

**CHAGRIN RIVER WATERSHED PARTNERS, INC.**

**NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM SCIENCE COLLABORATIVE GRANT**

**Implementing Credits and Incentives for Innovative Stormwater Management**

**REQUEST FOR QUALIFICATIONS AND EXPRESSION OF INTEREST**

**For**

**Hydrologic Monitoring of Stormwater Best Management Practices**

**April 30, 2012**

**SECTION A: PROJECT OVERVIEW AND ELIGIBILITY**

The Chagrin River Watershed Partners, Inc. (CRWP) is seeking a qualified professional or organization to collect data to characterize the hydrologic performance of six innovative stormwater best management practices (BMPs). The Best Management Practices (BMPs) to be monitored may include bioretention, pervious pavement, enhanced swales, grass filter strips, and dry detention basins retrofitted to provide additional infiltration. The individual or organization must have significant and relevant experience related to: the installation, instrumentation and maintenance of flow measuring equipment; the installation, instrumentation and maintenance of precipitation gages and other weather/climate monitoring equipment; and data collection, quality assurance/quality control (QA/QC) and reporting.

This project is supported by the National Estuarine Research Reserve System (NERRS) Science Collaborative, a partnership of the National Oceanic and Atmospheric Administration and the University of New Hampshire. This project is a collaboration of the Chagrin River Watershed Partners, Inc., Old Woman Creek National Estuarine Research Reserve (NERR), Ohio Department of Natural Resources Divisions of Soil and Water Resources (ODNR-DSWR), Erie Soil and Water Conservation District (SWCD), and the Consensus Building Institute. These organizations form the core NERRS Science Collaborative project team for this project and will review all submittals to CRWP.

The total maximum budget available for monitoring under this grant is \$245,000 of which \$90,000 is budgeted for equipment and \$155,000 is budgeted for personnel. The equipment is proposed to be purchased and owned by CRWP with technical assistance related to selection provided by the selected contractor. This amount shall not be exceeded under any circumstances unless written authorization is obtained from CRWP. CRWP anticipates award of a contract in June 2012 with all work being completed by August 2014.

**SECTION B: BACKGROUND**

CRWP is a non-profit organization that provides technical assistance to our 37 member communities including the cities, villages, townships, counties, and park districts in the Chagrin

River watershed. CRWP develops cost-effective, prevention-focused solutions to minimize new, and address current, natural resource management problems. Chagrin River Watershed Partners' work, including model ordinances for riparian setbacks and stormwater management and technical guidance for local communities to facilitate the adoption and implementation of codes and stormwater management programs, is in use throughout northeast Ohio.

The organizations listed above comprise the project team, however a larger "Collaborative Learning Group" that represents all facets of the stormwater profession including state and local stormwater regulators, community and development engineers, local communities, and stormwater utilities is integrally involved in this project. The primary objectives of this project are to generate credible and locally verified performance information about innovative stormwater systems and to develop science-based tools that promote the use of practices that minimize the impact of stormwater on Ohio's coastal communities and Lake Erie.

The collaborative learning group will use the selected projects as a learning process to evaluate current design standards in Ohio. Over the next 3 years, a total of 6 BMPs will be monitored for hydrologic and hydraulic performance. The BMPs will be designed or retrofitted per CRWP specifications to accommodate hydrologic monitoring equipment. This monitoring data will be combined with data sets from similar monitoring activities to model the performance of LID BMPs and their effectiveness in reducing peak discharges and runoff volumes. Costs of BMP design, construction, and maintenance will also be documented. Based on these results, the project team and collaborative learning group will:

- Translate the results of this research into user friendly design tools for stormwater professionals,
- Make recommendations regarding design guidance and stormwater regulations, and
- Develop credits and incentives to encourage the use of the most effective systems.

For more information on this project please see the attached project brief: *Evaluating Stormwater Solutions in Ohio*.

### **SECTION C: SCOPE OF WORK/SERVICES REQUIRED**

1. Review available guidance and research on monitoring of innovative BMPs, visit existing BMP monitoring facilities/monitored BMPs in Ohio, and seek input/feedback from experienced researchers with the project team.
2. Provide input on BMP design and/or retrofit modifications to facilitate flow monitoring.
3. Develop project-specific monitoring protocols, standard operating procedures, and quality assurance project plan (QAPP).
4. Work with CRWP to purchase appropriate equipment. If an alternative to equipment purchase/rental is proposed, detail proposed approach in RFQ submittal.
5. Instrument six innovative BMPs selected by project team and collaborative learning group:
  - a. Establish weather station at each BMP site to continuously collect precipitation data and provide information needed to calculate evapotranspiration

- b. Design and install appropriate flow monitoring equipment so discharge over the range of rainfall events will be directed through a weir or flume; similarly instrument the inflow(s) to the BMP as practicable; calibrate weirs to develop a stage-discharge relationship
  - c. Fit each BMP with a water table well and pressure transducer with data logger to record depth of saturation
6. Routinely inspect and maintain monitoring equipment in peak operating condition, minimum of once per month.
7. Collect continuous rainfall-runoff data for spring through fall (April 1 - October 30) with equipment installation beginning in June 2012 and monitoring through August 2014.
8. Generate scientifically sound evapotranspiration estimates for the period of record.
9. Provide all raw data and processed data in an Excel spreadsheet format agreed to with project team on a quarterly basis.
10. Remove all equipment and return to CRWP at conclusion of monitoring study
11. Provide interim and final written summary reports of monitoring activities to include at least description of the sampling procedures and data management/processing methodologies, a summary of monitoring results, QA/QC procedures and documentation, and a log of observations and issues encountered during instrumentation and data collection, and how any issues were resolved.
12. Participate in quarterly NERRS SC collaborative learning group meetings as needed. Expectations include attendance at 2 half-day quarterly meetings each year to provide input on this project and presentation on monitoring components. Meetings are held in rotating locations and will include site visits to projects monitored under this grant.
13. Provide on-site training to project team and CLG on hydrologic monitoring equipment and BMP sampling protocols.
14. All records (protocols, plans, reports, maps, photos, field sketches, raw and processed data, documentation of data QA/QC, design calculations, electronic files, etc.) generated by the project shall be the property of CRWP and shall be turned over to CRWP upon completion or as directed.

#### **SECTION D: MINIMUM QUALIFICATIONS**

The selected consultant must demonstrate familiarity with current monitoring equipment and should have a basic understanding of the principles and design of innovative stormwater practices. The selected contractor's qualifications include but are not limited to:

- Professional and academic background in environmental sampling, including experience with all equipment and instruments referenced in the Scope of Services.
- Experience with design and implementation of a sampling plan for water quantity and data analysis.

#### **SECTION E: EVALUATION CRITERIA**

Major factors/criteria for the establishment of a reduced candidate/shortlist and selection:

1. Key staff/project team qualifications.

2. Expertise in environmental sampling methods, with specific experience in stormwater wet weather monitoring methodologies and flow monitoring.
3. Experience on projects of similar size, scope and complexity.
4. Organizational resources in northern Ohio/Lake Erie coastal region including capability to inspect and repair equipment on short notice.
5. Demonstrated ability to apply creative solutions to challenging sampling situations.
6. Completeness of submissions to include clarity, readability, and presentation of material.
7. Submitted references

## **SECTION F: SUBMISSION REQUIREMENTS**

Qualifications and Expression of Interest must be received by May 25, 2012

Submitted responses to this request should include the following information. The project team and Collaborative Learning Group will use this information to evaluate each submittal. In responding to this RFQ, please submit four (4) complete hardcopies and one digital copy of an Expression of Interest including the following items:

1. Table of Contents - Limited to one (1) page on 1 sheet of paper
2. Letter of Interest - Limited to four (4) pages on two (2) sheets of paper; Indicate the following:
  - a. An understanding of the anticipated assignments, services required, and approach to providing the services required.
  - b. Identify who the proposed project manager will be and what office location they will be working from.
  - c. The location, size, and description of the firm
  - d. Availability of key personnel to begin project in June 2012.
  - e. Sub-consultant usage if anticipated. Indicate the percentage of work estimated to be performed by the sub vs. the prime. Also, indicate if the prime consultant has previously worked with the proposed sub and give a brief example of the previous relationship(s).
  - f. The Prime/Lead consultant must indicate their present workload.
3. Qualifications - A description of the organization's resources, experiences and capabilities as they relate to hydrologic monitoring, especially monitoring of stormwater management BMPs.
  - a. Background and Experience - In this section, describe your organization's background and its structure. Describe the roles and background of the team leader and key team members. Describe capabilities specific to the scope of work and evaluation criteria within this RFP.
  - b. Project Team Members - Describe the background, qualifications, location and availability for assignment to this project for each of the team members (including subcontractors) your organization would use in meeting the above capabilities and in preparing this Stormwater Monitoring Plan. Key staff or team

members (including subcontractors) are limited to four (4) individuals who are expected to spend a significant amount of productive time on the project. Staffing should be shown as one (1) individual per page/sheet. Resume information is limited to four (4) individuals regardless of affiliation. Experience listed should be limited to that within the last five (5) years.

4. References - Provide a list of three (3) references who have personal knowledge of the prime consultant's and any sub-consultant's previous performance. The references must include verified addresses and telephone numbers, contact persons, and a brief description of services that have been provided similar to those described for this project.

No promotional materials or brochures shall be included as part of the Expression of Interest package. CRWP is not liable for any cost incurred by the consultant in the preparation or presentation of the Statement of Qualifications.

#### **SECTION F: SELECTION, AWARD PROCESS and SCHEDULE**

Please submit four (4) complete hardcopies and one digital copy of Qualifications and Expression of Interest to CRWP at the address below. All submittals will be reviewed and the successful applicant notified. Work will commence after successful execution of a contract for services between the contractor and CRWP. All work under this contract, including invoices, must be completed and delivered to CRWP by August 2014.

The selection process will involve screening of submissions and interviews by the NERRS Science Collaborative project team. A monitoring contractor will be selected based on qualifications and response to scope of services and evaluation criteria.

*May 25, 2012:* Submittals due. Proposals postmarked after this date will not be accepted.

*Week of May 28 or June 4, 2012:* Interviews for project selection with project team.

*June 18, 2012:* Anticipated date for CRWP to award contracts.

*August 1, 2014:* Complete all work under this contract, including invoice delivery to CRWP.

**Please direct responses to this RFP as well as questions to the contact listed below. Questions via e-mail will be accepted.**

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