



Request for Qualifications: GIS Consultant

The Hudson River Watershed Alliance (HRWA) seeks a GIS consultant to support watershed characterization projects in two subwatersheds in the Hudson River Estuary Watershed: the Sparkill Creek and the Punch Brook-Roeliff Jansen Kill.

Background

HRWA is currently working with local groups to characterize the [Sparkill Creek watershed](#) and the [Punch Brook-Roeliff Jansen Kill watershed](#). The project began in 2022, and will be completed by the end of 2023. This work is based on the process outlined in the NYS Department of State and Department of Environmental Conservation [Guidebook on Watershed Plans](#). The process includes organizing a watershed advisory committee, delineating the focus watershed, gathering existing data, and organizing and summarizing the information into a written report.

Each watershed characterization report will summarize the watershed's geography and physical conditions and compile existing data on watershed lands, waters, and people, as well as trends in natural and human-made features using maps and narrative descriptions. The report will be the foundation for future watershed plans that identify specific actions to protect and enhance the area's water resources. These reports and maps will also serve as models for other watershed characterizations in the region.

To date, in each watershed, HRWA has convened a local advisory committee, gathered their initial feedback on priorities, and developed a first draft of the watershed characterization report using publicly accessible information available through the [Hudson Valley Natural Resource Mapper](#) and [DECinfo Locator](#). HRWA has developed a [draft outline of content](#) to illustrate the kinds of information that may be included in a watershed characterization, which includes Watershed Physical Characteristics, Watershed Trends, Lands of the Watershed, Waters of the Watershed, and People of the Watershed.

This project is supported by funding from the Hudson River Estuary Program, New York State Department of Environmental Conservation, with support from the New York State Environmental Protection Fund, in cooperation with NEIWPC.

Scope and Purpose

The HRWA seeks a GIS consultant to create an ESRI geodatabase of watershed features with metadata for the Sparkill Creek and Punch Brook-Roeliff Jansen Kill watersheds. The consultant will also create 15-20 PDF maps for each watershed, along with developing summary statistics of key features to be included in each watershed's written characterization report. The maps will illustrate components such as: topography, land use/land cover, terrestrial habitats and biodiversity, streams, wetlands, water quality, flood risk, and demographics.

We anticipate that the GIS consultant will primarily focus on federal and state GIS-based information for mapping and summary statistics within each report's narrative, as well as compiling regional or county GIS data where available. The watershed characterization process also includes referencing local information in the form of reports, publications, datasets, etc. If time, interest, and budget allows, the GIS consultant role may also include advising on managing local sources of data that may not be in GIS format.

This project is a pilot, and the maps and report will serve as a template for other groups who are characterizing their watersheds. HRWA has a separate grant to create a watershed characterization guidance document. If the pilot project is successful, HRWA may renew/extend the contract to support in creating map templates and guidance for compiling geographic data.

Our budget for the Sparkill Creek watershed characterization and Punch Brook-Roeliff Jansen Kill watershed characterization mapping is \$10,000-\$15,000. As the project progresses, there may be opportunities to add additional tasks for additional funds.

Expectations and Deliverables

The GIS Consultant will:

- Work collaboratively with HRWA to prioritize the geographic information to include in the watershed characterizations.
- Advise on accessibility/availability of GIS data, best practices for map layouts, and how to best present logical groupings of data on PDF maps.
- Create 15-20 PDF maps of each of the watersheds to illustrate current watershed conditions and draw attention to key messages.
- Create summary statistics for key watershed features to be included within each of the written reports' narrative.
- Participate in meetings with HRWA to discuss the project, prioritize geographic data for maps, and review map layouts. HRWA will be providing guidance and oversight, but will look to the consultant for advice on how to best present the data on maps.
- Compile prioritized geographic data and deliver ESRI geodatabase with metadata.
- If funding allows: create map templates that could be used for other characterization projects.



The mission of the Hudson River Watershed Alliance (HRWA) is to unite and empower communities to protect our shared waters by working across the Hudson River watershed to support watershed groups, help communities work together on water issues, and communicate as a collective voice.

Qualifications, Process, and Application

- We seek a consultant with experience collecting, managing, and displaying environmental data on GIS maps that clearly communicate the information and are easy for the public to understand.
- The consultant should have a strong working knowledge of GIS and experience working with watershed data. Familiarity with the New York State GIS Clearinghouse is preferred.
- Please submit a cover letter and resume or CV summarizing your qualifications, your experience working on inventory projects, and 3-5 relevant map samples.
- Please quote your fee as follows:
 - Your hourly rate, the number of hours you anticipate the project will require of you, and your total proposed fee.
 - We understand that projects of this nature can be unpredictable; we are prepared to add up to an additional 10 percent to your quoted fee in the event that the project goes beyond the scope described here.
 - Include the contact details for two people you have worked with, as references.

Project Timeline

- The deadline for applications is 5 pm on June 15, 2023. A selection will be made by the end of June.
- We anticipate a project start date in July 2023.
- We plan to have drafts of each watershed characterization report, including maps and summary statistics, by mid-September for Advisory Committee review. Final watershed characterization reports will be completed by November 2023.
- All deliverables need to be completed by December 22, 2023.

Application materials and any questions can be sent to Emily Vail, Executive Director, Hudson River Watershed Alliance, at emily@hudsonwatershed.org.



The mission of the Hudson River Watershed Alliance (HRWA) is to unite and empower communities to protect our shared waters by working across the Hudson River watershed to support watershed groups, help communities work together on water issues, and communicate as a collective voice.