Deadline Extended to March 3

Request for Proposals

New Jersey Water Risk and Equity Map

Deadline for receipt of proposals: March 3, 2021, 7:00 pm

A. PURPOSE.

New Jersey Future (NJF) seeks to secure a consultant to develop the Water Risk Equity Map, which is a project of the Jersey Water Works collaborative (JWW).

B. INTRODUCTION AND CONTEXT

The crises of climate change and racial injustice intersect and affect each other in complex ways. The New Jersey Water Risk and Equity Map aims to zoom in on these two crises at the state level to understand their impacts. New Jersey Future seeks a consultant to be the mapmaker for this project, which will take place from February - July, to improve understanding of the distribution of water risks in New Jersey.

The New Jersey Water Risk and Equity Map is being organized by two groups, Jersey Water Works and New Jersey Future. New Jersey Future (NJF) is a nonprofit that promotes sensible, resilient, and sustainable growth. Jersey Water Works (JWW), a collaborative organization of 600+ diverse members facilitated by NJF, aims to improve New Jersey's water infrastructure. Essential to both organizations' work is the goal of making New Jersey a more equitable place. The map sits at the intersection of these two groups because the subject matter expertise is being provided by a committee organized through JWW (the "Water Equity Mapping Subcommittee"), while the staffing support and funding is being provided by NJF.

To build strong communities across New Jersey, it is necessary to understand current inequities in water infrastructure. To achieve this vision, the JWW steering committee identified a need for, and invited JWW members to help execute, the following project:

> *"Identify and map local flooding incidents in CSO communities. Overlay data on race and income. Overlay other water infrastructure threats such as lead service lines. Use this analysis to target JWW member efforts to help solve localized water infrastructure problems."*

Meanwhile, NJF's Mainstreaming Green Infrastructure program aims to complete a similar project:

> *"Conduct an analysis of Highland and Kirkwood Cohansey Aquifer areas that overlays flooding and water pollution information with demographic data."*

This mapping project aims to satisfy both of these goals.

From July 2020 - December 2020, Jersey Water Works members completed the following actions to advance the mapping project:

1. Formed the new Water Equity Mapping Subcommittee, which has generated wide interest (20 members and 2 staff).
2. Convened the group to define a vision and options for the map.

C. SCOPE OF WORK

NJF seeks a consultant to: (1) download and discuss data, (2) create a water risk and equity map, and (3) publish or host the map.

C1. Data Downloading and Discussion

NJF staff will gather relevant data sources in the form of shapefiles and provide them to the consultant. The consultant shall be prepared to download and use this data and to discuss with the subcommittee the advantages and disadvantages of using the various data sources to build the map layers listed in section C2.

C2. Map Creation

The map shall be designed with the following specifications:

- Scale:
    - The map will cover the entire state of New Jersey.
    - Each data item will be considered at the census tract scale. The consultant shall share their views on analyzing data at the census block group scale, which would have more detail but potentially less accuracy.
- Layers:
    - Water Risk Layers
        - Flood Risk
            - FEMA 1% annual chance (100-year) floodplain
            - Fathom/First Street Flood Model (2050). NJF, a nonprofit organization, will contact Fathom/First Street to ask for access to their flood model.
            - Points associated with ground-truthing interviews on flooding. The Water Equity Mapping Subcommittee members will conduct the interviews themselves.

            - *Note*: NJF will communicate with Jeanne Herb at Rutgers. When the Rutgers flood model is released, the consultant will incorporate that dataset if desired by the subcommittee.
        - Percent impervious surface
        - CSO Outfall Sites
        - Areas served by combined sewer systems
        - Areas served by water systems with Lead Action Level Exceedances
        - Impaired streams (based on the 303d contaminants list and/or the 2016 integrated report)
        - MS4 outfall sites
        - Known Contaminated Sites List (Using NJDEP GeoWeb KCSL)
        - WPF's Delaware River Watershed Initiative NJ cluster areas
    - Demographics Layers
        - "Overburdened Communities," aggregated and disaggregated, as defined in New Jersey's new Environmental Justice Law (S232) (race, income, English proficiency).
        - CDC's Social Vulnerability Index, aggregated and disaggregated.
    - Areas of Interest Layers
        - William Penn Foundation cluster areas: The map will highlight the Highlands and Kirkwood Cohansey Aquifer cluster areas, which are priority areas for New Jersey Future's Mainstreaming Green Infrastructure work. (Hot spots within these cluster areas will be potential sites for future projects.)
        - CSS Areas: The map will also highlight communities with combined sewer systems. Addressing combined sewer overflows is a priority for Jersey Water Works. (This layer will show the area served by the Combined Sewer System, rather than the locations of outfalls which is listed above.)

C3. Map Publishing or Hosting and Map Options

The consultant will publish the map as a PDF and/or host an interactive map online.

The final map will take the form of one of the following four options. The consultant shall provide price quotes for each of the four options.

1. Overlay analysis; interactive map (*preferred*)	2. Overlay analysis; static map
3. Illustrative tool; interactive map	4. Illustrative tool; static map

Overlay Analysis vs. Illustrative Tool:

- **Overlay Analysis**: Conduct an overlay analysis to determine whether demographic factors are correlated with water risks (see list of layers in the previous section). This academically-rigorous approach would show whether the areas with high Black, Indigenous, and People of Color (BIPOC) populations or areas that are low income experience disproportionate levels of water risks when compared to other areas in the state, and whether they are statistically significant or random. Reference Tate et al. 2021 as an example.
- **Illustrative Tool**: Map water risk and demographics datasets. Use the map as a general advocacy and illustrative tool to show which communities are affected by water issues, while

acknowledging that it is not capable of identifying specific environmental justice hot spots. Reference Stormwater Utilities Resource Center map as an example.

Interactive Map vs. Static Map:

- **Interactive Map**: Show data in an online interface so that users can turn layers on and off and zoom in on their area of interest. The consultant would be expected to host the interactive map or recommend a site to host it. Reference maps on NJ Map as an example. The interactive map is the preferred option.
- **Static Map**: Show data as several maps in a PDF. Users would not be able to manipulate the data. For this option, the consultant will propose which maps will be produced and which layers will be included on each map.

D. CONSULTANT/CLIENT COMMITMENTS AND EXPECTATIONS

NJF will be a fully engaged client, requiring bi-weekly progress reports by email as well as attendance at monthly Water Equity Mapping Subcommittee meetings.

NJF staff will:

- Provide the consultant with some leads for:
    - Datasets
    - Examples of relevant literature and existing maps
- Review and approve the map in iterative phases, working with the Water Equity Mapping Subcommittee.
- Meet with the consultant at monthly Water Equity Mapping Subcommittee meetings, and as necessary.
- Provide written comments and feedback on each round of draft work products within five working days and/or by the time of the next Water Equity Mapping Subcommittee meeting.

The consultant will:

- Send email updates every two weeks.
- Produce all components of the map.
- Host the map online and/or post the map on a chosen site.
- Attend (virtual) monthly Water Equity Mapping Subcommittee meetings, and other meetings as necessary.

E. PROCESS AND TIMEFRAME

This project will run approximately from March 1 2021 through June 2021. The schedule items below are meant to convey the kinds of work the consultants will be expected to perform, budget permitting, along with approximate deadlines, and are subject to revision.

February 2021:

- Mapmaker candidates submit proposals.
- NJF hires a consultant to be the mapmaker.

March 2021:

- Consultant attends the Water Equity Mapping Subcommittee meeting on March 1 to solicit input from the group.
- Consultant assembles the data and conducts initial analysis.

April 2021:

- Consultant presents findings to the Water Equity Mapping Subcommittee for feedback in the monthly meeting.
- Consultant begins work on a first draft of the map.

May 2021:

- Consultant presents the draft map to the Water Equity Mapping Subcommittee in the monthly meeting for feedback.

June 2021:

- Consultant incorporates comments and presents the final draft final map at the Water Equity Mapping Subcommittee meeting.
- While the Water Equity Mapping Subcommittee will be responsible for writing the white paper associated with the map, the consultant is expected to be available to provide data and answer questions as the Water Equity Mapping Subcommittee writes it.

July 2021:

- Consultant publishes the final map by July 1, 2021.

F. BUDGET

New Jersey Future has $4,000 available for this project. Respondents who provide higher-cost proposals may also suggest additional funding sources and/or partnership approaches. This total includes all costs associated with:

- Project management
- Data gathering
- Map creation
- Map analysis
- Map publishing or hosting
- Attendance at monthly meetings with the Water Equity Mapping Subcommittee and other meetings as needed.

Please include four quotes that correspond to the four options explained in section C3.

G. EVALUATION CRITERIA

Successful consultant teams will have the following types of expertise:

- Experience creating maps and analyzing datasets using a GIS.
- Experience working with groups of diverse stakeholders and incorporating input.

H. SUBMISSION REQUIREMENTS

All proposals shall include:

1. A list of the firm's staff and qualifications, including at minimum:
    a. Information regarding the firm's previous experience with similar or related projects;
    b. Information regarding the expertise and experience of specific staff members to be assigned to the work, including the name and qualifications of the individual who will serve as project manager;
    c. At least two client references, including the name, telephone and email address of a contact person; the client project's start and end date; and a description of the project. References shall be for similar or related projects on which proposed key staff members have worked;
2. A detailed approach to each item or task in the Scope of Work;
3. A financial proposal that presents a separate cost for each bulleted item listed in the Budget (Section F above), including total work hours and hourly rate schedule for each team member, to perform this work. If feasible, a statement describing flexibility in the rate schedule shall be included, given the nonprofit nature of this work.

Interested consultants should respond to this RFP via email to Andrew Tabas (atabas@njfuture.org), Policy and Program Coordinator, New Jersey Future, by March 3, 2021, at 7:00 pm.

Questions: Please contact Andrew Tabas, atabas@njfuture.org, with any questions or requests for more information.

This request for proposals does not commit New Jersey Future to engaging the services of any firm for any of the items either within or outside the outlined scope of work.

I. TECHNOLOGY AND INFORMATION MANAGEMENT

All work products shall become the property of New Jersey Future and Jersey Water Works. Digital source files of all work products shall be provided to New Jersey Future upon project completion.

J. AWARD AND CONTRACT INFORMATION MANAGEMENT

All proposing firms shall expressly warrant to New Jersey Future that they have the ability and expertise to perform the proposed work and in doing so shall adhere to the highest professional standards.

The successful consultant will be required to enter into and sign a formal contract with New Jersey Future. This RFP and the response of the successful firm, with reasonable adjustments acceptable to New Jersey Future, will become part of the contract and will be in effect for the duration of the contract period.

K. TERMS AND CONDITIONS

The successful firm shall defend, indemnify, and hold harmless New Jersey Future and its officers, agents and employees from any and all claims, demands, damages, costs, expenses, judgments, or liability arising out of this request for proposals or attempted performance of the provisions thereof.

New Jersey Future reserves the right to:

1. Amend this RFP at any time, for any reason;
2. Cancel the entire RFP;
3. Reject any submitted proposals, at any time;
4. Approve or disapprove the use of particular subcontractors or suppliers;
5. Negotiate with any, all or none of the proposing firms;
6. Accept other than the lowest-priced proposal; and
7. Waive any informalities or irregularities in any proposal, to the extent permitted by law.