Water Development Authority

REQUEST FOR PROPOSALS

CONSULTING SERVICES FOR

REGIONAL WATER STUDY (RWS)

SOUTHEAST OHIO REGION

KEY DATES

PREPROPOSAL MEETING:	12/1/25
ONE-ON-ONE MEETINGS:	12/4 - 12/16/25
CLARIFICATION REQUESTS DUE BY:	12/12/25
PROPOSAL DUE BY:	12/23/25
ANTICIPATED NTP:	LATE JANUARY 2025
PROJECT COMPLETION:	12/31/26

NOTICE

ONLY EMAIL SUBMITTALS WILL BE ACCEPTED

SUBMIT RFP TO: MICHAEL FRAIZER, OWDA EXECUTIVE DIRECTOR
MFRAIZER@OWDA.ORG

INQUIRIES TO: JOSH LEGG, OEPA DIVISION OF DRINKING AND GROUND WATERS, SOUTHEAST ENVIRONMENTAL MANAGER,
JOSHUA.LEGG@EPA.OHIO.GOV

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List of Attachments

Part A: INTRODUCTION

The Ohio Water Development Authority ("OWDA"), in partnership with Ohio Environmental Protection Agency (OEPA) and Ohio Department of Natural Resources (ONDR) are seeking proposals from consulting firms to develop a comprehensive Regional Water Study (RWS) for a 24-County area of Southeast Ohio. OWDA on behalf of OEPA and ODNR will be signatory on the contractual documents, and OEPA performs management of the contract with participation by the Partner Agencies: ODNR and Ohio University. The project has an anticipated performance period from January 2026 through December 2026. The RWS will inform and support equitable economic decisions that ensure sustainable and resilient water resources for the Southeast Region. It will serve as a guiding document for decision-making on infrastructure investments and policy development.

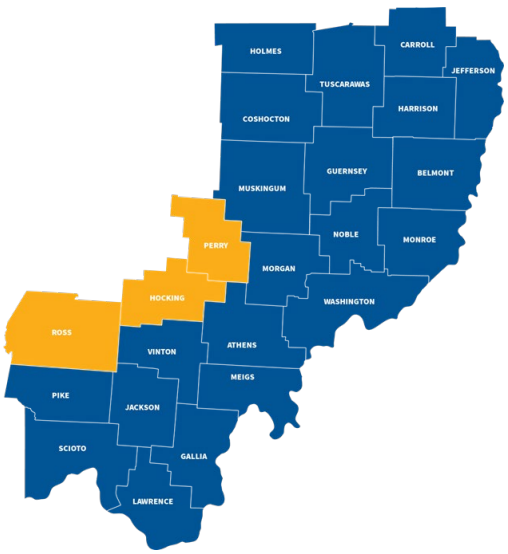
Currently, in Ohio, water resource management and water quality protection activities are driven by a range of state and local regulations, land-use planning decisions, and site-specific conditions. There is no comprehensive framework to visualize a more integrated approach to environmental stewardship in general and water resource sustainability specifically. In recognition of this, the State of Ohio has called for the development of a long-range, comprehensive water resources analysis for each region of the State.

Each region has unique driving forces, constraints, challenges, and opportunities that will be addressed in these RWSs. In April 2025, Ohio EPA released its first study, the Central Ohio Regional Water Study: https://epa.ohio.gov/monitor-pollution/pollution-issues/water-studies/central-ohio-water-study. In October 2025, Ohio EPA kicked off the Southwest Regional Water Study, with findings due November 2026. The Southeast Regional Water Study will be the third study undertaken by Ohio EPA and will have some different components then previous studies.

Project Region

The Southeast Ohio Region is made up of the following 24 counties:

Holmes	Carroll
Tuscarawas	Jefferson
Coshocton	Harrison
Guernsey	Muskingum
Belmont	Noble
Perry	Hocking
Morgan	Monroe
Washington	Athens
Vinton	Meigs
Ross	Jackson
Gallia	Pike
Scioto	Lawrence



*Note: Perry, Hocking and Ross Counties were incorporated in the Central Ohio Regional Water Study, published in early 2025.

Part B: PROJECT INFORMATION

Project Background

Ohio needs to be smart and forward-thinking about its infrastructure investments, particularly where communities lack sufficient funds to support much-needed projects. Southeast Ohio, in particular, has seen its water resources challenged from legacy contamination, new emergent contaminants, aging and lack of infrastructure and insufficient funding options.

The overarching objective of the RWS project is to establish a shared vision of regional water resources among the Ohio agencies responsible for environmental protection and the local political entities and community stakeholders who will often make decisions. The study will seek to assess water quality, evaluate water accessibility and finally create a future water strategy in the region. Fully understanding water resource constraints alongside the opportunities will provide the foundation for the critical decisions ahead.

Project Objectives:

Assess, Maintain, and Improve Water Quality

- Assess regional water quality contaminant concerns, such as but not limited to: per- and polyfluoroalkyl substances (PFAS), volatile organic compounds (VOCs), and acid mine drainage.
- Maintain water quality in Ohio's rivers and streams and maintain groundwater resources throughout the region in the long term.
- Develop strategic water quality needs and opportunities, such as but not limited to:
    - Identifying: groundwater recharge needs and recommendations, MS4 enhancement needs, where TMDL updates should be prioritized based on age of report and wasteload allocations, where additional aquifer protection is needed, and where additional surface water protection is needed.
    - Informing future stormwater retention goals and requirements, future general and individual permit renewals, and future climate sustainability best management practices for stormwater controls.

Evaluate Water Accessibility

- Identifying "Water Deserts" and proposing the most cost-effective ways to provide better access to water.
- Identify cost barriers associated with gaining access to drinking water. In addition, identifying resources to help overcome those financial barriers (i.e. local organizations, charities, etc.).

Create a Strategy for Future Water Needs

- Inform on costs and funding options for future water resource needs:
    - Identifying costs for treatment, connection, asset upgrades, and or regionalization.
    - Maximize funding impacts through sustainable infrastructure improvements, including but not limited to: H2Ohio program, OWDA loan programs, OEPA Water Pollution Control Loan Fund, OEPA

Water Supply Revolving Loan Account/Drinking Water Assistance Fund, OEPA Water Resource Restoration Sponsor Program, OEPA Clean Water Act Section 319(h) Grant Program.

- Identify zones of opportunity based on water resource feasibility and availability.
- Identify trigger points for Study updates.
- Identify strategic regionalization opportunities.
- Develop a strategic plan for water resources with buy-in from regional stakeholders.
- Provide a focal point of collaboration between state agencies and local communities for future planning.
- Facilitate forums to help inform local utilities where water infrastructure improvements are best implemented.

Available Data and Resources:

A table of available data, information and reports are listed in Attachment 1. The table notes the Agency/Source, timeframe of data and provides web links, as available. In all cases assume the identified agencies/sources can provide data in raw format, excel format, or GIS format. Static reports are available in PDF format.

Anticipated Project Schedule:

Activity	Date
Issue RFP	12/1/25
Pre-Proposal Meeting	12/1/25 1:00 PM – 2:00 PM (Virtual)
One-on-One Meetings (up to 1 hour)	12/4 to 12/16/25 – 1-1 Appointments, as needed
Deadline for Clarification Requests	12/12/25
Agency Clarification Responses Due	12/17/25
Deadline for Submission of Proposals	12/23/25 4:00 PM (Email Rec'd)
Select Consultant	Week of 1/12/26
Estimated Notice to Proceed	Week of 1/19/26
Current State Water Budget	TBD by OEPA & Consultant
Draft Regional Water Study – Southeast Ohio Region	TBD by OEPA & Consultant
Project Completed	12/31/26

Please see Part D (Submittal Requirements) for further details on contacts related to the above schedule.

Part C: PROJECT TASKS

Task 1: Project Management

The Consultant shall provide project management services, including, but not limited to, management of sub-consultants and experts, monthly invoicing with status reports, coordination with the Partner Agencies, and quality assurance of final deliverables.

The Consultant shall submit all deliverable documents in both draft and final form, as delineated in all project tasks, and shall incorporate all comments from the Partner Agencies. Each document, until approved by designated Partner Agencies, is subject to revisions.

General Coordination and Communication

Scheduling – All meetings will be scheduled by the Partner Agencies in consultation with the Consultant.

Web-Based Project Site – Consultant will develop a web-based site to transfer files, provide project updates, track schedules and exchange information. The Consultant will maintain this site throughout the project duration.

General Communication – Critical, time-sensitive communication will be by email. Otherwise, emails need to be minimized as most communication occurs through a web-based project site.

Routine Meetings

Monthly Project Meetings – Consultant will facilitate general monthly meetings for the project duration with the Partner Agencies to coordinate work activity, provide updates, review schedules, and discuss preliminary findings. Meeting minutes will be prepared and posted on the web-based project site. These meetings can be on-site and/or remote as determined by the Partner Agencies.

Technical Project Meetings- The Consultant will facilitate regular technical meetings with the identified Partner Agencies technical staff to discuss programmatic questions or concerns. Identified Partner Agencies technical staff will facilitate agency discussion on these questions or concerns and get back to the consultant with answers in a timely manner. Highlights of these discussions and decisions to proceed will be brought up during the Monthly Project Meetings.

Invoicing & Progress Reports

Invoice Requirements – Invoices shall be submitted to Dan Gill at DGill@Owda.org monthly in PDF format and include all backup documentation to support the invoice, which includes, but not limited to, timesheets, receipts, etc. Ohio EPA will then approve the invoice and submit for payment to OWDA.

Progress Reports – A progress report shall be submitted to Joshua.Legg@epa.ohio.gov as an attachment to each monthly invoice. Each Monthly Progress Report shall include the following: status of each Task in relation to the baseline schedule of forecasted milestones and completion dates in the detailed project plan, highlighting any schedule risk; key activities that will be performed during the upcoming month; information required by, or open items requiring closure by Partner Agency members or stakeholders, the Consultant, Subconsultants or Experts; and a revised project schedule, as necessary. Provide an updated earned value report with each invoice.

Schedule

Consultant will adhere to the Detailed Work Plan (Task 1 Deliverable) unless delays beyond the Consultant's control occur. In such a case, Consultant shall notify Joshua.Legg@epa.ohio.gov by email immediately upon knowing of the delay. A recovery plan will be required and agreed upon by the Consultant and Partner Agencies.

Visualization

The Consultant will provide visualized data throughout the project (e.g., charts, graphs, maps, analytical results) to be included in written reports, presentations, web content, and decision-making interfaces throughout the period of performance.

Task 2: Project Initiation

Project Kickoff

The Consultant will meet with the Partner Agencies within 14 days of the Notice to Proceed (NTP) to review project scope, deliverables, and schedule. They will also introduce the Consultant team, discuss project logistics and further define the objectives and critical success factors. A meeting summary will be developed from the outputs of this kickoff to:

- Document the common understanding of the project goals and objectives.
- Confirm each team member's role.
- Establish communication protocols, including designating main points of contact between agency technical leads.
- Reach agreement on project milestones.

Task 2 Deliverables:

- Kickoff Meeting Summary
- Detailed Work Plan including tasks, schedule, points of contact, and communication touch points
- Web-based Project Site

Task 3: Data Acquisition, Review, and Interviews

The Consultant will gather and review available historical data, projections, reports, and other sources of background data relevant to developing the current state, water budget, scenarios, cost projections, and alternative analysis. This data shall be collected from participating agencies, *including, but not limited to,* those found in Attachment 1. The Consultant will meet with participating agencies to assist in understanding and retrieving all relevant available information and closing data gaps.

Additional data required for the performance of the work based on the Consultant's approach will be the responsibility of the Consultant to collect and format as needed. The Consultant will meet with each participating agency to discuss data, identify water management issues, and conceptualize goals for the RWP. The Partner Agencies will facilitate meetings with other entities as needed and reasonable.

Ohio University (OU) will provide an updated drinking water accessibility GIS dataset. This effort has been detailed in Task 10, along with the services anticipated as part of this project. The Consultant is responsible for determining the most effective way to integrate OU's resources into the project's delivery.

It shall be the responsibility of the Consultant to review data and determine its usage. That data usage plan will be a part of the detailed work plan (Task 3 deliverable) to be approved by the Partner Agencies. If the Consultant will be using Artificial Intelligence as part of data review and analysis, then it must disclose this usage and accuracy metrics.

Data Available by Type

Water Supply	ODNR data	**Ground Water**	ODNR data
			USGA data
			OEPA DDAGW Ambient Well data
			AECOM's Water Quality well data
		Contamination	OEPA DERR
	USGS data		OEPA RCRA
	OEPA DDAGW data (including PFAS data)		Federal Superfund Sites
Water Treatment & Delivery	Drinking water supplier data	**Asset Management**	OEPA Asset Management Reports
	OEPA DDAGW data		
	OEPA DEFA - planning and design loan data		Water Distribution
	OEPA General Plans	**Meteorological Datasets**	National Climate Assessments data
	OEPA Violation reporting		OSU Climate Presentation
	OU Drinking Water Accessibility Data		NOAA data
Wastewater Treatment	OEPA EDMR data		
	OEPA Violation reporting		
	OEPA DEFA - planning and design loan data		
Surface Water	USEPA "How's My Waterway" database		
	OEPA GIS tool - designation, anti-degradation tiers, etc.		
	OEPA TMDLs		
	OEPA 2024 Integrated Report		
	USGS data (ODNR SE Ohio Watershed data)		
	H2Ohio Big Rivers PFAS data		
	ODNR-DMRM watershed surface data		

Planning Documents/Reports:

- Past master and watershed plans for water, wastewater and surface water.
- Existing and proposed TMDLs and NPDES permits.
- Information on reliability and cost of water supply, delivery, and treatment.
- Capacities of water, wastewater, and surface water systems (current and projected).
- Geographic build-out limits for service area.
- Historical climate data (temperature and precipitation); Information on rainfall-runoff-infiltration relationships.
- Water quality data on nutrients, DO, bacteria, chlorophyll, TSS, etc.
- Water quality issues affecting chemical treatability for drinking water.
- Historical wastewater discharge rates and concentrations.
- Copies of agreements with municipalities, water suppliers, water management districts or the like, dealing with any of the service areas.
- Available studies and reports completed by Municipalities, Districts, state, local or federal agencies, on any of the service areas (water, wastewater, reclaimed water, surface water).
- Bi-annual 303d Integrated Report impairment list.

Task 3 Deliverables:

- Provide documented summaries of meetings with stakeholders.
- Provide a data usage plan detailing which information will be used for the basis of analysis, the consultant's opinion of data accuracy utilizing a determined scale, and data gaps with the plan to overcome those gaps.
- An approach on how the Consultant will manipulate projected data as needed for RWS final recommendations.
- The data collected above will be used to develop generalized relationships suitable for a conceptual representation of the various utility systems and receiving water systems in the Integrated Model. It is envisioned that, based on the data collected, simplified relationships for water, wastewater, surface water, rainfall-runoff-infiltration, travel times, pollutant loading, and dilution and will be developed and included in the integrated model. These relationships and methods will be included in a technical memorandum.
- Process daily weather values into weighted monthly averages and extremes unique to each area and time period and derive long-term normal values for weather parameters.

Task 4: Current and Future Data Mapping/Modeling

Current State Data Mapping:

Based on the data collection and review, the Consultant will develop a GIS inventory of the planning area, current state, including but not limited to:

- Water supply sources, including groundwater aquifers and surface water sources

- Direct source users including average and peak withdrawal
- Water treatment facilities including extent of service area, average, peak and permitted capacity
- Wastewater discharges including extent of service area, average, peak and permitted capacity
- Dewatering discharges
- Permitted individual stormwater discharges (e.g., quarry and bulk storage discharges)
- Rivers and streams, including use designation and attainment/impairment status
- Wetlands
- Known groundwater contamination areas
- Impervious/Pervious areas
- Other issues that impact subsequent modeling/projections
- Topography

Future Data Mapping:

Prepare future case GIS for lists of known future projects from general plans, specific plans, and results of meetings with agencies. Include projected service boundaries for water and wastewater as well as other information required to perform future analysis. Include meetings for the development and finalization of this information.

Integrated Modeling Plan

Develop a modeling plan memorandum that revolves around the project objectives and performance measures as defined by the stakeholders. At a minimum, the modeling plan will include:

- Software selection
- Necessary resolution of model
- Planning horizon (into the future)
- Historical record and future predictions (for climate and hydrology data)
- Resolution for the representation of the environmental impact
- Resolution on each utility and its dynamics (demands, loads, peaking, etc.)
- Model input
- Model output
- Scenario definition and flexibility of formulation
- Techniques for uncertainty and sensitivity analysis (forms of “risk”), if desired
- Formulation plan for addressing each of the stakeholders’ identified performance measures
- Recommendations for model updating

Task 4 Deliverables:

- Provide documented summaries of meetings.
- Integrated Modeling Plan
- GIS Mapping of current state and future states

Task 5: Scenario Scorecard

To provide a comprehensive and consistent basis for comparing alternatives, a tool for organizing interdisciplinary information shall be developed and used. The tool is to incorporate stakeholder values and compare each alternative to all the others using common performance measures.

These tools can mix quantitative and qualitative data in a single matrix, is to be easy to use, and provide a transparent and reproducible evaluation process that lends itself to stakeholder participation. It will be populated with performance measures that come out of the analysis. The tool will be used to rank the alternative scenario plans. The tool will illuminate areas of consensus among scenarios, the ways in which the values have influenced the rankings, and the principal similarities and differences between the scenarios, which is extremely important in building consensus. The task will include the structuring of the tool and collaboration with Partner Agencies experts in establishing qualitative scores for performance measures that cannot necessarily be quantified (for example, “poor-fair-good-best”).

In addition, the Consultant is to lead the criteria development for the regionalization opportunities review. The Consultant is to collaborate with the Partner Agencies to develop criteria to be utilized in the analysis. During the alternative analysis phase, the consultant is to score providers based on the criteria, scenario output, gap assessment, and data review.

Develop and refine a cost model. For each alternative, planning level capital and Operation and maintenance (O&M) costs will be estimated to facilitate the analysis and scoring of project alternatives that will be discussed at project meetings. Capital costs will be developed to include, in addition to construction costs, an allowance for engineering, legal, and administrative costs and services. O&M costs will be estimated as a present worth cost for the expected design life of the projects. From this analysis, a technical memorandum will be prepared, which will include a compilation of the planning level costs specific to each alternative.

Work in this phase will also include developing methodology and decision-making tools and criteria, selection of scenarios to be evaluated, and incorporation of technical information into these decision-making tools. The Consultant is to work with the project partners to develop scenarios for review and assessment. Scenarios will be developed and evaluated based on their ability to meet stakeholder criteria. Adjust projections based on scenarios.

Scenarios are to consider potential changes in:

- Potential yield for demand and supply side options
- Water supply benefits (including consideration of supply diversification)
- Economic impacts / ”apples to apples” cost comparisons (incl. capital costs and operations and maintenance costs, lifecycle costing including energy and carbon emissions, cost savings, cost benefit analysis, and consideration of potential financial incentives)
- Environmental impacts and considerations
- Social impacts
- Implementability (including intergovernmental partnerships, permitting and regulatory considerations, and the timing of implementation)
- Risk (including water availability and vulnerability)
- Opportunities for Regionalization
- Financial, technical, and managerial capabilities

Task 5 Deliverables

- Scenarios for evaluation (up to 12)
- Technical memorandum detailing adjusted projections based on scenarios
- Standard tool for comparison and evaluation of scenarios/alternatives
- Regionalization scorecard
- Cost model and technical memorandum

Task 6: Create Current State Water Budget Model

This task includes the development and application of an integrated computer modeling tool that will simulate the behavior and interactions of the receiving waters, water supply, wastewater, surface water, and reclaimed water programs in the Study region. It will integrate utility-specific technical information into a platform that can compare and contrast the benefits and shortcomings of scenarios. The model will be developed with a software platform that allows dynamic simulation of integrated systems over extended time periods and changing conditions. The model will account for future demands, historical hydrology, climate, and the dynamics of existing and planned development and infrastructure in the study area. Most importantly, it will represent the water system, wastewater system, surface water system, groundwater system, receiving waters systems, and all the interrelationships between these systems in a single platform. The Integrated Model is intended to capture the fundamental dynamics of the utility systems and receiving waters at a level that allows the discernment of plans that are beneficial from those with limited benefits or detrimental impacts. This integrated systems modeling approach will be critical in evaluating alternatives in a comprehensive manner, allowing decision makers and other partners to see the interactions and interdependencies. The integrated model shall simulate and refine alternative plans and use results to identify a smaller set of most preferred plans to carry forward in the recommendations.

It is anticipated that one of the objectives of the RWS is to minimize the discharge of pollutants to waters of the US within the study area. The Consultant is to develop a conceptual dynamic model of the monthly, seasonal, or annual loadings to receiving waters. The model will include loading from plan area utilities, surface water, reclaimed water, and other quantifiable inputs (e.g., atmospheric deposition). At a conceptual level (sufficient for distinguishing benefits and disadvantages of alternative integrated plans), it will include the river hydrology, basic water quality relationships, climate, the utilities which will be addressed by this RWS, demands, etc. The model will include representation of existing infrastructure and facilities, as well as options for including possible new infrastructure in the future (as part of integrated plans). It will therefore be capable of simulating the alternative plans, their impacts, and their potential benefits.

The first step will be to draw a representation of the system, including the interdependencies between the pollutant loads, the watershed, and the utilities. This will serve two purposes: it will help people understand the interconnectivity of the various resources and facilities and will also serve as the functional outline of the model. Next, available data and simplified mathematical relationships will be entered. The model will be tested for accuracy of the water balance, load balances, operational representation, and receiving waters representation. Comparative scenarios will be run, and results will be compared to published data, as available.

Task 6 Deliverables:

- Water Budget Model

- Model baseline test results
- Compiled data as input into the model
- Final model output data
- Meeting with Partners to present current state

Task 7: Scenario Modeling and Gap Analysis

The completed, integrated model will be used to simulate the behavior and interactions of the receiving waters, water supply, wastewater, surface water, water use, population growth, and/or decline climate, and reclaimed water programs in the RWS region for each of the future horizons based on the selected scenarios. The consultant is to identify gaps in water and wastewater supply, conveyance, distribution, storage, and treatment, potential environmental issues, water recharge issues, surface water issues, pollutant loads, stormwater issues, and other water infrastructure needs for each modeled iteration.

The consultant is to prepare a suite of alternatives to address the identified gaps in a socially, environmentally, and economically sensitive manner and review them with the project partners. Then, the consultant is to test and compare alternative plans utilizing the model output and the scorecard tool. The consultant is to refine and adapt these plans based on results. Preliminary results will be provided to stakeholders in the form of scorecard analysis during project meetings. At this point, the model may also help identify specific improvement options, or even complete alternatives (groups of projects) that are impractical or which have very limited benefits. In such cases, the stakeholders may agree to not carry such alternatives forward for further analysis. As defined in the modeling plan, the model may also be used to address questions of uncertainty in hydrologic or performance data, as well as the sensitivity of solutions to changes in capacities or operating requirements. Ultimately, the purpose of the integrated model is to simulate and refine alternative plans and use results to identify a smaller set of most preferred plans to carry forward to the development of the RWS. The benefits and risks for adopting certain scenarios should be described. A sensitivity analysis of the selected criteria should be completed to identify plausible risks for failure to meet future water supply needs. Also the consultant is to develop recommendations on regionalization opportunities.

Task 7 Deliverables:

- Technical Memo describing:
    - Description of the selected decision-making approach, its benefits and risks, and the results of scenario evaluation using the selected tool
    - Gaps and issues identified from all scenarios
    - Recommendations for improvements based on gaps and issues identified, specifically water line extensions/regionalization to serve unserved populations
    - Regionalization opportunity scorecard
    - Additional stormwater protection areas
    - Identification of TMDLs that may need wasteload allocation revisions to allow for new point source discharges.
    - Siting recommendations for up to 12 future large water users based upon current availability and feasibility of water.
- Facilitation of meetings with the Partner Agencies.

Task 8: Final Regional Water Study Recommendations

The purpose of this task is to develop an adaptive water resources plan that acknowledges multiple possible futures and identifies potential actions that may be taken to improve the region's water resources resiliency to that range of futures. The Consultant will develop recommendations based on the scenario development and analysis. The recommendations will provide not just a single "optimized" infrastructure development plan, but, instead, an adaptive water resources plan that acknowledges multiple possible future scenarios and identifies a menu of infrastructure improvements and their contributions to meeting determined scorecard goals. These recommendations will also identify triggers to be monitored and key decision milestones to be used in guiding when to take adaptive action.

Part of the draft and final recommendations will be creating some type of interactive data visualization of model outputs and recommendations for Partner Agencies and accessible for the public.

The Consultant will deliver their draft final study recommendations to Partner Agencies and work with the Partner Agencies to plan regional stakeholder engagement meetings to receive input on final report recommendations. Stakeholder engagement can include both individual meetings and larger meetings.

Once Partner Agencies and stakeholder input have been provided, the Consultant will make any necessary changes and deliver final report to Partner Agencies.

Task 8 Deliverables:

- Draft final study recommendations to Partner Agencies
- Stakeholder meetings of draft final study recommendations
- Final study recommendations
- Interactive dashboard of model outputs and recommendations

Task 9: Additional Communication Support

The Consultant is to assist with the development of information materials for Partner Agency use and public consumption, including:

- Develop key messages
- High-level findings for the region. Develop up to four (4) presentations on the overall findings for use with elected officials, inter-agency use, external stakeholders.
- Individual county findings presentations (24).
- Up to 40 hours of additional time as needed for additional public communication.

Task 10: Regional Partner Roles and Allowance

Task 10 A. OWDA has included an allowance in this contract for Ohio University (OU) to provide services for the selected consultant. An allowance of $363,312 is included for OU to provide the Scope of Work, in Attachment 3, and the following subtasks to the consultant as part of the consultant's contract:

For the 24 counties within the region:

Subtask #1 – GIS Platform

The core goal is to develop a secure, standardized GIS Platform consisting of online application and geodatabase that enable the Ohio EPA to collect, store, visualize, and analyze comprehensive data on drinking water systems. This solution will directly support data-driven decision making, resource allocation, regional planning, and ongoing collaboration among stakeholders across Southeast Ohio. It will also help to prioritize funding for future improvements, reducing the number of Ohioans in Appalachia without access to clean and reliable drinking water.

Scope of Work

Anticipated Project Timeline: The selected consultant will work with OU in creating a project timeline for the GIS Platform.

1. **Project Area and Work Plan**
    - Focus on the outlined 24-county region (Scioto to Carroll).
    - Use Ohio EPA systems' data.
2. **Water Distribution GIS Platform**
    - Develop a comprehensive geodatabase covering line locations, pipe size/capacity, age, material, and other relevant attributes from what Ohio EPA data provides.
    - Design, build, and deploy a secure, tier level access online application for users to view and interact with data layers.
    - Enable integration of multiple data types (lines, service areas, lead service lines, bulk fill stations, well quality, etc.) as data provides.
3. **Population Data Integration**
    - Aggregate drinking water accessibility data layer using the H3 Hexagons with census block-level population figures.
4. **Drinking water accessibility and equity analyses**
    - Provide a GIS layer for drinking water accessibility and equity analyses (based on the 2019 study).
    - Enhance data quality by integrating lead service line inventory.
    - Generation of a drinking water accessibility data layer using the H3 Hexagons.
5. **Data Access and Security**
    - The specific tier-level security access for the GIS platform application will be detailed in guidance provided by the Ohio EPA.
6. **Data Acquisition and Coordination**
    - Coordinate and acquire all public water system datasets from the Ohio EPA's Southeast District Office.
7. **Bulk Water Fill Station Identification**
    - Map and document bulk water fill stations using SEDO-provided data.
8. **Private Well Water Quality Data Integration**
    - Integrate AECOM's private well quality data into the GIS Platform, categorized for easy analysis.
9. **Water District Inventory**
    - Ohio EPA will provide information on office locations, contacts, water sources, and total populations served. OU will survey each water district to assess its GIS status and system size (e.g., gallons of water supplied per day). The results will be used to map and inventory all water districts by office location, contact information, GIS status, and system size.

10. **Lead Service Line Inventory Integration**
    - Incorporate lead service Inventory data as provided by SEDO/Ohio EPA.
    - Implement Quality Assurance and Quality Control (QA/QC): After integrating OEPA lead service line mapping data, utilize Ohio Location Based Response System (LBRS) address points and additional verification sources— such as property sales platforms (e.g., Zillow, Realtor.com)—to enhance the accuracy of the Voinovich School's 2019 Drinking Water Accessibility Study.

Subtask #1 Deliverables

1. **Comprehensive Water Distribution Geodatabase**
    - GIS database with mapped water lines, attributes, and service areas.
2. **Block-Level Population Layer**
    - GIS layer integrating population with water system data.
3. **Drinking water accessibility Data**
    - Provide a H3 Hexagons GIS layer for drinking water accessibility and equity analyses
4. **GIS Platform Security and Access Requirements**
    - Secure, user-friendly web platform for interactive data access, visualization, and export, with tiered user access.
5. **Bulk Water Fill Station Map**
    - Map and summary table of bulk fill stations, available in the online application.
6. **Private Well Water Quality Dataset**
    - Integrated well data and summary categorizations.
7. **Water District Inventory Map**
    - Inventory spreadsheet or GIS attribute table of district locations, contacts, GIS status, and size/capacity.
8. **Lead Service Line Inventory Integration**
    - Lead service line data included in the database and mapping application.
9. **Final Report and Documentation**
    - Report summarizing methods, data sources, findings, metadata, and recommendations.
10. **GIS Platform and Visualizations**
    - Public Water System Geodatabase, Online Application, and other requested visualizations.

Subtask #2 - Local stakeholder engagement:

Given OU's connections and understanding in the region, they will be given an allowance in this contract to provide services for the selected consultant for local stakeholder engagement activities. OU will collaborate with local stakeholders to align the goals of the study, scenarios modeled, and projects proposed with regional priorities. OU will assist with communicating with county leaders, water purveyors, and key municipal leaders throughout the project period as needed.

This role will be further outlined and defined by the selected consultant.

Subtask #3: General project team support:

- Assistance bringing the consultant up to speed on local knowledge & data points;
- Contribute OU team expertise on regional water quality, supply, accessibility, and use to the study from goal and scenario development through to project planning and result interpretation;

- Monthly meetings with consultant team to get status updates & provide follow-up support/advice as needed;
- Other miscellaneous consultant support as directed.

Part D: SUBMITTAL REQUIREMENTS

OWDA is issuing the RFP. Joshua Legg, Division of Drinking and Ground Waters Southeast Environmental Manager, will serve as the Proposal Point of Contact during the procurement process, except for the initial proposal submission, as described below. The Proposal Points of Contact will be attended by the project's Partner Agencies.

When responding to this RFP, please follow all instructions carefully. Please submit proposal content according to the outline specified and according to instructions.

Proposal Submittal

Each Proposer is required to submit their proposal with required attachments by email to

Michael Fraizer (mfraizer@owda.org) **by email no later than 4:00 PM on Friday, December 19, 2025 (EST).** The Proposer's Name(s) and Project Name shall be in the Subject Line. The time of receipt will be determined by the timestamp on the email. Late responses will not be accepted.

Proposal Points of Contact

Joshua Legg, Division of Drinking and Ground Waters Southeast Environmental Manager, will serve as the Proposal Point of Contact for the pre-proposal meeting, individual meetings, and clarification requests. His email address is Joshua.Legg@epa.ohio.gov.

Pre-Proposal Meeting

A virtual Pre-Proposal Meeting will be conducted on Monday, December 1, 2025, at 1:00 PM (EST) via Microsoft Teams. General information concerning the proposed project will be presented at this meeting, and questions regarding the project will be addressed. Attendance at this meeting is mandatory. Proposers are to contact Mr. Legg to express their intention to attend and request a meeting invitation.

Links to join the December 1st meeting are below:

Join on Microsoft Teams:

Join Preproposal Meeting, Meeting ID: 261 495 005 815 8, Passcode: kF7gB9Jm

Dial in by phone:

+1 614-721-2972,,509941736# Phone conference ID: 509 941 736#

Join on a video conferencing device:

Tenant key: 682042763@t.plcm.vc, Video ID: 118 143 622 2

If you have issues connecting, contact Joshua.Legg@epa.ohio.gov for a direct link.

Individual Meetings

Individual meetings with each confirmed Proposer will be held during the times listed below, as requested. The meetings will be scheduled on a first-come basis through email with Mr. Legg (Joshua.Legg@epa.ohio.gov). Available timeslots are presented below (Eastern Time (ET)). They will be conducted through Microsoft Teams and will give the proposer an opportunity to discuss the project in more detail. This meeting is not mandatory.

Day of Week	Date	Time
Thursday	**December 4**	**10:00 a.m. – 12:00 p.m.**
Friday	**December 5**	**1:00 p.m. – 3:00 p.m.**
Monday	**December 8**	**1:00 p.m. – 3:00 p.m.**
Wednesday	**December 10**	**1:00 p.m. – 3:00 p.m.**
Tuesday	**December 16**	**1:00 p.m. – 3:00 p.m.**

Clarification Requests

Should any Proposer find discrepancies, omissions or ambiguities in this RFP, the Proposer must submit a question/request for clarification by email to Mr. Legg (Joshua.Legg@epa.ohio.gov). All confirmed proposers will receive an email with the questions official response. **The deadline for clarification request emails is 12/12/25 5:00 PM (EST) and the response will be emailed by 12/17/25 5:00 PM (EST).**

Formal Interviews

Formal interviews are not anticipated.

Additional Contact

No additional contact with State of Ohio staff will be deemed acceptable during this procurement process.

Proposal Format

The proposal must address the following items in the following order. Failure of the proposal to respond to a specific requirement may be basis for elimination from consideration during the comparative evaluation. OWDA reserves the right to accept or reject any or all proposals.

Proposals shall be no more than 30 pages in length, not counting the Cover, Cover Letter, Page Dividers, Table of Contents, Schedule, Project Examples, or Resumes. A page is considered a single letter-sized sheet. Proposals shall be submitted electronically in PDF format.

The proposal will contain sections in the following order:

1. Transmittal/Cover Letter
2. Project Team
3. Project Understanding & Approach
4. Project Schedule
5. Cost
6. Resumes
7. Project Examples

1. Cover Letter

The cover letter shall be signed by a representative authorized to legally bind the firm, and include:

- Name, telephone number and email address of a contact person with authority to answer questions regarding the proposal and contractual issues.
- Office location of Project Manager.
- Identification of the firm as a corporation or other legal entity.

The letter shall also include the following:

- Identification of any partners and/or subconsultants to be engaged in the project.
- A statement that the firm has sole and complete responsibility for delivery of the required services.
- A statement that the firm is presently not debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal department or the State of Ohio.
- List of any required changes to proposed contract terms and conditions. Note that OEPA may consider these proposed changes in the selection of the consultant. No additional changes will be considered, other than those listed in the cover letter.

2. Project Team

This section shall provide an overview of each key personnel working on the project and their relationship to the firm and their affiliations. It shall identify the firm's/team's principal-in-charge and the day-to-day project manager as well as other key personnel. If teaming partners (and/or subconsultants) are utilized, note the position in the project team and identify the firm. Provide an organizational chart that clearly identifies the team, their responsibilities, and their role on this project, as well as their availability/commitment to this project.

The consultant should note that as a condition of the contract the key persons, as defined by the Owner, assigned to the project for its duration must be substantially as represented in the proposal.

3. Project Understanding & Approach

This section shall indicate the consultant's understanding of the project scope of work, a definition of the scope of the project (including a discussion of the tasks to be performed to accomplish the scope of work), a definition of the interim and final products, and the consultant's approach to the project (including the estimated time of completion for key tasks, phase deliverables, the management organizational chart, and identification of specific roles in the project).

The consultant's proposal shall contain a step-by-step explanation and description of the methodology to be employed and how the methodology addresses the scope of work. The consultant's proposal shall further contain a detailed level of effort. In addition, please explain any aspect of proposed method that is unique or innovative. Describe how you will engage and utilize the regional partner in your approach.

Also, administrative information, such as the consultant's status reporting procedures and the consultant's approach to effective communication with the Partner Agencies and sub-consultants, shall be included.

4. Project Schedule

Provide a detailed project schedule that includes project tasks, interrelation of tasks and deliverables. Provide a Gantt-type chart identifying all tasks and sub-tasks, all deliverables, and time in the scope of work. The final project should be completed by December 31, 2026. If the consultant believes this will adversely affect the quality of the project, the consultant should explain why. The schedule should be provided in 11 x 17 format.

5. Cost

Proposer shall utilize a cost summary sheet similar to the one included with this RFP. Also provide a detailed cost proposal showing tasks, sub-tasks, hours, and bill rates by personnel classification. The cost and hour estimate will be used to compare level of effort between proposers and for the fee finalization with the selected proposer. Provide an hourly billable rate schedule as well as expenses and markups.

6. Resumes

Provide single page resumes for up to 10 key project staff. Identify the Project Manager. Note the office location and professional licenses and/or special training held by the staff.

7. Project Examples

Identify similar projects undertaken by your firm or proposed team firms a) within Ohio and b) in other states. Document each firm's actual responsibility on the project. Provide appropriate reference(s), name(s), and telephone number(s). Provide up to six detailed examples of recently completed projects. Project examples are limited to 2 pages each. If the proposer would like to submit links to on-line deliverable examples, limit these to the project examples provided.

Part E: EVALUATION AND CONTRACTING

Evaluation Panel

The OEPA will establish a panel to evaluate the Consultants' responses. This panel will be responsible for the evaluation and rating of the proposals. Panel members will also be responsible for attending the pre-proposal meeting and individual meetings, as well as answering formal questions, as necessary. Additional support during this process may be utilized.

Evaluation of Proposal

Award shall be made to a responsive and responsible proposer whose proposal is determined to be the most advantageous, in the discretionary decision-making of OEPA and the Evaluation Panel. All proposals deemed responsive will be evaluated based on the experience and expertise of the Project Team, demonstration of the project understanding through the proposed approach, the schedule, cost, and experience with similar work.

Estimated Cost

Proposer shall utilize a cost summary sheet similar to the one below. Also provide a detailed cost proposal showing tasks, sub-tasks, hours, and bill rates by personnel classification. The cost and hour estimate will be used to compare level of effort between proposers and for the fee finalization with the selected proposer. Provide an hourly billable rate schedule as well as expenses and markups. Note that an allowance for Ohio University's services is included for all proposers, in the amount of $363,312.

Proposed Cost Summary Table:

ITEM	ESTIMATED COST
Task 1	
Task 2	
Task 3	
Task 4	
Task 5	
Task 6	
Task 7	
Task 8	
Task 9	
Task 10	
Service Allowance	$363,312
TOTAL ESTIMATED COST FOR CONSULTANT SERVICES	

Contract Negotiations & Award

OEPA will negotiate the final scope and fee with the selected Consultant. The Consultant needs to be prepared to enter into an OWDA contract. A draft, example contract will be posted on OWDA's website in early December 2025. The final negotiated contract and fee will be approved and signed by the parties.

Attachment 2

DRAFT AGREEMENT
Between Ohio Water Development Authority and _____
For Consultation Services

THIS AGREEMENT is entered into as of this __th day of January, 2026 ("Effective date") by and between the Director of the Ohio Water Development Authority ("OWDA") on behalf of the Ohio Environmental Protection Agency ("Ohio EPA" or "Agency") and the Ohio Department of Natural Resources ("ODNR") (OWDA, Ohio EPA and ODNR shall be collectively referred to as the "Agencies") and _____ ("Contractor").

WHEREAS, Ohio Revised Code (ORC) § 6121.04(c) authorizes OWDA to procure by contract temporary or intermittent services of experts or consultants, or organizations thereof, when those services are to be performed on a part-time or fee-for-service basis and do not involve the performance of administrative duties.

WHEREAS, this Agreement provides for Contractor's services to develop a regional water study for the Southeast Ohio Region.

NOW, THEREFORE, the parties agree as follows:

ARTICLE I: NATURE OF CONTRACT (AGREEMENT)

1.1 **Independent Contractor.** Contractor shall be retained as an independent contractor to fulfill the terms of this Agreement. It is specifically understood that the nature of the services rendered under this Agreement are of such a personal nature that the Agencies are the sole judges of the adequacy of services.

1.2 **Assurance of Expertise and Experience.** OWDA enters into this Agreement in reliance upon Contractor's representations that it has the necessary expertise and experience to perform its obligations hereunder, and Contractor warrants that it does possess the necessary expertise and experience. Further, Contractor agrees and represents that all persons involved in Contractor's performance of work under this Agreement are properly qualified, trained and competent, and possess the required licenses, permits, certifications, and registrations necessary to lawfully provide the services.

1.3 **Compliance with Agency Instructions to Satisfy Terms of Agreement.** The Agencies may, from time to time, communicate specific instructions and requests to Contractor concerning performance of the work described in this Agreement. Upon such notice and within ten days after receipt of instructions, Contractor shall comply with such instructions and fulfill such requests to the Agencies' satisfaction. It is expressly understood by the parties that these instructions and requests are for the sole purpose of performing the specific tasks requested to ensure satisfactory completion of the work described in this Agreement. The management of the work, including the exclusive right to control or direct the manner or means by which the work is performed, remains with Contractor. The Agencies retain the right to ensure that Contractor's work is in conformity with this Agreement.

ARTICLE II: SCOPE OF SERVICES

2.1 **Scope of Contractor's Services.** Contractor shall perform the services set forth in Exhibit 1-Scope of work of this Agreement. Exhibit 1 incorporates by reference Contractor's proposal entitled "Proposal for Development of a Regional Water Study Southeast Ohio Region", as Exhibit 1-A. In the event of inconsistencies or conflicts between Exhibit 1-A and this Agreement or Exhibit 1, the terms of and conditions of this Agreement and Exhibit 1 shall govern.

2.2 **Scope of Ohio EPA's Services.** The Agencies shall provide the services set forth in Exhibit 1-Scope of Work to the extent the document designates services for Ohio EPA.

2.3 **Confidentiality Agreement.** Contractor shall not discuss or disclose any information or material obtained pursuant to its obligations under this Agreement without receiving prior written consent of OWDA.

2.4 **Additional Obligations.** Contractor shall supply all equipment for the performance of work under this Agreement.

ARTICLE III: TIME OF PERFORMANCE

3.1 **Commencement and Conclusion of Services.** The services to be performed as set forth in Article II above shall commence as of the Effective Date and conclude on or before **December 31, 2026.**

3.2 **Duration of Obligations.** This Agreement shall remain in effect until the work performed by Contractor is completed to the satisfaction of the Agencies, and until Contractor is paid in accordance with Compensation article or until terminated as provided in the Termination of Contractor's Services article, whichever is sooner.

3.3 **Option for Renewal.** At OWDA's discretion, this Agreement may be renewed by the parties by executing a new agreement based on the same or modified terms and conditions of this Agreement, or other legally acceptable method. Such renewal may consist of a short-form renewal agreement.

ARTICLE IV: COMPENSATION

4.1 **Payment for Services.** OWDA shall pay Contractor for services rendered in accordance with this Agreement, as set forth in Exhibit 2 of this Agreement.

4.2 **Reimbursement Limitations.** Compensation for expenses shall be limited to Contractor's fee for services set forth in this Agreement.

4.3 **Invoice Requirements.** Contractor's invoices for services rendered shall be consistent with this article and Exhibit 2 of this Agreement. Contractor's invoices must be submitted to OWDA monthly in PDF format and contain: (a) the Contractor's name and federal employer ID number (or other identification as appropriate); (b) the address to which payment is to be sent; (c) a description of the services performed, dates of service, and total hours worked; and (d) include all backup documentation to support the invoice, including, but not limited to receipts. If an invoice does not contain the information required,; OWDA or OEPA will notify Contractor of any defect or impropriety.

4.4 **Progress Reports.** A progress report shall be submitted as an attachment to each monthly invoice. Each Monthly Progress Report shall include the following: status of each task in relation to the baseline schedule of forecasted milestones and completion dates in the detailed project plan, highlighting any schedule risk; key activities that will be performed during the upcoming month; information required by, or open items requiring closure by the Agencies, the Consultant, Subconsultants or Experts; and a revised project schedule, as necessary. Provide an updated percent complete with each invoice.

ARTICLE V: TERMINATION, CANCELLATION, OR SUSPENSION

5.1 The term of this Agreement shall begin on the Effective Date and shall remain in place unless terminated as noted in the following subsections.

6 **Certification of Funds.** It is expressly understood by Contractor that none of the rights, duties, and obligations described in this Agreement will be binding any party until all statutory provisions under the Ohio Revised Code and procedural requirements under Customer's bylaws and board authority have been complied with. Moreover, no act by OWDA's Board is considered binding upon or a restriction upon a future OWDA Board. If at any time sufficient funds are not available or appropriated to continue funding any payment due under this Agreement, this Agreement will terminate for just cause.

6.1 **Termination by OWDA.** OWDA may, at any time prior to the completion of services by Contractor, suspend or terminate this Agreement with or without cause (e.g., OWDA lacks funds to continue), by giving written notice to Contractor. Suspension refers to the temporary cessation of contract performance (e.g., suspension may occur where contractor is temporarily unable to comply with the contract's terms and conditions). Suspension may, but does not necessarily, lead to termination. Further, as used in this Agreement, termination for cause includes the concept of cancellation.

6.2 **Termination by Contractor.** Contractor may terminate this Agreement upon 30 days prior written notice to OWDA.

6.3 **Effect of Termination or Suspension.** Upon notice of suspension or termination, Contractor shall cease work on the suspended or terminated activities under this Agreement, suspend or terminate all subcontracts relating to the suspended or terminated activities, and take all necessary or appropriate steps to limit disbursements and minimize costs. If requested by OWDA, Contractor shall promptly furnish a report that describes the status of all work under this Agreement as of the date of receipt of the suspension or termination notice, including the data and analysis resulting from the same and any other matters the Agencies require.

6.4 **Payment for Services Rendered.** Contractor shall be paid for services rendered up to the date Contractor received the suspension or termination notice, less any payments previously made, provided Contractor has supported such payments with detailed factual data containing services performed and hours worked. In the event of suspension or termination, any payments made by OWDA for which Contractor has not rendered services shall be refunded.

6.5 **Conveyance of Work Products.** In the event this Agreement is terminated prior to its completion, Contractor, upon payment as specified, shall deliver to OWDA all work product which has been prepared by Contractor in the course of providing services under this Agreement. All such materials shall become, and remain, the property of OWDA, to be used in such manner and for such purpose as OWDA may choose.

6.6 **Waiver of Right to Additional Compensation.** Contractor agrees to waive any right to, and shall make no claim for, additional compensation against the Agencies by reason of suspension or termination.

ARTICLE VI: RELATIONSHIP OF PARTIES

6.1 **Responsibility for Business Expenses.** Contractor shall be responsible for all of Contractor's business expenses related to this Agreement, including, but not limited to, computers, internet access, software, and phone services. Contractor shall also be responsible for the required licenses, permits, employees' wages and salaries, benefits, insurance, and all business and personal taxes, including income and Social Security taxes and any contributions for Workers' Compensation and Unemployment Compensation.

6.2 **Status as Independent Contractor.** It is fully understood and agreed that Contractor is an independent contractor and neither Contractor nor its personnel shall at any time, or for any purpose, be considered as agents or employees of the State of Ohio. Contractor acknowledges and agrees any individual providing services under this Agreement is not a public employee for purposes of ORC Chapter 145.

6.3 **Reservation of Control for Contractor.** While Contractor shall be required to render services described hereunder for OWDA during the term of this Agreement, nothing herein shall be construed to imply, by reason of Contractor's engagement on an independent contractor basis, that OWDA shall have or may exercise any right of control over Contractor with regard to the manner or method of Contractor's performance of the services.

6.4 **Absence of Authority to Bind.** Except as expressly provided herein, neither party shall have the right to bind or obligate the other party in any manner without the other party's prior written consent.

6.5 **Deliverables Property of OWDA and OEPA.** All deliverables provided by Contractor to OWDA and Ohio EPA pursuant to this Agreement are the Property of OWDA and Ohio EPA.

ARTICLE VII: RECORD KEEPING

7.1 **Availability of Financial Records.** During performance of this Agreement and for a period of three (3) years after its completion, Contractor shall maintain, in a manner consistent with generally accepted accounting procedures, auditable records of all financial records pertaining to this Agreement and shall make such records available to OWDA as it may reasonably require.

7.2 **Publications.** OWDA and Ohio EPA reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, document, publish, disclose or otherwise use, and to authorize others to use, in whole or in part, for State purposes, the results of the services provided by Contractor through the agreement.

ARTICLE VIII: RELATED AGREEMENTS

8.1 **General Prohibition of Subcontracts and Exceptions.** The work contemplated in this Agreement is to be performed by Contractor. Contractor shall not enter into subcontracts without OWDA's prior written approval, except as follows. Contractor may subcontract without OWDA's approval for purchase of supplies, components, or mechanical services that do not involve the type of work described in Article II above but which are required for its satisfactory completion. All work subcontracted shall be at Contractor's expense. Upon request, Contractor shall furnish to OWDA a list of all subcontractors, their addresses, tax identification numbers, and the dollar amount of each subcontract, if any.

8.2 **Subcontractor Adherence to this Agreement.** Contractor shall bind its subcontractors to the terms of this Agreement, so far as it is applicable to the work of the subcontractor and shall not agree to any provision which seeks to bind OWDA to terms inconsistent with, or at variance from, this Agreement.

8.3 **Assurance against Duplicate Work.** Contractor warrants that it has not entered into, nor shall it enter into, other agreements, without prior written approval of OWDA, to perform substantially identical work for the State of Ohio such that the product contemplated hereunder duplicates the work called for by the other agreements.

ARTICLE IX: CONFLICTS OF INTEREST AND ETHICS COMPLIANCE

9.1 **Prohibition against Acquiring Incompatible or Conflicting Interests.** No personnel of Contractor or public official, employee or member of the governing body of any locality in which work under this Agreement is being carried out, and who exercises any functions or responsibilities in connection with the review or approval of this Agreement or carrying out of any such work, shall, prior to the completion of the work, voluntarily acquire any personal interest that is incompatible or in conflict with the discharge and fulfillment of his or her functions and responsibilities with respect to the carrying out the work.

9.2 **Disclosure of Conflicts of Interest.** Any such person who acquires an incompatible or conflicting personal interest on or after the effective date of this Agreement, or who involuntarily acquires any such personal interest, shall immediately disclose his or her interest to OWDA in writing. Thereafter, he or she shall not participate in any action affecting the work under this Agreement, unless OWDA determines in its sole discretion that, in the light of the personal interest disclosed, his or her participation in any such action would not be contrary to public interest.

9.3 **Assurance** of Compliance with Ohio Laws. Contractor, by signature on this Agreement, certifies that Contractor is currently in compliance with, and will continue to adhere to, the requirements of Ohio ethics laws and conflict of interest laws and will take no action inconsistent with those laws.

ARTICLE X: NONDISCRIMINATION OF EMPLOYMENT

10.1 **Prohibition of Discrimination in Hiring**. Pursuant to ORC 125.111 and 4112.02, Contractor agrees that Contractor, any subcontractor, and any person acting on behalf of Contractor or a subcontractor, shall not discriminate, by reason of race, color, religion, sex, military status (past, present, or future), national origin, disability, age, or ancestry against any citizen of this state in the employment of any person qualified and available to perform the work under this Agreement.

10.2 **Prohibition of Discrimination, Intimidation, and Retaliation.** Contractor further agrees that Contractor, any subcontractor, and any person acting on behalf of Contractor or a subcontractor shall not, in any manner, discriminate against, intimidate, or retaliate against any employee hired for the performance of work under this Agreement on account of race, color, religion, sex, military status (past, present, or future), national origin, disability, age, or ancestry.

ARTICLE XI: PURCHASING

11.1 **Purchase from Ohio Companies.** Pursuant to Executive Order 2008-12S, Contractor and subcontractors, if any, shall make a good faith effort to purchase from Ohio companies the goods and services acquired under this Agreement.

11.2 **Purchase from MBE Vendors.** Pursuant to Executive Order 2008-13S, Contractor and subcontractors, if any, shall make a good faith effort to purchase from Ohio certified Minority Business Enterprise (MBE) and Encouraging Diversity, Growth and Equity (EDGE) program vendors the goods and services acquired under this Agreement. Contractor shall indicate the dollar amount attributed to use of MBE subcontractors on its invoices. A listing of certified MBE businesses, EDGE program guidance and related services may be found by contacting the Ohio Department of Administrative Services, or at:

http://da.s.ohio.gov/Divisions/EqualOpportunity/MBEEDGECertification/tabid/134/Default.aspx.

ARTICLE XII: RIGHTS IN DATA AND COPYRIGHTS/PUBLIC USE

12.1 **Document and Material Rights.** OWDA, Ohio EPA and ODNR shall have unrestricted authority to reproduce, distribute, and use any reports, data, or materials prepared by Contractor pursuant to this Agreement unless otherwise expressly prohibited by law. No such documents or other materials produced in whole or in part with funds provided to Contractor by OWDA, Ohio EPA and ODNR shall be subject to copyright by Contractor.

12.2 **Public Availability of Deliverables.** Contractor agrees that all deliverables under this Agreement shall be made available to the general public to the extent permitted or required by law (e.g., public records). Any requests received by Contractor for deliverables should be referred to OWDA and Ohio EPA.

ARTICLE XIII: LIABILITY

13.1 **Agreement to Indemnify and Hold Harmless.** Contractor agrees to indemnify and to hold OWDA, Ohio EPA, ODNR and the State of Ohio harmless and immune from any and all claims for injury or damages arising from this Agreement which are attributable to Contractor's own actions or omissions or those of its trustees, officers, agents, employees, subcontractors, suppliers, third parties utilized by Contractor, or joint venturers while acting under this Agreement. Such claims shall include any claims made under the Fair Labor Standards Act or under any other federal or state law involving wages, overtime, or employment matters and any claims involving patents, copyrights, and trademarks.

13.2 **Cost of Defense.** Contractor shall bear all costs associated with defending OWDA, Ohio EPA, ODNR and the State of Ohio against any claims.

13.3 **Damages for which No Liability Attaches.** In no event shall either party be liable to the other party for indirect, consequential, incidental, special, or punitive damages, or lost profits.

13.4 **Limitation on Liability.** To the extent that liability provisions in the documents and materials incorporated by reference into this Agreement conflict, a provision obligating OWDA to indemnify another party is void and unenforceable against the State consistent with Ohio Constitution Article VIII and ORC 126.07.

13.5 **General Liability Insurance Requirement.** In conjunction with this Agreement, Contractor agrees, at its own cost, to procure and continue in force at all times that this Agreement is in effect, in its name, general liability insurance against any and all claims for injuries to persons or damage to property occurring or arising out of Contractor's obligations set forth herein.

Such insurance shall at all times be in an amount not less than Five Hundred Thousand Dollars ($500,000) on account of bodily injury to or death of one (1) person, and One Million Dollars ($1,000,000) on account of bodily injuries or death of more than one person as a result of any one accident or disaster, and Two Hundred Fifty Thousand Dollars ($250,000) for property damage in any one accident. Such insurance shall be written by a company or companies authorized to engage in the business of general liability insurance in the State of Ohio with an AM. Best rating of at least "A-." Any insurance policy required hereunder shall be amended to include an endorsement naming OWDA and the State of Ohio as additional insureds unless the policy reflects such coverage of OWDA and the State of Ohio without the added endorsement.

Prior to the effective date of this Agreement, Contractor shall provide OWDA with (i) a copy of the required endorsement, if required, and (ii) a certificate reflecting the coverage of the policy, each in a form acceptable to OWDA in its sole discretion. Contractor shall provide written notice to OWDA no less than thirty (30) days prior to a cancellation, non-renewal, expiration, or material alteration of the coverage contained in any policy required hereunder, and shall provide to OWDA evidence of continuing coverage of any required policy no less than thirty (30) days prior to its expiration.

ARTICLE XIV: COMPLIANCE WITH LAWS

14.1 **Compliance Assurance.** Contractor, in the execution of duties and obligations under this Agreement, agrees to comply with all applicable federal, state, and local laws, rules, regulations, and ordinances.

14.2 **Affirmation of Qualifications and Notification Requirement.** Contractor affirms that it has all approvals, certifications, licenses, or other qualifications to conduct business in Ohio and all are current. If for any reason Contractor becomes disqualified from conducting business in Ohio during the term of this Agreement, Contractor will immediately notify OWDA in writing and cease performance of work.

ARTICLE XV: DRUG FREE WORKPLACE

15.1 **Compliance with Smoking and Drug Laws.** Contractor agrees to comply with all applicable federal, state, and local laws regarding smoke-free and drug-free work places and shall make a good faith effort to ensure that none of its employees or subcontractors engaged in the work being performed hereunder purchase, transfer, use, or possess illegal drugs or alcohol, or abuse prescription drugs in any way.

ARTICLE XVI: ENTIRE AGREEMENT/WAIVER

16.1 **Completeness of this Agreement.** This Agreement contains the entire agreement between the parties and shall not be modified, amended, or supplemented, or any rights waived, unless specifically agreed upon in writing by the parties.

16.2 **Status of Previous Agreements.** This Agreement supersedes any and all previous agreements between the parties.

16.3 **Effect of Waiver.** A waiver by any party of a breach or default by the other party under this Agreement shall not constitute a continuing waiver by such party of any subsequent act in breach of or in default of this Agreement.

ARTICLE XVII: NOTICES

17.1 **Requirement for Written Communications.** All notices, consents, and communications hereunder shall be given in writing, shall be deemed to be given upon receipt thereof, and shall be sent to the applicable party's contact(s) as set forth in the Scope of Work - Exhibit 1 of this Agreement.

ARTICLE XVIII: HEADINGS

18.1 **Legal Insignificance of Headings.** The headings in this Agreement have been inserted for convenient reference and shall not be considered in any questions of interpretation or construction of this Agreement.

ARTICLE XIX: SEVERABILITY

19.1 **Effect of Severance.** The provisions of this Agreement are severable and independent, and if any such provision shall be determined to be unenforceable in whole or in part, the remaining provisions and any partially enforceable provision shall, to the extent enforceable in any jurisdiction, nevertheless be binding and enforceable.

ARTICLE XX: CONTROLLING LAW

20.1 **Jurisdiction and Governing Law.** This Agreement and the rights of the parties hereunder shall be governed, construed, and interpreted in accordance with the laws of the State of Ohio. Contractor consents to jurisdiction in a court of proper jurisdiction in Franklin County, Ohio.

ARTICLE XXI: SUCCESSORS AND ASSIGNS

21.1 **Prohibition of Delegation.** Neither this Agreement, nor any rights, duties, nor obligations hereunder, may be assigned or transferred in whole or in part by Contractor, without the prior written consent of OWDA. Any assignment or delegation not consented to may be deemed void by OWDA.

ARTICLE XXII: DEBARMENT

22.1 **Assurance against Debarment.** Contractor represents and warrants that it is not debarred from consideration for contract awards by the Director of the Department of Administrative Services, pursuant to ORC 125.25. If this representation and warranty is found to be false, this Agreement is void ab initio and Contractor shall immediately repay to OWDA any funds paid under this Agreement.

ARTICLE XXIII: EXECUTION

23.1 **Binding Effect of Execution.** This Agreement is not binding upon OWDA unless executed in full.

23.2 **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

ARTICLE XXIV: SURVIVAL

24.1 **Surviving Provisions.** The provisions of Articles related to compensation, termination, cancellation, or suspension, record keeping, related agreements, rights in data and copyrights/ public use, confidentiality, and liability hereof shall survive the termination or expiration of this Agreement.

EXHIBIT 1

SCOPE OF WORK

REGIONAL WATER STUDY (RWS)

SOUTHEAST OHIO REGION

Contractor shall perform services with the care and skill ordinarily exercised by members of the same profession, on projects of similar size and complexity at the time the services are performed.

Contractor shall have no liability for the reuse of the information discussed in this Section that is contrary to the intended purpose of this Project.

Contractor shall retain sole and exclusive ownership of all right, title and interest to all Background Technology. Background Technology is defined as any proprietary methodologies, tools, models, software, documentation, know-how, trade secrets, inventions, or works of authorship conceived or developed independently by **Contractor** excluding the Deliverables. Deliverables are defined as the results of the Services, in any form or medium and regardless of the state of completion, developed and/or delivered by **Contractor** as further described in the applicable Scope of Work.

The scope of work to be provided by ***CONTRACTOR*** includes professional services for the elements listed below.

Task 1: Project Management

The Consultant shall provide project management services, including, but not limited to, management of sub-consultants and experts, monthly invoicing with status reports, coordination with the Partner Agencies, and quality assurance of final deliverables.

The Consultant shall submit all deliverable documents in both draft and final form, as delineated in all project tasks, and shall incorporate all comments from the Partner Agencies. Each document, until approved by designated Partner Agencies, is subject to revisions.

General Coordination and Communication

Scheduling – All meetings will be scheduled by the Partner Agencies in consultation with the Consultant.

Web-Based Project Site – Consultant will develop a web-based site to transfer files, provide project updates, track schedules and exchange information. The Consultant will maintain this site throughout the project duration.

General Communication – Critical, time-sensitive communication will be by email. Otherwise, emails need to be minimized as most communication occurs through a web-based project site.

Routine Meetings

Monthly Project Meetings – Consultant will facilitate general monthly meetings for the project duration with the Partner Agencies to coordinate work activity, provide updates, review schedules, and discuss preliminary findings. Meeting minutes will be prepared and posted on the web-based project site. These meetings can be on-site and/or remote as determined by the Partner Agencies.

Technical Project Meetings- The Consultant will facilitate regular technical meetings with the identified Partner Agencies technical staff to discuss programmatic questions or concerns. Identified Partner Agencies technical staff will facilitate agency discussion on these questions or concerns and get back to the consultant with answers in a timely manner. Highlights of these discussions and decisions to proceed will be brought up during the Monthly Project Meetings.

Invoicing & Progress Reports

Invoice Requirements – Invoices shall be submitted to Dan Gill at DGill@OWDA.org monthly in PDF format and include all backup documentation to support the invoice, which includes, but not limited to, timesheets, receipts, etc. Ohio EPA will then approve the invoice and submit for payment to OWDA.

Progress Reports – A progress report shall be submitted to Joshua.Legg@epa.ohio.gov as an attachment to each monthly invoice. Each Monthly Progress Report shall include the following: status of each Task in relation to the baseline schedule of forecasted milestones and completion dates in the detailed project plan, highlighting any schedule risk; key activities that will be performed during the upcoming month; information required by, or open items requiring closure by Partner Agency members or stakeholders, the Consultant, Subconsultants or Experts; and a revised project schedule, as necessary. Provide an updated earned value report with each invoice.

Schedule

Consultant will adhere to the Detailed Work Plan (Task 1 Deliverable) unless delays beyond the Consultant's control occur. In such a case, Consultant shall notify Joshua.Legg@epa.ohio.gov by email immediately upon knowing of the delay. A recovery plan will be required and agreed upon by the Consultant and Partner Agencies.

Visualization

The Consultant will provide visualized data throughout the project (e.g., charts, graphs, maps, analytical results) to be included in written reports, presentations, web content, and decision-making interfaces throughout the period of performance.

Task 2: Project Initiation

Project Kickoff

The Consultant will meet with the Partner Agencies within 14 days of the Notice to Proceed (NTP) to review project scope, deliverables, and schedule. They will also introduce the Consultant team, discuss project logistics and further define the objectives and critical success factors. A meeting summary will be developed from the outputs of this kickoff to:

- Document the common understanding of the project goals and objectives.
- Confirm each team member's role.
- Establish communication protocols, including designating main points of contact between agency technical leads.
- Reach agreement on project milestones.

Task 2 Deliverables:

- Kickoff Meeting Summary
- Detailed Work Plan including tasks, schedule, points of contact, and communication touch points
- Web-based Project Site

Task 3: Data Acquisition, Review, and Interviews

The Consultant will gather and review available historical data, projections, reports, and other sources of background data relevant to developing the current state, water budget, scenarios, cost projections, and alternative analysis. This data shall be collected from participating agencies, *including, but not limited to,* those found in Attachment 1. The Consultant will meet with participating agencies to assist in understanding and retrieving all relevant available information and closing data gaps.

Additional data required for the performance of the work based on the Consultant's approach will be the responsibility of the Consultant to collect and format as needed. The Consultant will meet with each participating agency to discuss data, identify water management issues, and conceptualize goals for the RWP. The Partner Agencies will facilitate meetings with other entities as needed and reasonable.

Ohio University (OU) will provide an updated drinking water accessibility GIS dataset. This effort has been detailed in Task 10, along with the services anticipated as part of this project. The Consultant is responsible for determining the most effective way to integrate OU's resources into the project's delivery.

It shall be the responsibility of the Consultant to review data and determine its usage. That data usage plan will be a part of the detailed work plan (Task 3 deliverable) to be approved by the Partner Agencies. If the Consultant will be using Artificial Intelligence as part of data review and analysis, then it must disclose this usage and accuracy metrics.

Data Available by Type

<table>
<tr><td rowspan="4">Water Supply</td><td>ODNR data</td><td rowspan="3">Ground Water</td><td>ODNR data</td></tr>
<tr><td rowspan="3"></td><td>USGA data</td></tr>
<tr><td>OEPA DDAGW Ambient Well data</td></tr>
<tr><td>AECOM's Water Quality well data</td></tr>
<tr><td>USGS data</td><td>Contamination</td><td>OEPA DERR</td></tr>
<tr><td></td><td></td><td>OEPA RCRA</td></tr>
</table>

	OEPA DDAGW data (including PFAS data)		Federal Superfund Sites
Water Treatment & Delivery	Drinking water supplier data	**Asset Management**	OEPA Asset Management Reports
	OEPA DDAGW data		
	OEPA DEFA - planning and design loan data		Water Distribution
	OEPA General Plans	**Meteorological Datasets**	National Climate Assessments data
	OEPA Violation reporting		OSU Climate Presentation
	OU Drinking Water Accessibility Data		NOAA data
Wastewater Treatment	OEPA EDMR data		
	OEPA Violation reporting		
	OEPA DEFA - planning and design loan data		
Surface Water	USEPA "How's My Waterway" database		
	OEPA GIS tool - designation, anti-degradation tiers, etc.		
	OEPA TMDLs		
	OEPA 2024 Integrated Report		
	USGS data (ODNR SE Ohio Watershed data)		
	H2Ohio Big Rivers PFAS data		
	ODNR-DMRM watershed surface data		

Planning Documents/Reports:

- Past master and watershed plans for water, wastewater and surface water.
- Existing and proposed TMDLs and NPDES permits.
- Information on reliability and cost of water supply, delivery, and treatment.
- Capacities of water, wastewater, and surface water systems (current and projected).
- Geographic build-out limits for service area.
- Historical climate data (temperature and precipitation); Information on rainfall-runoff-infiltration relationships.
- Water quality data on nutrients, DO, bacteria, chlorophyll, TSS, etc.
- Water quality issues affecting chemical treatability for drinking water.
- Historical wastewater discharge rates and concentrations.
- Copies of agreements with municipalities, water suppliers, water management districts or the like, dealing with any of the service areas.
- Available studies and reports completed by Municipalities, Districts, state, local or federal agencies, on any of the service areas (water, wastewater, reclaimed water, surface water).
- Bi-annual 303d Integrated Report impairment list.

Task 3 Deliverables:

- Provide documented summaries of meetings with stakeholders.
- Provide a data usage plan detailing which information will be used for the basis of analysis, the consultant's opinion of data accuracy utilizing a determined scale, and data gaps with the plan to overcome those gaps.
- An approach on how the Consultant will manipulate projected data as needed for RWS final recommendations.
- The data collected above will be used to develop generalized relationships suitable for a conceptual representation of the various utility systems and receiving water systems in the Integrated Model. It is envisioned that, based on the data collected, simplified relationships for water, wastewater, surface water, rainfall-runoff-infiltration, travel times, pollutant loading, and dilution and will be developed and included in the integrated model. These relationships and methods will be included in a technical memorandum.
- Process daily weather values into weighted monthly averages and extremes unique to each area and time period and derive long-term normal values for weather parameters.

Task 4: Current and Future Data Mapping/Modeling

Current State Data Mapping:

Based on the data collection and review, the Consultant will develop a GIS inventory of the planning area, current state, including but not limited to:

- Water supply sources, including groundwater aquifers and surface water sources
- Direct source users including average and peak withdrawal
- Water treatment facilities including extent of service area, average, peak and permitted capacity
- Wastewater discharges including extent of service area, average, peak and permitted capacity
- Dewatering discharges
- Permitted individual stormwater discharges (e.g., quarry and bulk storage discharges)
- Rivers and streams, including use designation and attainment/impairment status
- Wetlands
- Known groundwater contamination areas
- Impervious/Pervious areas
- Other issues that impact subsequent modeling/projections
- Topography

Future Data Mapping:

Prepare future case GIS for lists of known future projects from general plans, specific plans, and results of meetings with agencies. Include projected service boundaries for water and wastewater as well as other information required to perform future analysis. Include meetings for the development and finalization of this information.

Integrated Modeling Plan

Develop a modeling plan memorandum that revolves around the project objectives and performance measures as defined by the stakeholders. At a minimum, the modeling plan will include:

- Software selection
- Necessary resolution of model
- Planning horizon (into the future)
- Historical record and future predictions (for climate and hydrology data)
- Resolution for the representation of the environmental impact
- Resolution on each utility and its dynamics (demands, loads, peaking, etc.)
- Model input
- Model output
- Scenario definition and flexibility of formulation
- Techniques for uncertainty and sensitivity analysis (forms of "risk"), if desired
- Formulation plan for addressing each of the stakeholders' identified performance measures
- Recommendations for model updating

Task 4 Deliverables:

- Provide documented summaries of meetings.
- Integrated Modeling Plan
- GIS Mapping of current state and future states

Task 5: Scenario Scorecard

To provide a comprehensive and consistent basis for comparing alternatives, a tool for organizing interdisciplinary information shall be developed and used. The tool is to incorporate stakeholder values and compare each alternative to all the others using common performance measures.

These tools can mix quantitative and qualitative data in a single matrix, is to be easy to use, and provide a transparent and reproducible evaluation process that lends itself to stakeholder participation. It will be populated with performance measures that come out of the analysis. The tool will be used to rank the alternative scenario plans. The tool will illuminate areas of consensus among scenarios, the ways in which the values have influenced the rankings, and the principal similarities and differences between the scenarios, which is extremely important in building consensus. The task will include the structuring of the tool and collaboration with Partner Agencies experts in establishing qualitative scores for performance measures that cannot necessarily be quantified (for example, "poor-fair-good-best").

In addition, the Consultant is to lead the criteria development for the regionalization opportunities review. The Consultant is to collaborate with the Partner Agencies to develop criteria to be utilized in the analysis. During the alternative analysis phase, the consultant is to score providers based on the criteria, scenario output, gap assessment, and data review.

Develop and refine a cost model. For each alternative, planning level capital and Operation and maintenance (O&M) costs will be estimated to facilitate the analysis and scoring of project alternatives that will be discussed at project meetings. Capital costs will be developed to include, in addition to construction costs, an allowance for engineering, legal, and administrative costs and services. O&M costs will be estimated as a present worth cost for the expected design life of the projects. From this analysis, a technical memorandum will be prepared, which will include a compilation of the planning level costs specific to each alternative.

Work in this phase will also include developing methodology and decision-making tools and criteria, selection of scenarios to be evaluated, and incorporation of technical information into these decision-making tools. The Consultant is to work with the project partners to develop scenarios for review and assessment. Scenarios will be developed and evaluated based on their ability to meet stakeholder criteria. Adjust projections based on scenarios.

Scenarios are to consider potential changes in:

- Potential yield for demand and supply side options
- Water supply benefits (including consideration of supply diversification)
- Economic impacts / ”apples to apples” cost comparisons (incl. capital costs and operations and maintenance costs, lifecycle costing including energy and carbon emissions, cost savings, cost benefit analysis, and consideration of potential financial incentives)
- Environmental impacts and considerations
- Social impacts
- Implementability (including intergovernmental partnerships, permitting and regulatory considerations, and the timing of implementation)
- Risk (including water availability and vulnerability)
- Opportunities for Regionalization
- Financial, technical, and managerial capabilities

Task 5 Deliverables

- Scenarios for evaluation (up to 12)
- Technical memorandum detailing adjusted projections based on scenarios
- Standard tool for comparison and evaluation of scenarios/alternatives
- Regionalization scorecard
- Cost model and technical memorandum

Task 6: Create Current State Water Budget Model

This task includes the development and application of an integrated computer modeling tool that will simulate the behavior and interactions of the receiving waters, water supply, wastewater, surface water, and reclaimed water programs in the Study region. It will integrate utility-specific technical information into a platform that can compare and contrast the benefits and shortcomings of scenarios. The model will be developed with a software platform that allows dynamic simulation of integrated systems over extended time periods and changing conditions. The model will account for future demands, historical hydrology, climate, and the dynamics of existing and planned development and infrastructure in the study area. Most importantly, it will represent the water system, wastewater system, surface water system, groundwater system, receiving waters systems, and all the interrelationships between these systems in a single platform. The Integrated Model is intended to capture the fundamental dynamics of the utility systems and receiving waters at a level that allows the discernment of plans that are beneficial from those with limited benefits or detrimental impacts. This integrated systems modeling approach will be critical in evaluating alternatives in a comprehensive manner, allowing decision makers and other partners to see the interactions and interdependencies. The integrated model shall simulate and refine alternative plans and use results to identify a smaller set of most preferred plans to carry forward in the recommendations.

It is anticipated that one of the objectives of the RWS is to minimize the discharge of pollutants to waters of the US within the study area. The Consultant is to develop a conceptual dynamic model of the monthly, seasonal, or annual loadings to receiving waters. The model will include loading from plan area utilities, surface water, reclaimed water, and other quantifiable inputs (e.g., atmospheric deposition). At a conceptual level (sufficient for distinguishing benefits and disadvantages of alternative integrated plans), it will include the river hydrology, basic water quality relationships, climate, the utilities which will be addressed by this RWS, demands, etc. The model will include representation of existing infrastructure and facilities, as well as options for including possible new infrastructure in the future (as part of integrated plans). It will therefore be capable of simulating the alternative plans, their impacts, and their potential benefits.

The first step will be to draw a representation of the system, including the interdependencies between the pollutant loads, the watershed, and the utilities. This will serve two purposes: it will help people understand the interconnectivity of the various resources and facilities and will also serve as the functional outline of the model. Next, available data and simplified mathematical relationships will be entered. The model will be tested for accuracy of the water balance, load balances, operational representation, and receiving waters representation. Comparative scenarios will be run, and results will be compared to published data, as available.

Task 6 Deliverables:

- Water Budget Model
- Model baseline test results
- Compiled data as input into the model
- Final model output data
- Meeting with Partners to present current state

Task 7: Scenario Modeling and Gap Analysis

The completed, integrated model will be used to simulate the behavior and interactions of the receiving waters, water supply, wastewater, surface water, water use, population growth, and/or decline climate, and reclaimed water programs in the RWS region for each of the future horizons based on the selected scenarios. The consultant is to identify gaps in water and wastewater supply, conveyance, distribution, storage, and treatment, potential environmental issues, water recharge issues, surface water issues, pollutant loads, stormwater issues, and other water infrastructure needs for each modeled iteration.

The consultant is to prepare a suite of alternatives to address the identified gaps in a socially, environmentally, and economically sensitive manner and review them with the project partners. Then, the consultant is to test and compare alternative plans utilizing the model output and the scorecard tool. The consultant is to refine and adapt these plans based on results. Preliminary results will be provided to stakeholders in the form of scorecard analysis during project meetings. At this point, the model may also help identify specific improvement options, or even complete alternatives (groups of projects) that are impractical or which have very limited benefits. In such cases, the stakeholders may agree to not carry such alternatives forward for further analysis. As defined in the modeling plan, the model may also be used to address questions of uncertainty in hydrologic or performance data, as well as the sensitivity of

solutions to changes in capacities or operating requirements. Ultimately, the purpose of the integrated model is to simulate and refine alternative plans and use results to identify a smaller set of most preferred plans to carry forward to the development of the RWS. The benefits and risks for adopting certain scenarios should be described. A sensitivity analysis of the selected criteria should be completed to identify plausible risks for failure to meet future water supply needs. Also the consultant is to develop recommendations on regionalization opportunities.

Task 7 Deliverables:

- Technical Memo describing:
  - Description of the selected decision-making approach, its benefits and risks, and the results of scenario evaluation using the selected tool
  - Gaps and issues identified from all scenarios
  - Recommendations for improvements based on gaps and issues identified, specifically water line extensions/regionalization to serve unserved populations
  - Regionalization opportunity scorecard
  - Additional stormwater protection areas
  - Identification of TMDLs that may need wasteload allocation revisions to allow for new point source discharges.
  - Siting recommendations for up to 12 future large water users based upon current availability and feasibility of water.
- Facilitation of meetings with the Partner Agencies.

Task 8: Final Regional Water Study Recommendations

The purpose of this task is to develop an adaptive water resources plan that acknowledges multiple possible futures and identifies potential actions that may be taken to improve the region's water resources resiliency to that range of futures. The Consultant will develop recommendations based on the scenario development and analysis. The recommendations will provide not just a single "optimized" infrastructure development plan, but, instead, an adaptive water resources plan that acknowledges multiple possible future scenarios and identifies a menu of infrastructure improvements and their contributions to meeting determined scorecard goals. These recommendations will also identify triggers to be monitored and key decision milestones to be used in guiding when to take adaptive action.

Part of the draft and final recommendations will be creating some type of interactive data visualization of model outputs and recommendations for Partner Agencies and accessible for the public.

The Consultant will deliver their draft final study recommendations to Partner Agencies and work with the Partner Agencies to plan regional stakeholder engagement meetings to receive input on final report recommendations. Stakeholder engagement can include both individual meetings and larger meetings.

Once Partner Agencies and stakeholder input have been provided, the Consultant will make any necessary changes and deliver final report to Partner Agencies.

Task 8 Deliverables:

- Draft final study recommendations to Partner Agencies
- Stakeholder meetings of draft final study recommendations

- Final study recommendations
- Interactive dashboard of model outputs and recommendations

Task 9: Additional Communication Support

The Consultant is to assist with the development of information materials for Partner Agency use and public consumption, including:

- Develop key messages
- High-level findings for the region. Develop up to four (4) presentations on the overall findings for use with elected officials, inter-agency use, external stakeholders.
- Individual county findings presentations (24).
- Up to 40 hours of additional time as needed for additional public communication.

Task 10: Regional Partner Roles and Allowance

Task 10 A. OWDA has included an allowance in this contract for Ohio University (OU) to provide services for the selected consultant. An allowance of $363,312 is included for OU to provide the following subtasks to the consultant as part of the consultant's contract:

For the 24 counties within the region:

Subtask #1 – GIS Platform

The core goal is to develop a secure, standardized GIS Platform consisting of online application and geodatabase that enable the Ohio EPA to collect, store, visualize, and analyze comprehensive data on drinking water systems. This solution will directly support data-driven decision making, resource allocation, regional planning, and ongoing collaboration among stakeholders across Southeast Ohio. It will also help to prioritize funding for future improvements, reducing the number of Ohioans in Appalachia without access to clean and reliable drinking water.

Scope of Work

Anticipated Project Timeline: The selected consultant will work with OU in creating a project timeline for the GIS Platform.

1. **Project Area and Work Plan**
    - Focus on the outlined 24-county region (Scioto to Carroll).
    - Use Ohio EPA systems' data.
2. **Water Distribution GIS Platform**
    - Develop a comprehensive geodatabase covering line locations, pipe size/capacity, age, material, and other relevant attributes from what Ohio EPA data provides.
    - Design, build, and deploy a secure, tier level access online application for users to view and interact with data layers.
    - Enable integration of multiple data types (lines, service areas, lead service lines, bulk fill stations, well quality, etc.) as data provides.
3. **Population Data Integration**

- Aggregate drinking water accessibility data layer using the H3 Hexagons with census block-level population figures.

4. **Drinking water accessibility and equity analyses**
    - Provide a GIS layer for drinking water accessibility and equity analyses (based on the 2019 study).
    - Enhance data quality by integrating lead service line inventory.
    - Generation of a drinking water accessibility data layer using the H3 Hexagons.
5. **Data Access and Security**
    - The specific tier-level security access for the GIS platform application will be detailed in guidance provided by the Ohio EPA.
6. **Data Acquisition and Coordination**
    - Coordinate and acquire all public water system datasets from the Ohio EPA's Southeast District Office.
7. **Bulk Water Fill Station Identification**
    - Map and document bulk water fill stations using SEDO-provided data.
8. **Private Well Water Quality Data Integration**
    - Integrate AECOM's private well quality data into the GIS Platform, categorized for easy analysis.
9. **Water District Inventory**
    - Ohio EPA will provide information on office locations, contacts, water sources, and total populations served. OU will survey each water district to assess its GIS status and system size (e.g., gallons of water supplied per day). The results will be used to map and inventory all water districts by office location, contact information, GIS status, and system size.
10. **Lead Service Line Inventory Integration**
    - Incorporate lead service Inventory data as provided by SEDO/Ohio EPA.
    - Implement Quality Assurance and Quality Control (QA/QC): After integrating OEPA lead service line mapping data, utilize Ohio Location Based Response System (LBRS) address points and additional verification sources— such as property sales platforms (e.g., Zillow, Realtor.com)—to enhance the accuracy of the Voinovich School's 2019 Drinking Water Accessibility Study.

Subtask #1 Deliverables

1. **Comprehensive Water Distribution Geodatabase**
    - GIS database with mapped water lines, attributes, and service areas.
2. **Block-Level Population Layer**
    - GIS layer integrating population with water system data.
3. **Drinking water accessibility Data**
    - Provide a H3 Hexagons GIS layer for drinking water accessibility and equity analyses
4. **GIS Platform Security and Access Requirements**
    - Secure, user-friendly web platform for interactive data access, visualization, and export, with tiered user access.
5. **Bulk Water Fill Station Map**
    - Map and summary table of bulk fill stations, available in the online application.

6. **Private Well Water Quality Dataset**
    - Integrated well data and summary categorizations.
7. **Water District Inventory Map**
    - Inventory spreadsheet or GIS attribute table of district locations, contacts, GIS status, and size/capacity.
8. **Lead Service Line Inventory Integration**
    - Lead service line data included in the database and mapping application.
9. **Final Report and Documentation**
    - Report summarizing methods, data sources, findings, metadata, and recommendations.
10. **GIS Platform and Visualizations**
    - Public Water System Geodatabase, Online Application, and other requested visualizations.

Subtask #2 - Local stakeholder engagement:

Given OU's connections and understanding in the region, they will be given an allowance in this contract to provide services for the selected consultant for local stakeholder engagement activities. OU will collaborate with local stakeholders to align the goals of the study, scenarios modeled, and projects proposed with regional priorities. OU will assist with communicating with county leaders, water purveyors, and key municipal leaders throughout the project period as needed.

This role will be further outlined and defined by the selected consultant.

Subtask #3: General project team support:

- Assistance bringing the consultant up to speed on local knowledge & data points;
- Contribute OU team expertise on regional water quality, supply, accessibility, and use to the study from goal and scenario development through to project planning and result interpretation;
- Monthly meetings with consultant team to get status updates & provide follow-up support/advice as needed;
- Other miscellaneous consultant support as directed.

EXHIBIT 2

COMPENSATION

REGIONAL WATER STUDY (RWS)

SOUTHEAST OHIO REGION

PAYMENT AND BILLING

All invoices and billing documentation shall be sent in PDF format electronically to **OWDA** at the following email address:

Dan Gill, Chief Engineer
DGill@OWDA.org

OEPA will approve monthly invoices and submit for payment to **OWDA.**

OWDA shall pay ***CONTRACTOR*** as full compensation for the services identified under **EXHIBIT 1** the amount(s) listed below. Task amounts are not limits and may be exceeded provided that the total amount is not exceeded.

If **OEPA or OWDA** contests an invoice, **OEPA** shall promptly advise **CONTRACTOR** of the specific basis for doing so, may withhold only that portion so contested, and must pay the undisputed portion.

Compensation shall be on a not-to-exceed basis. Billing rates will be based on the rates proposed.

Attachment 3

Scope of work

Southeast Ohio Regional Water Study

Ohio University Voinovich School

Point of contact: Jen Bowman, Voinovich School of Leadership and Public Service, bowmanj2@ohio.edu, 740-597-3101

Timeframe: 1-30-2026 to 12-31-2026

Budget: $363,312.00

Funding source: Ohio Water Development Authority

Description: Ohio University Voinovich School (GVS) has a robust GIS and Environmental Water team that is central to the region's water issues and mapping needs. GVS is partnering with Ohio EPA, Ohio Water Development Authority, and stakeholders as part of the Southeast Ohio Regional Water Study (RWS). GVS will provide services for the selected consultant for Southeast Ohio. An allowance of $363,312 is included for GVS to provide the following services to Ohio EPA and to the selected consultant for 24-counties (Table 1). These services are provided in three subtasks.

Table 1. Counties included in the SE Ohio Regional Water Study

Counties			
Athens	Harrison	Meigs	Pike
Belmont	Hocking	Monroe	Ross
Carroll	Holmes	Morgan	Scioto
Coshocton	Jackson	Muskingum	Tuscarawas
Gallia	Jefferson	Noble	Vinton
Guernsey	Lawrence	Perry	Washington

Subtask #1 – GIS platform

Access to accurate and reliable drinking water data is essential for public health, regulatory compliance, and effective water resource management. The Southeast District Office (SEDO) of the Ohio EPA collaborates closely with local water districts, whose water line and service area data come in various formats and levels of detail. This diversity offers

opportunities to improve how we organize and utilize this vital information. Many districts lack GIS data or submit maps in outdated or difficult-to-use formats, making it difficult to identify service gaps, plan infrastructure investments, and conduct meaningful analyses—possibly hindering informed decision-making.

This proposal builds on insights from the Appalachia Ohio Drinking Water Accessibility Initiative report, led by the Voinovich School of Public Service at Ohio University, which was released in September 2022 and revealed significant data availability and quality issues in the region. While this previous study focused on the general accessibility of drinking water, this proposal aims to advance understanding of water systems by integrating OEPA's lead service line data with information from local water districts. By leveraging lead service line inventory and comparing it with data submissions from the local water district, the project will generate a more complete picture of water service line distribution.

The core goal is to develop a secure, standardized GIS Platform consisting of an online application and geodatabase that enables the Ohio EPA to collect, store, visualize, and analyze comprehensive data on drinking water systems. This solution will directly support data-driven decision making, resource allocation, regional planning, and ongoing collaboration among stakeholders across Southeast Ohio. It will also help to prioritize funding for future improvements, reducing the number of Ohioans in Appalachia without access to clean and reliable drinking water.

Ohio University (OU) will provide an updated drinking water accessibility GIS dataset to support the consultant's efforts in developing the Regional Water Study (RWS) final recommendations. This dataset will enable the Ohio EPA to evaluate drinking water accessibility across Southeast Ohio by identifying areas with limited access ("water deserts"), proposing cost-effective strategies to expand service, and pinpointing financial barriers along with potential resources to address them. It will also help prioritize funding for future improvements and reduce the number of Ohioans in Appalachia without access to public water.

Anticipated Project Timeline: The selected consultant will work with GVS in creating a project timeline for the GIS Platform, however, at least 6 months are needed to produce a draft geodatabase.

1. **Project Area and Work Plan**
    - Focus on the outlined 24-county region (Scioto to Carroll).
    - Use Ohio EPA systems' data.
2. **Water Distribution GIS Platform**

- Develop a comprehensive geodatabase covering line locations, pipe size/capacity, age, material, and other relevant attributes from what Ohio EPA data provides.
- Design, build, and deploy a secure, tier level access online application for users to view and interact with data layers.
- Enable integration of multiple data types (lines, service areas, lead service lines, bulk fill stations, well quality, etc.) as data provides.

3. **Population Data Integration**
   - Aggregate drinking water accessibility data layer using the H3 Hexagons with census block-level population figures.
4. **Drinking water accessibility and equity analyses**
   - Provide a GIS layer for drinking water accessibility and equity analyses (based on the 2022 study).
   - Enhance data quality by integrating lead service line inventory.
   - Generation of a drinking water accessibility data layer using the H3 Hexagons.
5. **Data Access and Security**
   - The specific tier-level security access for the GIS platform application will be detailed in guidance provided by the Ohio EPA.
6. **Data Acquisition and Coordination**
   - Coordinate and acquire all public water system datasets from the Ohio EPA's Southeast District Office.
7. **Bulk Water Fill Station Identification**
   - Map and document bulk water fill stations using SEDO-provided data.
8. **Private Well Water Quality Data Integration**
   - Integrate AECOM's private well quality data into the GIS Platform, categorized for easy analysis.
9. **Water District Inventory**
   - Ohio EPA will provide information on office locations, contacts, water sources, and total populations served. OU will survey each water district to assess its GIS status and system size (e.g., gallons of water supplied per day). The results will be used to map and inventory all water districts by office location, contact information, GIS status, and system size.
10. **Lead Service Line Inventory Integration**
    - Incorporate lead service Inventory data as provided by SEDO/Ohio EPA.
    - Implement Quality Assurance and Quality Control (QA/QC): After integrating OEPA lead service line mapping data, utilize Ohio Location Based Response System (LBRS) address points and additional verification sources— such as property sales platforms (e.g., Zillow, Realtor.com)—to enhance the accuracy of the Voinovich School's 2022 Drinking Water Accessibility Study.

Subtask #1 Deliverables

1. **Comprehensive Water Distribution Geodatabase**
    - GIS database with mapped water lines, attributes, and service areas.
2. **Block-Level Population Layer**
    - GIS layer integrating population with water system data.
3. **Drinking water accessibility Data**
    - Provide a H3 Hexagons GIS layer for drinking water accessibility and equity analyses
4. **GIS Platform Security and Access Requirements**
    - Secure, user-friendly web platform for interactive data access, visualization, and export, with tiered user access.
5. **Bulk Water Fill Station Map**
    - Map and summary table of bulk fill stations, available in the online application.
6. **Private Well Water Quality Dataset**
    - Integrated well data and summary categorizations.
7. **Water District Inventory Map**
    - Inventory spreadsheet or GIS attribute table of district locations, contacts, GIS status, and size/capacity.
8. **Lead Service Line Inventory Integration**
    - Lead service line data included in the database and mapping application.
9. **Final Report and Documentation**
    - Report summarizing methods, data sources, findings, metadata, and recommendations.
10. **GIS Platform and Visualizations**
    - Public Water System Geodatabase, Online Application, and other requested visualizations.

Subtask #2 – Local stakeholder engagement

GVS will collaborate with local stakeholders to align the goals of the study, modeled scenarios, and proposed projects with regional priorities. GVS will assist with communicating with county leaders, water purveyors, and municipal leaders throughout the region and across the project period as needed. This role will be further outlined and defined by the selected consultant.

Subtask #2 Deliverables

- Data visualization/dashboard development communications. GVS will identify and communicate with local development districts, county leaders, key municipal leaders, and water purveyors on a regular basis throughout the dashboard development process ensuring transparency and clarification of purpose.

    - Consulting with community planning, economic development and chamber of commerce officials regarding local water needs.
    - Convening local water purveyors and wastewater facilities for facilitated discussions regarding current water and wastewater accessibility, infrastructure needs, and water quality issues. Input will be documented.
    - Convening conservancy districts, organizations, and universities for facilitated discussions regarding surface and groundwater resources. Input will be documented.
    - Convening all stakeholders to review and provide input on the drafted scenarios.
- Subregional Engagement. Three subregional in-person county leader and stakeholder engagement events will be facilitated by GVS early in the process. Subregions will include counties within three local development districts (Ohio Valley Regional Development commission, Buckeye Hills Regional Council, and Ohio Mid-Eastern Governments Association). The purpose of these events will be to gather input for the regional water study ensuring data sources are accurate and the community needs align with the goals of the study.
- County-level engagement. GVS will attend and assist with the consultant's county-level meetings after the data visualization tool has been completed. The purpose of these meetings will be to share the tool, check for accuracy, and ensure the features of the tool are understood and accessible.
- Communication. Share draft study recommendations, interactive dashboard tool, and final study recommendations with Southeast Ohio regional stakeholders.

Subtask #3 – General project team support and deliverables

- Assistance in bringing the consultant up to speed on local knowledge & data points; this will be conducted with several Water and GIS team members
- Review and provide feedback on the data usage plan
- Contribute GVS Water team expertise on regional water quality, supply, accessibility, and use to the study from goal and scenario development through to project planning and result interpretations
- Monthly meetings with consultant team to get status updates & provide follow-up support/advice as needed; both Water and GIS team members will attend
- Other miscellaneous consultant support as directed, to be discussed in the proposal and during the kick-off meetings.

Budget

Category	Title	Hours	Rate	Total	Product Involvement/Role
Staff Personnel	Environmental Program Director	866	$59.78	**$51,772.60**	Project oversight/lead point of contact, Stakeholder engagement lead, external communications, reporting
	GIS Data Analytics and Software Engineering Director	294	$50.99	**$14,991.47**	GIS platform/Project lead for Subtask #1
	Senior GIS Project Manager	1,244	$31.26	**$38,891.05**	GIS platform/Data aggregation and stakeholder engagement
	GIS Analyst	180	$23.79	**$4,282.61**	GIS platform/Data aggregation
	Software Development Engineer	200	$32.26	**$6,452.73**	GIS platform/ platform development
	Environmental Specialist	197	$26.05	**$5,131.90**	Water and waste /Stakeholder engagement
Staff Subtotal				*$121,522.36*	
Faculty	Professor and Director and of Environmental Studies Program		$87.58	**$21,895.08**	Water and wastewater/Data review and stakeholder engagement
Student	Graduate student	200	$17.00	**$3,400**	GIS platform/assisting with platform development
	Undergraduate student	300	$15.00	**$4,500**	Water and wastewater/ assisting with stakeholder engagement
Student Subtotal				*$7,900.00*	
Benefits	Medicare, Retirement, Workers Comp, Insurance calculated at 38% for staff and faculty 16% for students			**$56,590.64**	
Contractor		1,000	$48.00	**$48,000.00**	Dashboard, modeling, and data review
Travel				**$1,760.00**	
Subtotal				*$257,668.08*	
Indirect	41% Public service negotiated rate			**$105,643.92**	
Total				**$363,312.00**	

Invoices will be sent on a quarterly basis 30 days after the following time periods on a cost reimbursable basis: January 30 - March 31, 2026, April 1 - June 30, 2026, July 1 - September 30, 2026, October 1 - December 31, 2026.