

# Implementation of New Source Water Protection Efforts in Ohio

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**Division of Drinking and Ground Waters**

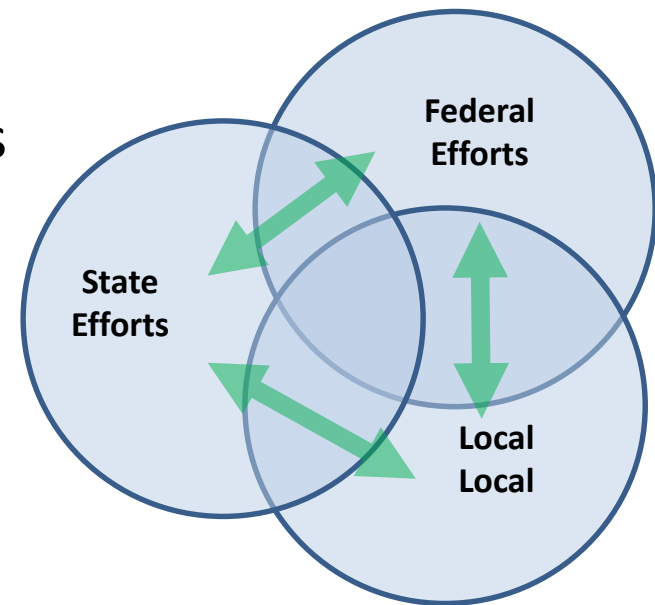


# SWAP Program Components



# 3-Yr Strategic Plan (2019-2021)

1. Increase implementation of protective strategies by PWS and local governments
2. Develop and strengthen statewide protective strategies and partnerships
3. Increase awareness of source water as a critical asset
4. Improve the source water assessment process
5. Creating a program-wide culture of teamwork



# New Opportunities for Engagement and Partnerships

- Safe Drinking Water Act Programs
  - Consumer Confidence Reports
  - Revised Total Coliform Rule
  - Conditioned Plan Approvals
- State DW Programs
  - HABs
  - Asset Management
- Clean Water Act
- Other Agency Programs



# Integration into State Programs

- Direct Protection
  - Prohibitions
  - Setbacks
  - Source/Engineering Controls
  - Applicable or appropriate requirements
- Indirect Protection
  - Guidance/Recommendations/Standards
  - Conditioned permitting
  - Partnerships



# Integrating Direct Protection

- Siting Criteria and Engineered Controls
  - Ohio EPA/DMWM (landfills)
  - Ohio EPA/DSW (biosolids and treated wastewater)
  - Ohio Dept. of Ag./DLEP (manure storage/manure management)
- “Enhanced” Remedial Standards
  - Ohio EPA/DERR/VAP
  - Ohio Dept. of Comm./BUSTR (USTs)



Photo Credit: Virginia Polytechnic Institute and State University (2014)

# Integrating Indirect Protection

- Permitting Considerations and Guidance/Standards (Recommendations for Siting/Engineered Controls)
  - Ohio EPA/DSW (Major NPDES Permits)
  - Ohio EPA/DSW (CWA § 401 Permits)
  - ODNR/DOGARM (Oil and Gas Well Permits)
  - Ohio Dept. of Ag./DS&WC (Standards for Manure Management)
  - Ohio Power Siting Board (Permit Application)

# “Partner” Programs

## Clean Water Act

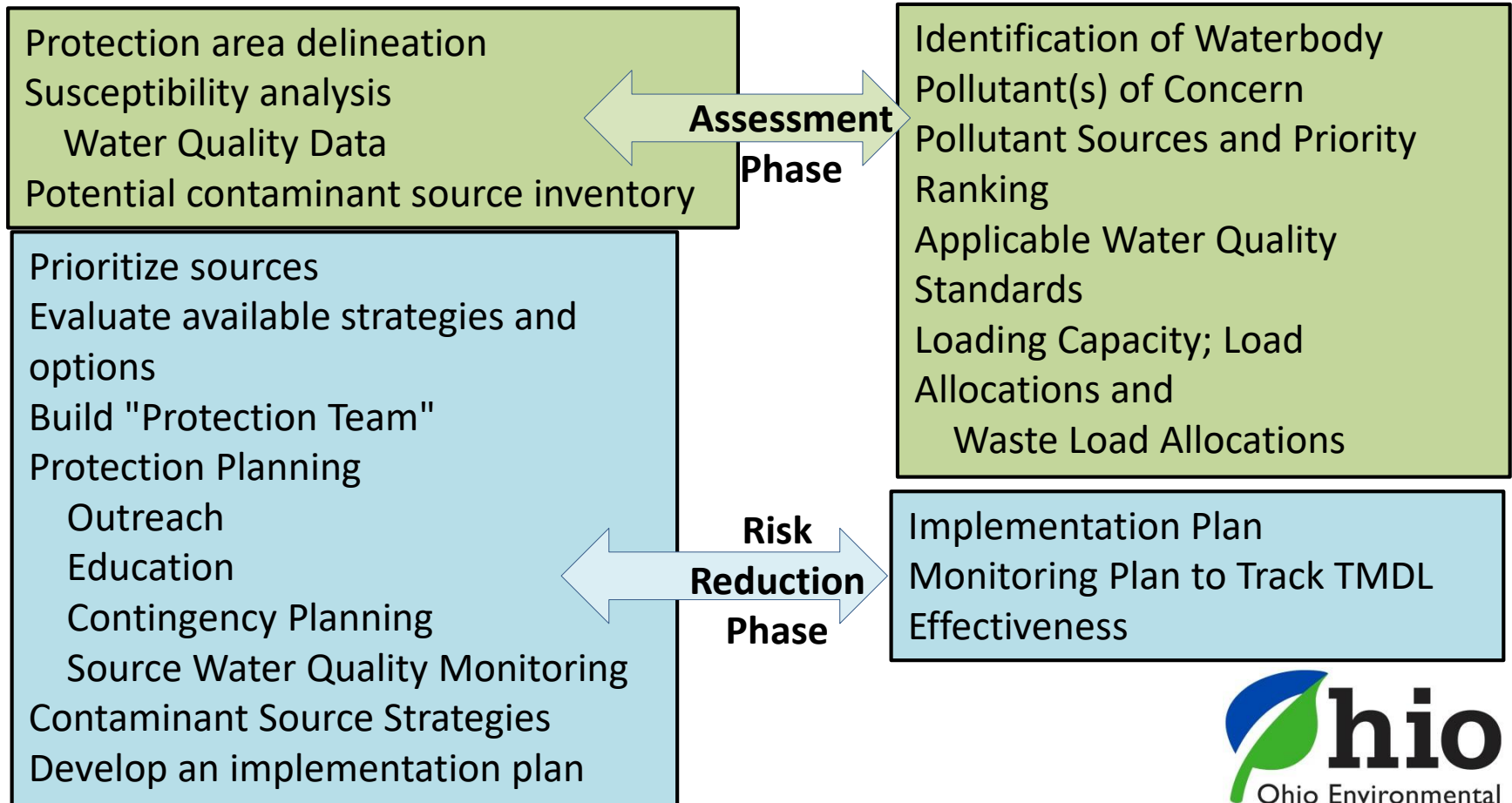
- Public Drinking Water Supply Beneficial Use
  - Impairment listings (nitrate, atrazine, HABs)
- Total Maximum Daily Load Program
- Non-Point Source Program
- LT2 Watershed Control Plans



# Partnerships across the Hall

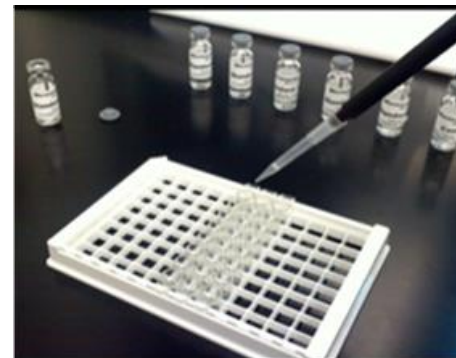
## Source Water Assessment and Protection

## Total Maximum Daily Load



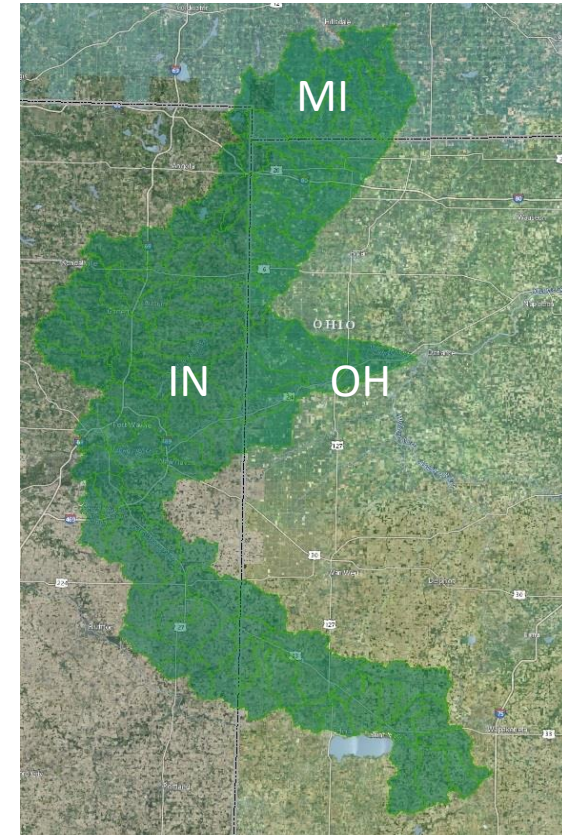
# Ohio HAB Program Bringing PWS into Active Partnership

- Ohio HAB Rules
  - Mandated monitoring
  - Treatment Optimization Plans
  - General Plan
- Source water monitoring equipment grants
- CWA follow up



# Defiance Example

- Population of 17,000
- Maumee River intake and reservoir
- intake is located approximately 40 miles from the river's origin at Ft. Wayne, Indiana
- Protection area in three states (OH, IN, MI), approximately 2,280 square miles
  - predominant land use is agriculture (68.1%)
- MCL violations for nitrate
- HABs with cyanotoxins detected in 2016, 2018 and 2019



# Defiance – Holistic watershed approach

- Endorsed source protection plan (reducing nutrients from agricultural fields through CRP and EQIP)
- Approved HAB General Plan
- CWA Impairment listing
- Developing WQ monitoring pilot project
- GLC - Conservation Kick - facilitate the purchase of water quality credits by drinking water utilities
- 2021 – move to priority list for NRCS 10% SWAP funding
- H2Ohio Initiative potential

# Asset Management in Ohio

- Legislation Oct 2017; Rules effective November 2018
- Documented asset management and business plan for **all** public water systems
- Transparent and defensible capital improvement planning process for customers
- Identifies the **true cost** of producing drinking water



# Asset Management Components



INVENTORY AND  
EVALUATION OF ALL ASSETS  
(INCL SOURCE WATER)



OPERATION AND  
MAINTENANCE  
PROGRAMS



EMERGENCY  
PREPAREDNESS AND  
CONTINGENCY PLANNING  
PROGRAM



CRITERIA AND TIMELINES  
FOR INFRASTRUCTURE  
REHABILITATION AND  
REPLACEMENT



APPROVED CAPACITY  
PROJECTIONS AND CAPITAL  
IMPROVEMENT PLANNING



LONG-TERM FUNDING STRATEGY TO  
SUPPORT ASSET MANAGEMENT  
PROGRAM IMPLEMENTATION

# Ohio Asset Management Program



Asset  
Management



Source  
Water  
Protection



Sustainable and  
Resilient Water  
Systems

# Find and Leverage Connections

- **Current State of Asset** **Source water** is one of most valuable and often irreplaceable “**critical assets**”
  - Current and future Quality and Quantity of that “asset” directly impact treatment/infrastructure needs and ability to meet Levels of Service
- **Criticality and Contingency Planning**
  - What is likelihood that SW could be contaminated; what is contingency plan if compromised or lost?
- **Life Cycle Cost:**
  - Source Water maintenance and protection has a cost



# SWAP Requirements Integrated into Ohio Asset Management

- All PWS
  - Review the source water assessment annually
  - Evaluate the source water assessment at least every five years to determine if updates are needed
- If PWS has an endorsed source water protection plan
  - Review as stated in plan; if no review schedule then review and update at least every 3 years
- If PWS has a drinking water source protection checklist
  - Review and update at least every 5 years

# Addressing the Silos

- We need to walk the holistic management talk
  - How do we better connect our programs, cross-train
- SWAP program was previously disconnected from drinking water oversight programs
- Asset Management can be a connector
- Incorporate both Asset Management and Source Water into sanitary surveys (key touchpoint with PWS)



# Challenges

- Culture change: for us too
- Scale of infrastructure funding
- Risk for other emerging issues to detract from long-term programs
- Competing resource demands:
  - long term investments in midst of COVID-19 short term recovery



# Need Motivation? Seeking Opportunities?

## PFAS Testing of Ohio Public Water Systems

Use Chrome or Firefox Web Browsers for Viewing the Maps

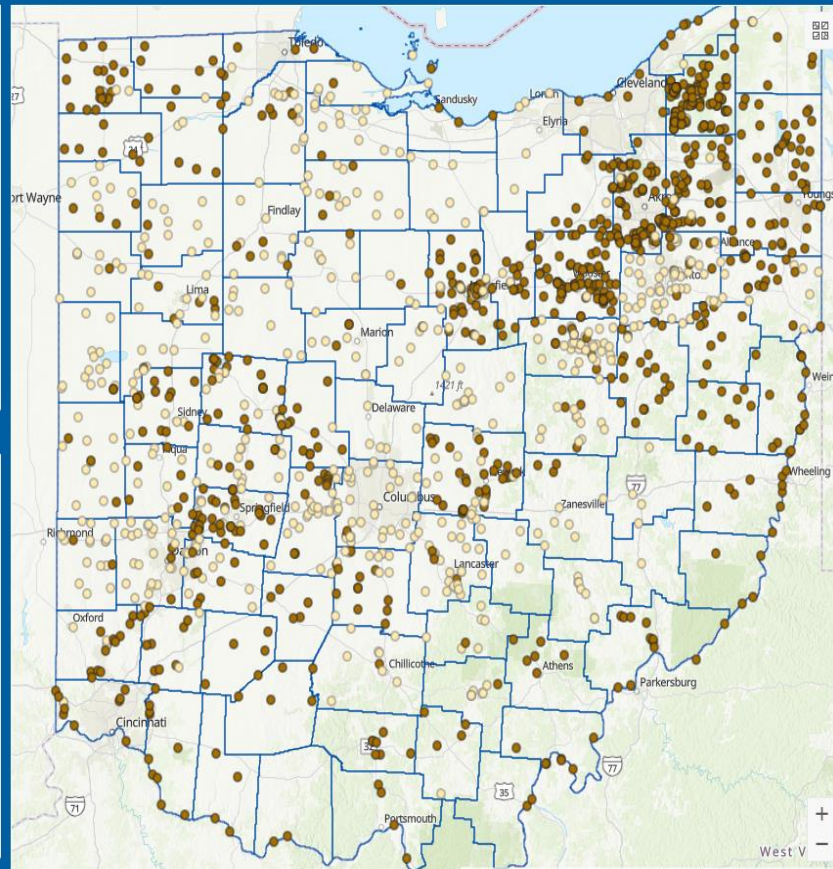
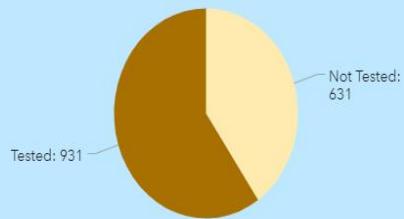


About **Sampling Status of the Public Water Systems** Test Results

### PFAS Public Water System Sampling

Filter by County  Filter by Water Treatment Plant Name

#### Water Treatment Plants by Sampling Status



#### Ohio Water Treatment Plants: PFAS Sampling Status

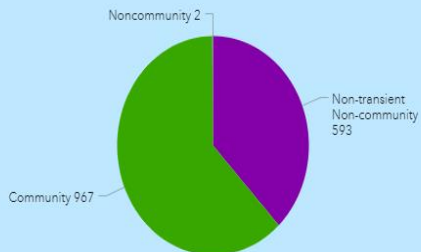
- Not Tested
- Tested

#### Water Treatment Plants Tested

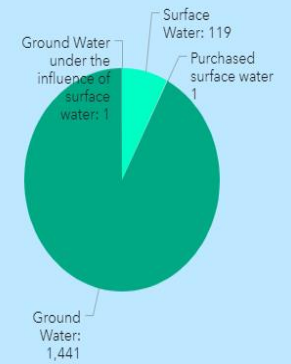


Sampling Status Chart/Filter **Details**

#### Water Treatment Plants by System Type



#### Water Treatment Plants by Type of Source



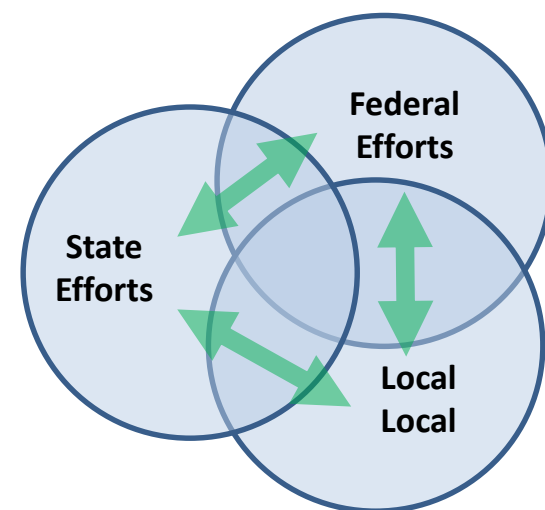
System Type Chart/Filter **Details**

Type of Source Chart/Filter **Details**

# 3-Yr Strategic Plan (2019-2021)

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Next: Leverage Federal Efforts and Funding



# Questions?

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