



Science and Resilience Institute at Jamaica Bay
2019 Fellowship Program
Request for Applications

Deadline: Monday April 29, 2019, 12:00pm EST

In 2019, the Science and Resilience Institute at Jamaica Bay (Institute) Fellowship Program will award funds to a limited number of graduate students and postdoctoral researchers affiliated with our consortium institutions. Hosted by CUNY - Brooklyn College, the Institute is a partnership between the National Park Service (NPS), the City of New York (NYC), and a consortium that includes the City University of New York (CUNY), Columbia University, Cornell University, Rutgers University, New York Sea Grant, Stevens Institute of Technology, Stony Brook University (SUNY), and the Wildlife Conservation Society.

The Institute's mission is to produce integrated knowledge that can be used to increase biodiversity, adaptive capacity, and well-being in Jamaica Bay and surrounding waters. As part of this mission, the Institute strives to make credible science relevant and useful for communities and decision makers. Applicants should propose projects aimed at addressing public agency- and stakeholder-driven priorities in Jamaica Bay and the surrounding communities by: developing new pilot research; translating or synthesizing existing scientific research or data into actionable information products; adding new dimensions to ongoing research to increase its usability; or strengthening existing Institute Programs.

Applicants and their advisors should anticipate working with the Institute closely, if selected, to adjust the design of their proposed projects to maximize their usability and impact. The Institute will help Fellows and their advisors develop a strategy for engaging communities, public agency representatives, and/or other researchers working on similar issues, as necessary and needed. Additionally, all successful Fellows will be required to participate in a three-day workshop and training focused on connecting science to decision-making. Through engagement and training, Fellows will gain formative experience and knowledge around real-world urban resilience issues, thus advancing the overall goal of Fellowship Program - to foster environmental careers through experiential learning in using science to manage coastal urban areas.



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Each fellowship recipient is required to:

- Contribute to the State of the Bay Symposium tentatively scheduled for late September at Kingsborough Community College.
- Present at an Advisory Council meeting and/or a Research Council meeting.
- Submit a brief progress report by September 13th, 2019 and a final narrative report at the end of the fellowship. The final narrative report will detail the fellow's accomplishments, feedback to the program, and the impacts of the fellowship on their research, scholarship, and professional development.

For more information about the Institute's ongoing programs and current projects, please visit www.srijb.org.

PRIORITY AREAS

Priorities to be addressed in fellowship applications fall within two main categories: *Research Development* and *Programs*. Projects should be focused on and/or located within the Jamaica Bay watershed (with exceptions made for the regions described in Program Priority 3, Monitoring Natural and Nature-Based Features).

Research Development Priorities

Applications under this category will describe new collaborative project ideas that reflect the priority research areas below. The research priorities reflect the broad themes within the various management plans (e.g. the Jamaica Bay Watershed Protection Plan) distributed among the many public agencies and stewardship organizations helping to manage Jamaica Bay. These broad themes are: a) processes that connect and determine the conditions of the watershed, coastline and waters of the Bay, including water quality; b) restoration and maintenance of healthy ecosystems, and c) community and social resilience. The Institute is soliciting research development fellowships in the following areas that reflects these themes:



1) *Socio-ecological-economic conditions and trends.* Research that aims to model, measure and monitor conditions and trends in Jamaica Bay – past, present, and future. The SRIJB is engaged in a sustained assessment process that identifies uncertainties and knowledge gaps¹. Successful applicants under this priority will work with the Institute Research Council to ensure that methods and outputs align with the goals of this sustained assessment process. Some uncertainties and gaps have been defined in the 2016 State of the Bay Symposium Report², the 2018 Update to the Jamaica Bay Watershed Protection Plan³ and other relevant management documents. Example topics include but are not limited to:

- a) Developing resilience indicators tailored to the Jamaica Bay context.
- b) Developing methods for monitoring of restoration or resilience projects.
- c) Modeling, measuring, or analyzing the status and trends of physical, ecological, biological, and social processes in Jamaica Bay.

2) *Adaptation and adaptive response.* Based on projected trends for 2050, research that explores opportunities and pathways for adaptive response in management and stewardship. Example topics include but are not limited to:

- a) Analysis of flexible or adaptive policies, plans, or laws.
- b) Research on risk and vulnerability, including perceptions and attitudes toward risks, and/or patterns of behavior in humans and other species in response to actual and perceived risk (e.g. homeowner response to flooding or fish response to warming waters).
- c) Evaluation of resilience and/or adaptive capacity based on management actions.

Applicants focused on research priorities should include a written product such as a white paper, a journal manuscript, a proposal synopsis, and/or a full proposal for a specific funding source. Research development activities may

¹ The sustained assessment process is modeled after the Fourth National Climate Assessment. Details on methods of expert elicitation and use of uncertainty guidelines can be found at <https://nca2018.globalchange.gov/chapter/front-matter-guide/>

² http://www.srijb.org/wp-content/uploads/2017/08/StateoftheBaySymposium_HiRes.pdf

³ https://www1.nyc.gov/html/dep/pdf/jamaica_bay/jbwpp_update_12312018.pdf



include, but are not limited to: new data collection; conceptualizing and scoping proposal ideas for large grants; designing workshops on emerging interdisciplinary themes, particularly those that are focused on developing new ideas into proposals for collaborative research; and broadening or deepening partnerships across Consortium campuses or departments through seminars or engagements that promote networking and knowledge exchange.

Program Priorities

Fellowships meeting program priorities are intended to provide unique professional experience for graduate students and postdocs interested in the integration of science and decision making in the context of managing coasts for resilience. Fellows will contribute to core programs of the Institute designed to inform resilience-focused projects in Jamaica Bay. Fellows contributing to program priorities will work from the Institute office, located at Brooklyn College, with some exceptions for Program Priority 3. The fellows will collaborate with Institute staff and the Research Council and be provided with office space on campus, wireless access, and mentoring. Specific products developed during the fellowship would be scoped in the first two weeks of award with Institute staff. Fellows under this priority may contribute to projects that include, but are not limited to:

1) 2019 State of the Bay symposium: This two-day event provides a forum for presentation and discussion of current research, management and stakeholder activities and will be synthesized into a State of the Bay report. Fellows may contribute to symposium programming and the subsequent proceedings report. For inquiries, please contact bbranco@brooklyn.cuny.edu.

2) Resilience Assessment Workshops: The assessment workshops engage a diverse array of experts to elicit knowledge about Jamaica Bay across a myriad of issues related to resilience. The goal of each workshop is to assess and synthesize current understanding and identify knowledge gaps or uncertainties based on future trends. Fellows may contribute to workshop planning, facilitation, and writing summaries for decision



makers using risk-based uncertainty guidelines. For inquiries, please contact bbranco@brooklyn.cuny.edu.

3) Monitoring Natural and Nature-Based Features: For the New York State – Department of State and the New York State Energy Research and Development Authority (NYSERDA), the Institute and partners will be performing pilot data collection using protocols for monitoring natural, nature-based and engineered shorelines in four regions of the State – the Great Lakes, the Hudson River, Long Island, and New York City. In each region, the protocols will support data collection in three thematic areas: hazard mitigation and structural integrity; ecological function; and socio-economic benefits. Fellows will be trained in the protocols, perform pilot data collection, and help curate the data. As this Program Priority has a supplemental set of requirements and expectations, please visit the project website (http://www.srijb.org/nys_nnbf/) for more information. For inquiries, please contact kgraziano@srijb.org.

4) R/V CUNY I Program Development: The R/V CUNY I is a state-of-the-art, 65' hybrid propulsion, aluminum catamaran available for research and educational cruises in and around the near shore waters of Jamaica Bay and the New York Harbor estuaries. The CUNY I can be booked by the full or half day for a variety of educational and scientific excursions. Fellows may contribute to creating educational programs aboard the ship, for a variety of audiences, that explore the socio-ecological systems and resilience of Jamaica Bay. For more information on CUNY I, please visit - <http://www.srijb.org/r-v-cuny-i/>. For inquiries, please contact sandrac@brooklyn.cuny.edu.

Applicants focused on program priorities should describe their ability to contribute to science communication products, including, but not limited to: nonfiction writing, infographics, maps, or other data visualizations.

ADVISORS

Each Fellow is required to have an advisor. The advisor should serve as a mentor to a Fellow as they carry out their proposed project activities. For applicants



focused on research priorities, advisors should be full-time researchers or staff at consortium institutions or Senior Fellows of the Institute. Advisors for Fellows addressing research priorities are required to provide a letter of support, detailing how they will provide mentoring and supervision, adequate workspace, access to information and human resources to accomplish the project activities, and any match funding or in-kind resources. Applicants focused on program priorities should discuss their application and interest with Institute staff and/or Senior Fellows. Match funding is not required, but it is strongly encouraged.

TRAINING AND RESOURCES

The Institute will provide an award of ~\$5,000 (see below), advice and collaboration on engagement strategies, introductions to potential research, community, and decision-making partners, access to transportation (where needed – see below), and background data, information, and research in support of project activities. For applicants addressing program priorities, the Institute will provide a workstation at our office on the Brooklyn College campus. For transportation, the Institute can arrange for the use of one 15-passenger van, a 65' catamaran *CUNY I* (the Institute's research and education vessel), and a 19' Carolina skiff (all subject to availability and usage fees). Though charter fees for the *CUNY I* can be covered from the Fellowship award, we encourage the applicant's research or work sponsor to help defray this cost. Research equipment for use on either boat must be furnished by the applicant or their advisor.

The Institute will also provide a 3-day workshop and training on *Connecting Science and Decision-Making* on the Brooklyn College campus (see Timeline below for dates). The workshop will include guest speakers, group discussions, and learning activities. Background reading will be provided with the notification of fellowship awards, and guest presentations will offer the opportunity to interact with researchers and practitioners outside the NYC region. Additional references for further education and research will also be provided. The workshop will help set the course of each Fellowship so that, by the end of their experience, students will have:



- Sparked collaborative relationships with each other, the Institute, and potential partners
- Understood different techniques for project evaluation
- Identified strategies for engaging communities and decision-makers
- Diagnosed knowledge gaps in real-world contexts
- Learned to communicate with and to diverse audiences effectively

During the workshop, the Institute will work with applicants to adjust their proposed project to enhance usability for communities and decision-makers. Advisors are welcome to attend, but not required. Any adjustments to project scope will be at the final discretion of the Fellow and the Fellow’s advisor.

TIMELINE AND KEY DATES

The Fellowship officially lasts from June 3rd 2019 to May 31st 2020. Following the workshop and training, Fellows addressing research priorities will work under the guidance of their advisor. Funding for Fellows is meant to cover the period from June 3 – August 31, 2019, and we anticipate that much of the work will be carried out during that time. However, Fellowships officially last for the year from June 3, 2019 – May 31, 2020 because we will encourage Fellows to participate in and share their work at Institute events (e.g. site visits, lectures, and advisory council meetings). Fellows are required to submit an interim progress report and final narrative report, and communicate their findings to a broad audience of Institute partners. All project activities and the final narrative report must be completed no later than May 31st, 2020.

Fellowship Period	June 3 2019 – May 31, 2020
Deadline for Applications	April 29, 2019
Applicant Notification	May 10, 2019
Training – <i>Connecting Science & Decision-making</i>	June 4 - 6, 2019
Submit Progress Report	September 13, 2019
Submit Final Narrative Report	May 31, 2020



ELIGIBILITY

- 1) Applicants must be either 1) an enrolled graduate student or graduating in Spring 2019 or 2) a postdoctoral researcher, and be from one of the following organizations: any of the City University of New York (CUNY) institutions, Columbia University, Cornell University, Rutgers University, Stevens Institute of Technology, and Stony Brook University.
- 2) Applicants must have an identified advisor. Advisors must have adequate availability to support and guide the Fellow in achieving project goals and deliverables by the end of the Fellowship. Advisors must be from a consortium institution (any of the City University of New York (CUNY) institutions, Columbia University, Cornell University, Rutgers University, Stevens Institute of Technology, Stony Brook University, Wildlife Conservation Society and New York Sea Grant) or a Senior Fellow of the Institute.
- 3) Applicants must attend the *Connecting Science to Decision Making* workshop and training June 4 - 6, 2019.
- 4) Applicants must be available to complete all proposed project activities and deliverables within the Fellowship period (June 3rd, 2019 – May 31st, 2020). Applicants to the Program Priorities, especially priority 3, will likely be expected to complete deliverables by September 13, 2019.
- 5) Applicants must be eligible to be employed by the Research Foundation of CUNY. In some cases, visa holding foreign national students may only be eligible for employment through their sponsoring employer or organization and therefore would not be eligible for this Fellowship. All students must have their employment eligibility verified through the I-9 and e-verify processes prior to initiating the Fellowship. If you have questions related to your employment eligibility, please contact Sandra Clarke (sandrac@brooklyn.cuny.edu).

APPLICATION STRUCTURE

Applications are limited to 10 pages and should include the following components:



- A. Cover Letter – A cover letter describing the value of the Fellowship to your career development, including your personal and professional interests and aspirations beyond the Fellowship. The cover letter should clearly indicate which research or program priority is being addressed. Applicants for Program Priorities should specify availability during the fellowship period.
- B. Issue Statement – A brief problem or issue statement related to resilience in Jamaica Bay.
- C. Goals and Objectives – A discrete set of goals and objectives for the proposed Fellowship activities. **(Applications to research priorities only)**.
- D. Project Approach – A draft description of your proposed activities. Applicants can refine this approach after the orientation and training. However, they should illustrate sound research methods and/or innovative thinking in promoting the use of science to solve the problem. For activities that include data collection, applicants should explain how quality assurance and control will be performed, and how the data will be made publicly available via the Institute and/or other means. **(Applications to research priorities only)**.
- E. Products and Outcomes – A draft description of the expected products and/or outcomes of your work, how the products and/or outcomes meet the project goals and objectives, and whether the project approach will support the expected products and/or outcomes.
- F. Timeline - A timeline of project activities, milestones, and deliverable dates, including submission of a midterm progress report and final narrative report. **(Applications to research priorities only)**.
- G. Budget description – A description of or table on how you will use your funding to support your project, including a preliminary estimate of personnel (including Fellow’s own time), travel, meeting/workshop costs, equipment, and/or materials. Any amount of in-kind or cash match will review favorably. **Please note** that Fellows are responsible for using their award to cover project costs. The Institute will not issue payment or reimbursement to vendors, contractors, or any individuals other than the recipient Fellow. **(Applications to research priorities only)**.
- H. Curriculum Vitae or Resume
- I. Letters of Support – All applicants must provide at least one letter of support. For applications addressing the research priorities, letters from the Fellow’s advisor are mandatory. The Advisor’s letter should indicate how



often they will meet with the Fellow and what types of mentoring support they will provide. Letters can also be provided by professional references, project partners or collaborators.

Finalists for program priorities should be available for a brief phone interview between Monday May 13th and Friday May 17th.

AWARD AVAILABILITY

Awards for this Fellowship program are subject to the availability of funds. We anticipate a total of up to ~\$15,000 – 20,000 available for Research Development projects, and ~\$25,000 – 30,000 available for Program support. The number of awards will depend on the availability of funding and the strength of the applications. Each Fellow will receive ~\$5,000 or more for time, travel, equipment, and any other expenses associated with their proposed project. For applicants to the Program Priorities, the Institute may provide additional funds for travel and other project expenses. Fellows will be notified of their acceptance by May 10, 2019.

SELECTION CRITERIA

All eligible applications will be evaluated by a panel of experts from academia, public agencies, community stakeholders, and non-academic experts in resilience. Panelists will score each application based on the six criteria below on a scale from 1 to 5 (low to high). The scores from each individual criteria will be averaged, and the final ranking will be based on the average scores of all applications. Any application with an average score of 3 or less will not be considered for funding. The Institute will make a final determination on the number and type of awards from final ranking.

Evaluation criteria for the overall application, and the most relevant section of the application, are listed below.

- Career Development – the value of this experience to their career development and how they expect to apply this experience beyond the fellowship.



- Relevance – the extent to which the issue statement, goals and objectives are clearly stated and address the priority areas stated in this request for applications.
- Merit (**for applicants to the research priority areas**) – the extent to which the project approach is:
 - Based on sound research, scientific methods, and/or innovative thinking.
 - Builds or enhances collaboration within and across Institute partners.
 - Provides a clear statement on feasibility, explaining how the project will be achieved within the timeline.
 - Provides a rationale on how the results can be used by communities and/or decision-makers.
- Qualifications – The applicant has or is pursuing experience, expertise, and/or credentials relevant to the activities described.
- Mentoring – **For applicants to the research priority areas**, the strength of the Advisor’s involvement and time commitment as described in the letter(s) of support. **For applicants to the program priority areas**, letters of support and/or reference.
- Leverage –The ideas and activities are likely to evolve into larger projects or fundraising activities for the Institute and/or Jamaica Bay.

APPLICATION SUBMISSION AND DEADLINE

Applications should not exceed 10 pages, using 12-point font and 1-inch margins. Applications to the Program Priorities need not be this long. All applications should be provided in Adobe PDF file format only to fellowship@srijb.org by 12 pm April 29, 2019. Late or incomplete applications (see application Structure) will not be considered for review. While not necessary, for applicants using figures or graphics, please make sure the file size of your application does not exceed 10 MB. Applications should be clear, concise, and free of technical jargon, unless clearly explained.

Please direct any general questions to: fellowship@srijb.org.