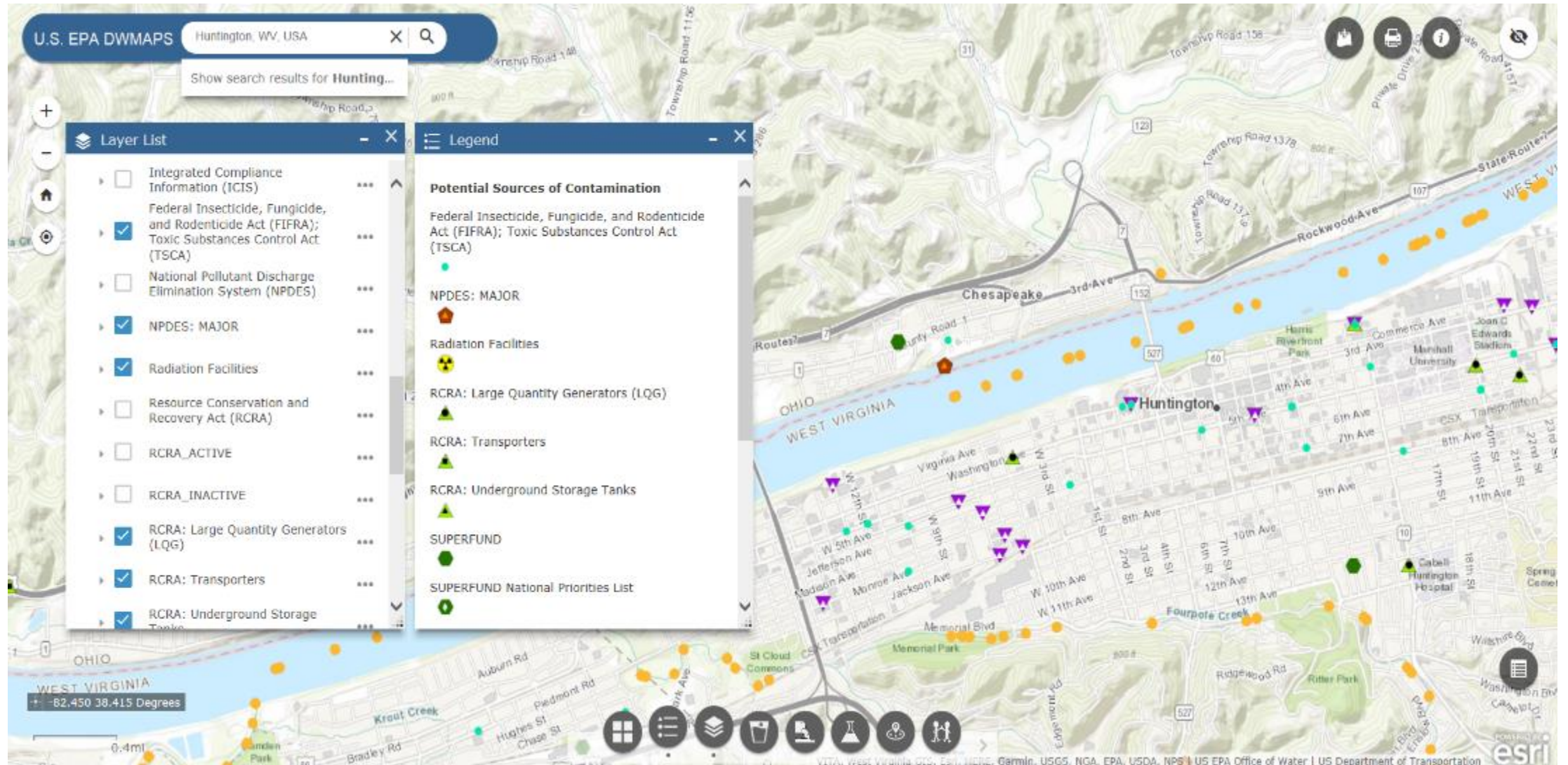
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## Approach

- Scan the watershed
- Review compliance history
- Cross reference state database-  
(NPDES Facility ID)
- Evaluate RCRA
- Locate Superfund sites
- Analyze TRI reports
- Evaluate transportation routes



# Scanning The Watershed



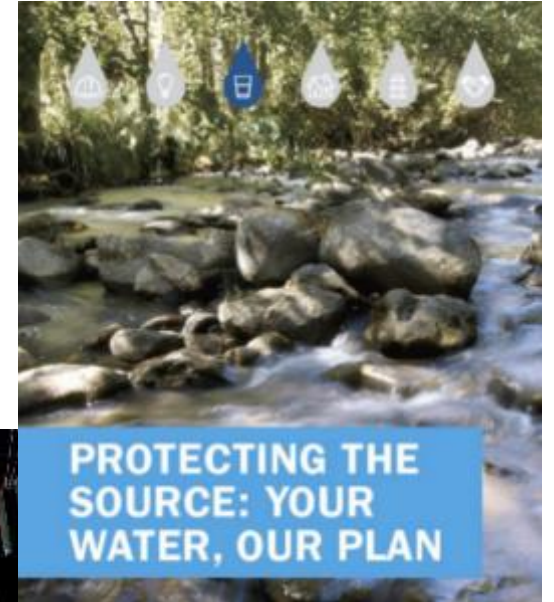


# Stakeholder Engagement

## Webinars, In-Person Meetings & Online Submission

### Objectives

- Inform and engage the public, local agencies, and special interest groups
- Seek feedback and input on draft SWPPs and PSSCs



# Stakeholder Engagement

## Challenges

- Public participation
- Confidentiality



**EPA**

Welcome to the Drinking Water Mapping Application to Protect Source Waters (DWMAPS)

DWMAPS is an online mapping tool to help you find information critical to protecting drinking water sources. Click one of the search options below to get started. Once you enter the map, icons at the bottom of the screen correspond to the search tools within this welcome screen.

- Locate Drinking Water Providers
- Locate Potential Sources of Contamination
- Locate Polluted Waterways
- Locate Projects and Source Water Collaboratives

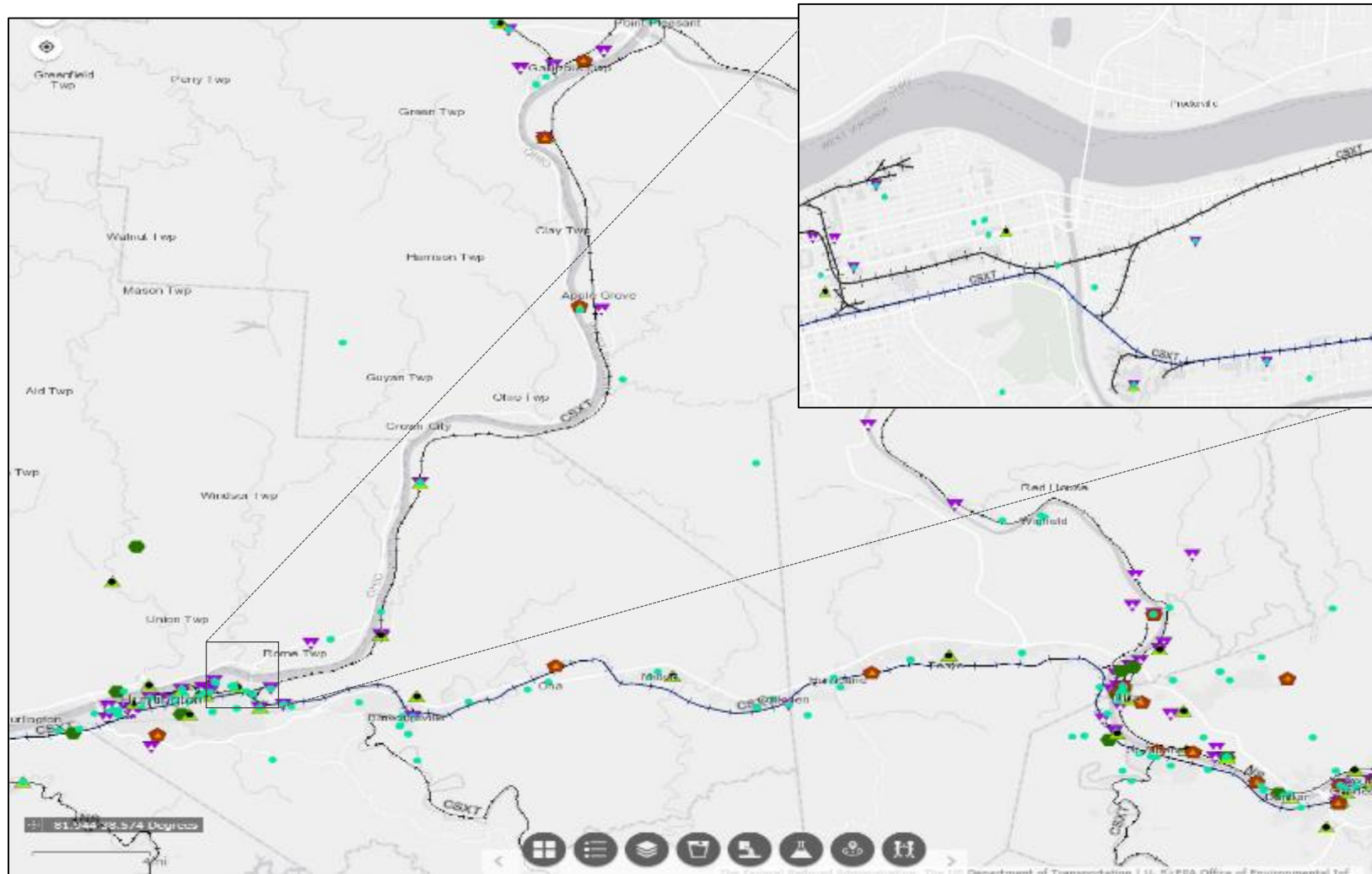
Open Map Layer List

[EPA Home](#) [Drinking Water Home](#) [Drinking Water Data and Reports \(SDWIS\)](#) [Contact Us](#)

## Solutions

- Convenience
- Accessibility

# Federal PSSC Data (DWMAPS)



☰ Legend

**Potential Sources of Contamination**

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Toxic Substances Control Act (TSCA)

- NPDES: MAJOR
- RCRA: Large Quantity Generators (LQG)
- ▲ SUPERFUND
- SUPERFUND National Priorities List
- ▼ Toxic Release Inventory (TRI)

**Railroads**

Freight Network

- Freight Network <1M
- +

Passenger Network

- Passenger Network - 2M - 100K
- + Commuter
- + Amtrak
- + Amtrak and Commuter
- + Amtrak and Tourist
- Passenger Network - <100K
- + Commuter
- + Amtrak
- + Amtrak and Commuter
- + Amtrak and Tourist
- + Other

Source: Screen shot accessed from <https://geopub.epa.gov/DWWidgetApp/> on March 14, 2019.

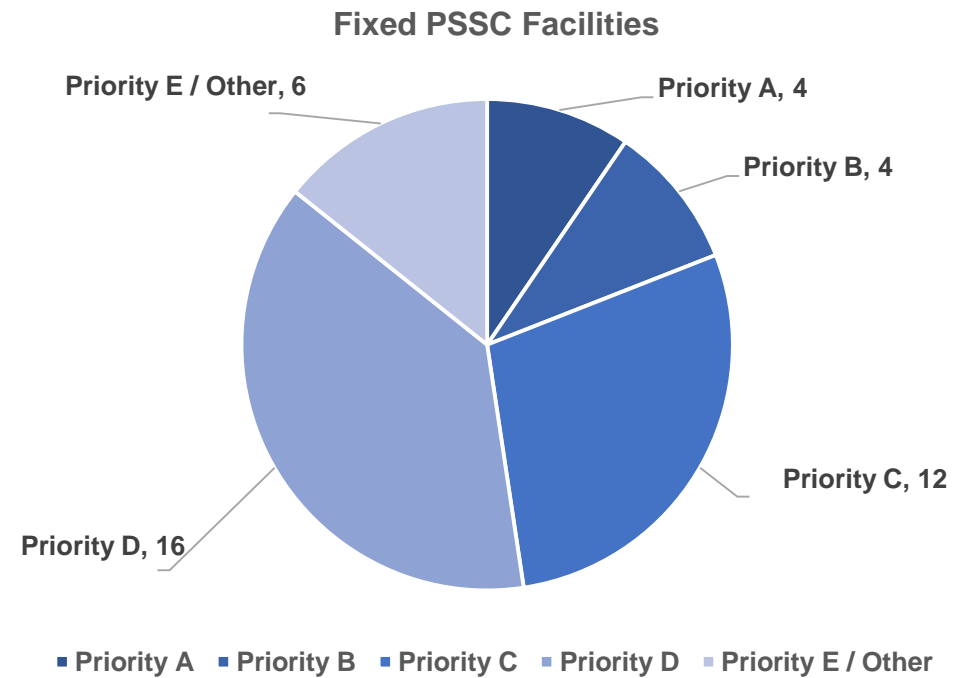
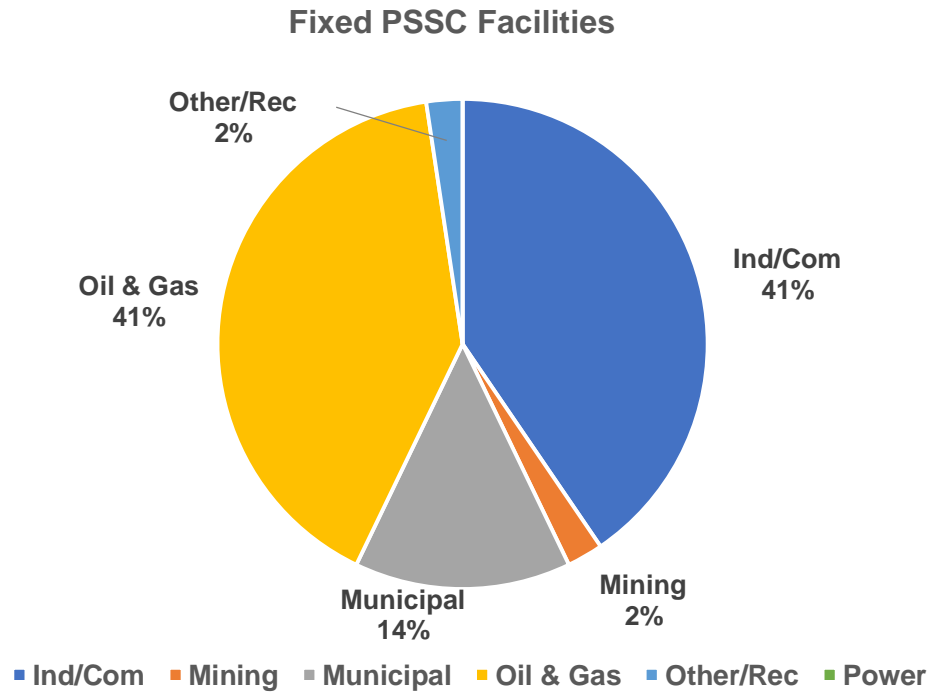
# Potential Sources of Contamination Inventory

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- Pioneered development of GIS map-based tool to manage PSSCs
- Compiled multiple data sources into a single database
- **Prioritized PSSCs-** proximity to the intake; size & type of facility/activity; & materials onsite

# Priority PSSC Overview





# Implementation

**Table 7:  
Management Plan**



The following tables identify specific management activities to pursue, in cooperation with appropriate agencies and emergency response organizations, to mitigate potential impacts of contamination of the source water supply. Action items will be documented and tracked on an ongoing basis.

PSSC Type	Management Activity	Cost Type	Responsibility	Schedule	Comments
<b>Source Management</b>					
Priority PSSCs	Communicate with identified PSSC facilities to understand their operations, materials used, and potential impacts to water system	O&M	Plant Team / SWP Lead	Annual	Prioritized based on proximity to intake, size, and type of materials
	Compile list of chemicals and identify sources of information for detection and treatment as well as information gaps and/or concerns	O&M	Plant Team / SWP Lead	Phased	Potential limitations based on data availability addressed in following action item
	Communicate any significant gaps and/or concerns identified with regulators	O&M	WQ/SWP Manager / SWP Lead	As Needed	Subsequent actions, if appropriate, to be identified and coordinated by regulators
	Continue to document communication methods and lessons learned	O&M	Plant Team / SWP Lead	Ongoing	

# Conclusion

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## Summary

- Understanding the watershed is key
- Utilizing multiple resources supports prioritization
- Public databases enhance stakeholder involvement & help build relationships





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# Contact

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