

**REQUEST FOR QUALIFICATIONS**  
**I&I REDUCTION AND RELATED GIS PROJECT**  
**WATER SYSTEM GIS PROJECT**  
**September 9, 2022**

The Flathead County Water District No.1 – Evergreen (District), Flathead County, Montana is requesting sealed qualifications packages from qualified firms, teams, or consultants (the consultant) interested in providing professional engineering services to the District in support of two separate projects.

The first project, I&I Reduction and Related GIS Project, funded by federal ARPA monies administered by the State of Montana, will focus on reducing infiltration and inflow (I/I) into the wastewater system. Project objectives include updating the District's existing geospatial information system (GIS) for the sewer collection system, managing a qualified flow monitoring subcontractor to determine I&I repair locations, development of a Sewer CAD model that will be owned and operated by the District in order to properly plan the I&I Projects currently in the ARPA-approved Project Scope, preparing bidding and construction documents for I/I reduction projects based on data analysis, and providing construction administration and inspections services for I&I repairs. Consultant services include supporting analysis, planning, permitting, engineering design, preparation of construction drawings and specifications, and assistance during bidding and construction. Support in obtaining additional funding may also be requested by the District.

- The second project relates to updating the District's existing GIS for the entire water system. This project is not currently qualified to receive federal ARPA funding and will be managed and funded entirely separately from the I&I Reduction and Related GIS Project. Project objectives include collecting GPS survey data on all of the key facilities in the District's water systems; updating the District's ArcGIS database and web interface, and development of new Water CAD models that will be owned and operated by the District. The original Water CAD model in an older format owned and operated by Carver Engineering on behalf of the District will be provided to the selected consultant to assist in developing the new Water CAD model.

There are no specific water infrastructure projects other than the GIS update and model development anticipated for this second project. The water system project will have a completely separate budget from the Sewer I&I Reduction and related GIS project.

The District invites qualified consultants to submit a qualification package based upon the scope of the work contained within this Request for Qualifications (RFQ). The District shall not be held responsible for any oral instructions. Changes to this RFQ will be advertised or can be found on the District's website:

<http://www.evergreenwaterdistrict.com/>.

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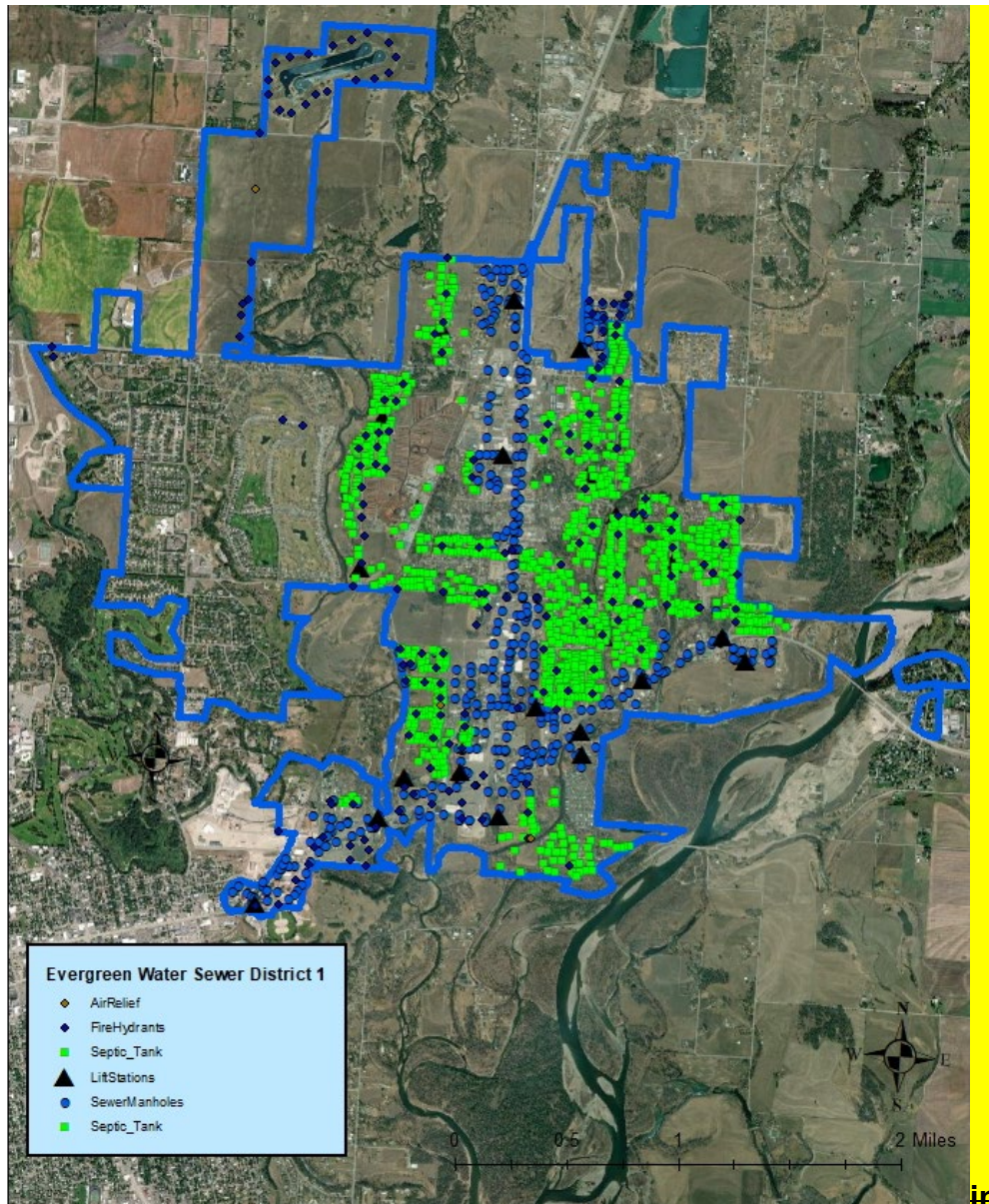


This document is intended to provide interested consultants with sufficient information to prepare and submit a statement of qualifications (SOQ) for consideration by the District. The District reserves the right to reject any or all SOQs, to waive any informality or irregularity in any SOQ received, and to be the sole judge of the merits of the respective SOQs received. The Service Provider will be selected on the basis of demonstrated competence and qualifications for the type of services required and thereafter the District will negotiate the services agreement with what it deems to be the most qualified company. Even though the work will be divided into two separate projects, the District will award one (1) contract to complete both projects and the scope of work described herein.

Request for Qualifications issued:	September 9, 2022
Pre-submittal Meeting (virtual):	September 19, 2022
Due date for written questions to District:	September 21, 2022
Final Written Clarifications by District:	September 23, 2022
Qualifications Submittal Due Date:	October 7, 2022
Interviews (if required):	October 12-14, 2022
Notice of selection issued:	Target: October 19, 2022, or next regular Board meeting after interviews conclude (meetings are the 3 <sup>rd</sup> Wednesday of every month)
Anticipated project value:	\$984,888 ARPA funds for sewer-related projects; FEMA funds may also be available to flood-related mitigation; water system-related projects within the scope of this RFQ are not yet budgeted
Anticipated project duration:	30-36 months from NTP

## **SECTION 1 – BACKGROUND AND PROJECT DESCRIPTION**

The District currently operates a wastewater collection system within the Community of Evergreen which is divided into twenty-six separate collection areas, and a water system that consists of 11 wells, two reservoirs holding 2.6 million gallons, two pressure zones, and both PVC and AC pipe. The wastewater system consists of 15.14 miles of conventional mains; 25.05 miles of small diameter lines serving septic tanks, and 10.05 miles of force mains, including the force main that connects Lift Station 19 with the City of Kalispell Wastewater Treatment Plan. The gravity and pressure pipelines range in size from 4 inches to 21 inches. The District also owns, operates, and maintains 26 wastewater pumping stations (lift stations), approximately 1700 septic tanks and an unknown number of effluent pumping (STEP) systems (38 of these systems have GPS coordinates). Some of the District's infrastructure assets have exceeded their design useful life. The water system consists of 11 groundwater wells, 2 reservoirs, 334,600 lineal feet of watermain ranging from 4 inches to 14 inches, and a myriad of control valve stations. See Figure 1 detailing the boundaries of the District's water and sewer system.



**Figure 1. Evergreen Water and Sewer District Service Area**  
(Boundary source: Flathead County GIS)

The District currently uses ArcGIS to review, edit, and store its GIS data in an online server. The data that will be updated as part of this project will support future system management efforts including master planning, hydraulic modeling, I/I analysis and prioritization, flood risk assessments, and asset management.

To improve District overall operations, the existing GIS system database must be updated to more accurately reflect its wastewater and water assets. Critical physical data is missing for assets, and location of these assets requires confirmation. In some of the District's service areas, District assets may be completely unaccounted for in the current GIS database, requiring District staff to rely on historical drawings and other



documentation for information.

A summary of assets and need for additional survey to be obtained as part of this project are listed below.

### **Wastewater**

Updated vertical and horizontal survey data are needed at each manhole rim in the system. The datum will be determined during scoping. Approximately 688 manholes are currently in the GIS database. Manhole invert and pipe invert elevation data will be needed at each manhole where observed pipes are equal to or greater than 6-inches.

Wastewater pipes are not digitized in the system. This project will include digitizing the pipes between manholes and fittings (i.e., force mains) in the direction of flow.

The District owns and maintains 26 lift stations. At each lift station, the wet well rim and bottom elevations will be surveyed. Wet well shape and dimensions (i.e., diameter and height) and invert elevations of influent pipes will be documented.

### **Water System**

GIS currently contains data the following:

- 344 control valves. Approximately 100 additional valves are to be surveyed for horizontal location.
- 173 hydrants. Approximately 100 additional hydrants are to be surveyed with horizontal location.
- Surveyed data will be needed at additional sites including reducers, pumps, and tanks.

The District also plans to use the GIS as a repository to track parcel records (e.g., easements and deeds). Currently the parcel records are in hardcopy format. The consultant will scan the documents and link to parcel data in the GIS as part of this project.

In June 2022 storms exceeding 10-year recurrence in addition to high snowmelt resulted in flooding in the Flathead River drainage. During peak river elevations, a significant section of the District's wastewater collection system mostly located within the 100 year flood plain experienced unprecedented I/I. See County GIS 100-year floodplain overlay to District boundaries. District staff monitored system performance in this area and following subsidence of floodwaters, identified several pipe reaches that may require replacement or rehabilitation to prevent future similar conditions and I/I impacts.

A Preliminary Engineering Report (PER) was prepared for the District's Wastewater Collection System (completed in July 2021) which evaluated I/I sources and mitigation measures throughout the collection system and assessed the condition of all of the District's lift stations. This report identified several target areas of the collection system, including pipe reaches and manholes, as well as septic tanks that should be rehabilitated or replaced to achieve I/I reduction targets.

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Additional information is available for review in preparation of a response and is downloadable from the District's website. This information includes:

- Preliminary Engineering Report (July 2021, prepared by IMEG and Manion Engineering)
- Existing GIS datasets (an export file can be provided for purposes for preparing a response to this RFQ upon written request).

This project will support the District in updating the existing GIS databases for water and wastewater. Many of the key activities associated with the GIS project are closely tied to the District's desire to reduce inflow and infiltration (I/I) within a key area of its sewer collection system. This project will also provide analysis, planning, permitting support, engineering design, preparation of construction drawings and specifications, bidding assistance, and construction administration for an I/I mitigation project. Support in obtaining additional funding for both efforts may also be requested by the District.

## **SECTION 2 - SCOPE OF WORK**

The final Scope of Work will be established during negotiations, but key tasks and work items will include the following:

### **Task 1 – GIS Improvements**

1. Review of the existing GIS databases and available documentation to identify missing and inconsistent information. Identify potential changes to database content to support future GIS needs including hydraulic modeling and future efforts to prioritize I/I reduction. Wastewater data requested by the District is included in Attachment 1. Work with the District to assess the District's request and make justifiable recommendations for changes or additions. Similar horizontal location data is expected of water system component for hydrants, valves, diameter changes, tanks, and pumps.
2. Review the District's current IT platforms and assess the existing IT system's capacity to accommodate recommended changes. As requested, provide support to the District to implement necessary changes to hardware, software, and workflow.
3. Develop a data collection plan to obtain updated and missing information for water and wastewater assets that will be input into the District's existing GIS database. The plan will support meeting the District's current and future needs for GIS functionality while maximizing allocated funding. The plan will provide a defensible rationale for the proposed data collection activities and summarize benefits and additional next steps (if required). The plan will also describe steps the consultant will take to minimize disruption to operation and maintenance activities, District customers and the community.
4. Collect field data for water and wastewater assets and incorporate new information into existing GIS databases. See Attachment 1 for anticipated fields to be added to GIS. Consultant will need to digitize all the water and sewer as-built plans as part of the GIS update.
5. As directed by the District, use provided records (e.g., property deeds, plat sheets, as-builts) to digitize and incorporate into GIS databases. Add hyperlinks and other fields as identified by District
6. Provide recommendations for future GIS data collection and management. Support development of additional tools required by District for ongoing GIS data management.

### **Task 2 – Flow Monitoring**

1. Consultant to review available system data (e.g., SCADA data, pump run times) and previous flow monitoring data to support meeting the District's objectives, including effective I/I reduction.
2. Based on the data review and District objectives, Consultant to provide

recommendations on locations, implementation dates and durations for flow/precipitation monitoring.

3. Consultant to self-perform or contract/manage a qualified flow monitoring contractor to perform monitoring and provide the electronic data, report, and analysis results.

### **Task 3 – I/I Reduction Evaluation, Design and Construction**

1. District is seeking recommendation on previously identified projects for targeted I/I source detection and removal, including affected pipe segments impacted by the June and July 2022 flooding event. Review the District's collected information related to system performance during the flooding event. Provide initial analysis on the District's conclusions and give recommendations for any additional data collection required to confirm the observed impacts from I/I within the subject area of the collection system. Identify other existing information that may be useful to the project.
2. Prepare a work plan to collect any additional data as recommended by the consultant to complete the evaluation and subsequent design and permitting phases. It is anticipated that any data collected will be made available to potential contractors and should support accurate cost estimating/bidding and safe and efficient construction activities.
3. Develop engineering concepts, life-cycle costs, and implementation schedules for up to three (3) project alternatives. Collaborate with the District to evaluate alternatives and select a preferred alternative.
4. Develop permitting applications and technical content for Montana DEQ and other local, state, and federal agencies as required.
5. Prepare construction drawings and specifications. Prepare 30%/60%/90%/100% complete engineering drawing and specification packages for review and comment by the District. Designs shall comply with DEQ and other local, state, and federal requirements.
6. Develop construction cost estimates at the corresponding level of design detail. Estimate accuracy shall follow AACEI cost estimating guidelines.
7. Provide bidding assistance, including preparation of bid documents; holding a pre-bid meeting; responding to bidder questions as needed; issuing addenda as required; conducting bid opening, tabulation and analysis of bids received; providing recommendation of award; and preparing of notice of award, construction contract and notice to proceed.
8. Construction assistance including construction administration and inspections; review of monthly Contractor pay requests; weekly progress reports to the District; issuing, evaluating, and managing change orders; independent cost estimating; and attendance at District Board meetings as required.
9. Project closeout, including required certifications; preparation of Record Drawings



and Operation and Maintenance Manuals; and final funding and permitting/regulatory agency reporting.

#### **Task 4 – Project Management**

1. Coordinate with the District's staff on specific project requirements throughout the planning, design, bidding, and construction phases of the project. Prepare and distribute agenda and meeting minutes.
2. Manage scope, schedule, and budget. Provide project updates to the District on the status of scope elements in progress/completed, schedule status and budget performance. Document and track project changes through a documented change management process.
3. Support funding Agency coordination and compliance assistance. The consultant will aid the District in complying with agency funding requirements including preparing District reimbursement requests, progress reporting, monitoring contractor reporting of prevailing wage compliance, and other tasks as required. The project will be funded in part with grants or loans or a combination of both.
4. Risk Management. Track and monitor potential project risks during all phases of the project using easily communicated methods. Develop and implement risk mitigation measures in planning and design phases.
5. Quality Management. Develop, implement, and monitor quality processes (quality assurance/quality control, QAQC) for all aspects of the project. Provide documentation of quality processes with each formal deliverable.
6. Invoicing and progress reports. Prepare and deliver monthly invoices and progress reports. Submit information (format, content) to comply with funding agency requirements.

Additional tasks may be added to the work during negotiations or by contract amendment.

### **SECTION 3 - PROJECT DELIVERABLES**

It is anticipated that the project will consist of, but not limited to preparation of meeting agenda and minutes; project work plans; task-related technical memoranda; electronic data sets; permitting documents; engineering reports, construction drawings and specifications; record drawings; and other related content, materials, and activities, including an updated and fully functional GIS system and hydraulic model with result reporting. Further deliverables may be negotiated with consultant's scope.

### **SECTION 4 - SUBMITTAL FORMAT, RFQ CONTENT AND EVALUATION CRITERIA**

Five (5) hard copies and one searchable digital copy of the SOQ must be submitted by 3:00 pm (Local Time) October 7, 2022, to:

Flathead County Water District No.1 – Evergreen  
Attn: Assistant General Manager

130 Nicholson Drive  
Kalispell, Montana 59901

Responses will be received no later than 3:00 pm (Local Time) in a sealed envelope clearly marked on the outside “**Sewer I/I Reduction and related GIS Project and Water System GIS Project**”. Legibility, clarity, and completeness is essential.

The SOQ must be organized in accordance with this section. Brevity is appreciated by the District’s staff and Board Members reviewing the SOQs. The SOQ may not exceed the page limits described below and font size shall be 11 point or larger. Covers, dividers, and a table of contents are not included in the page count.

Key personnel resumes shall be included in Appendix A as outlined below and not included in the page count. When using double sided printing, each side of a page is counted as one page. A SOQ exceeding the specified number of pages may be considered non-responsive, and the SOQ may not be considered.

The SOQs shall contain the following information at a minimum:

1. The firm’s legal name, address, and telephone number;
2. The experience and qualifications of the staff to be assigned to the work;
3. A description of the firm’s prior experience working in the Flathead Region as well as experience with similar projects including the name of the local official knowledgeable regarding the firm’s performance (references);
4. A Description of the firm’s project team’s current work activities and how these would be coordinated with the project, as well as the firm’s anticipated availability and local presence and inspection during the term of the project;
5. The firm’s preliminary work plan with each team member’s responsibility.

To provide for a degree of consistency in review of the SOQs, firms are requested to prepare their SOQs in the standard format and points given below.

### **Introductory letter**

**(Not to exceed one page, 0 points)**

If desired an introductory letter can be provided and limited to one page and will not be scored.

### **Qualifications of the Firm and Professional Personnel Assigned to the Project**

**(Not to exceed 4 pages, 25 points)**

Provide an overview of the consultant team highlighting their experience, qualifications, and technical capabilities that are relevant to the project. Briefly describe the consultant’s team key personnel’s experience, qualifications, and role on this project. Identify specific personnel who have experience with ARPA and FEMA grants and other public or private sources of funding. Identify specific personnel who would be involved in grant management for these projects. Resumes for the key staff shall be provided in Appendix A but will be scored within this section. Provide an organizational chart of the proposed

project team

### **Previous Project Experience and Project Examples**

**(Not to exceed 4 pages, 30 points)**

Provide descriptions of projects delivered by the project team that addressed similar scope and complexity of work. Writeups should clearly demonstrate relevance to this project. Identify proposed team member involved and respective roles on provided projects. Include a phone number and email address for each references. Higher value will be given to projects completed in the past 10 years and to projects completed in the Flathead Valley with proximity to the District. The District is not responsible for assuring that listed reference contact information is correct nor that the listed references respond the District's request for a referral. Consultants are advised to verify contact information and notify potential references prior to submittal.

### **Project Understanding and Approach**

**(Not to exceed 5 pages, 30 points)**

Describe your team's understanding of the project and your project approach to delivering the scope of work described herein to meet the District's objectives. Identify challenges, risks and mitigation strategies. Identify how your team will meet budget and schedule requirements while providing the best value and project outcomes. Describe your team management approach. Provide a project schedule showing key task and activity durations, major milestones and deliverables, and critical path activities. The schedule shall be legible and provided on an 11"x17" in landscape format (included in page count). A schedule narrative should accompany the schedule describing the team's ability to meet the proposed project duration.

### **Present and projected Workloads with Capability to meet Time and Budget Requirements**

**(Not to exceed 1 page, 15 points)**

Provide a discussion regarding the anticipated workload for the Project Manager and identified key staff during the time frame this project will occur (Month, Day, Year – Month, Day, Year). Provide a brief description of the tools and processes used to manage the project and budget.

### **Appendix A: Key Staff Resumes**

**(No page limit, 0 points – Points awarded in above scoring above)**

Provide 1- page resumes for the consultant's team Key Staff

## **SECTION 5 - GENERAL INFORMATION**

The District may select one or more firms submitting SOQs as finalist. Finalist may be interviewed to further establish qualifications. One firm will be selected to submit a formal scope of services and fee for the work and to negotiate a contract with the District. If an appropriate agreement cannot be reached with the highest ranked firm, the second

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ranked firm may be invited to submit a scope and fee proposal and negotiate a contract with the District.

The District reserves the right to reject any or all SOQs and re-advertise, to waive any irregularities in the SOQ, and to accept the SOQ that best benefits the District. The District reserves the right to negotiate an agreement based on fair and reasonable compensation for the scope of work and services proposed as well as the right to reject any and all responses deemed unqualified, unsatisfactory, or inappropriate. All SOQs received become property of the District. The District is not responsible for any cost associated with preparing SOQs in response to the RFQ.

Questions regarding this procurement shall be directed to solely to Rob Collier, Assistant General Manager Flathead County Water District No.1 – Evergreen, 130 Nicholson Drive, Kalispell, MT 59901, 406-257-5861, or [rcollier@evergreenwaterdistrict.com](mailto:rcollier@evergreenwaterdistrict.com).

All questions must be submitted by the date and time indicated herein. Questions received after the identified date may not be answered prior to the due date for the consultant response to the District.

Except for the advertising date and published due date, the District reserves the right to modify the procurement timeline at its discretion without notice to respondents.

Legal Ad: Daily Interlake Publication dates September 9 and September 23, 2022.

Also, District Website Notice beginning September 9, 2022

## Attachment 1

### GIS Data Fields – Data Requirements.

Note, the following are anticipated fields the upgraded GIS wastewater database will contain. The consultant is expected to populate all **BOLDED** fields if field survey is completed for a specific asset. During scoping phase, the consultant and District will determine work effort/approaches to populate the fields.

**Table 1. Potential Wastewater Line Fields and Attribute Data to be Included in GIS.**

Field
<b>Link ID</b>
<b>Upstream (U/S) and Downstream (D/S) manhole/node IDs. Wet well influent inverts to be included</b>
<b>Diameter</b>
<b>Status</b>
<b>Type</b>
Pipe Material
Owner
<b>Upstream (U/S) Invert Source</b>
<b>Upstream (U/S) Invert Elevation</b>
<b>Downstream (D/S) Invert Source</b>
<b>Downstream (U/S) Invert Elevation</b>
<b>Lined</b>
<b>Cover</b>
Install Year



**Table 2. Potential Wastewater Node Fields and Attribute Data to be Included in GIS**

Field
<b>Node_ID</b>
<b>X-, Y-Coordinates</b>
<b>Ground (Rim) Elevation</b>
<b>Invert Elevation</b>
<b>Type</b>
<b>Rim Elev_Source</b>
Node diameter. <b>For wet wells, dimensions are to be included.</b>
Installation Date
<b>Invert_Elev_Source</b>
<b>Lined</b>
<b>Type</b>
<b>Sealed</b>
<b>Cover</b>
Owner