



## REQUEST FOR PROPOSALS

### NEW YORK-NEW JERSEY HARBOR & ESTUARY PROGRAM Planning and Design for Aquatic Connectivity Through Climate- Ready Infrastructure March, 2022

The New York-New Jersey Harbor & Estuary Program is requesting proposals to improve aquatic connectivity for fish and other wildlife and address hydrologic issues that can lead to flooding and erosion. This project addresses problematic road-stream crossings (bridges and culverts) in the South River and Lower Raritan River watersheds in New Jersey. A total of \$60,000 is available for this approximately 5-7 month project (August – February 2023). This Request for Proposals (RFP) includes the following information:

- I. Program Background
- II. Project Background
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## **I. Program Background**

Designated as an Estuary of National Significance under the Clean Water Act, the New York New Jersey Harbor Estuary is a complex ecological system in the midst of a major urban center. The New York-New Jersey Harbor & Estuary Program (HEP) was authorized in 1987 by the U.S.

Environmental Protection Agency at the requests of the Governors of New Jersey and New York State and is one of 28 National Estuary Programs in the country. HEP is an ongoing effort to protect, conserve, and restore the estuary through a management conference composed of representatives from local, state, and federal government; scientists, business, and civic organizations.

The Hudson River Foundation seeks to make science integral to decision-making regarding the Hudson River and its watershed and to support competent stewardship of this extraordinary resource. This purpose is pursued through support of scientific research; communication to expand knowledge about the river among the scientific community, policy makers, and the public at large; initiatives to enhance management of the Hudson ecosystem; education about the River; and physical improvements to the riverfront. The Hudson River Foundation is the host of HEP and the Foundation will be the contracting entity for this RFP.

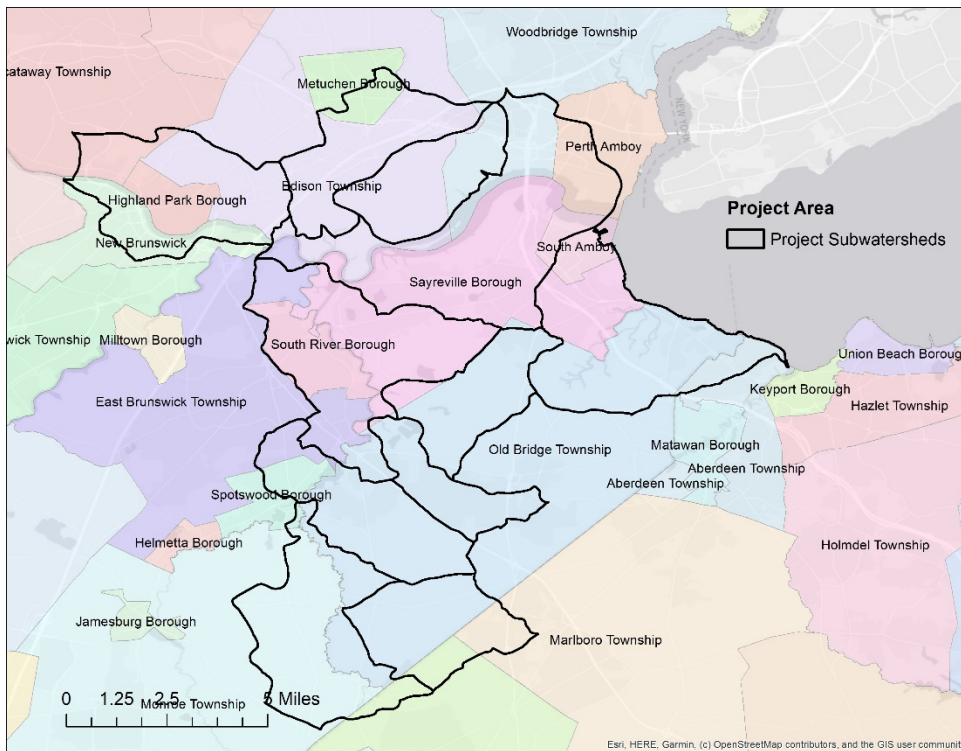
## **II. Project Background**

Aquatic connectivity is a key restoration goal for HEP and its partners. While aquatic connectivity has been studied in Estuary watersheds of New Jersey with respect to dams, the effectiveness of fish passage at many structures, such as culverts and bridges, has not been assessed. HEP, in partnership with the Rutgers Raritan River Consortium, is assessing road-stream crossings for how well they can pass fish and other aquatic life and any hydraulic capacity issues that may lead to roadway flooding and erosion. We use these assessments to prioritize restoration of the crossing. Increases in rainfall due to climate change makes investing in these improvements a growing priority.

These assessments are based on the protocols, training methods and collective database developed by the North Atlantic Aquatic Connectivity Collaborative (NAACC) to identify barriers to fish passage. The information collected during the NAACC assessment is then used in a model developed by the Cornell University Water Resources Institute to assess the maximum storm interval (e.g. 100-year storm event) that the bridge/culvert can accommodate without the flow topping the road or causing roadside/streambank erosion. The combination of these two data sets

is then utilized to prioritize undersized bridges/culverts for replacement with climate-ready, connectivity-friendly versions.

In 2020 HEP received a NEP Coastal Watershed Grant from EPA and administered by Restore America’s Estuaries. This grant provided for HEP and Rutgers University to go through the process described above for 11 subwatersheds (over 350 road-stream crossings) on the South River and Lower Raritan River in New Jersey (see map). The grant also provided \$30,000 to advance restoration design and engineering for these priority barriers. HEP anticipates that additional funds (\$ 30,000) will become available from Bipartisan Infrastructure Law funding over the next six months. We expect this total of \$60,000 to go towards two tasks: preparation of conceptual plans and engineering drawings for restoration projects (task I) and creating a toolkit of restoration scenarios (task II). The site selection and design process will be undertaken in consultation with relevant state and local agencies with the anticipation of the landowner’s advancing the project towards permitting and construction.



The 11 (HUC-14) project subwatersheds within the Lower Raritan Estuary. Municipalities are shown in color.

### III. Scope of Services

HEP is seeking to hire an individual or entity (“Consultant”) to provide professional services for restoration planning and design. The goal of this work is to use the prioritization and analysis provided by HEP to advance restoration for capital planning and final design and construction grant applications. As such, the consultant should provide outputs that are usable for HEP and other restoration advocates, the transportation sector, and resiliency planners.

To address this goal, the Consultant should provide a proposal for two tasks: 1) Prepare conceptual plans, 30% design drawings, and engineering specifications for up to three selected sites identified by HEP as priority barriers for restoration and 2) Create a tool kit of engineering and restoration options for all types of problematic road-stream crossing infrastructure. Up to \$30,000 is currently available for this work. HEP will work with the selected consultant to define a scope of work for one of these tasks. Additional funding (of up to another \$ 30,000) is likely to become available and HEP anticipates that work on the remaining task will also be contracted. For both tasks, there are a series of desired outputs as follows.

***Task 1):*** Prepare conceptual plans and 30% design drawings for one to three road stream crossings in the South River and Lower Raritan River Watershed. The plans should represent the vision and character of the proposed project and show the location of the restoration area, topography and other relevant information. A perspective rendering of the completed site should also be created. Site section would be the responsibility of HEP and other relevant state and local agencies, and will include securing the interest of the landowner. Desired outputs include:

- Site details as appropriate including land ownership boundaries, topography, hydrography, floodplain and wetland boundaries, vegetation, public ways and utilities, and other significant natural or cultural features;
- 30% design drawings and details reflecting current and proposed future road-stream crossing structure and appropriate dimensions including right-sizing for current and future hydrology as well as any associated habitat enhancements.
- Perspective rendering of the proposed project(s);
- Preliminary construction cost estimates;
- Analysis of potential effects to up- and down-stream hydrology;
- Assessment of habitat benefit for both aquatic and terrestrial species;
- Identification of potential sediment release issues;

- Demolition plan
- Identification of required permits and assessment of potential issues, including wetlands and historic preservation;
- Identification of post construction monitoring needs

*Task II).* Create a toolkit that could apply to the range of road-stream crossings with existing barriers in the project study area. This toolkit should be geared for use by transportation and habitat restoration planners. It is anticipated that the consultant would use criteria such as structure size, velocity, and aquatic barrier issue (e.g. blockage, drop, velocity) to class the crossings into a set of restoration scenarios/strategies. The toolkit could include options ranging from low-tech solutions that could be implemented by volunteers at minor blockages, to detailed engineering and construction plans that would require qualified contractors to implement at severe blockages. There should be a separate narrative for each strategy and a grouping of the problematic barriers. Desired outputs include:

- Assessment of habitat benefit per strategy
- Order of magnitude cost estimate for construction per strategy
- Identification of post construction monitoring needs per strategy
- Identification of restoration synergies including potential bundles of barrier removal projects or restoration within multiple Target Ecosystem Characteristics to support mutualistic interactions.
- Site-specific assessments of problematic barriers including ownership, community/public access use, drinking water/utilities use, and cultural value with State Historic Preservation Office.

The expected project period for this work is August 1 2022 – February 15, 2023.

#### **IV. Available Data**

Upon selection, the consultant team will have access to all of the model predictions and analysis to complete the planning and design component. HEP uses certain model and evaluation outputs in prioritizing problematic barriers; these are:

- Aquatic Organism Passage Score – NAACC Aquatic Connectivity model

- Evaluation of the Dendritic Connectivity Index<sup>1</sup> of the subwatersheds for both anadromous and potadromous species (HEP analysis)
- Maximum storm interval that the crossing can accommodate both now and under a 15% increase in precipitation – Cornell WRI hydrology model
- Crossing condition – NAACC Aquatic Connectivity model

However, more data is available from both of these sources that the consultant may wish to utilize including, but not limited to, photos of all crossings, narrative notes from field assessments, dry-weather volumes, substrate and erosional issues, from the NAACC model<sup>2</sup> and DEMs, precipitation, structure capacity, computed watershed area, time of concentration and curve number for each culvert from the Cornell WRI model<sup>3</sup>. Both models are publicly accessible and more details can be found through the links provided.

Analysis and prioritization is complete for roughly half of the scope of the Coastal Watershed Grant. The second half will be available in ~ September, following the NAACC assessments during the summer of 2022. HEP will provide the analysis and prioritization results to the consultant immediately once complete and parallel to the project team review.

## V. Additional Considerations

***Communications.*** The selected consultant should anticipate attending a monthly meeting with HEP to report on progress and receive comments on draft materials. This monthly meeting may include representation from other relevant project partners from state and local agencies as needed. The consultant should anticipate making one or more presentations to local and statewide audiences describing the project methodology and the results of the analysis.

***QAPP.*** The project selected for funding must comply with the EPA approved Quality Assurance Project Plan (QAPP) for the overall Aquatic Connectivity Through Climate Ready Infrastructure

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<sup>1</sup> See as example: Cote, D., Kehler, D. G., Bourne, C., & Wiersma, Y. F. (2009). A new measure of longitudinal connectivity for stream networks. *Landscape Ecology*, 24(1), 101-113.

<sup>2</sup> <https://streamcontinuity.org/naacc>

<sup>3</sup> <https://wri.cals.cornell.edu/hudson-river-estuary/watershed-management/aquatic-connectivity-and-barrier-removal-culvert-dams/culverts/>

project pursuant to the RAE Coastal Watershed Grant as well as HEP's Quality Management Plan. This includes both data collected as part of this project or previously collected, whether by the applicant or other entities such as, but not limited to: historical data, databases, models, and surveys. This project QAPP is available upon request.

***MBE/WBE.*** Minority and women owned businesses and others included in EPA's Disadvantaged Business Enterprise program are encouraged to apply. Certified businesses should self-identify in the proposal.

***Consultant Cap:*** The salary rate (excluding overhead) paid to individual consultants retained is limited to the maximum daily rate for a Level IV of the Executive Schedule, available at <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2022/executive-senior-level>. This limit applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. This rate does not include transportation costs for travel performed.

***Match.*** No matching funds are required, but contribution of outside funds, in-kind services, or other match will be favorably reviewed and should be indicated.

## **VI. Submission Process**

### ***Notice of intent to apply (optional, due April 8, 2022)***

HEP welcomes a brief notice of intent to apply, including your expected project lead, contact information, and (one-two paragraph) statement on your strategy. Please send the Notice of intent to [istinnette@hudsonriver.org](mailto:istinnette@hudsonriver.org) by April 8, 2022.

### ***Questions about the RFP (optional, due April 8, 2022)***

You may submit any questions about the RFP via e-mail to [istinnette@hudsonriver.org](mailto:istinnette@hudsonriver.org). Questions will be answered via email to all firms filing notice of intent by April 15, 2022.

### ***Full Proposal***

Proposals must be submitted by no later than 5:00 PM **May 2, 2022** to [istinnette@hudsonriver.org](mailto:istinnette@hudsonriver.org) as a single PDF document. The file name should be in the following format: "Aquatic Connectivity Through Climate-Ready Infrastructure RFP\_NAME OF YOUR ORGANIZATION". You will receive an

email confirming your submission with the subject line “RFP Submission Confirmation.”

## **VI. Proposal Content**

Each package should not exceed the equivalent of 15 single spaced pages.

The proposal *must* include the following information:

1. **Cover Letter.** Please include a cover letter, printed on official letterhead and signed by an authorized representative of the lead organization that is applying.
2. **Title Page.** The title page must adhere to the format provided in Appendix A and include all of the following information, using a maximum of one page.
  - Project Title, as it appears throughout the proposal.
  - Project Leader: Provide the name, title, affiliation and complete contact information (mailing address, phone and fax numbers, and email address) of the individual leading the project.
  - Project Support: Provide the names, titles, affiliations, and complete contact information for each of the additional investigators or support staff who will significantly contribute to the project.
  - Project Partners: Provide the names and contact information for notable partners, if applicable.
  - Project Cost: Provide the total funding requested from HEP and total project match (if any).
  - Federal Tax Identification Number (FID): Provide the sponsor’s FID.
  - DUNS Number: Contractors must provide a DUNS number. Individual consultants are exempt from this requirement. If you do not have a DUNS number at the time of applying, please indicate if you are in the process of obtaining one.
3. **Proposal Narrative.** Please start the proposal narrative on a new page. It must not exceed eight pages and must include the following information:
  - **Work Plan:** Clearly describe the tasks you will need to carry out to address the project (identifying the team member responsible, where appropriate). Please include:
    - Overall technical approach and expected results for the project, including Tasks I and II.
    - Specific approach and methodology for each of the desired outputs identified in



the Scope of Services (Section III) that you will be able to address. Identify and describe deliverables associated with each output.

- Regular meetings with HEP or full Project Team and incorporating their feedback into the approach and final report.
- **Professional Merits and Experience:** Describe the relevant work experience of the project team and reference projects conducted in the last five years. Providing references for these projects is recommended. Define the roles of the project manager and partners in the project.
- **Project Timeline:** Develop a timeline for meeting project tasks and deliverables identified in the work plan. The expected project period for this work is August 1 2022 – February 15, 2023.
- **Project Budget Description:** Provide a brief narrative summary of the information on the Budget Form (see Appendix B). Include any relevant details including work performed by consultants or subcontractors, whether any matching funds or in-kind services are in-hand or being sought.

4. **Attachments.** Please include the following:

- **Budget Forms:** provide an itemized budget in the table format provided in Appendix B. Please indicate the source of any matching funds or in-kind services. If matching funds are included, please specify if these have been secured or are being sought.
- **Descriptions of Comparable Projects:** Please include up to three pages of printed materials describing comparable projects that your firm has undertaken.

## VII. General Guidelines for Applicants

### *Eligibility*

Any non-federal public agency, institution, business, or nonprofit entity is eligible to apply. No matching funds are required, but contribution of outside funds, in-kind services, or other match will be favorably reviewed and should be indicated.

### ***Grant Awards***

HEP expects to provide award notification to applicants on or about May 30, 2022. Projects cannot start until both parties sign the contract. Payment for costs incurred will be on a reimbursement basis. Invoices should be sent to HEP at a frequency of no more than one per month and include a narrative of tasks completed. HEP and the Foundation reserve the right to modify, postpone or cancel this solicitation and to reject all applications.

### ***Evaluation Criteria***

All proposals will be reviewed and evaluated by a review panel consisting of HEP and HRF staff, relevant experts, and project partners. Applications will be evaluated based solely on the project's merits as outlined in Appendix C. Revisions may be required before or after reaching a final decision, and in consideration of the final amount of funding available for this task.

Criteria for project evaluation include:

- Understanding of the Goals and Objectives of this Request for Proposals
- The Amount of Desired Outcomes that that Proposal Addresses
- Technical Approach to the Project and Specific Tasks
- Ability to Meet Schedule
- Professional Merits and Relevant Experience
- Cost Effectiveness

### ***Schedule***

March 21, 2022 RFP Announced

April 8, 2022 Notice of intent to apply and submission of written questions (optional)

April 15, 2022 HEP Response to questions

May 2, 2022 5:00 pm Full proposals due

May 30, 2022 Approximate selection date

August 1, 2022 – February 15, 2023 Expected project period

**APPENDIX A: TITLE PAGE FORMAT**

**Title:**

**Project Leader:**

**Contact Information:**

**Project Support:**

**Total Funds Requested from HEP: \$**

**Total matching funds: \$**

**EIN/Federal Tax Identification Number:**

**DUNS Number:**

**APPENDIX B: BUDGET FORM**

<b>BUDGET CATEGORY</b> (Add/remove itemizing lines below major categories as necessary, but please do NOT delete major categories)	<b>FUNDS REQUESTED FROM HEP</b>	<b>FUNDS FROM OTHER SOURCES</b>	<b>TOTAL BUDGET</b>
<b>A. PERSONNEL</b> (list individual staff member, task, and hours or % time) <b>TOTAL:</b>	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
<b>B. FRINGE BENEFITS</b> % of (e.g., 10% of total personnel costs) <b>TOTAL:</b>	\$	\$	\$
	\$	\$	\$
<b>C. TRAVEL</b> (estimate number/purpose of trips below) <b>TOTAL:</b>	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
<b>D. EQUIPMENT*</b> (itemize below) <b>TOTAL:</b>	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
<b>E. SUPPLIES</b> (itemize below) <b>TOTAL:</b>	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
<b>F. CONTRACTS</b> (identify & itemize below) <b>TOTAL:</b>	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
<b>G. OTHER</b> (identify & itemize below) <b>TOTAL:</b>	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
	\$	\$	\$
<b>H. TOTAL DIRECT COSTS (SUM OF A-G)</b>	\$	\$	\$
<b>I. INDIRECT COSTS</b> % of (e.g., 10% of total direct costs) <b>TOTAL:</b>	\$	\$	\$
<b>J. TOTAL PROJECT COST (SUM OF H+I)</b>	\$	\$	\$

\* Equipment refers to items that cost \$5,000 or more each. Items of lesser cost are considered supplies.

## APPENDIX C: EVALUATION CRITERIA

Score: 0 = not likely, 1 = somewhat likely, 2 = likely, 3 = very likely. Maximum score: 45.

	This proposal...	SCORE
<b>Goals, objectives and rationale</b>	Makes a clear case for applicant's motivation to carry out the project.	
	References and supports relevant goals and objectives.	
<b>Technical Approach to the Project and Specific Tasks</b>	Provides a clear and well thought-out course of action, including a list of specific tasks, actions and methods.	
	Demonstrates a clear understanding of the required technical background, including habitat connectivity, stream morphology and watershed resiliency planning.	
	Demonstrates a clear understanding of the required planning and communication tasks.	
	Provides for opportunities for working with the advisory committee and sharing the results of the project with other stakeholders	
	Has outputs and outcomes in line with those required in the RFP and the proposed course of action.	
<b>Ability to Meet Schedule</b>	The timeline for the identified tasks is realistic and likely to be met.	
<b>Professional Merits and Relevant Experience</b>	Demonstrates organization's relevant experience of designing habitat friendly and climate ready infrastructure.	
	Demonstrates <i>project manager or team member's</i> relevant experience of designing habitat friendly and climate ready infrastructure.	
	Demonstrates understanding of working with the NJDOT/transportation sector, NJDEP guidelines and permitting process.	
	Demonstrates commitment and support from project team and relevant partners	
<b>Cost Effectiveness</b>	Includes a budget that is clearly presented and adequate to accomplish the project.	
	Has costs that are reasonable and justified.	
	Provides for contribution of outside funds, in-kind services, or other match	