MID-OHIO REGIONAL MORPC PLANNING COMMISSION

Central Ohio 15 County Water Study

Kickoff Meeting for Stakeholders
4-24-2024

Ohio Department of Natural Resources

Ohio Environmental Protection Agency

Welcome and Today's Logistics

- This webinar is being recorded
- All questions can be entered into the chat throughout the presentation
- Questions will be answered at the end

Ohio™ THE HEART OF IT ALL™

Forbes

FORBES > LIFESTYLE > TRAVEL

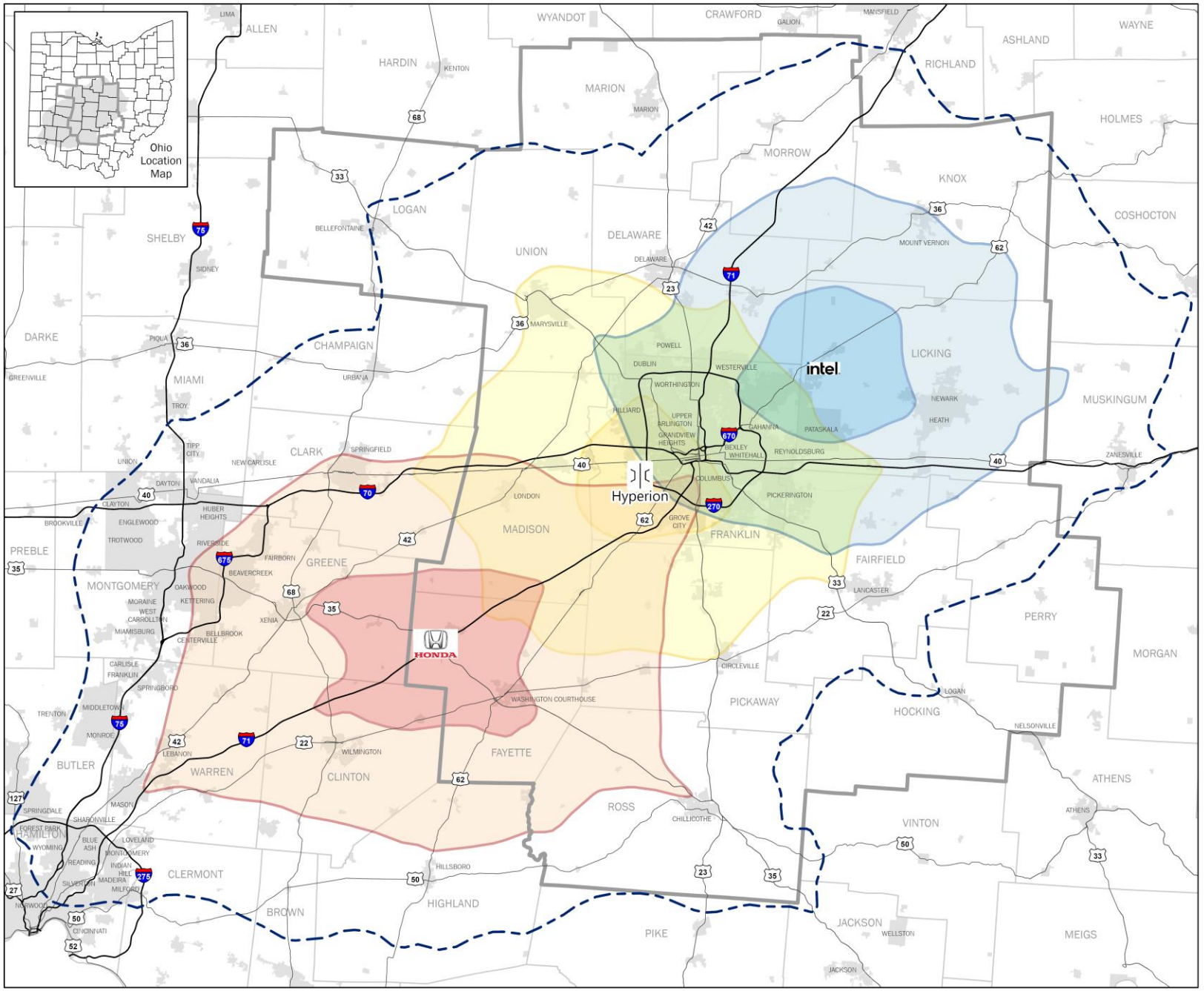
Columbus Is America's Fastest Growing City And A Wonderful Place To Visit

Katie Chang Contributor

Follow

0

Apr 14, 2024, 08:00am EDT



Major New Development Driving Times

Intel
- 20 minutes
- 40 minutes

Honda
- 20 minutes
- 40 minutes

Hyperion
- 20 minutes
- 40 minutes

- Within 60 minutes of a Development
- MORPC Area
- City/Village

Note: Travel assumed by car. Travel times are approximate from Intel, Hyperion, and Honda sites out at 5pm. Buffers generated using ESRI Network current conditions.

N

0 10 20

Miles

MORPC

The information shown on this map is compiled from various sources made available to us which we believe to be reliable.
N:\ArcGIS\LOCAL\MajorDev\MajorDevDriveTimes.aprx
2/14/2023

Ohio™

Environmental Protection Agency

Ohio is the Midwest's Cloud Infrastructure Hub

- From 2015-22, Amazon Web Services (AWS) invested **$6.3 billion** in its Ohio data centers
- In June 2023, AWS announced it planned to invest an additional **$7.8 billion** in Ohio by 2030
- In 2017, Meta announced its initial multi-building data center campus in central Ohio that is LEED Certified Gold
  - Meta's total announced Ohio investment had grown to **$1.5 billion** as of 2022
- In 2019, Google officially broke ground on a **$600 million** data center in New Albany
  - In 2023, Google announced two new locations that will bring total investment to more than **$2 billion**
- In 2021, the Tax Foundation's Location Matters report found Ohio **ranked #1** in new data center corporate tax costs

Economic Impact of the AWS US East (Ohio) Region from 2015-2022

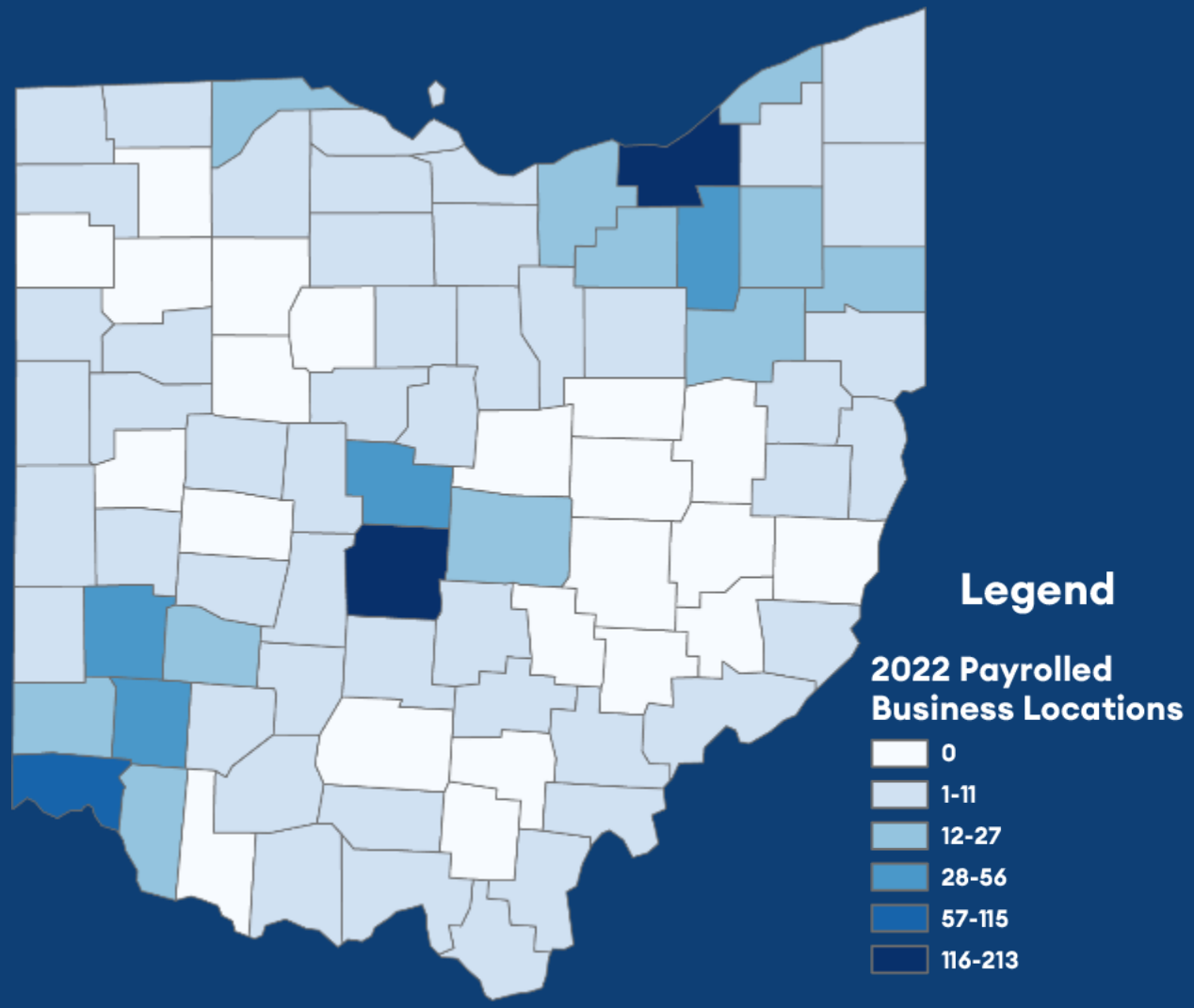
$6.3 billion
Total investment in Ohio, including both capital and operating expenditures

$2.2 billion
Estimated total gross domestic product (GDP) contributed to Ohio

3,550
Estimated average full-time equivalent (FTE) jobs supported at local vendors annually in Ohio

AWS Capital Investment in Ohio

Dramatic Growth in the Data Center Industry over the Past Decade



3X Data Center Growth

In 2011, Ohio had 379 data center locations -

Today, there are over 1,100

JobsOhio

Source: Lightcast, 2022 Payrolled Business Locations in NAICS 51-8210: Data Processing, Hosting, and Related Services

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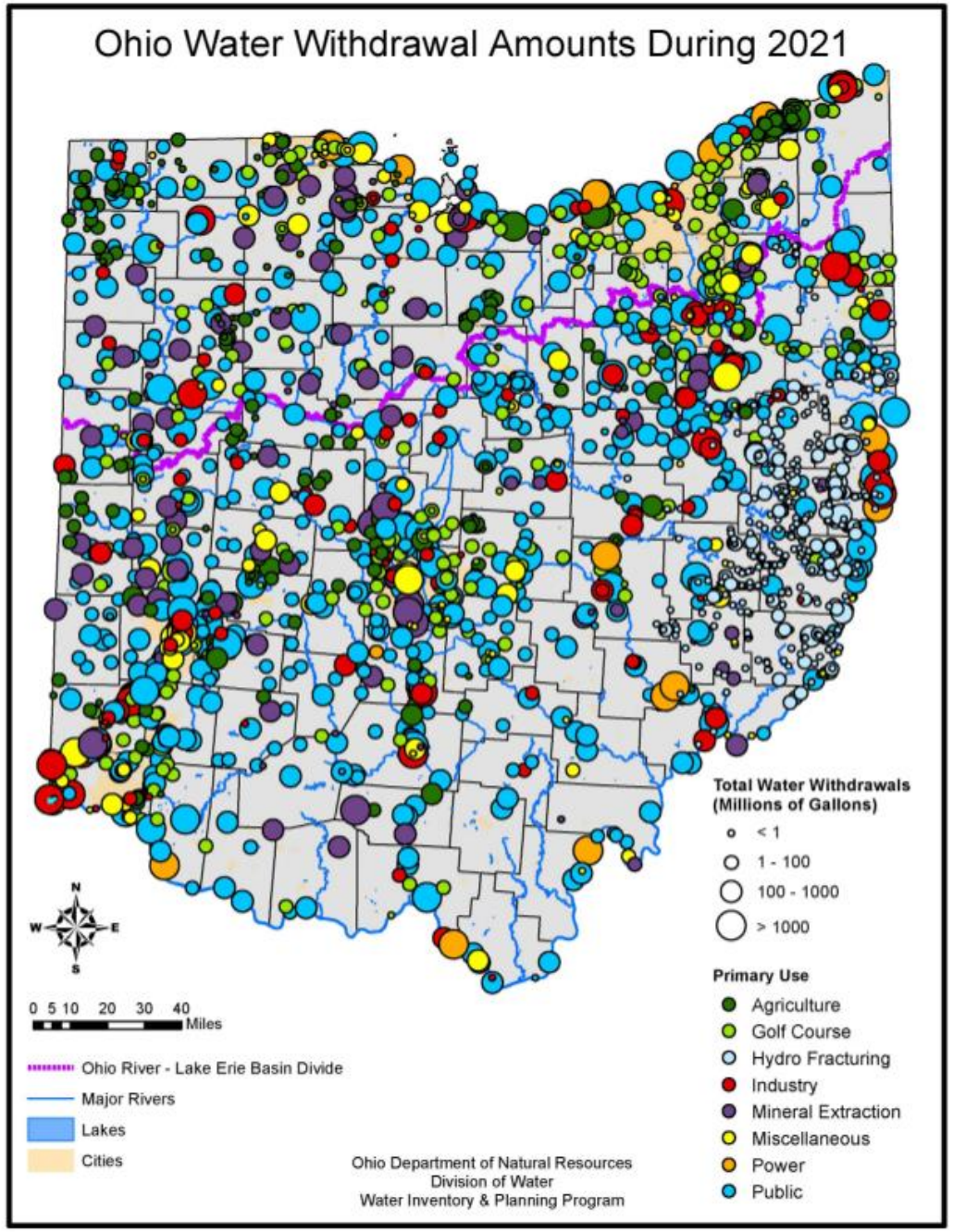
Request for Proposals - Scope

- Comprehensive Water Study
  - Current availability
  - Current demand
  - Projected future demand 2030, 2040, & 2050
  - Gap analysis
  - Regionalization recommendations
  - Water reuse opportunities
  - Siting locations for new mega water users

WWTP-Treated Effluent as Process Water

Request for Proposals - Scope

- Identify zones of economic opportunity based on water resource feasibility and availability
- Provide a “Pathway to Readiness” for communities with capacity limitations
- Maintain water quality in our rivers and streams throughout the state in the long term
- Identify ground water recharge needs and recommendations
- Provide information regarding reservoir re-evaluation and management (ODNR, USACE controlled and others)



Ohio Department of Natural Resources

- Water availability (water budget)
- High-capacity withdrawal permitting
- Reservoirs / USACE Contracts

Ohio Environmental Protection Agency

Request for Proposal Timeline

Dec. 15, 2023
RFP posted on OWDA website

Jan. 8, 2024
Prebid meeting

Jan. 26, 2024
Proposals due

Feb. 12, 2024
Agency partners scoring/ selection

Mar. 8, 2024
Proposed contract execution date

Scoring Criteria

PROJECT TEAM/CREDENTIALS:

Expertise of entire team assembled and clearly defined roles and responsibilities

UNDERSTANDING & APPROACH:

Meets all scope requirements and has a clear, organized strategy

EXPERIENCE:

Clear demonstration of water projects that parallel the goals of this water study

DATA MANAGEMENT:

Has a compelling plan for data collection, management and modeling

SCHEDULE:

Our confidence of them meeting deadlines based on resources and deliverable projections, including expediting Licking County findings

LOCAL KNOWLEDGE:

Understanding of local issues and constraints

Proposal 1

- **$1,111,000**

- Headquartered in MN

Proposal 2

- **$4,513,866**

Proposal 3

- **$2,290,730**

Proposal 4

- **$2,997,700**
- RANK 1st
- **Contracted for $2797,700**

Ohio Water Development Authority

Overview of Hazen's Subconsultant Roles

Jacobs

Scenario planning and integrated modeling expertise, economic development planning

Eagon and Associates

Ground water availability, local modeling, ground water sensitivities and contamination

Coldwater

Ecosystem and recreational services, environmental demands, water quality limits

Burgess & Niple

Scenario development, infrastructure needs

Geosyntec

Regulatory constraints and permitting, TMDLs

Neighborhood Strategies

Ground water availability, local modeling, ground water sensitivities and contamination

Midwest Biodiversity Institute

Technical advisor - Central Ohio stream health knowledge

EMH&T

Technical advisor - Long-term economic planning

Lisa Jeffrey

Technical advisor - Evaluation of safe yield and water quality considerations

Dashboards

Regional Water Study (RWS) – Central Ohio Region

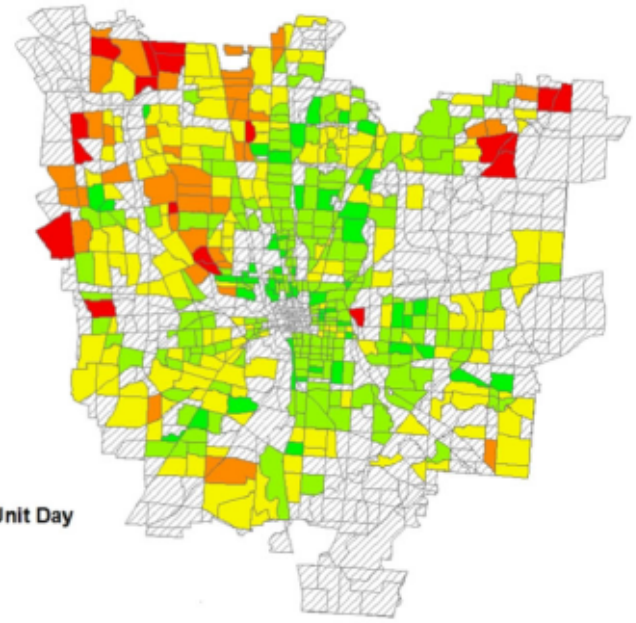
Hazen

Home | Current and Projected Demands | Integrated Map and Model | Scorecard for Alternatives Analysis | Search

Area of interest: City of Columbus

Historical parameter: Residential gallons per unit day by TAZ (2018)

Historical Data



Household growth rate: +10%

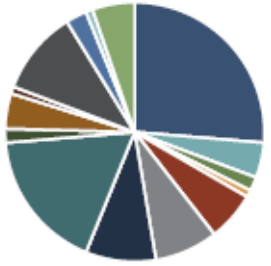
Residential GPCD: Base GPCD 2020-2022 Avg

Non-residential GPCD: Base GPCD 2020-2022 Avg

Weather condition: Historical Normal

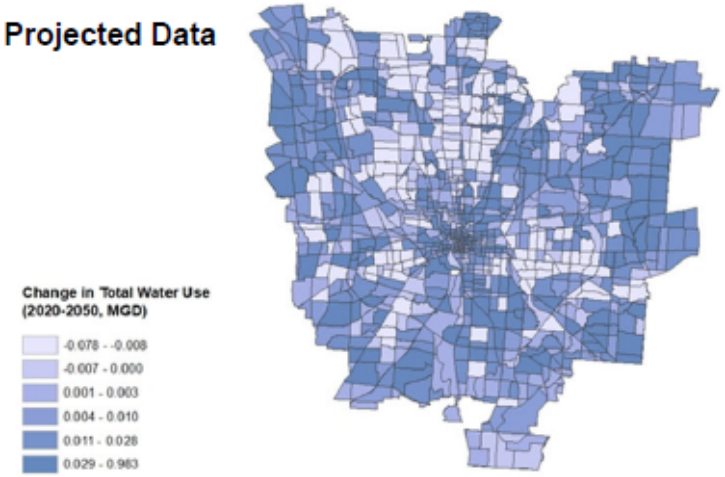
Water efficiency factor: Passive

Total Water Use by County in Central Ohio Region

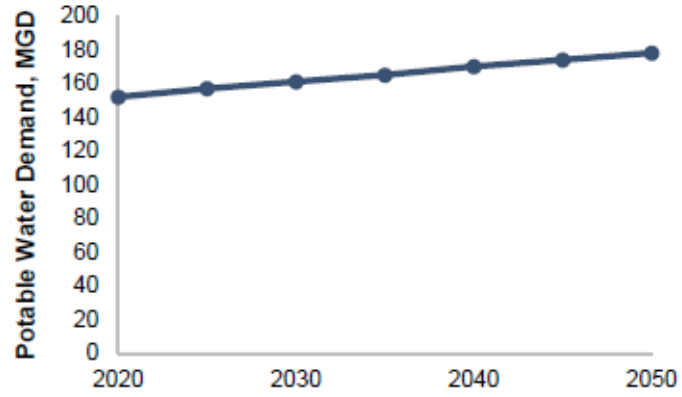


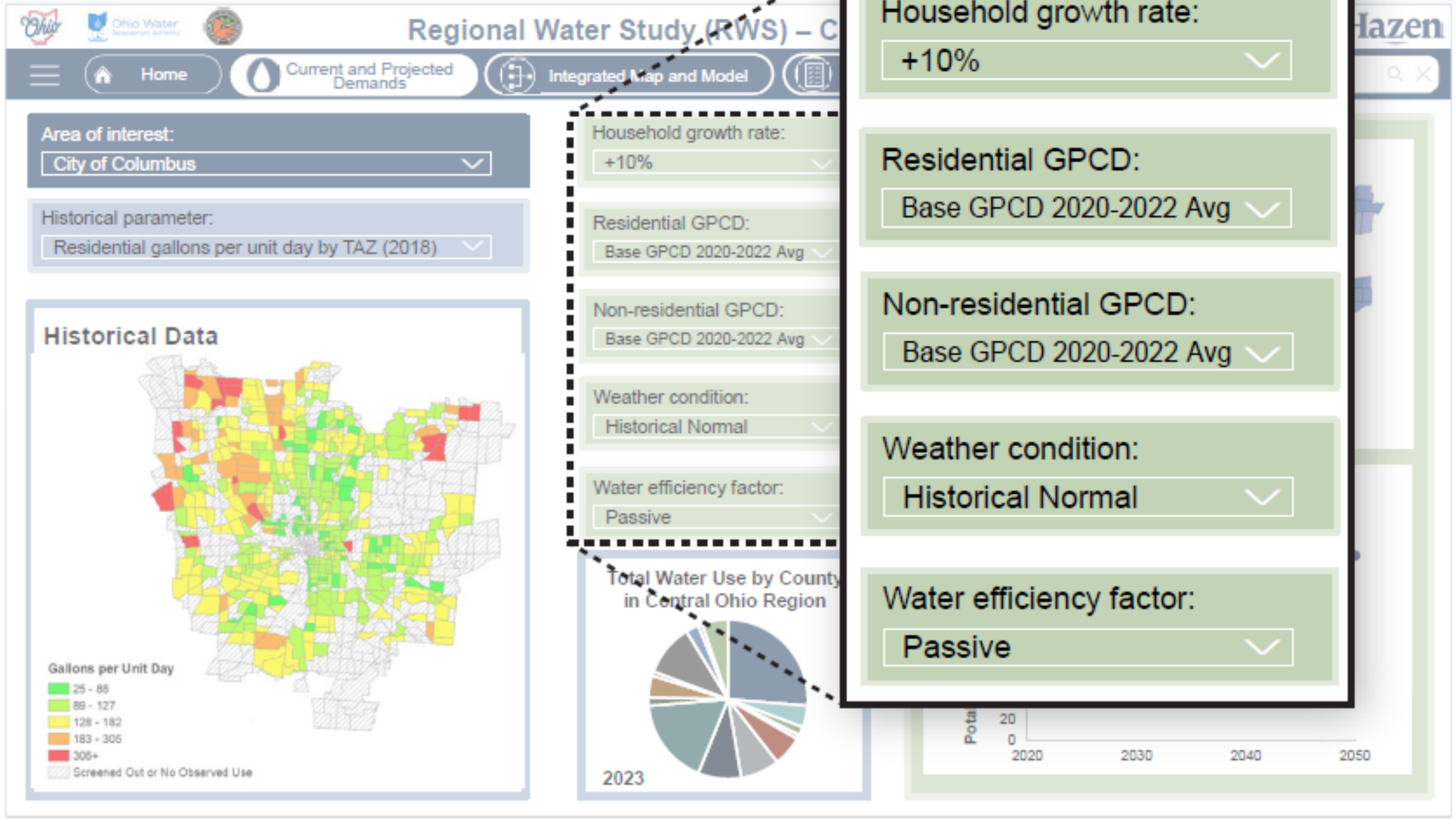
2023

Projected Data



Projected Data




Regional Water Study (RWS) – C
Hazen
Home
Current and Projected Demands
Integrated Map and Model
Area of interest:
City of Columbus
Historical parameter:
Residential gallons per unit day by TAZ (2018)
Historical Data
Gallons per Unit Day
25 - 88
89 - 127
128 - 182
183 - 306
306+
Screened Out or No Observed Use
Household growth rate:
+10%
Residential GPCD:
Base GPCD 2020-2022 Avg
Non-residential GPCD:
Base GPCD 2020-2022 Avg
Weather condition:
Historical Normal
Water efficiency factor:
Passive
Total Water Use by County in Central Ohio Region
2023
Household growth rate:
+10%
Residential GPCD:
Base GPCD 2020-2022 Avg
Non-residential GPCD:
Base GPCD 2020-2022 Avg
Weather condition:
Historical Normal
Water efficiency factor:
Passive
20
0
2020
2030
2040
2050

Central Ohio Regional Water Study

Ohio Environmental Protection Agency

Ohio Department of Natural Resources

Ohio Water Development Authority

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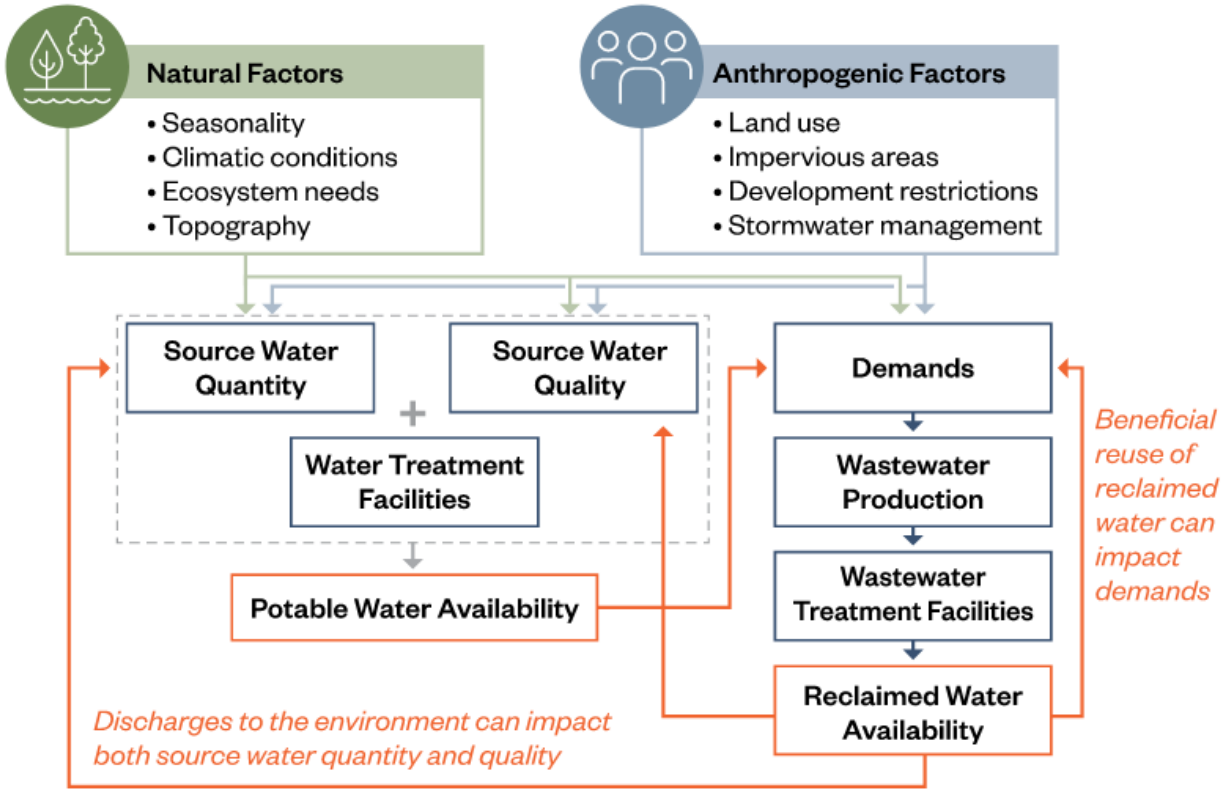
Project Drivers, Objectives, Deliverables

Drivers

- Current and projected growth
- New industries (new water quality requirements, new discharge)
- Interconnected system, interrelated objectives



Project Drivers, Objectives, Deliverables

Drivers

- Current and projected growth
- New industries (new water quality requirements, new discharge)
- Interconnected system, interrelated objectives

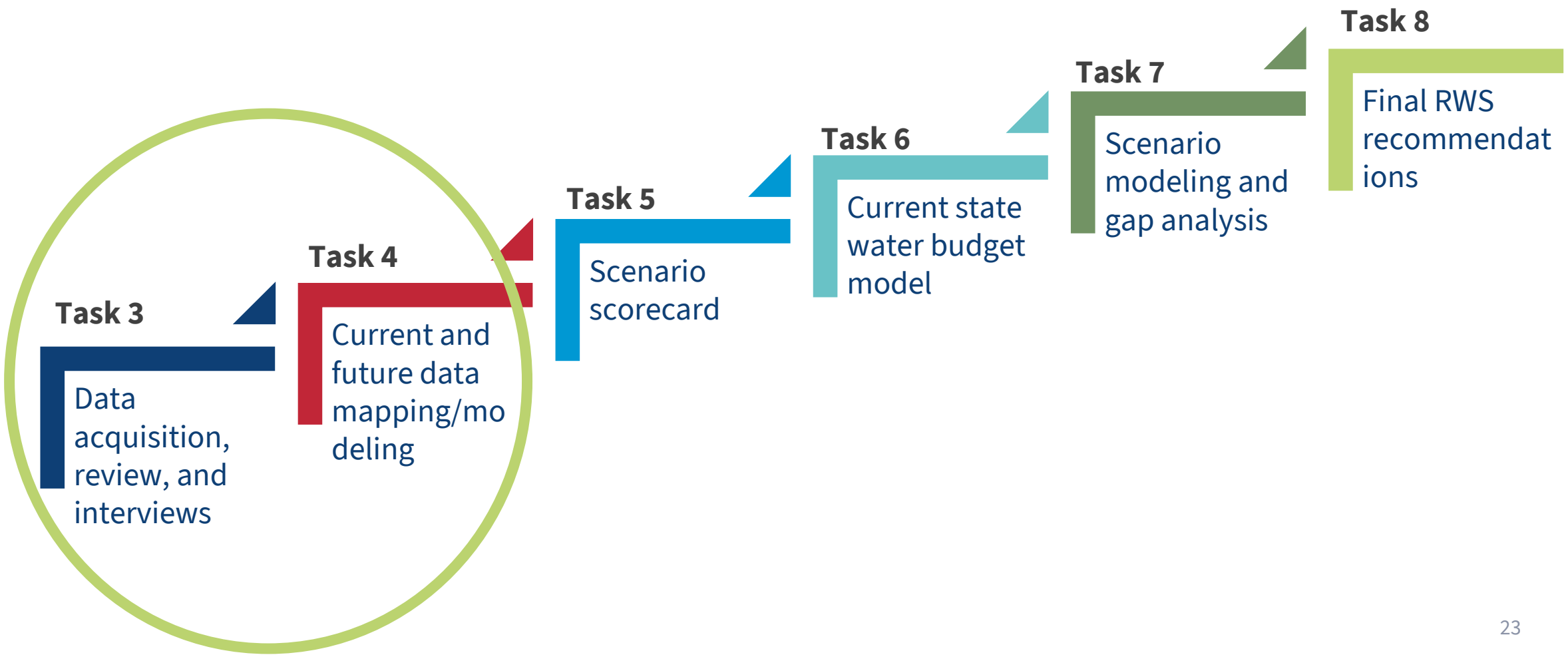
Objectives

- Identify existing and planned system components
- Characterize relationships between system components
- Provide a foundation for decision-making in alignment with a common community vision

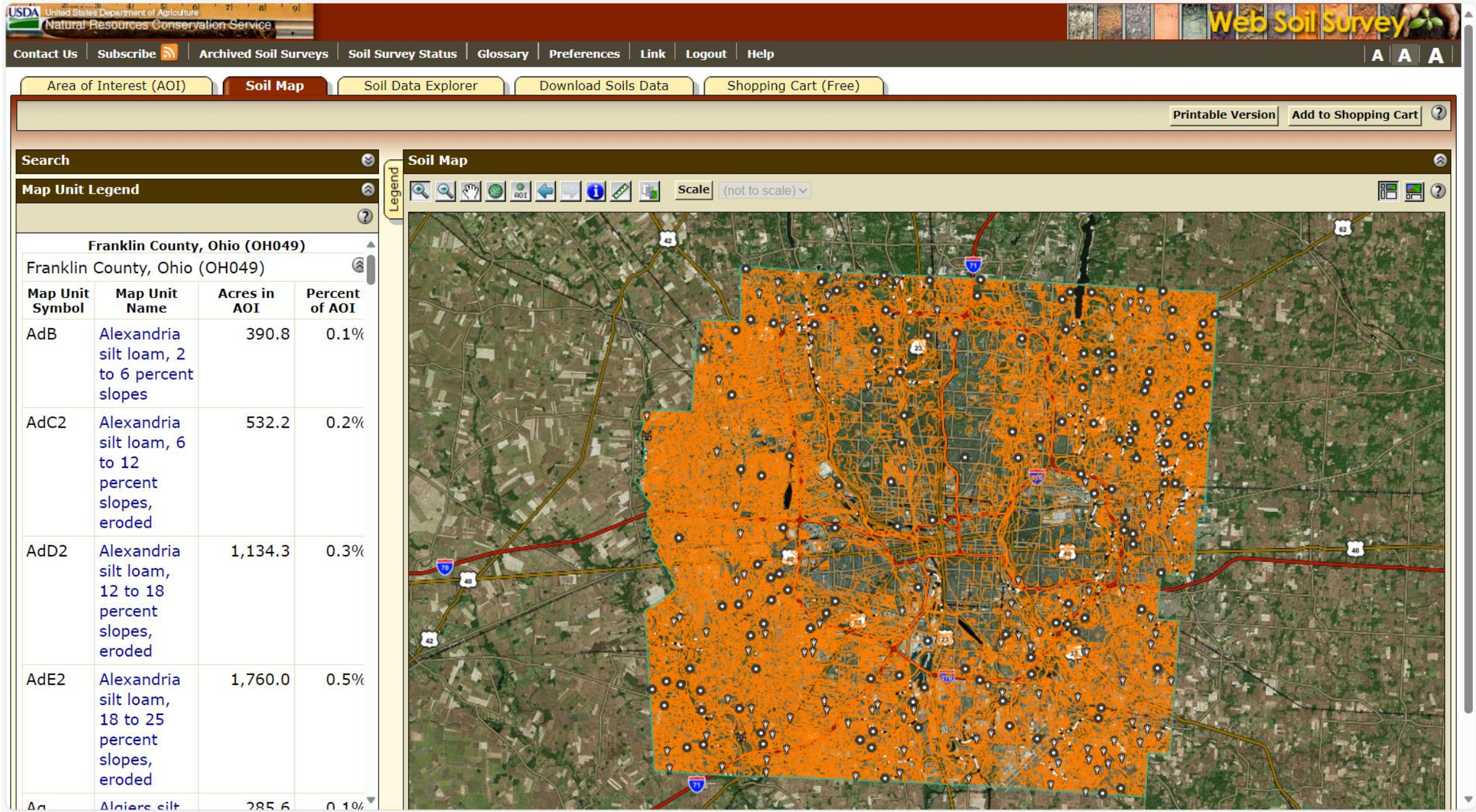
Outputs

- Integrated water resource model that identifies gaps in the system's ability to meet regional objectives under various potential future conditions
- Scenario-based infrastructure development recommendations

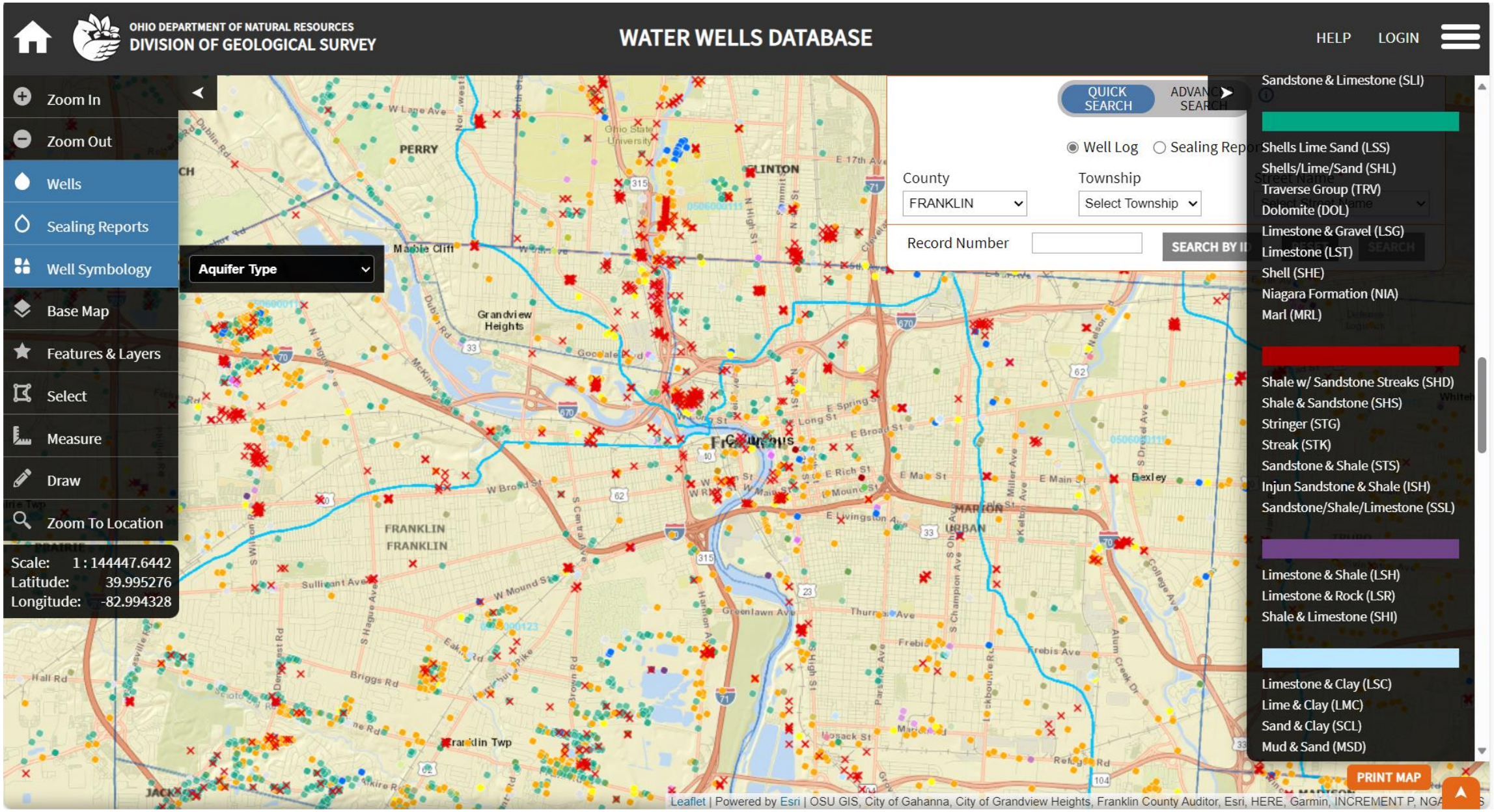
Project Workflow



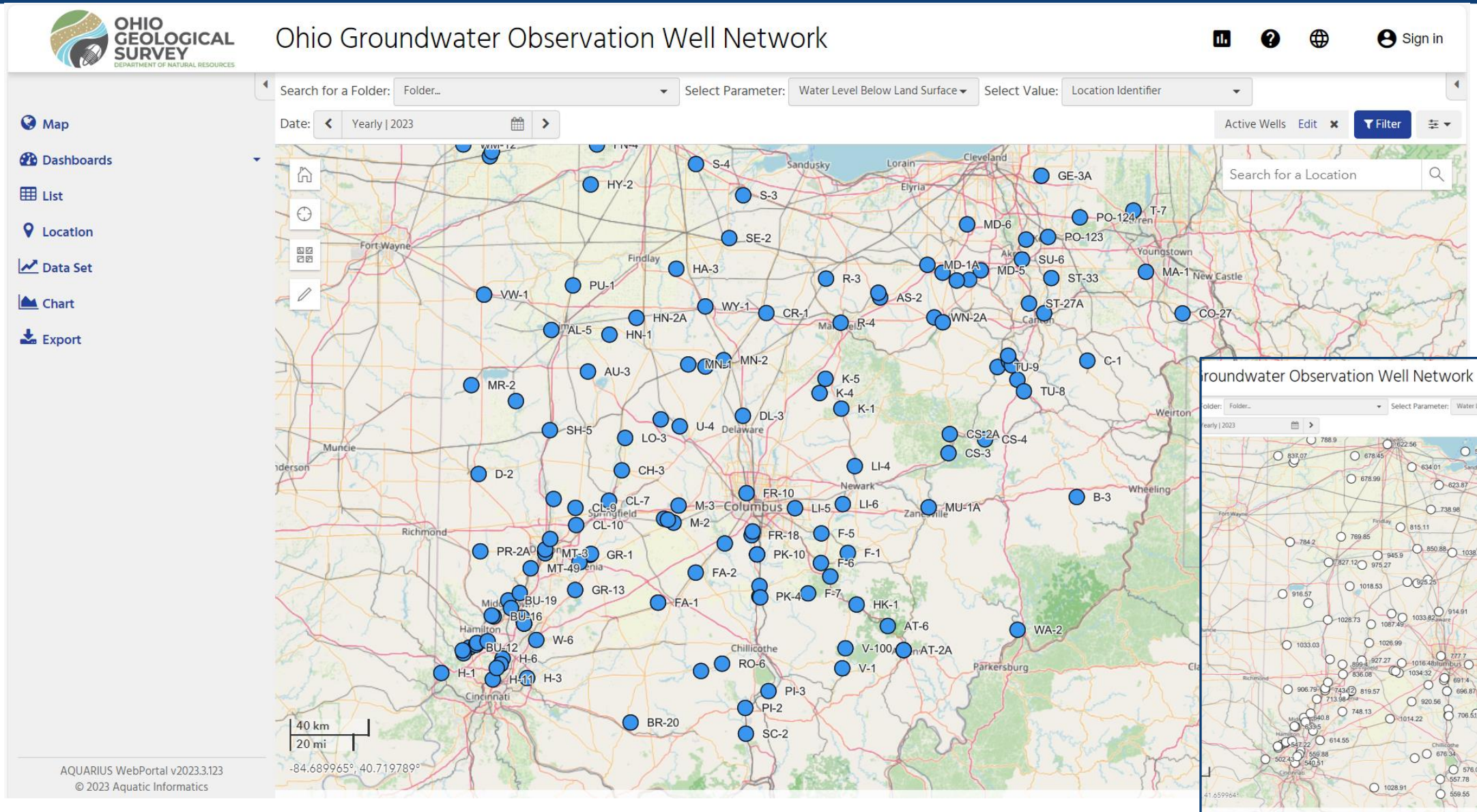
USDA NRCS Web Soil Survey



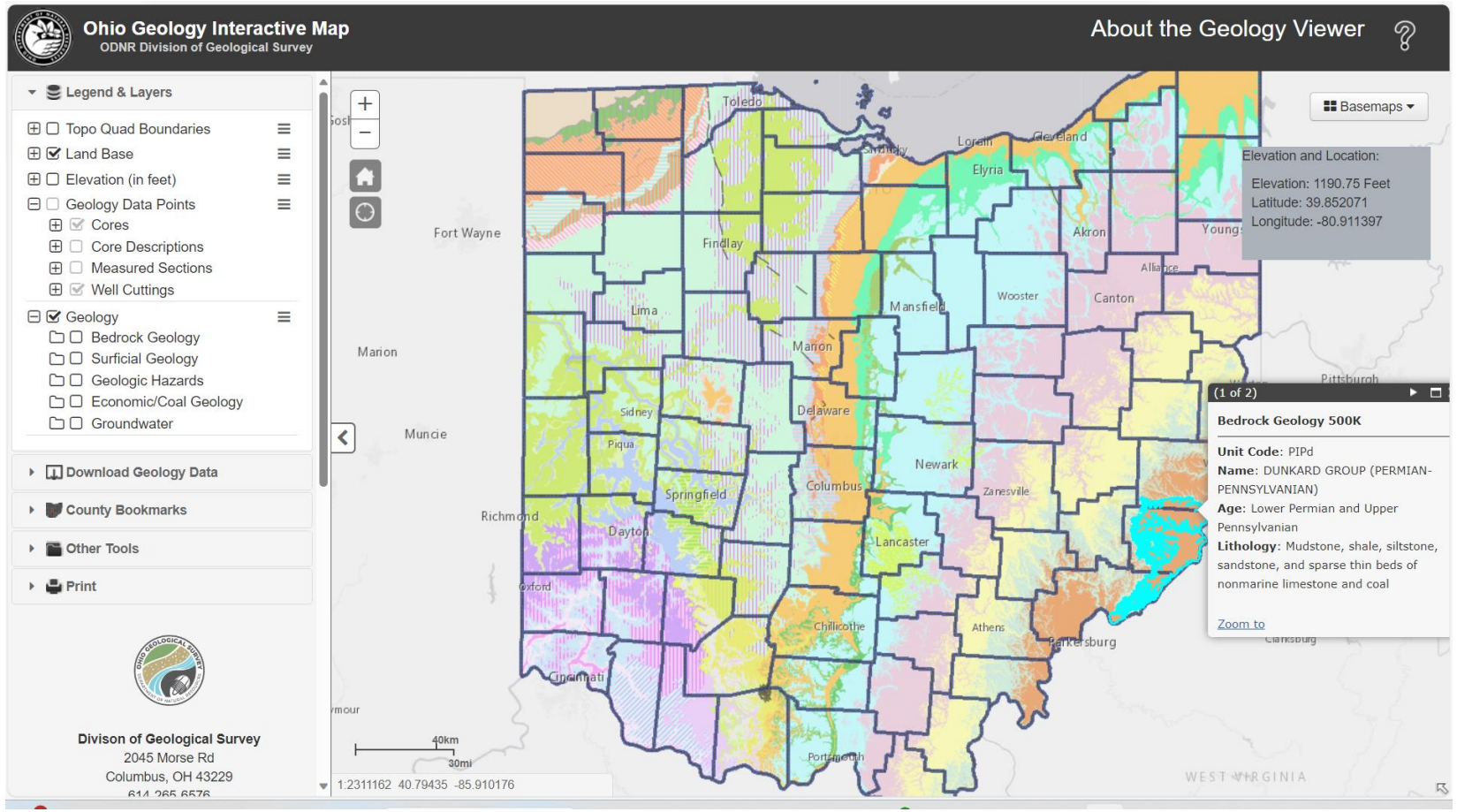
Ohio Water Well Database

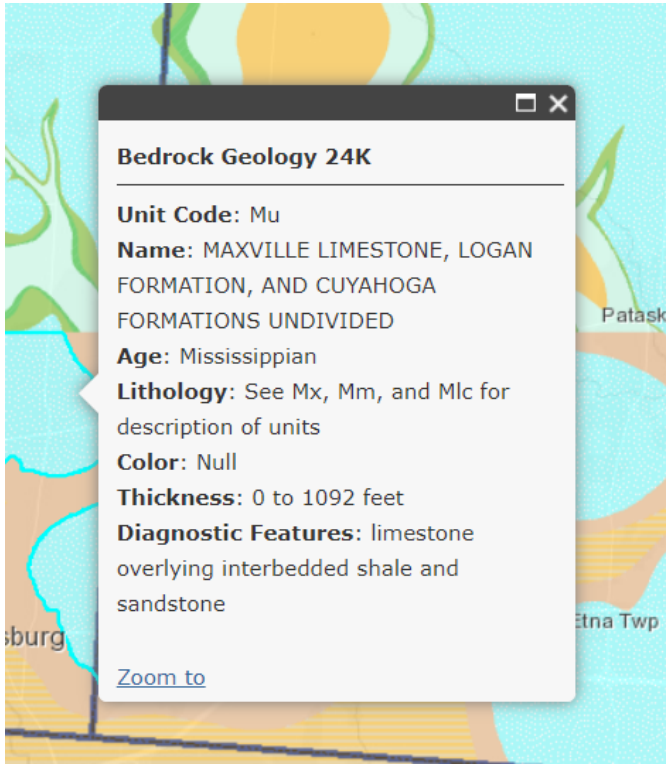


Ohio Observation Well Network

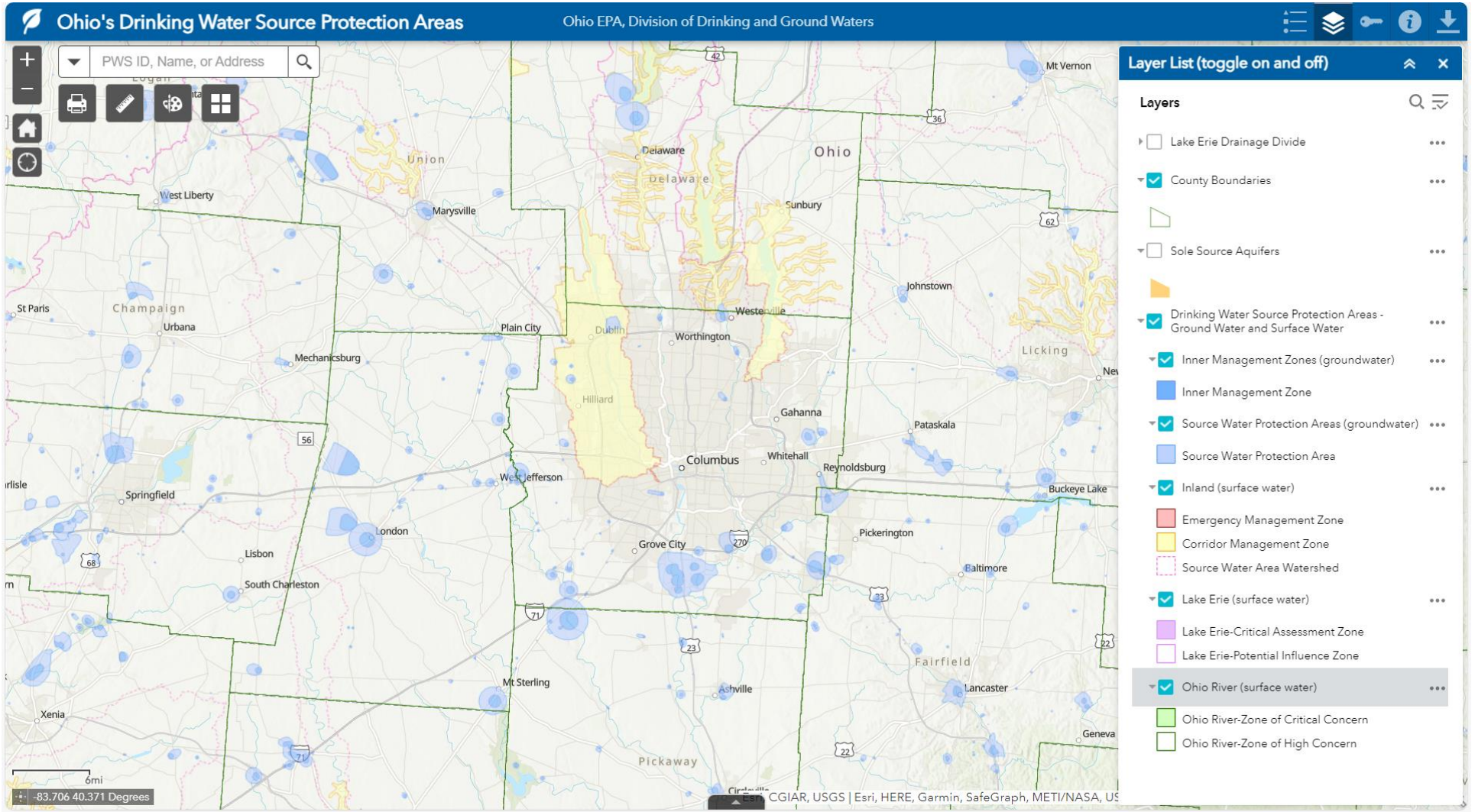


Ground Water Vulnerability Map of Ohio

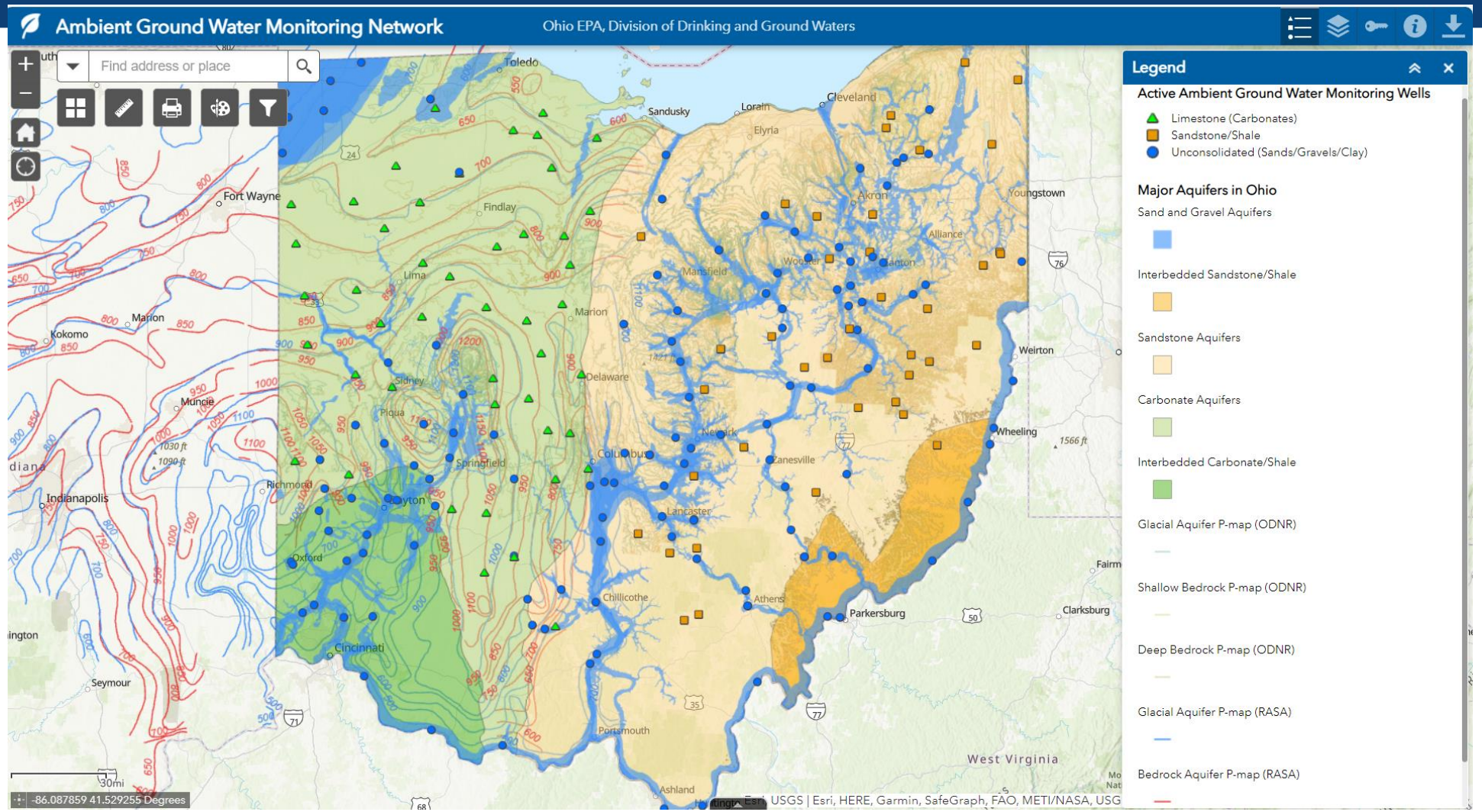


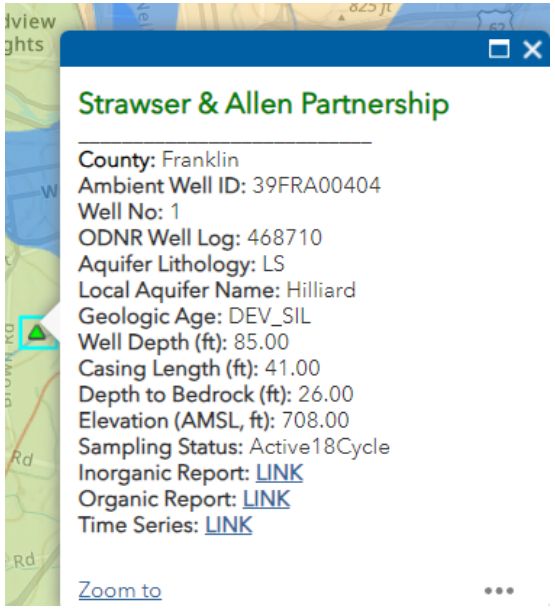


Drinking Water Source Protection Area

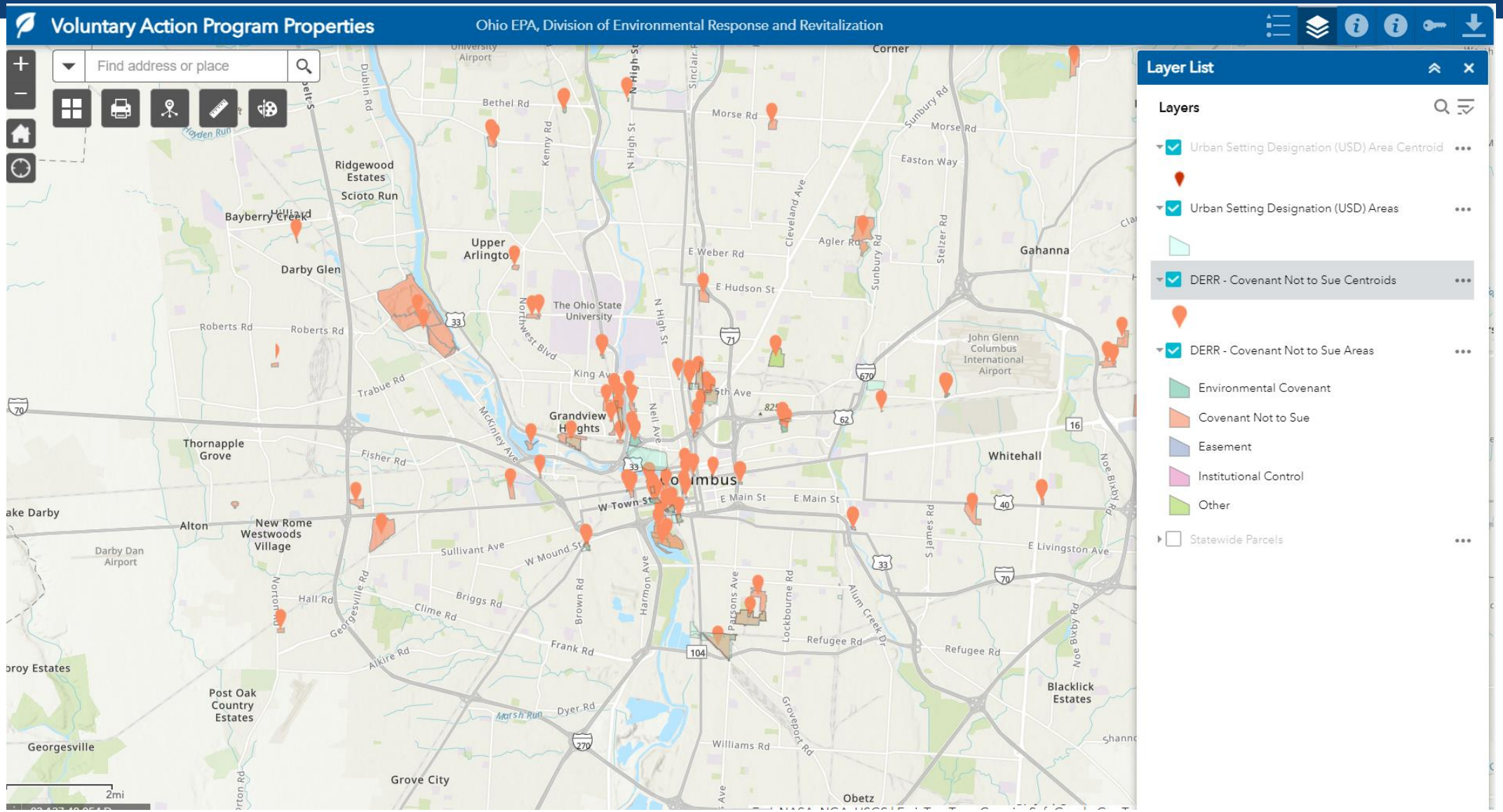


Ambient Ground Water Monitoring Data

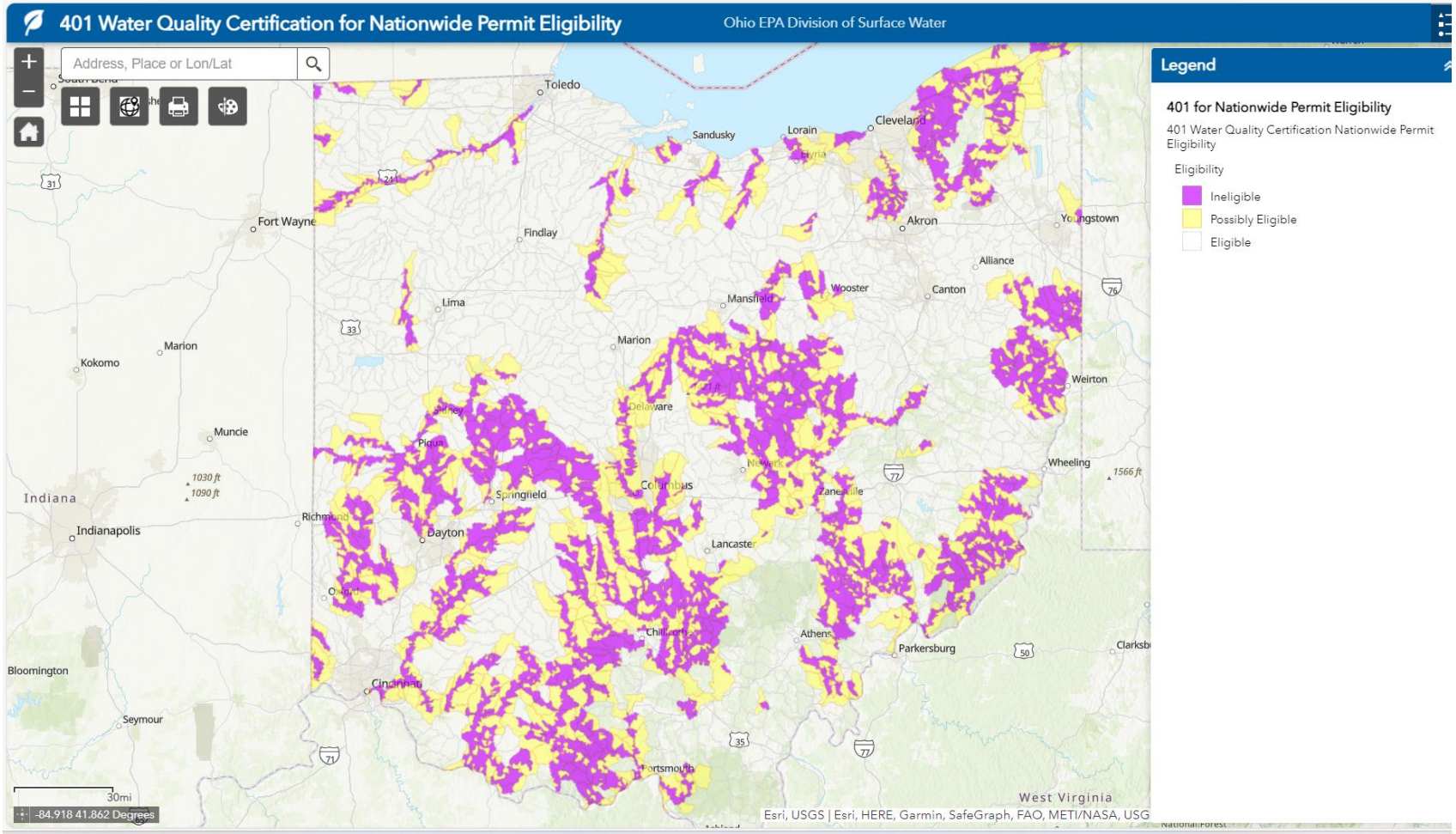




Urban Settings Designations/ VAP Site Covenants Not to Sue



Ohio EPA Stream Eligibility Map



Category Definitions:

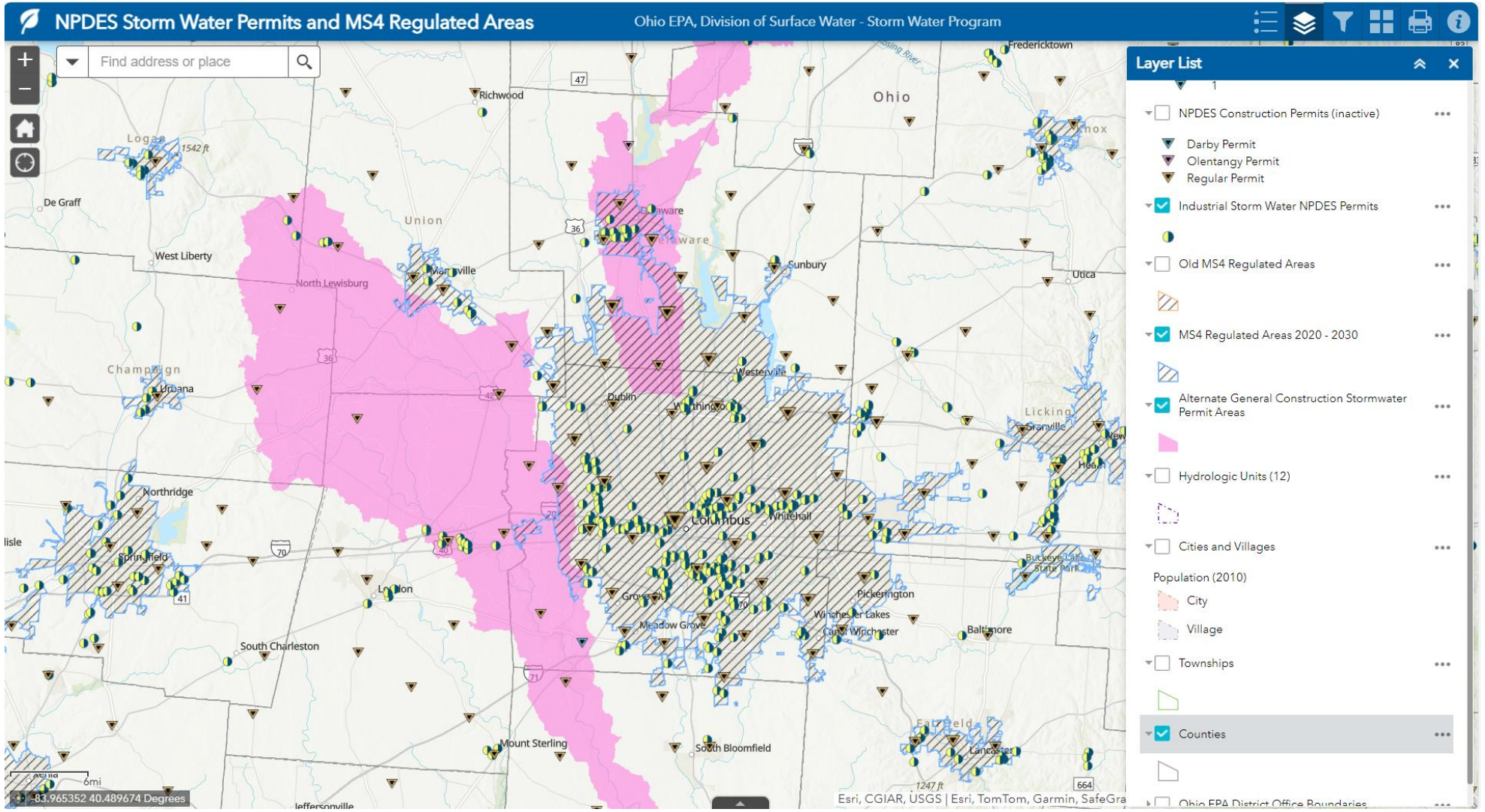
Ineligible Areas *(Shaded Purple)*: an individual 401 water quality certification is required.

Possibly Eligible Areas *(Shaded Yellow)*: may require an individual water quality certification if the streams which are proposed to be impacted exhibit habitat features indicative of high quality waters, or if other Ohio general and special limitations and conditions for the nationwide permits are not met.

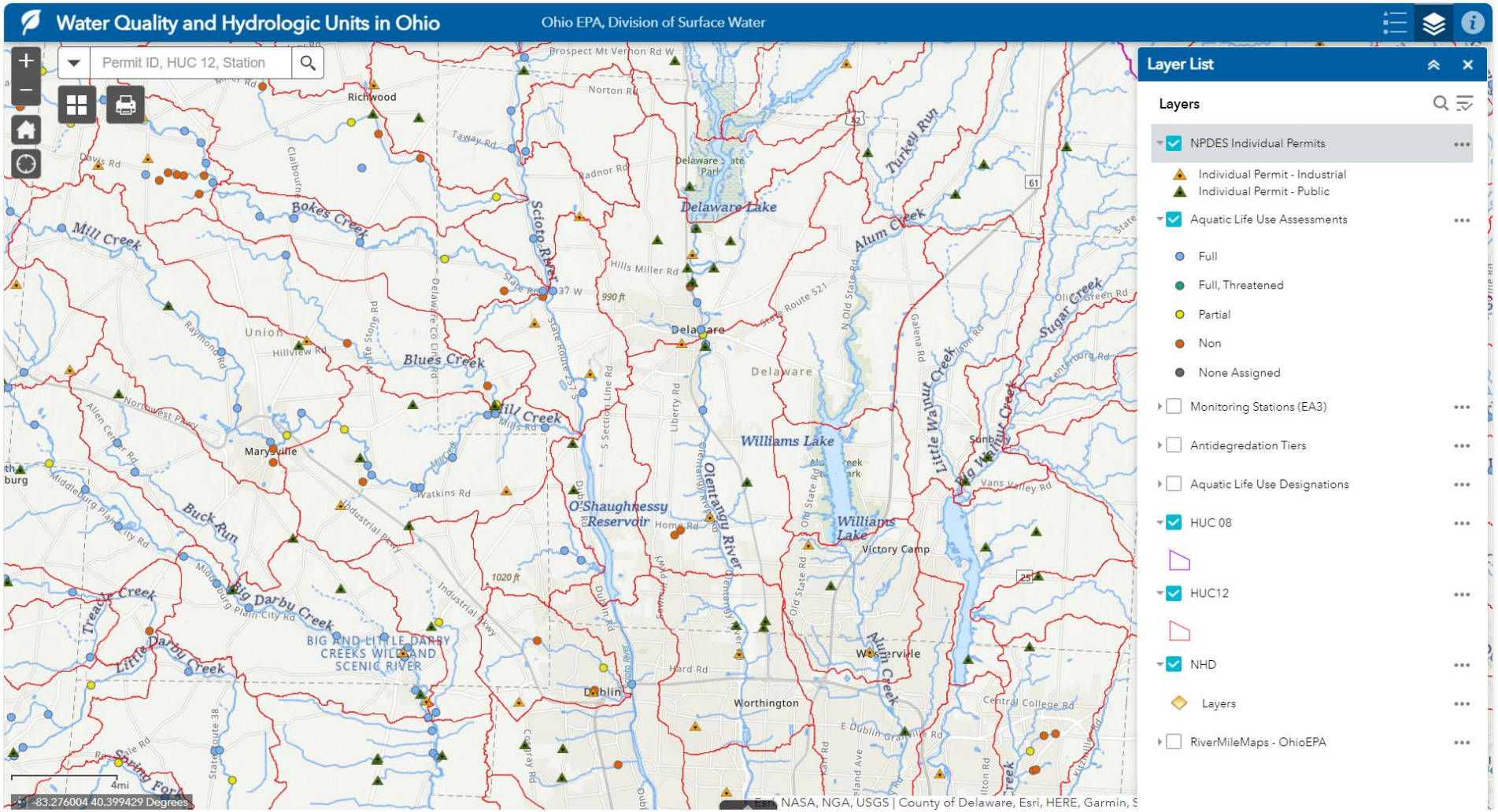
Eligible Areas *(No Shading)*: may require an individual 401 water quality certification if Ohio general and special limitations and conditions for the nationwide permits are not met.

Zoom to

NPDES MS4 Regulated Areas



Water Quality and Hydrologic Units



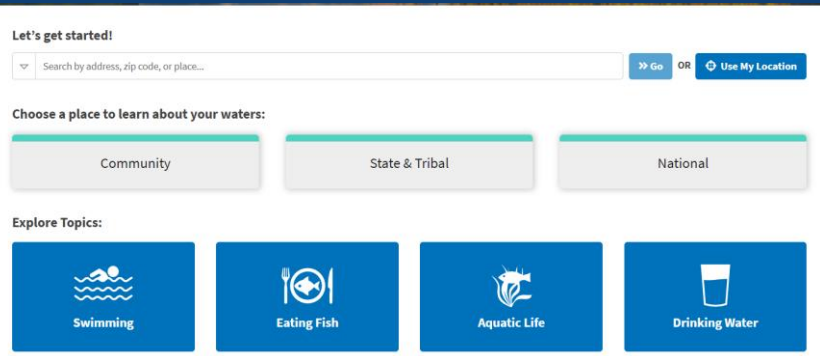
Watershed Attributes

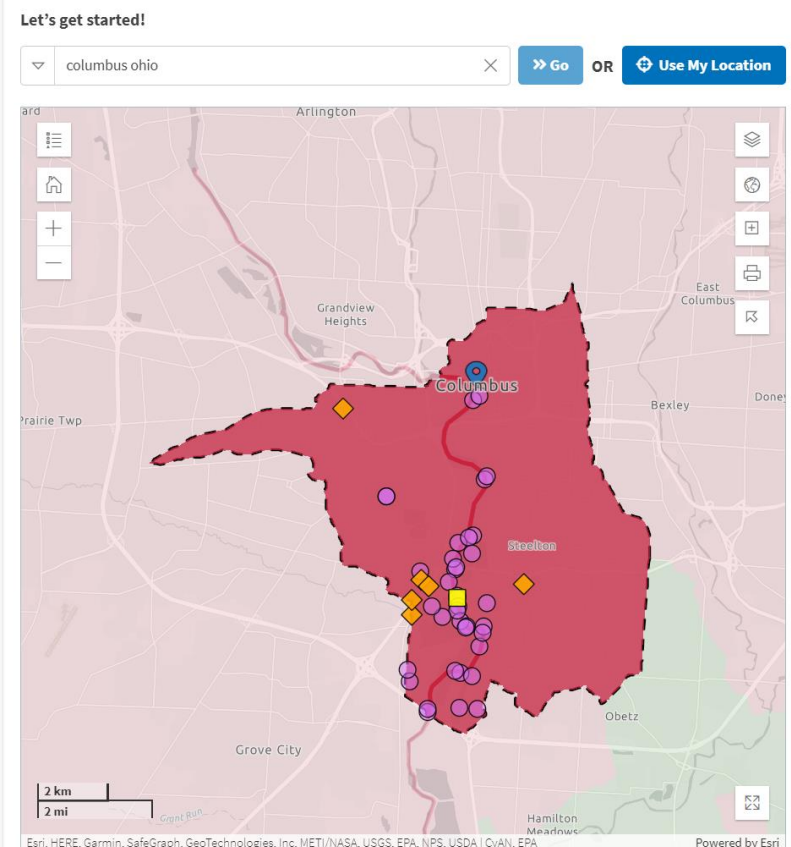
Watersheds - Watershed - HUC12: Bliss Run-Alum Creek

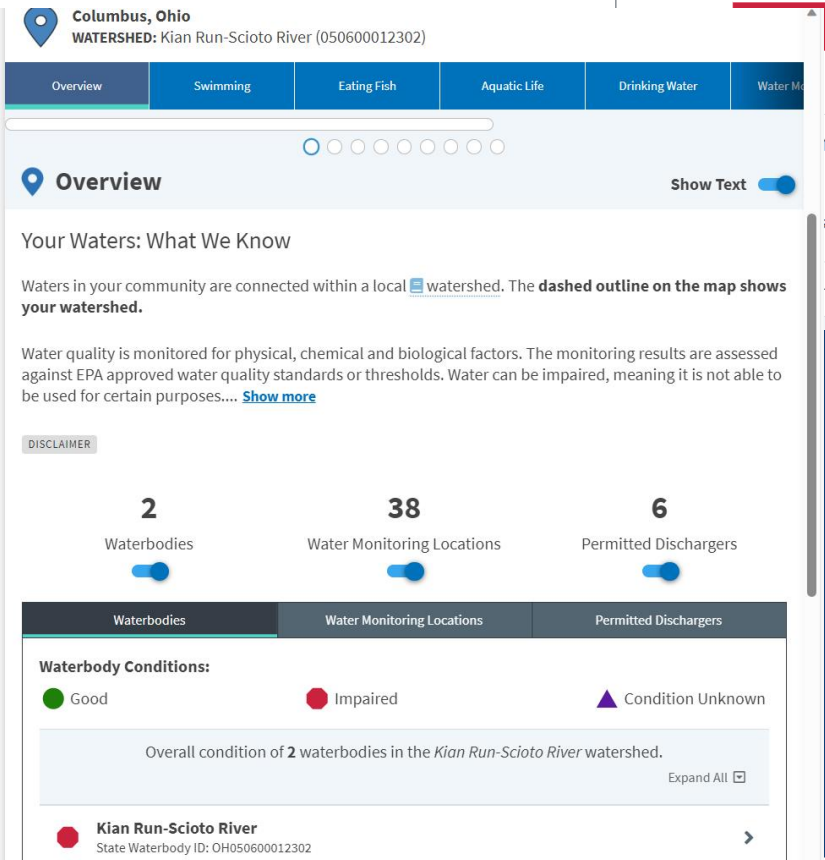
Name	Bliss Run-Alum Creek
AreaAcres	33,866.00
AreaSqKm	137.05
GNIS_ID	
HUC12	050600011602
HUMod	TF
HUType	Standard
LoadDate	January 18 2013
MetaSourceID	
NonContributingAcres	0.00
NonContributingSqKm	0.00
SourceDataDesc	

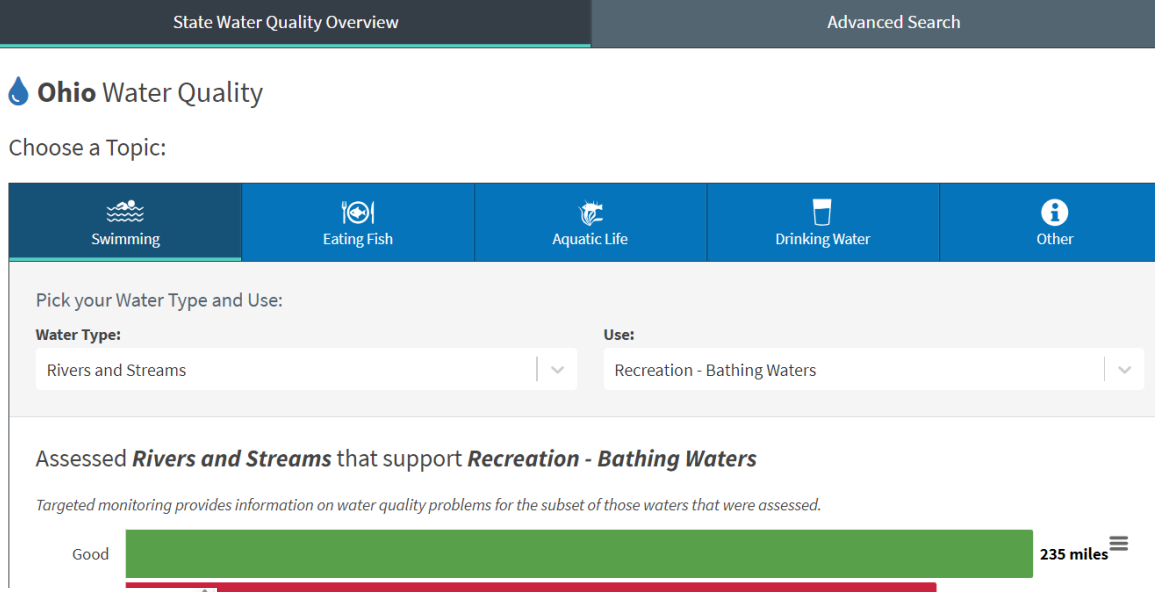
Zoom to

How's My Waterway

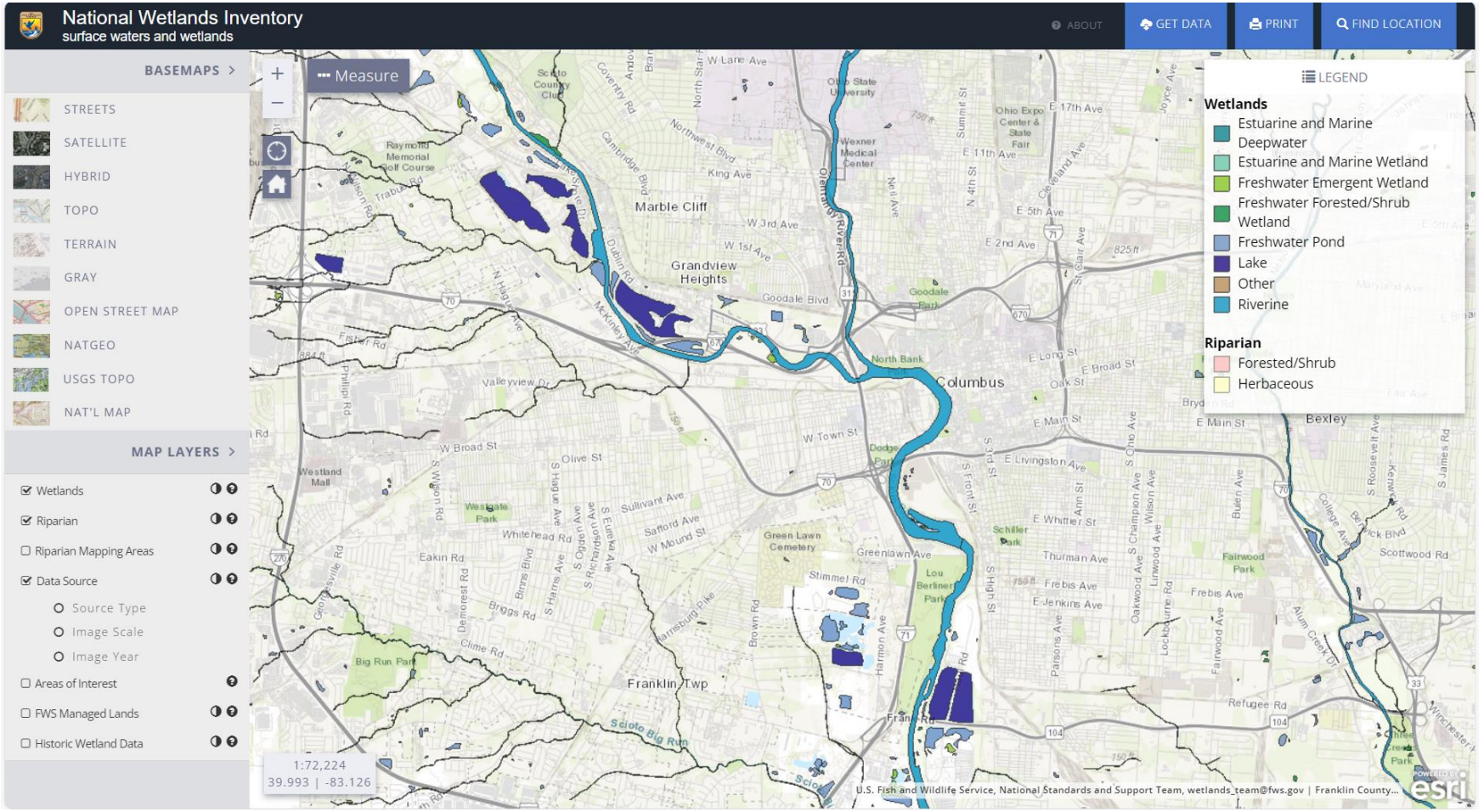








U.S. Fish and Wildlife Service National Wetland Inventory



General | Description | Reports | About

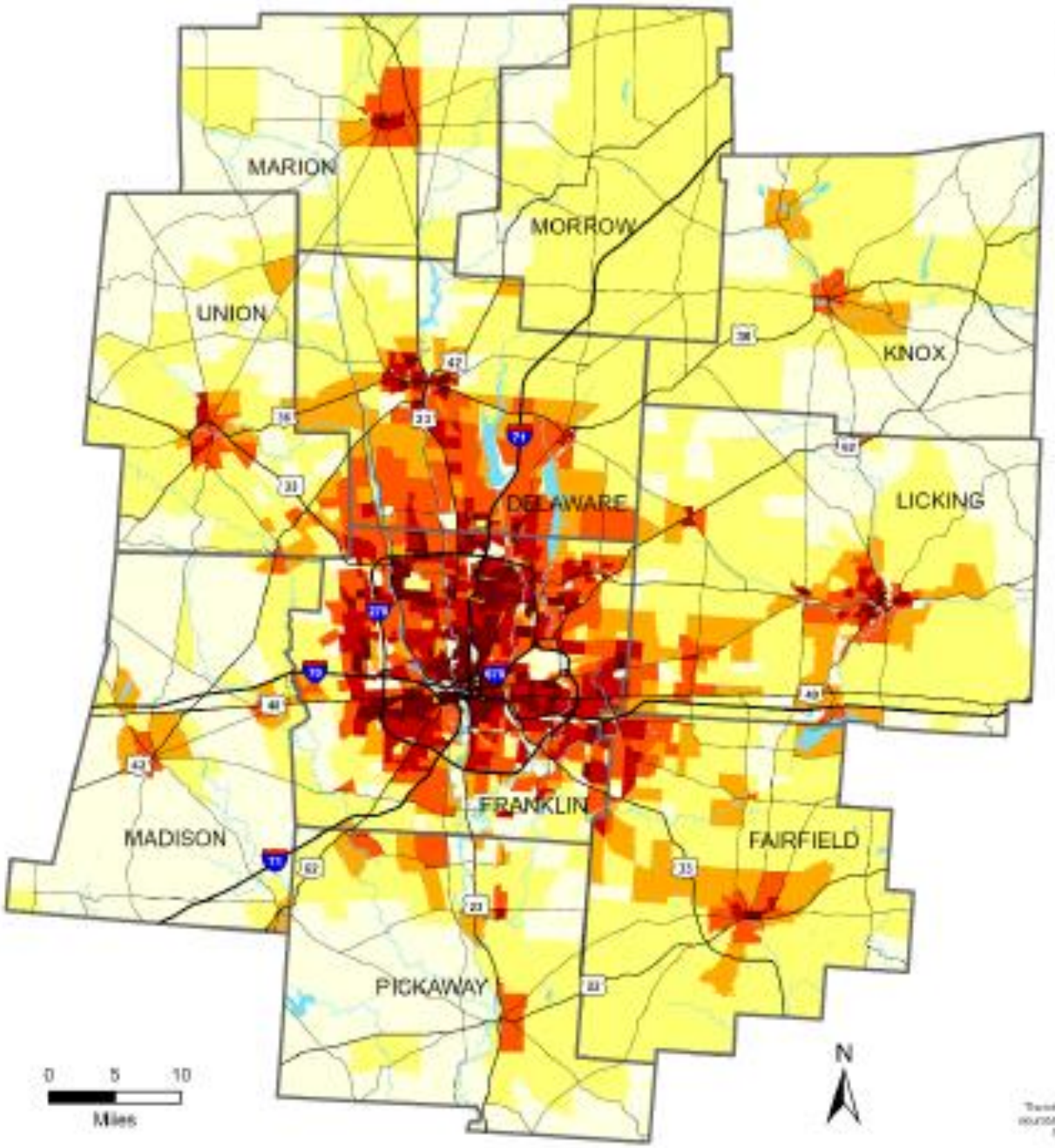
This **513.69** acre **Riverine** habitat is classified as a **R2UBH**. For a complete code description, click here.

The wetlands and deepwater habitats in this area were photo interpreted using **1 meter (or less) digital**, **color infrared** imagery from **2007**. Click here for project specific mapping conventions and information.

Zoom to wetland

Zoom to project area

Population Density Forecast 2050



Population 2050 per acre

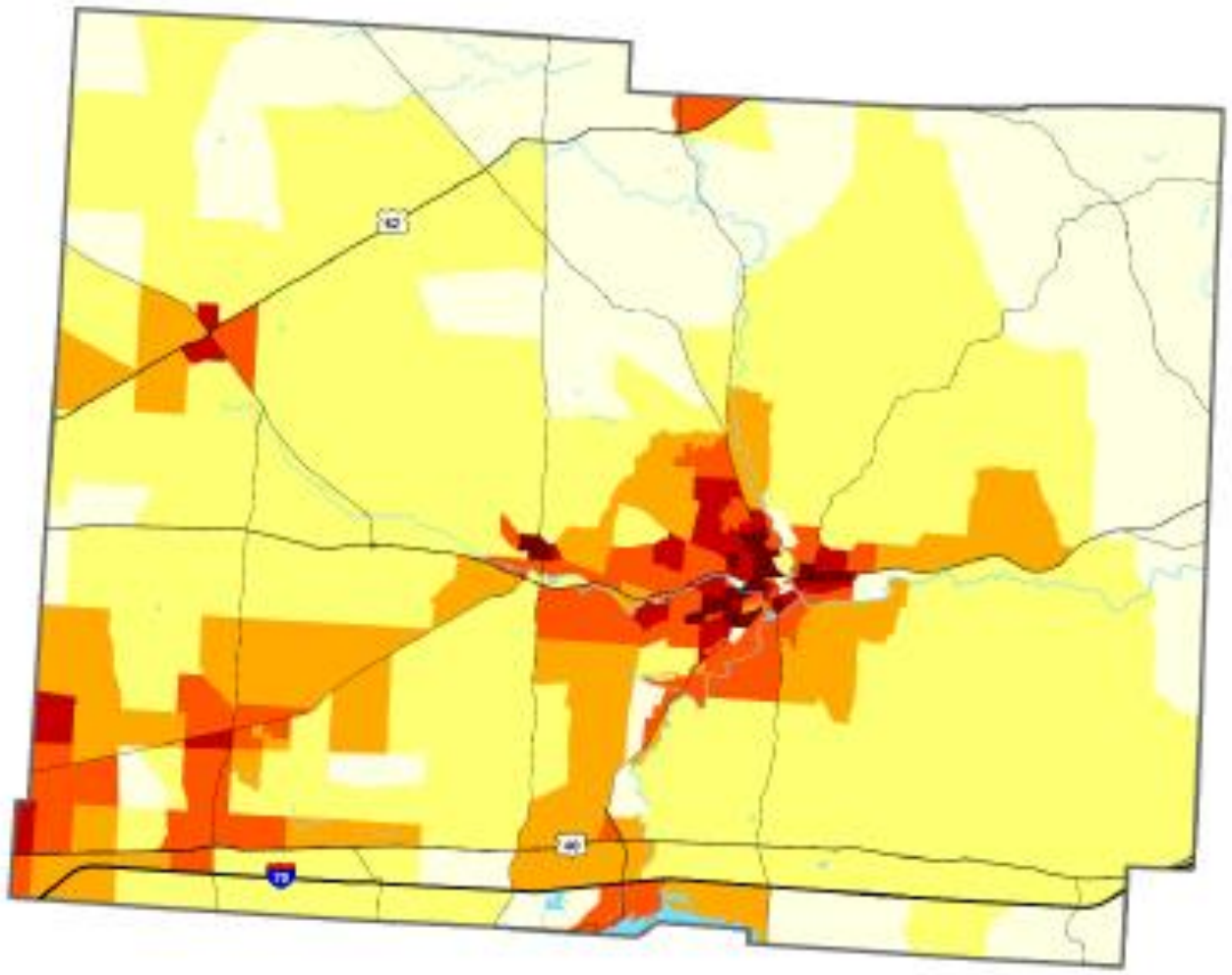
- 0 - 0.1
- 0.1 - 0.5
- 0.5 - 1.5
- 1.5 - 5
- 5 - 10
- > 10

Traffic Analysis Zone outputs from MORPC regional land use model, based on local input.

10 County Population: 2,925,943

MORPC

Population Density Forecast 2050 Licking County



Population 2050 per acre

- < .1
- 0.1 - 0.5
- 0.5 - 1.5
- 1.5 - 5
- 5- 10
- > 10

Traffic Analysis Zone outputs from MORPC regional land use model, based on local input

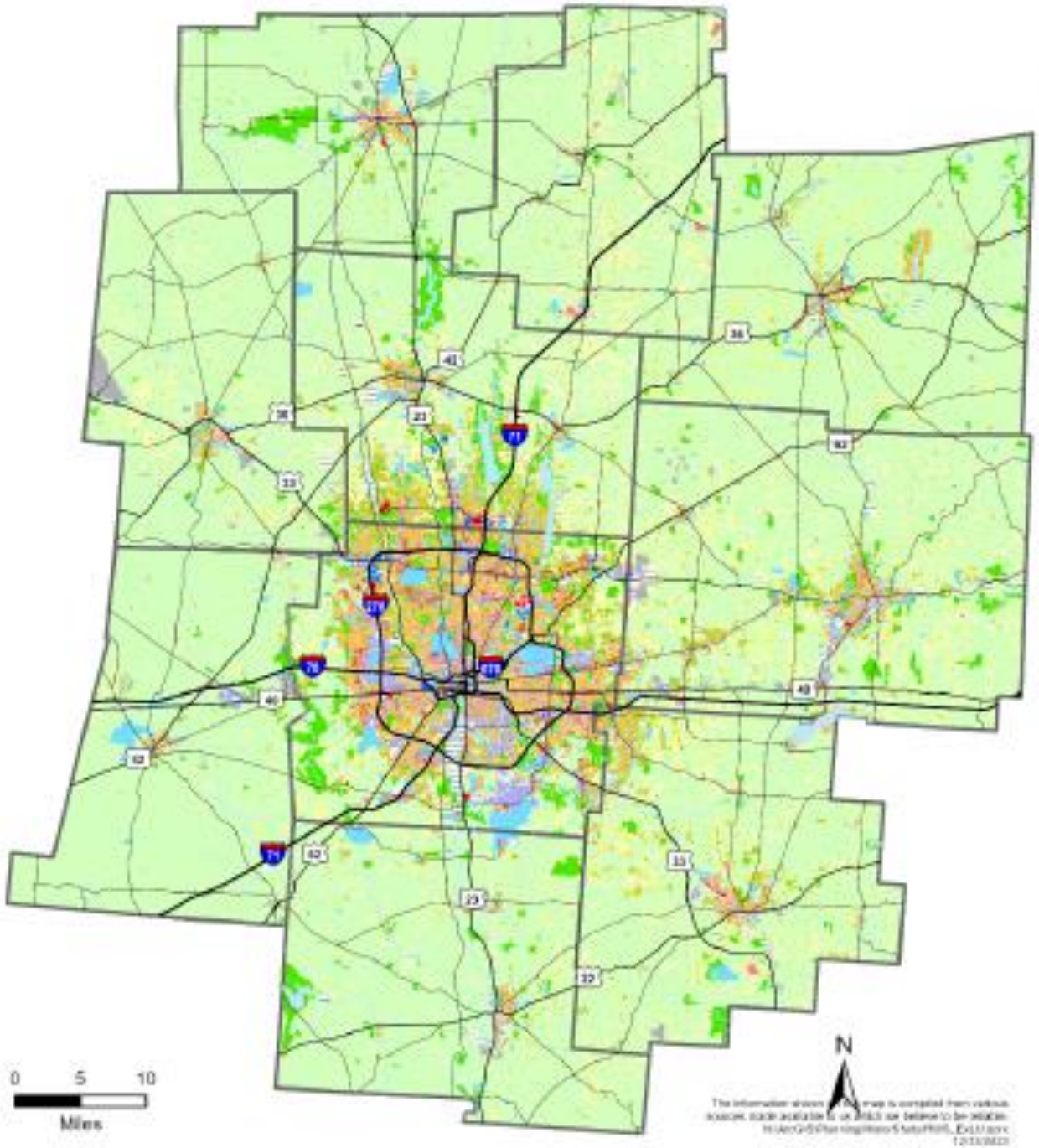
Licking County
2050 Population: 236,202

0 2 4
Miles

N

MORPC

Central Ohio Existing Land Use



MORPC Standardized Existing Land Use 2021

- Regional Commercial
- Commercial
- Mixed-Use
- Office
- Industrial
- Warehouse
- Park/Open Space
- Agriculture
- Res. Rural Estate (5-20 acre lots)
- Res. Rural (2-5 acre lots)
- Res. Low/Suburban (0.5-3 units per acre)
- Res. Mod/High Suburban (3-8 units per acre)
- Res. Low Urban (8-20 units per acre)
- Res. High Urban (20+ units per acre)
- Public Service
- Quarry
- Vacant
- Parking
- Water

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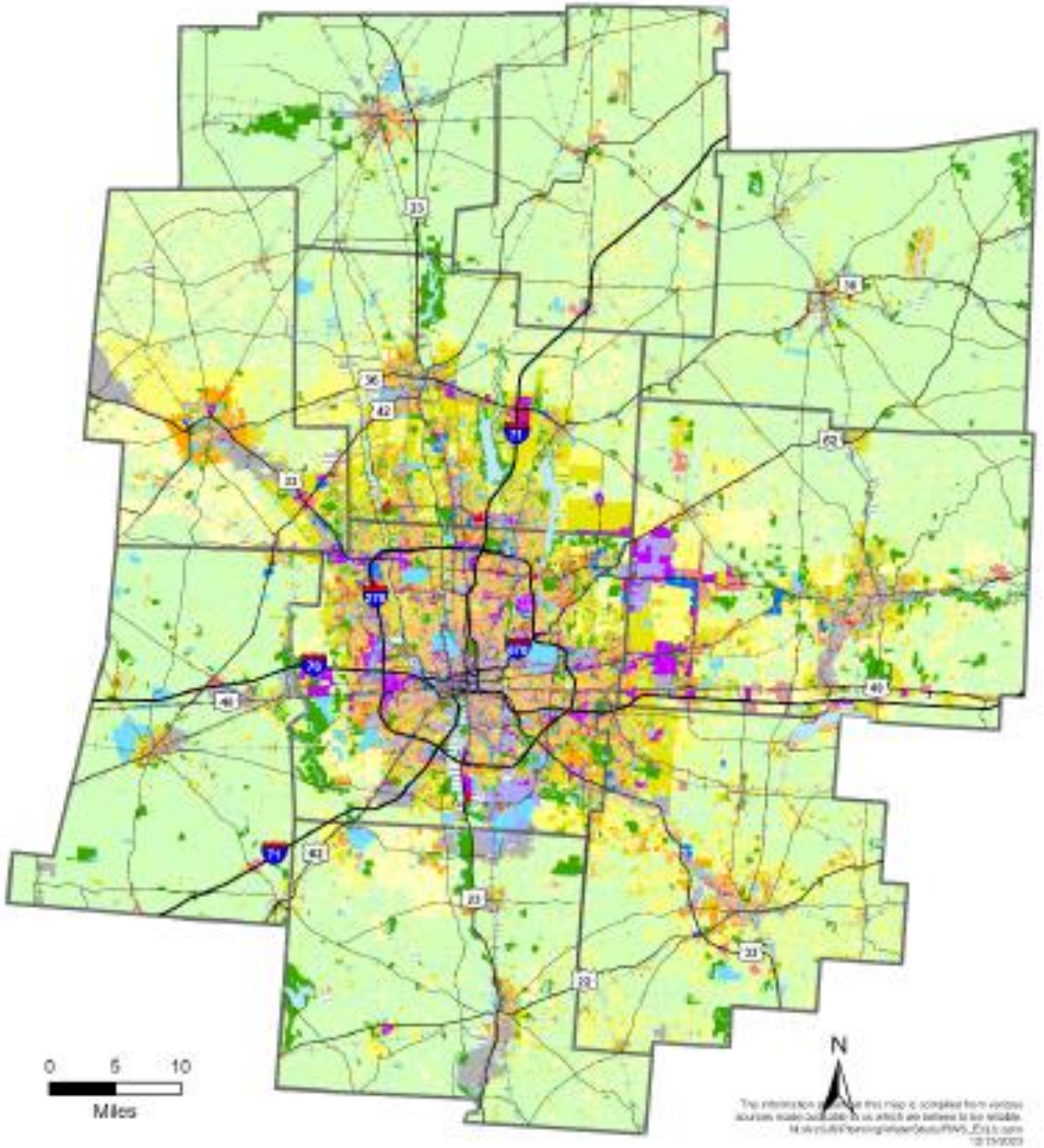
Central Ohio Future Land Use



MORPC Standardized Future Land Use

- Regional Commercial
- Commercial
- Mixed-Use
- Office
- Industrial
- Warehouse
- Park/Open Space
- Agriculture
- Res Rural Estate (5-20 acre lots)
- Res Rural (2-5 acre lots)
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- Res Low Urban (8-20 units per acre)
- Res High Urban (20+ units per acre)
- Public Service
- Quarry
- Parking
- Water

Future is based on local comprehensive plans, zoning and known development.

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Environmental Protection Agency

Next Steps

Next webinar in June/July

Licking County – report out Sept/Oct 2024

Full report-out by Hazen & team in January 2025

Local Planning Updates

dataandmaps@morpc.org

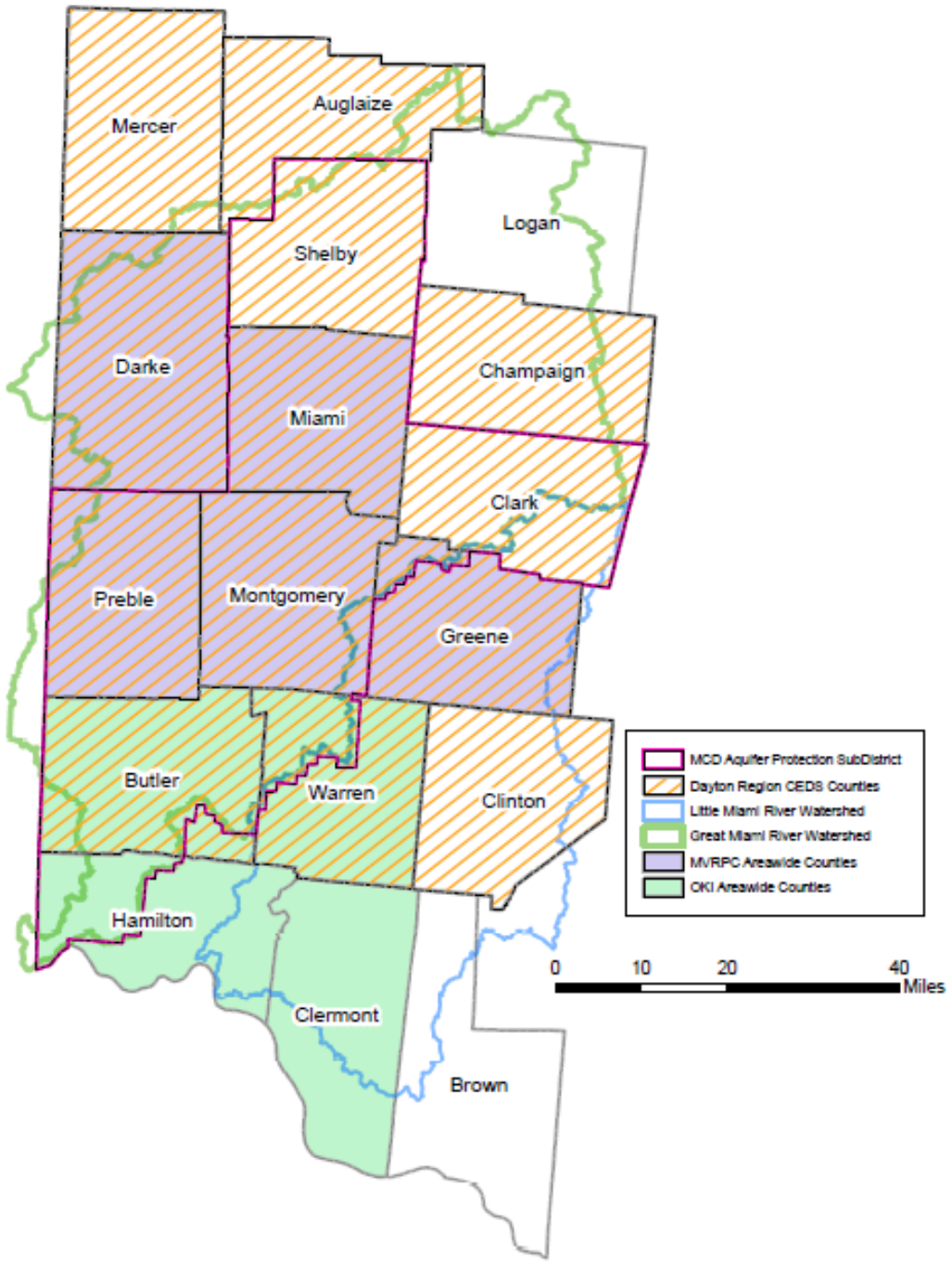
List Serve Participation

eteye@morpc.org

Project Manager - Tiffani Kavalec, Policy Director – Ohio EPA

Tiffani.Kavalec@epa.ohio.gov

Southwest Ohio Comprehensive Water Study



WATEREUSE ARIZONA

WATEREUSE CALIFORNIA

WATEREUSE COLORADO

WATEREUSE FLORIDA

WATEREUSE MID-ATLANTIC

WATEREUSE NEVADA

WATEREUSE NEW MEXICO

WATEREUSE OHIO

Questions