3 Rivers Wet Weather
Improving our region's water quality

3RWW RFQ FOR GREEN INFRASTRUCTURE

Dear Colleagues,

3 Rivers Wet Weather is very pleased to have been provided funding through a grant from the Colcom Foundation for the development of a *Green Infrastructure Database/Implementation Tool for Wet Weather Control*. The centerpiece of the project is a web-based tool that will house the inventory of green infrastructure that has been installed in our region for stormwater management, and provides site-specific options for green infrastructure with a cost/benefit analysis.

The goal of this initiative is to integrate green infrastructure into the region's wet weather plan to the greatest extent possible where its use is appropriate, cost effective, and sustainable. The web-based tool will be both robust enough to provide analysis for municipal planners and engineers to predict the cumulative impact of various green infrastructure projects on local sewer flows, yet user-friendly enough to engage homeowners in steps that they can take to reduce sewer overflows, improve water quality and human health, enhance groundwater recharge, and increase land values.

Please find the attached *Request for Qualifications* for this project. Firms with a commitment to green practices in wet weather management and a desire to make a significant contribution to cleaner water and greener streets in the Pittsburgh region are encouraged to submit their qualifications and describe their approach toward accomplishing the tasks detailed in the RFQ. While the experience of national firms may be integrated into the project, 3 Rivers also sees this as an opportunity to build local capacity in the area of wet weather management using green infrastructure. Pittsburgh is one of the leaders in green building practices, and our vision is to build similar expertise in green stormwater management. Therefore, non-local firms are encouraged to provide local staff for the day-to-day project tasks.

Please submit responses per the attached instructions by **November 5, 2010**. If you have any questions, contact Bill Hixson, Business Operations Manager, 3 Rivers Wet Weather, at (412) 578-7966.

REQUEST FOR QUALIFICATIONS
GREEN INFRASTRUCTURE DATABASE/IMPLEMENTATION TOOL FOR WET WEATHER CONTROL

Purpose of Solicitation

Green infrastructure is emerging as the future of sewage wet weather overflow and stormwater management in the U.S. According to the Environmental Protection Agency, green infrastructure is a cost-effective, sustainable, and environmentally-friendly approach to wet weather management. Compared to traditional approaches (i.e. gray infrastructure such as storage tanks and treatment plants), green infrastructure provides many benefits at a similar or reduced cost, including reduced sewer overflow events, minimized stormwater runoff, enhanced groundwater recharge, improved water quality and human health, increased land values, and better quality of life, to name just a few. Progressive cities such as Portland, Oregon and Philadelphia, Pennsylvania are currently implementing green infrastructure solutions to reduce stormwater volumes entering the sewer system, saving ratepayers millions of dollars annually.

Over the next three years, this project will help build understanding, acceptance, and incentives for green infrastructure among engineers, developers, landscape architects, municipal officials, and homeowners in the Pittsburgh, Pennsylvania area through public education programs, a green infrastructure network of advisors, and the development of web-based tools that identify green infrastructure installations and quantify their benefits. It is anticipated that the web-based tools will ultimately be housed on the 3 Rivers Wet Weather website.

The overall goal of the project is to incorporate green infrastructure into the Regional Long-Term Wet Weather Control Plan to the greatest extent possible where its use is appropriate, cost effective, and sustainable.

Sustainable stormwater initiatives by property owners have met with success in other cities, often when paired with incentive programs and local planning and land use code changes. These policy and governance items are not included as part of this RFQ, but will instead be completed concurrently by 3 Rivers Wet Weather staff. In addition, a model stormwater utility program will also be developed by 3 Rivers' staff as a potential component of the region's wet weather plan. 3 Rivers will also be concurrently conducting outreach activities related to green infrastructure, such as developing a guide of green infrastructure approaches for public and private property owners.

Services Requested

3 Rivers Wet Weather is accepting RFQs from professional service providers to assist in developing databases and tools for myriad audiences, including commercial developers, municipal representatives, homeowners, and regulatory agencies to document the use and value of green infrastructure, in particular, in combined sewer areas of the ALCOSAN service system as:

- A wet weather overflow and stormwater control technique.
- A technical and financial tool for managing stormwater as a wet weather overflow control strategy.

3RWW will build on its existing partnerships with watershed, environmental, and government organizations to assure consensus and consistency in approach. An existing stakeholder committee, the Green Infrastructure Network, which is a partnership between 3 Rivers Wet Weather and the Pennsylvania Environmental Council, will serve to help guide the project development. 3 Rivers will also be participating with the Allegheny County

Sanitary Authority (ALCOSAN) on a number of green infrastructure project demonstrations that will help document the value of this approach to wet weather flow management. 3 Rivers currently has a web-based mapping system in place, which will serve as the framework for the green infrastructure information and tools that will be developed as part of this project. It is expected that the development of databases and tools will involve coordination with the existing web-based mapping system.

Task 1: Program Development

a. Develop spatial databases to house green infrastructure information.
b. Develop a user-friendly online public interface using web-based map tools.
c. Spatially locate and inventory all known existing green infrastructure projects in Allegheny County including green roofs, rain gardens, permeable pavement, and biofiltration systems. Populate the database with locations and attributes of green infrastructure.
d. Develop a geographic-based screening process to identify and rank appropriate areas for potential green infrastructure placement, to include but not be limited to the following technologies:
    i. Permeable pavement
    ii. Biofiltration swales and systems
    iii. Rainwater harvesting
    iv. Green roofs
    v. Tree planting
    vi. Green space
    vii. Green streets
    viii. Rain gardens
e. Define a process to highlight specific "high priority" locations where green infrastructure has the highest potential to reduce CSOs within the ALCOSAN system.
f. Coordinate with ALCOSAN and Green Infrastructure Network to identify initial green infrastructure demonstration projects.
g. Provide an interactive map where users can discover information about their local watershed and learn about ways to improve the health of the watershed.

Task 2: Financial Analysis

a. Identify the potential reduction of gray infrastructure costs and ALCOSAN treatment costs affected by the installation of green infrastructure to provide a cost/benefit analysis.
b. Develop and refine green infrastructure costing tools for residential, commercial, and public facilities.

Task 3: Technical Tools

a. Based on existing soils, topography, land use, etc., develop a palette of green infrastructure Best Management Practices and design standards that are suitable for our region, for use in a web-based program.
b. Building off the framework of 3 Rivers Wet Weather's existing web-based mapping system, provide a site-specific menu of green alternatives for property owners and instructions/links as to how to incorporate them on their property. Information on landscapers, retailers, contractors, and/or lenders may be included to help property owners evaluate, finance, install, and maintain their green infrastructure.
c. Integrate the financial analysis tools in Task 2 that provide comparative costs and runoff impacts of various green alternatives.
d. Through the web-based tool, track the location, design, and benefits of existing green infrastructure projects, and new projects as they are developed.
e. To facilitate the integration of green infrastructure into the region's long-term wet weather plans, develop a higher level password-protected, web-based tool for use by municipal planners and engineers to help predict the cumulative impact of various green projects on the existing sewage pipe network tributary to ALCOSAN. This may utilize available ALCOSAN and 3RWW developed hydrologic and hydraulic

models and other pipe network tools. Statistics on the percentage of total stormwater flows managed in current (baseline) conditions versus future management with sustainable green infrastructure are examples of some of the potential analyses.

RFQ Submission

Respondents shall use the following format to indicate their experience and qualifications and describe their approach to this project. Submissions not containing the information requested will not be considered.

A. Experience: Include a description of provider's experience and expertise in each of the areas of services previously described in this RFQ.

B. Approach: Please limit description of approach to no more than three (3) pages.

The RFQ submission must be provided by 4:00 P.M. on Friday, **November 5, 2010** to 3 Rivers Wet Weather, Inc. 3901 Penn Avenue – Building 3, Pittsburgh, PA 15224 – Attn: William L. Hixson, Business Operations Manager, bhixson@3rww.org. Please submit the documents in electronic format, and also provide five (5) paper copies.

Selection Process

Selected finalists will be invited to meet with 3RWW to present their proposed scope and approach to the project in further detail.