

The background is a light blue gradient with several realistic water droplets of various sizes scattered across the surface. The droplets have highlights and shadows, giving them a three-dimensional appearance.

# CHALLENGE AREA: WATER QUALITY

COMPREHENSIVE PLAN ADVISORY COMMITTEE MEETING

MAY 23, 2017

# OUTLINE

- EXISTING THREATS
- NEW AND EMERGING THREATS
- REGULATORY FRAMEWORK
- EXAMPLE PROGRAMS & ACTIVITIES
- TOOLS
- ROLE OF PLAN

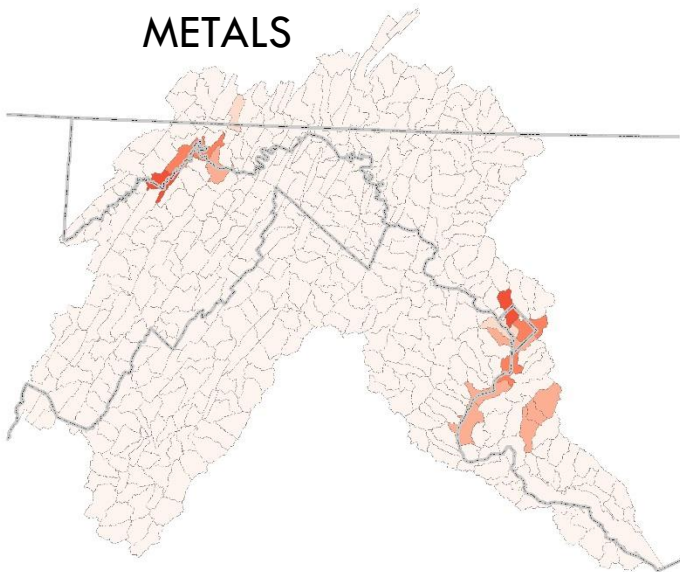


Acid mine drainage, McDonald Mine, 2012.  
Photo by ICPRB.

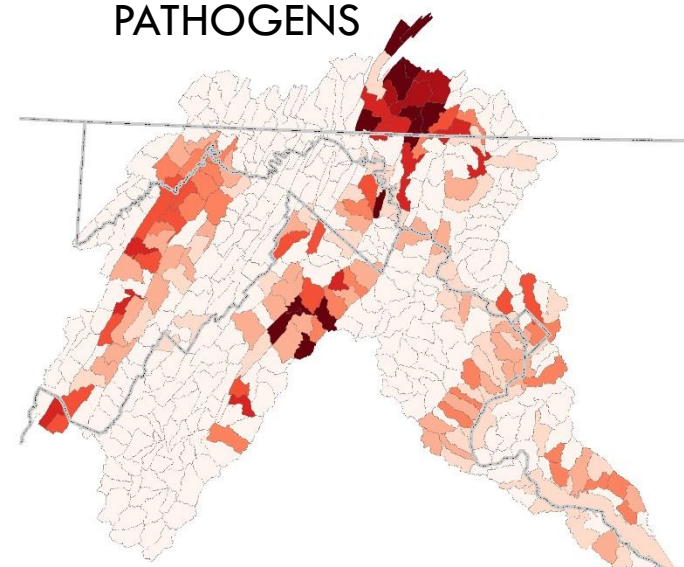


# WATER QUALITY: EXISTING THREATS

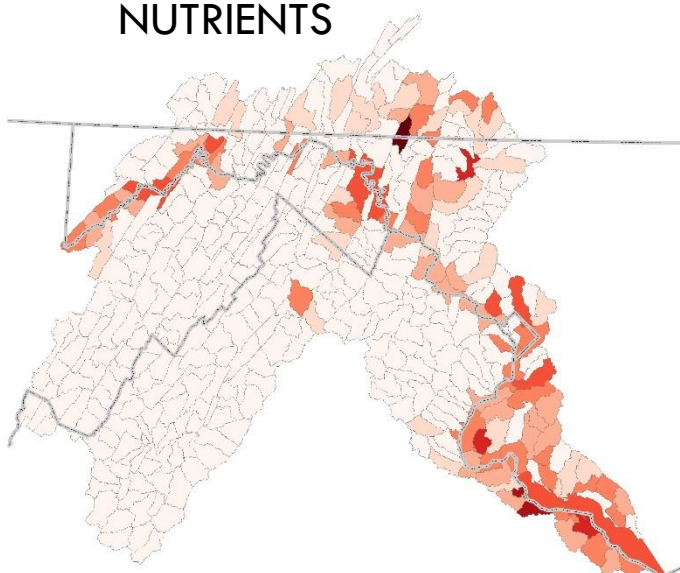
METALS



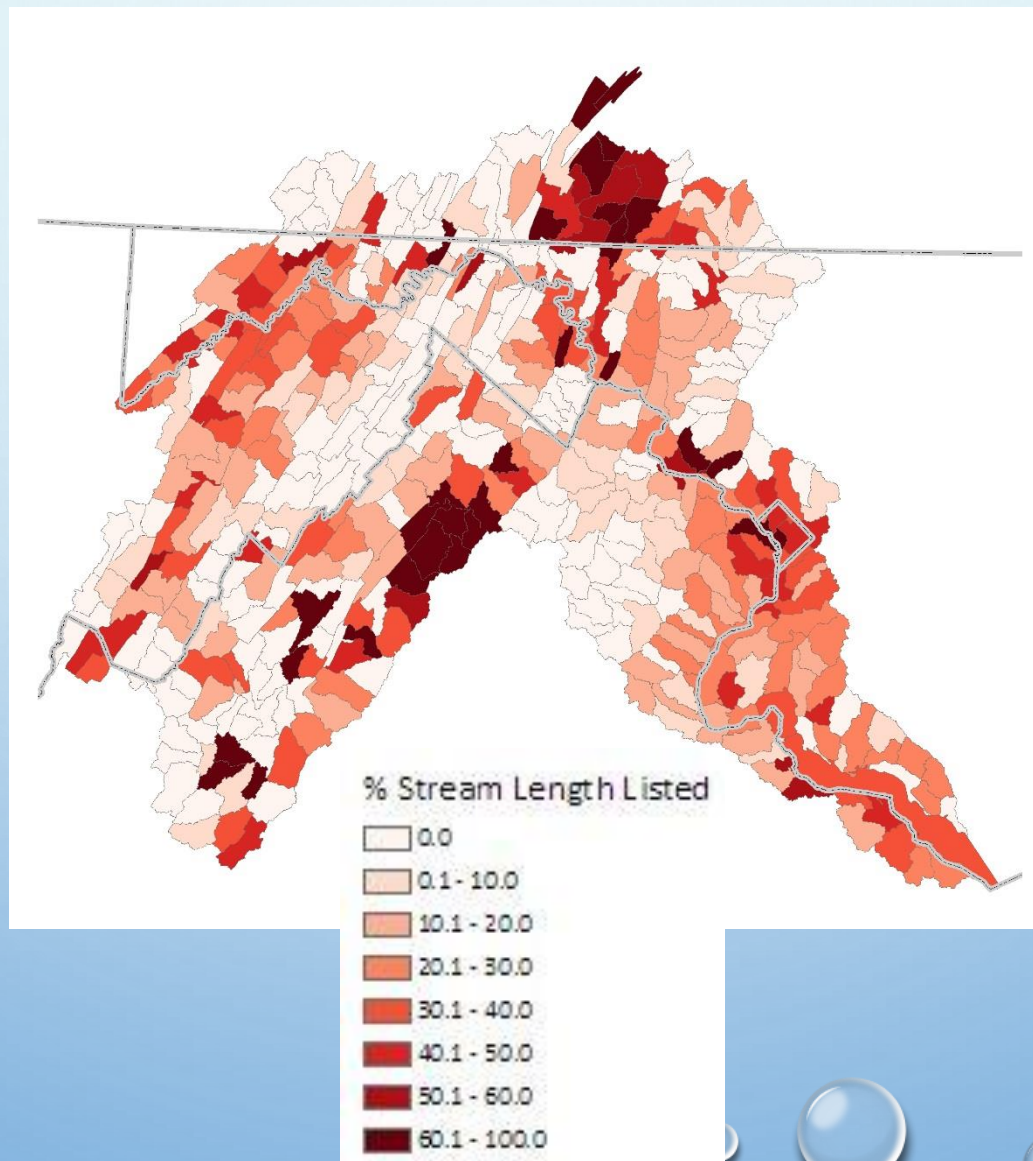
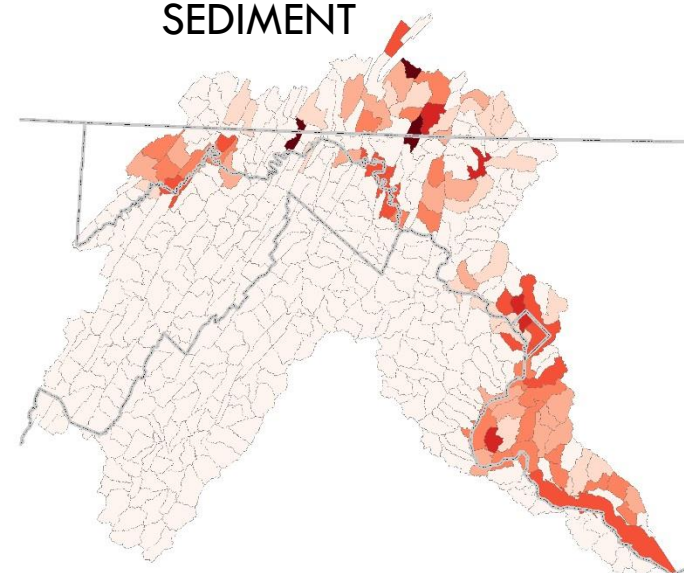
PATHOGENS



NUTRIENTS



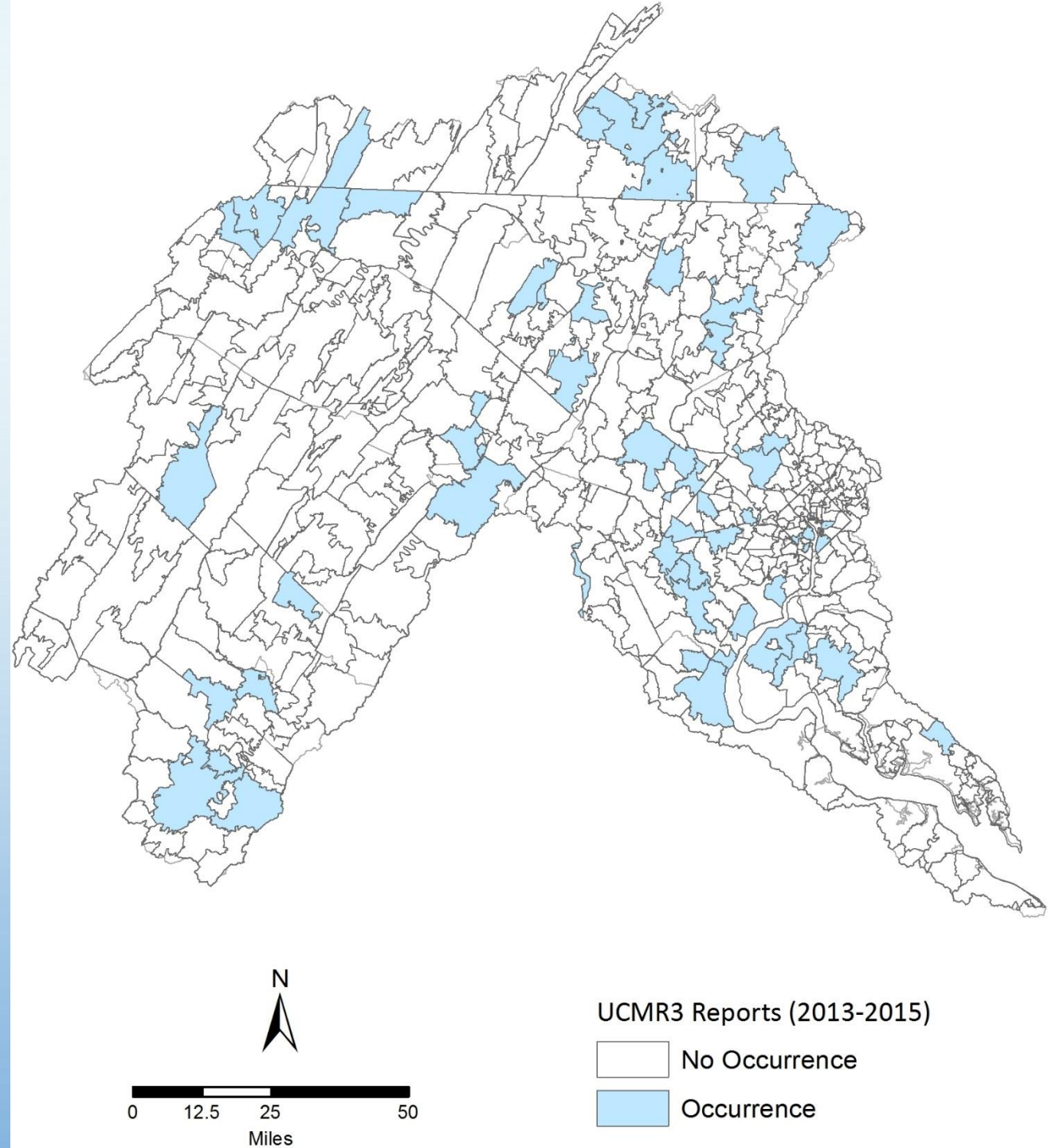
SEDIMENT



Data Source: EPA Recovery Potential Screening Tool

# NEW AND EMERGING THREATS

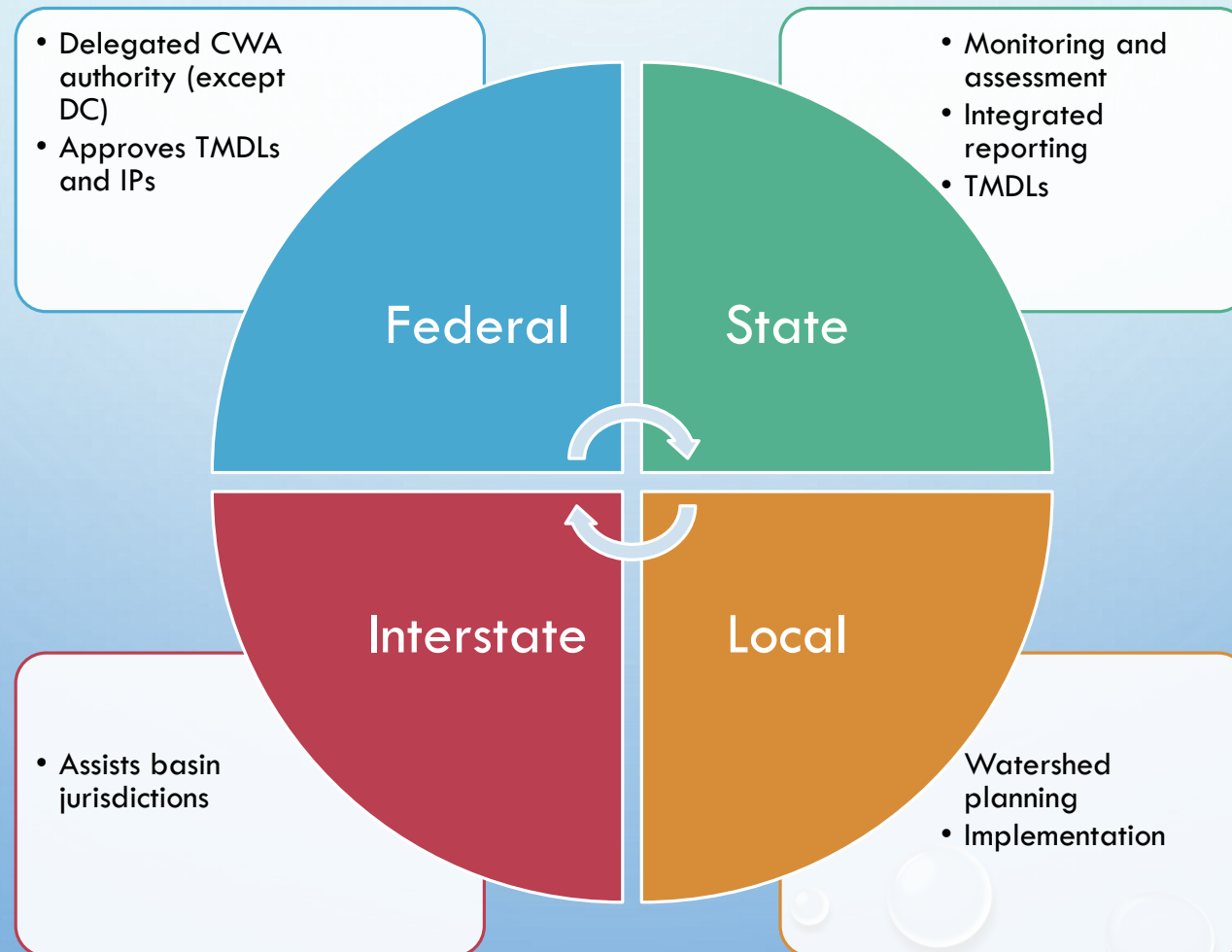
Data Source: EPA UCMR3 Data





# WATER QUALITY: MULTI-LEVEL MANAGEMENT FRAMEWORK

## EXAMPLE: CLEAN WATER ACT



# WATER QUALITY: EXAMPLE PROGRAMS & ACTIVITIES

## FEDERAL

Chesapeake Bay Program

CWA, SDWA, UCMR

USACE Federal Support Toolbox

DWMAPS

Chesapeake Bay Comprehensive Plan

## INTERSTATE

Potomac Drinking Water Source Protection Partnership

Modeling, trend analysis, data inventory and management

Communication and education

## STATE

Source Water Assessments

NPDES permits

Phase III WIPs

TMDLs

## LOCAL

Watershed Planning and Implementation

Watershed Associations

Watershed Roundtables



# TOOLS TO ASSESS WATER QUALITY

## Potomac Water Quality Data Inventory

INFO

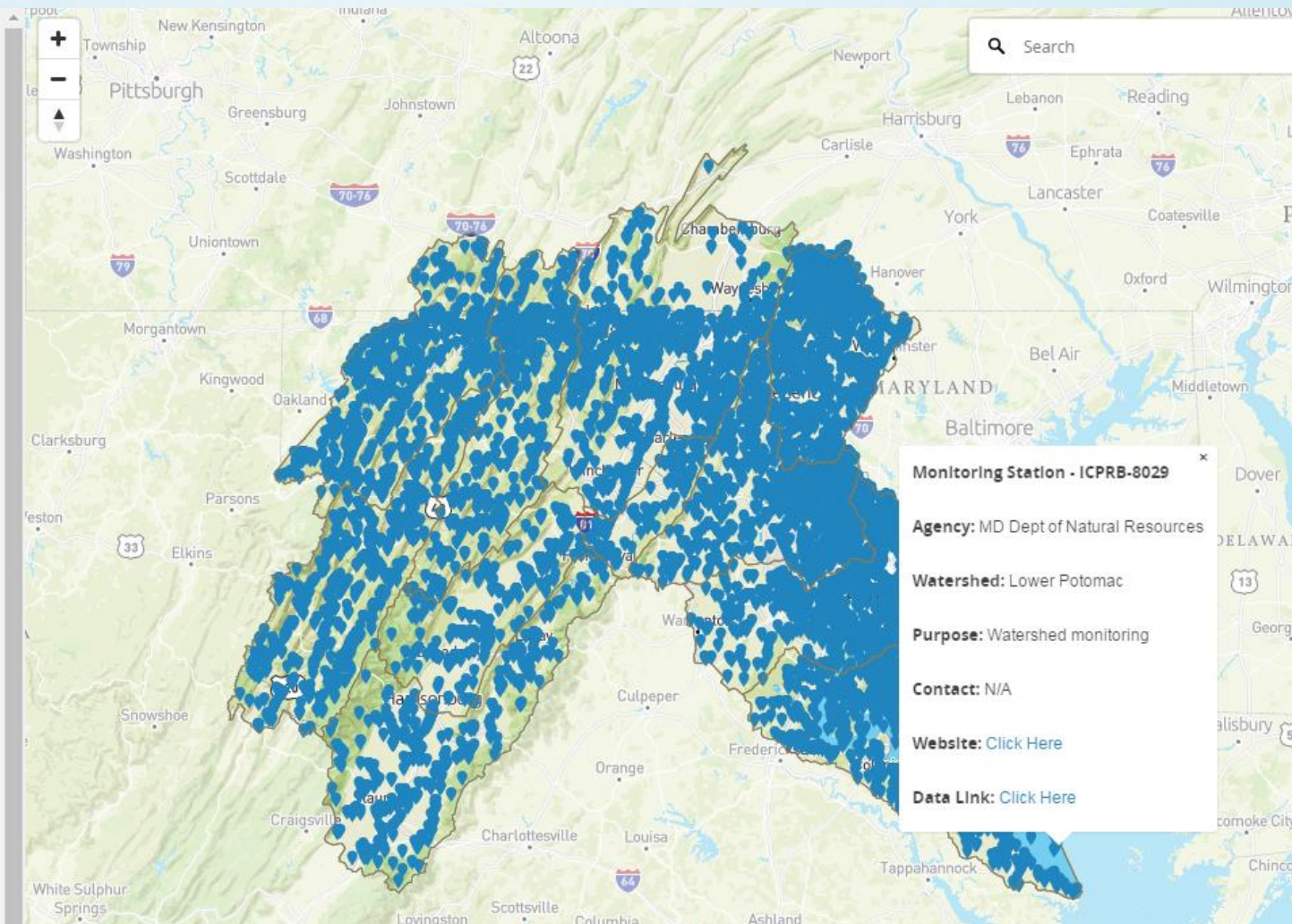
AGENCY/ORGANIZATION

WATERSHED

Welcome to the Potomac River basin Water Quality Monitoring Inventory!

This mapping interface is available to assist users in identifying monitoring locations of interest. The map displays water quality data monitoring locations that are currently included in the inventory. To use this tool, click on the "Agency/Organization" or "Watershed" tabs above to filter water quality monitoring locations by agency/organization, sub-watershed, or both. To view information about each monitoring location, click on the point of interest to open a pop-up window. The pop-up window includes key information about the agency/organization responsible for maintaining the monitoring location, a link to the monitoring program website, and a link to access monitoring data for that location. Use the search function in the top-right to search for a specific street address in the basin.

To access the full water quality inventory dataset, users can download the datasheet [here](#). The datasheet includes additional information about monitoring sites displayed in the mapping interface. Monitoring locations on the map are linked



Monitoring Station - ICPRB-8029

Agency: MD Dept of Natural Resources

Watershed: Lower Potomac

Purpose: Watershed monitoring

Contact: N/A

Website: [Click Here](#)

Data Link: [Click Here](#)

# TOOLS TO ASSESS WATER QUALITY

## EPA Region 3 Long-Term Trends Viewer

### EPA Region 3 Water Quality Trends

HUC 8

All HUCs

Site

104021

Parameter

TEMP

Units: deg C

Outliers Removed: 0

Parameters: CL\_TOT, DO, DOC,  
FE\_TOT, HARDNESS, MN\_TOT, NO2W,  
NO3W, PB\_TOT, PH, SPCOND, TALK,  
TEMP, TOC, TP, TSS, ZN\_TOT

### Site Information

Site: 104021

Agency: 21DELAQW

Start Date: 01/10/1972

End Date: 07/06/2015

State: Delaware

Latitude: 39.770278, 39.76983

Longitude: -75.579167, -75.57884

Depth (m): 0, Blank

Replicate: Blank

Composite: Blank

### Nearest Gage Information

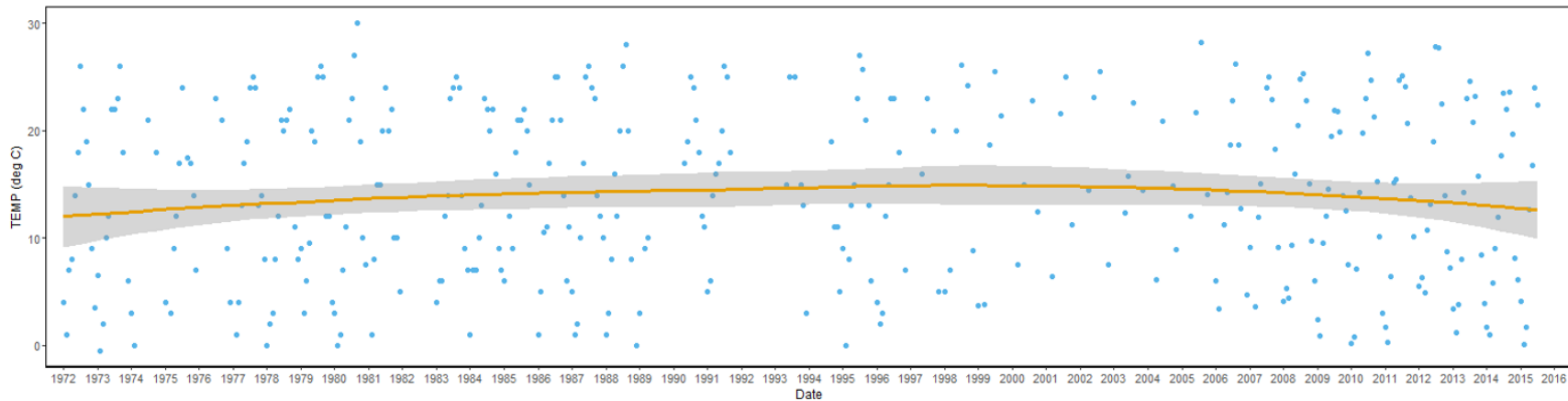
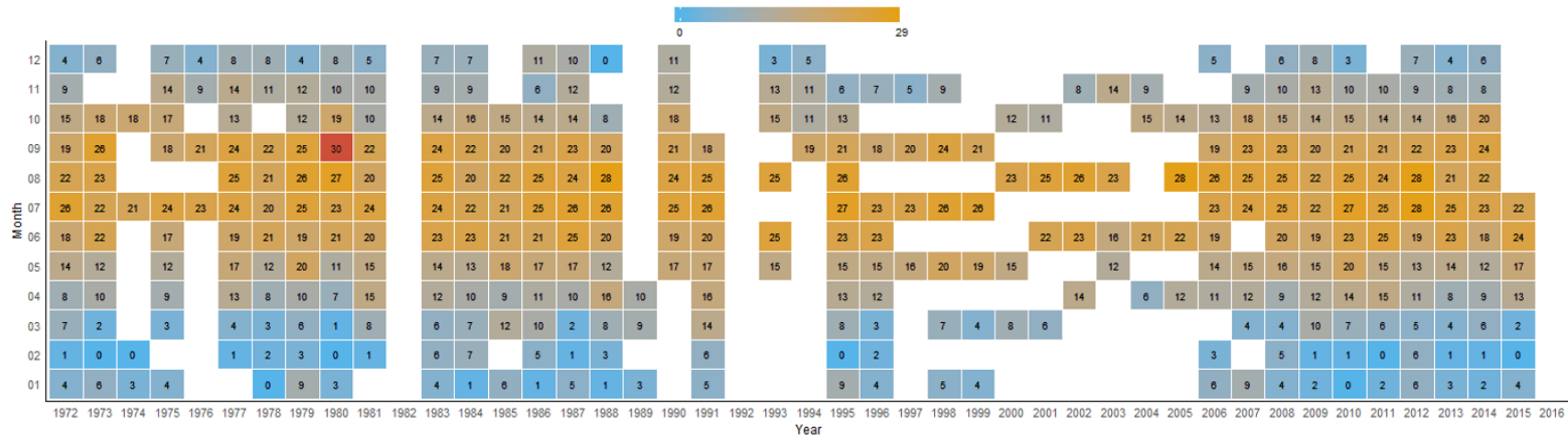
Flow Gage:

Agency: USGS

Flow Gage Location:

Longitude:

Figures Data Map Metadata





# ROLE OF PLAN IN ADDRESSING WATER QUALITY CONCERNS

- WQ GOALS:
  - THE WATERS OF THE BASIN ACHIEVE OR EXCEED WATER QUALITY STANDARDS ESTABLISHED UNDER THE CLEAN WATER ACT.
  - NEW AND EMERGING THREATS ARE PROACTIVELY ADDRESSED.
- WQ CHALLENGES:
  - MANAGING EXISTING THREATS
  - ADDRESSING NEW AND POTENTIAL THREATS
  - IMPROVING POLLUTION CONTROL
- ROLE OF THE PLAN:
  - WITHIN EXISTING FRAMEWORK AND RESPONSIBILITIES
  - INFORMATION EXCHANGE, EDUCATION, AND COLLABORATION

# EXAMPLE RECOMMENDATIONS

- SOURCE: ADVISORY COMMITTEE MEMBER INTERVIEWS:
  - ASSESS IMPACTS OF EXISTING PROGRAMS AND IDENTIFY GAPS AND DETERMINE WHETHER THERE ARE BETTER WAYS TO ATTAIN WATER QUALITY GOALS
  - IMPROVED INFORMATION SHARING
  - IDENTIFY PRIORITIES FOR WATER QUALITY INVESTMENTS IN THE BASIN
  - ENHANCE COORDINATION ACROSS STATE LINES ON WATER QUALITY PLANNING, PRIORITIZATION, AND IMPLEMENTATION
- SOURCE: GMU STUDENTS:
  - ENHANCE JURISDICTIONAL SHARING OF BMP INFORMATION: WHERE AND HOW ARE THEY WORKING AND WHY OR WHY NOT?
  - IMPROVE ABILITY TO PRESENT DATA ACROSS STATE LINES.