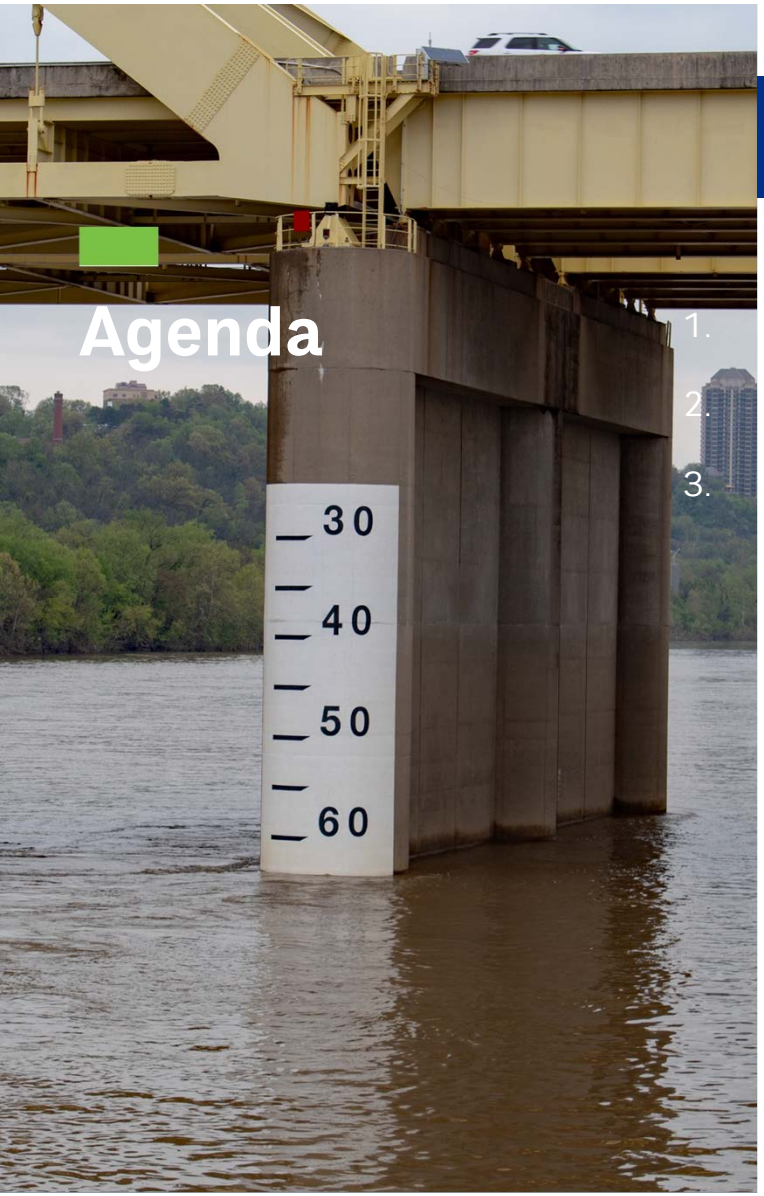
Southwest Ohio Regional Water Study (RWS)

OWDA, Ohio EPA, and ODNR

MVRPC – May Water & Environment Sub-Committee Meeting

May 13, 2026

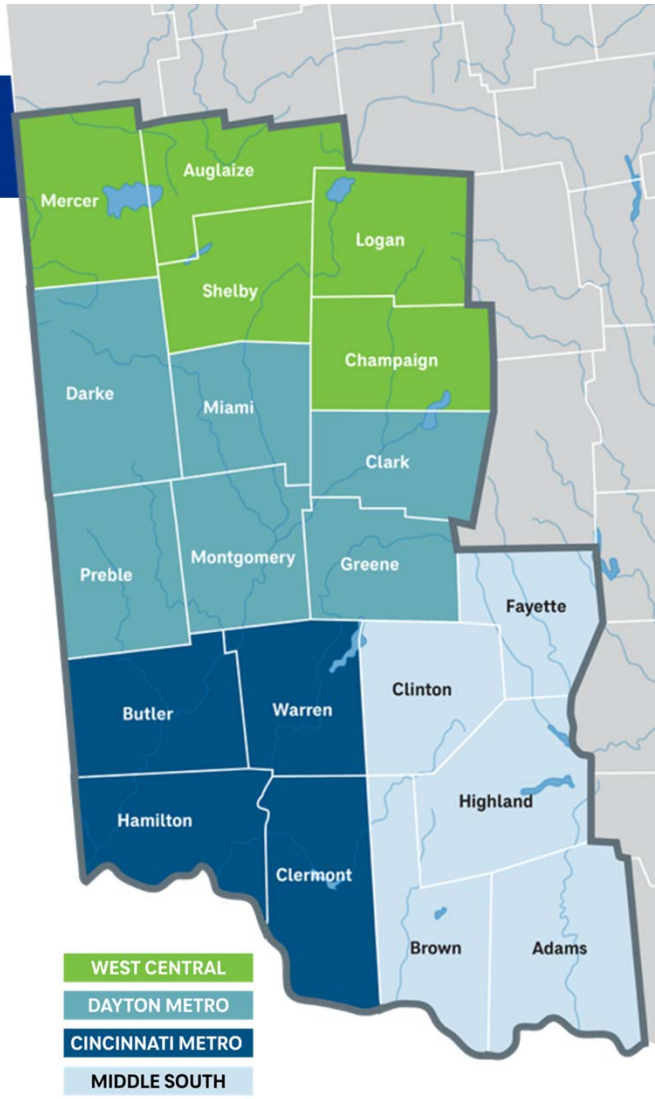
CDM Smith

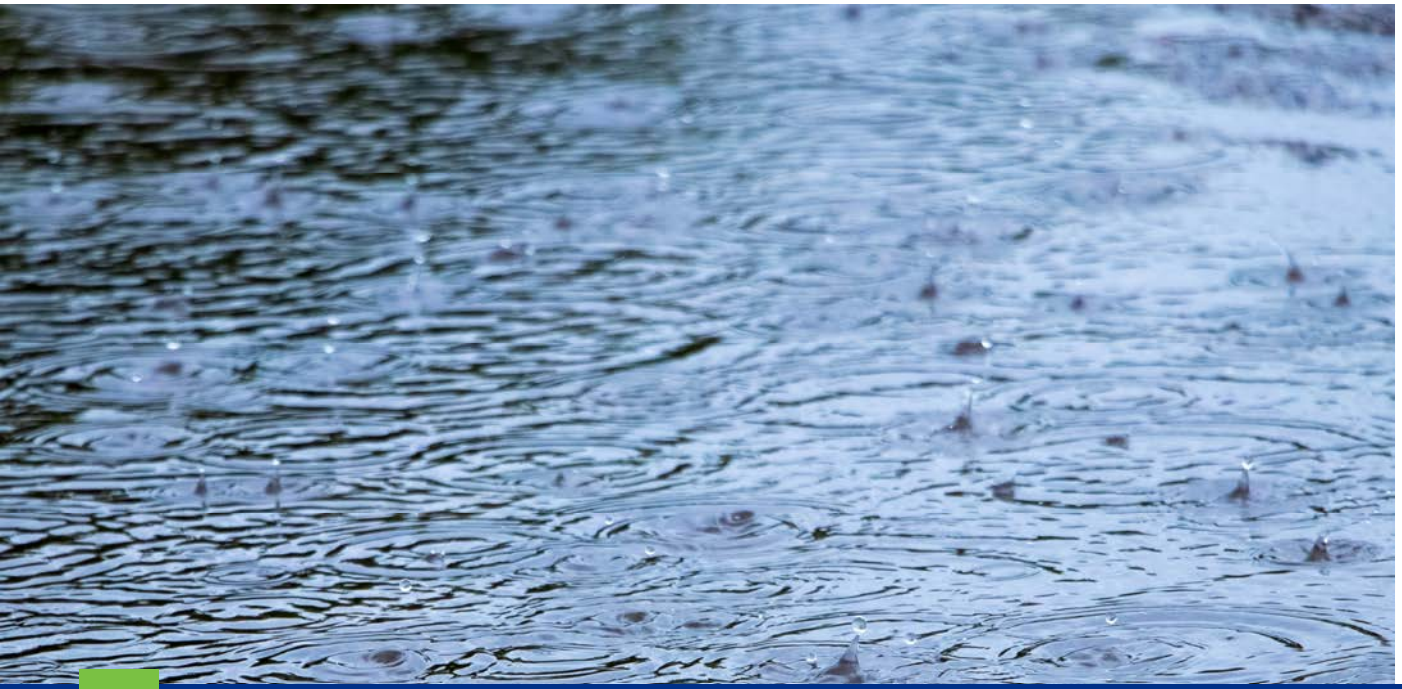


Agenda

1. Project Update
2. WIT (Integrated Model) Demo
3. What's Next

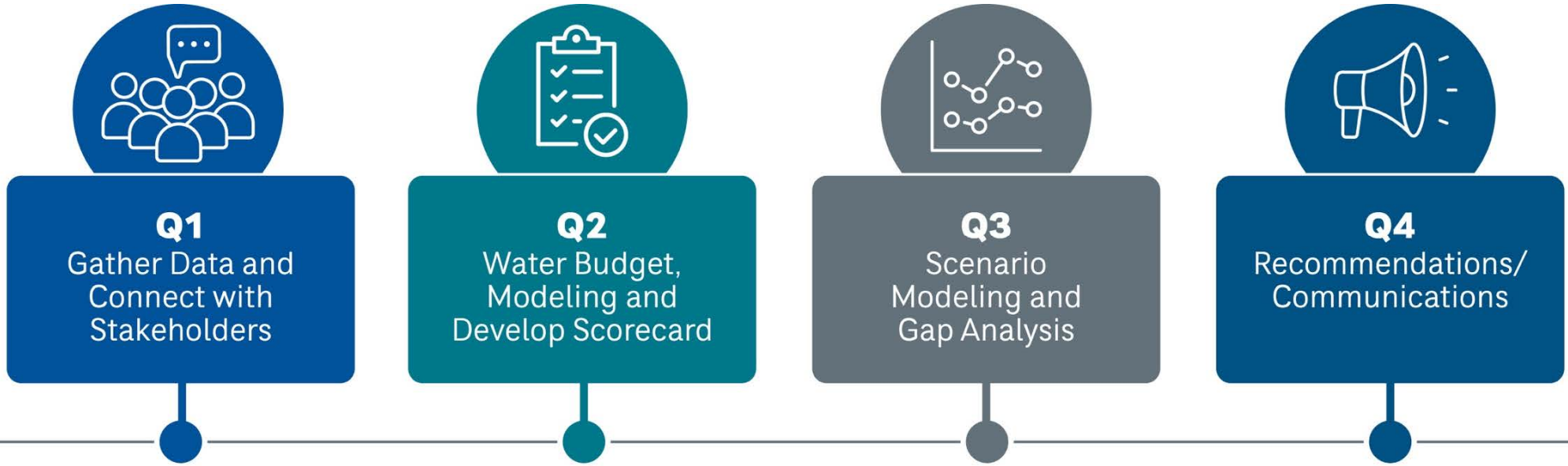
SW Study Area





Project Update

Project Schedule



11/25 to 1/26 | **2/26 to 5/26** | **6/26 to 8/26** | **9/26 to 11/26**

Information Flow Diagram: SW Ohio Regional Water Plan

Main Subtasks

Key Work Products

Task 3: Data Acquisition

Task 4: Data Map/Model

Task 6: Water Budget Model

Task 7: Scenarios/Gaps

Task 5: Scenario Scorecard

OKI/MVRPC Data:
Population
Demands by Sector *(e.g., Agricultural, Industrial, Municipal)*
Water Sources
Discharges

USGS, NOAA Data
Historical Flows
Historical GW Levels
Historical Climate

Future Climate Scenario Data

Interviews

GIS
Current Land Use/Soils
Known Contamination

Projections
Population Projections
Demand Projections by Sector *(e.g., Agricultural, Industrial, Municipal)*
Land Use Projections
Water/Sewer Expansion

Integrated Modeling Plan

Surface Water Models

Groundwater Models

Water Quality Models

Current State Water Budget

Yield
Flow
Drawdown
Recharge

Validation of preferred strategies

Regionalization Opportunities

Large Industrial User Opportunities

Alternatives
Identify and characterize alternatives
Evaluate individual alternatives and develop portfolios alternatives

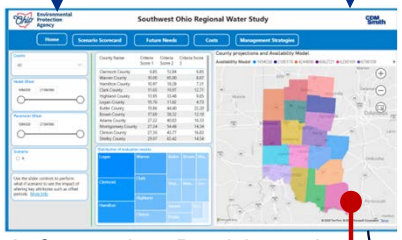
Scenario Modeling and Gap Analysis

Cost Model

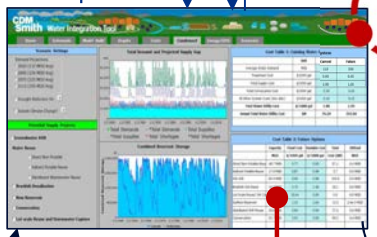
Goals and Criteria

Scenario Development

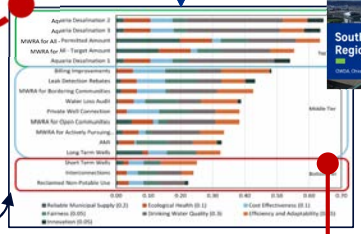
Data
Opinions, Preferences, Ideas
Information Exchange



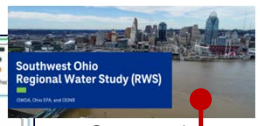
Information Dashboard



Water Integration Tool



Alternatives Scorecard



Outreach Materials

Regional Water Plan

Task 8 Recommendations

Task 9 Communications

Inputs

Water Users and Climate Conditions

- Withdrawals
- Discharges
- Climate (temperature and precipitation)

Surface Water Models:

Quantify relationships between:
- Streamflow patterns and land use changes
- Streamflow patterns and future climate
- Infiltration patterns and land use and climate conditions

Groundwater Models:

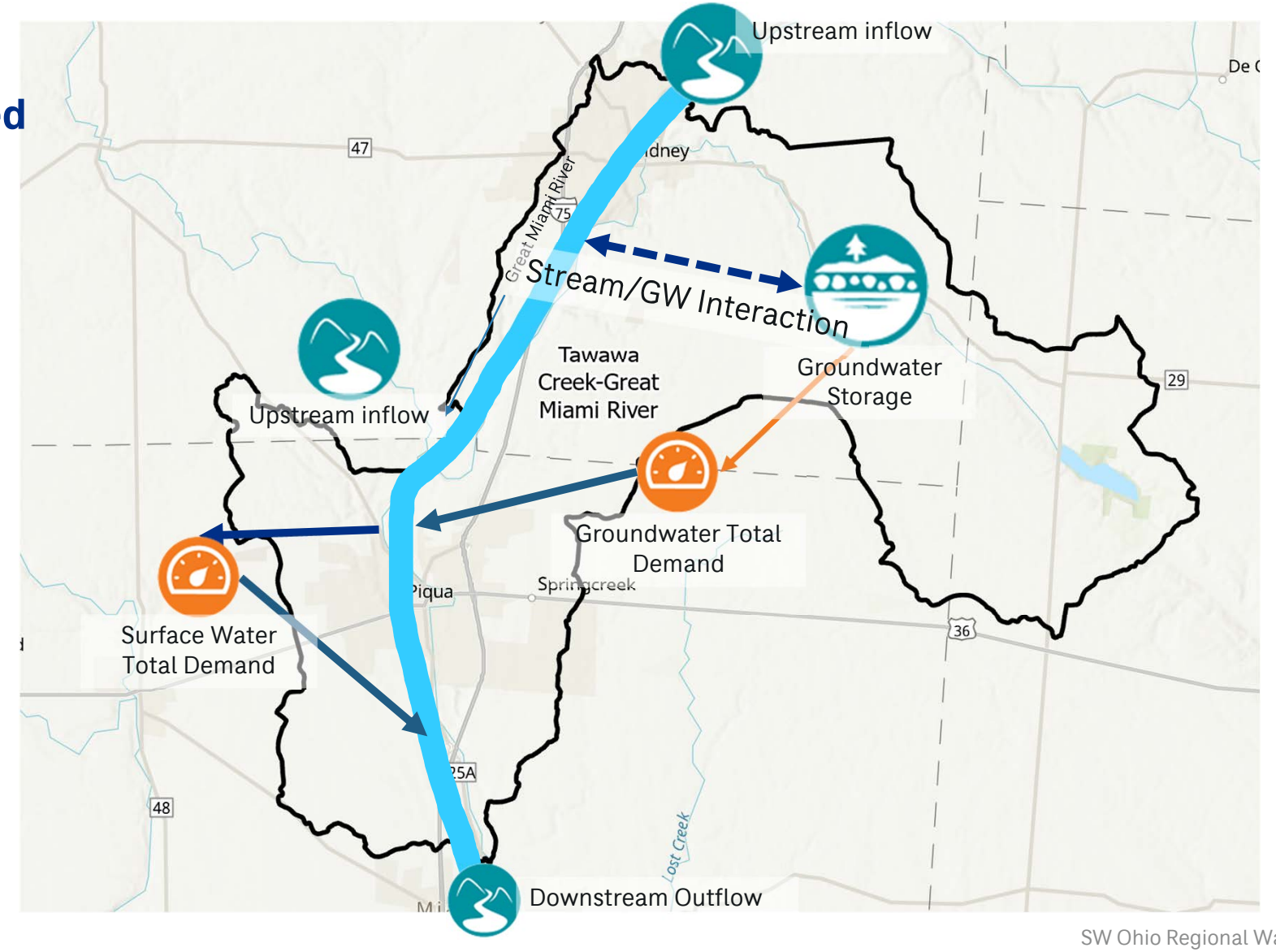
Under different climate/land use scenarios:
- GW safe yield
- Groundwater/surface water exchange

WIT

Key Outputs:
- Regional water budget
- Supply gap risks and opportunities
- Assess regional alternatives

Note: Water quality analysis currently stand alone.

Pilot Watershed



WIT Demo

What's Next

- Scaling up pilot HUC-10 to all HUC-10s, linkages between watersheds
- Incorporating demand, land use, and climate scenarios
- Incorporating surface water and groundwater model results
- Calculating supply gaps and estimating baseline areas of risk and opportunity
- Developing and testing regional alternatives

Utility Survey

Survey link in March 3rd e-mail from Elizabeth Baxter:
https://forms.gle/vPiZgmgjYYt4B9yk8

Southwest Ohio Regional Water Study Survey

Ohio EPA and Ohio DNR are partnering to facilitate regional comprehensive water studies across the state. The goal of these studies is to evaluate current water availability, water demand, and projected future water demand, as well as plan for the future. The studies aim to build a common vision among Ohio agencies responsible for protecting water resources and promoting economic development by providing science-based water inventories and demand projections so local communities and decision-makers can make informed water scarcity decisions.

In Southwest Ohio, MVRPC is working as part of a team conducting the study across a 20-county area. The study team is engaging with water and sewer providers to collect data and gather input on local and regional water resource issues. Your participation will help accurately reflect local water resource challenges and inform regional planning efforts.

Please complete this survey by March 20, 2026. Some questions may require uploading documents or providing additional context. You may save your responses and return to the survey at a later time, if needed. Data provided will only be used to support development of the Regional Water Study and will not be shared with others outside the study team. If you have already provided any of the data requested below to the study team, there is no need to resubmit data.

If you have questions or comments about this survey, please contact Joe Miller, Ohio EPA Environmental Manager or Elizabeth Baxter, MVRPC Resiliency Planning Manager. Joe can be reached at joseph.miller@epa.ohio.gov or 937-285-6109. Elizabeth can be reached at ebaxter@mvrpc.org or 937-531-6538.

If you have any trouble with this survey form or loading data, please contact Lilly Des Rosiers at desrosierlsc@cdmsmith.com or 614-847-6818.

Thank you