Southwest Virginia Comprehensive Regional Wastewater Study

Request for Proposals
April 1, 2022

The Problem

The planning, design, construction, operation, and maintenance of public wastewater collection and treatment infrastructure is one of the most fiscally challenging issues facing local governments within the LENOWISCO, Cumberland Plateau, and Mount Rogers Planning Districts of far Southwest Virginia. Many communities have sewerage systems that are aged, perhaps beyond their useful life. These same communities are finding it increasingly more difficult to adequately serve their existing customer base, much less expand to serve adjacent unserved areas where growth, development, and water quality issues warrant public sewer service. Rural Southwest Virginia includes clusters of residential development that currently have no acceptable means of wastewater treatment. These built-up areas either discharge into inadequate on-site systems or discharge directly to surface water. Whereas extensions of existing centralized systems (expansion of existing collection systems to serve areas that are currently not served by a public wastewater system), are often considered viable alternatives, topography, rural setting, capacity of existing systems, existing service area boundaries, socio-economic factors unique to Southwest Virginia, and availability of affordable funding, make it difficult to coordinate service to constituents outside of current service area boundaries. When a centralized system is cost prohibitive or not feasible, decentralized systems can and should be considered.

The Outcome

The existing Southwest Virginia Regional Wastewater Study was completed in 2005. Since then, a number of projects identified in the original study have been realized. However, this study is in need of revision, not only to identify and remove projects that have been partially or fully completed, but also to update feasibility, costs, and broadly identify needs of existing wastewater collection and treatment systems, particularly when considering expansion of centralized systems into areas where public wastewater collection and treatment is absent.

An update to the Southwest Virginia Regional Wastewater Study is also needed to serve as a road map for the future implementation of sewer projects in Southwest Virginia, just as the Virginia Coalfields Regional Water Study (VCRWS) did in 1998 for drinking water projects, and because the Coalfield Water Development Fund is proposing to implement a wastewater demonstration project similar to the drinking water demonstration project. An updated study will also serve as a basis for need and costs for current and future Clean Watersheds Needs Survey efforts required by the Environmental Protection Agency for the Virginia Clean Water Revolving Loan Fund Program and for the upcoming Commonwealth Needs Assessment promulgated in 2021.

The LENOWISCO, Cumberland Plateau, and Mount Rogers Planning District Commissions (hereafter referred to as "PDCs") have received funding from the Department of Environmental Quality (DEQ) for the completion of a comprehensive regional wastewater service plan for planning districts One, Two, and Three. In accordance with the Virginia Public Procurement Act, the PDCs are jointly soliciting qualification statements from qualified engineering firms for completion of this study.
The study would, at a minimum, provide the following:

1. An inventory of existing public wastewater collection and treatment systems, particularly those recommended to receive flow from proposed new service areas, including the permit numbers, approximate number of service connections, owner, general age, physical condition, design flow, service area map, persistent permit violations and/or overflow issues, hydraulic limitations, and needs, including any repair/upgrade recommendations, and associated estimated cost necessary if a system is to effectively collect and treat wastewater from existing or new service areas. Of particular importance would be any hydraulic limitations associated with expansion into new service area(s) that would have to be addressed to avoid adverse consequences associated with collection and/or treatment of any additional wastewater.

2. Update the existing 2005 Study by identifying and removing projects that have been realized since the Study was completed. For those projects previously listed but not realized or only partially realized, verify that they are still valid projects by updating description, need, mapping, needs matrix, and cost information. Similar to the original Study, identify any new projects or unserved areas in need of wastewater treatment service such as:
   a. Areas that would be served by expansions of existing systems.
   b. Areas that could be served by new conventional systems.
   c. Areas that would be served by expansions of existing systems and/or construction of new systems on a regional basis resulting in a regional owner or authority serving multiple jurisdictions.
   d. Areas that need to be served by alternative systems, including alternate and decentralized wastewater systems.
   e. The basis for determination of the need for service including areas of environmental concern based on existing water quality impairments, poor soils and/or inadequate disposal including failing on-site systems and straight piping.
   f. Approximate service population and number of potential connections in proposed project areas.

3. An analysis of the ownership, operation and maintenance of public wastewater collection and treatment systems (existing and proposed) including conventional and decentralized managed systems.

4. An education component narrative with particular emphasis on ways to promote public education and knowledge about the importance of adequate public wastewater collection and treatment with regard to quality of life, water quality, growth and development, etc.

5. Development of a methodology for a preliminary determination of the cost effectiveness of decentralized managed systems.

6. A discussion of alternatives for addressing the wastewater needs in the study area and recommendations for the most cost effective solutions to address those needs.

7. Priority ranking of the most cost effective proposed projects to the least cost effective, both for new centralized as well as decentralized systems based at least on cost, public health risk, and environmental benefit.
a. This will include the consideration of capital costs and life-cycle costs associated with the recommended improvements. This could also include phasing to break up proposed larger projects into more cost-effective singular projects.

b. In addition to 7(a), this analysis should also address the issues related to ownership, operation and maintenance of said systems improvements.

c. This section should also include discussion of the establishment of priorities for implementing the recommended improvements along with recommendations for sources of financing and address issues associated with generating revenues to cover debt service and operation and maintenance costs.

d. This section should also include discussion on the cost-effectiveness of a project, anticipated cost/connection, growth potential (whether residential or commercial), and establish a benchmark cost/connection with respect to affordability given socio-economic factors or trends such as MHI, population, rate structure, etc., to enable a reader to draw conclusions on the type of funding (loan, grant, or a combination) needed to realize a project.

e. Finally, this section should include ways for local, state, and federal governmental agencies, particularly funding agencies, to work collaboratively to effectively and efficiently use available resources and funding to advance projects.

**Input**

It is understood that the successful offeror will work with the following during the course of this study and use documentation available to identify needs and problems areas:

1. The Consultant will meet periodically throughout the project with the Project Management Team (PMT) to provide updates on the status of the deliverables and solicit feedback and direction from the PMT. The PMT will include representatives from the three PDCs plus a representative from the DEQ-CWFAP. Due to the timeline, these meetings should be monthly at a minimum. The Consultant will provide a written status report each month detailing work completed for the period, tasks completed or started to date, and an estimate of overall completion percentage for the month and overall.

2. The successful offeror, in conjunction with the PDCs, will participate in no less than two public informational meetings to present the intentions of the study at its inception and to present key findings and recommendations of the study at its conclusion.

3. Solicit input from the Virginia Department of Health (including local Environmental Health Specialists) and the Virginia Department of Environmental Quality as to existing pockets or areas of concern, and issues related to recommendations to address wastewater collection and treatment problems identified in these areas of concern.

4. Solicit input from existing providers of sanitary sewer services in the study area to assess their view of existing wastewater issues and how to address them.
5. Solicit input from local watershed groups and other interested groups (such as the Nature Conservancy, Soil & Water Conservation Districts, etc.), to ascertain particular areas of concern from their perspective or purview.

6. Review the current 303d/305b Water Quality Integrated Report including fact sheets, TMDL documents, Implementation Plans, and other pertinent planning documents for the areas covered by the three PDCs.

The Proposal

The PDCs desire to secure engineering services from a qualified, licensed firm or team of firms for the completion of the comprehensive wastewater study. A contract for these services would not exceed eight (8) months and payment will be based on threshold completion criteria. A draft document would be due by October 31, 2022 and final completion by December 31, 2022.

The successful offeror will provide 8 final copies of the study to the PDCs and DEQ (two each to the respective PDCs with two going to DEQ) and will provide the study in full digital format (specific specifications will be discussed during contract negotiations). The PDCs will retain all copyrights to all materials produced.

Qualified licensed engineering firms shall provide the following information in the statement of qualifications:

1. A detailed outline of the tasks proposed and necessary to achieve the identified outcomes.

2. A schedule for completion of said tasks identified in #1 (not to exceed 8 months) and actions to be taken if said interim timetable slips or is not met so as to get back on schedule.

3. A breakdown of the individuals that will work on this study, including but not necessarily limited to, their experience and expertise related to this or other similar studies, and what their specific roles will be.

The LENOWISCO, Cumberland Plateau, and Mount Rogers PDCs are not liable for any costs incurred by any firms prior to issuance of a contract.

Selection Criteria

The criteria for review of qualifications statements and selection of an engineering firm will include:
- Knowledge and familiarity of the firm(s) with Southwest Virginia (i.e., footprints of Planning Districts 1, 2, & 3).
- Knowledge and familiarity of the firm(s) with existing wastewater systems in Southwest Virginia.
- Knowledge and familiarity with demographic and socio-economic trends of Southwest Virginia as a whole, and in particular the coal-bearing regions, compared to the rest of the Commonwealth.
- Past record of performance on contracts with the LENOWISCO, Cumberland Plateau or Mount Rogers PDCs particularly with large documents similar to the 2005 Southwest
Virginia Regional Wastewater Study, and/or other clients in the service area, including quality of work, timeliness of completion, and cost control.

- Average time frame for completion of past projects similar in size and scope.
- Ability of the firm to provide data and mapping in digital format.

Qualifications statements will be evaluated based on the criteria contained herein by a committee chosen by the LENOWISCO, Cumberland Plateau, and Mount Rogers PDCs. Interviews will be conducted with at least two of the top-ranked firms. The final selection will be based upon those interviews.

Equal Opportunity Employer

The PDCs are Equal Opportunity Employers. Proposals from minority, female-owned and local firms are invited. All responding firms shall comply with Executive Order 11246.

Immigration Reform and Control Act of 1986

By submitting this statement of qualifications, the respondent certifies that it does not and will not during the performance of this contract violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

Submittal of Proposals

Proposals must be received by 4:00 PM on Tuesday, April 12, 2022 in order to be considered. Late proposals will not be considered. Four (4) physical copies and one (1) digital copy of the material should be submitted for review by the selection committee. Additional information and the full RFP can be obtained by contacting Joe Blevins, Mount Rogers PDC, at 276-783-5103, ext. 314, jblevins@mrupdc.org.

Submit proposals to:
Joe Blevins
Mount Rogers Planning District Commission
1021 Terrace Drive
Marion, VA 24354

Authorized by:
Aaron Sizemore, Executive Director
Mount Rogers Planning District Commission
&
Duane Miller, Executive Director
LENOWISCO Planning District Commission
&
Scotty Wampler, Executive Director
Cumberland Plateau Planning District Commission

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