



Request for Proposals
Projects from Clarkson and ESF Faculty
RFP-20250512

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OVERVIEW

The vision of the **New York State Center of Excellence in Healthy Water Solutions at Clarkson University and SUNY ESF (CoE)** is to ensure a healthy and sustainable future through the protection and conservation of water resources.

Our mission is to generate solutions that help protect and improve waters for sustainable natural environments, healthy populations, resilient communities and sound economies.

Besides addressing water science and technology needs, a key requirement for CoE projects is to demonstrate an ability to support economic development in New York State. All project proposals must include a component of economic development. This may entail: boosting employment, workforce training, enhancing recreational opportunities, reducing costs of environmental management and protection, or developing new technologies that can be commercialized.

Through this Request for Proposals (hereinafter referred to as “RFP”) process and funding, Clarkson and ESF faculty, staff, and students seek to strengthen existing partnerships and forge new collaborations with private industry, consultants/engineers, water districts, K-12 schools, colleges and universities, government agencies, policy-makers, and local stakeholders.

To meet these goals, the CoE is seeking concise proposals from Clarkson and ESF faculty for funding in the categories outlined in this Request for Proposals.



In 2019 New York State designated Clarkson University and SUNY College of Environmental Science & Forestry (ESF) to co-lead the Center of Excellence (CoE) in Healthy Water Solutions.

NYS Centers of Excellence are funded by the New York State Department of Economic Development's Division of Science, Technology, and Innovation ([NYSTAR](#)) to foster collaboration between the academic research community and the business sector to develop and commercialize new products and technologies, to promote critical private sector investment in emerging high-technology fields in New York State, and to create and expand technology-related businesses and employment.

AREAS OF FOCUS

Research has focused in three general categories (Emerging and Traditional Contaminants, Water in the Natural Environment, and Water Resources Planning/Management). Below is a list of representative topics within each category. This is not an inclusive list of topics to be considered for funding but rather intended to provide an overview of potential projects.

Emerging and Traditional Contaminants

- Innovative PFAS treatment
- Sensor development for watershed management using citizen science
- Materials for cost effective nutrient recovery
- Solar-energy driven water desalination
- Aquaculture for nutrient management
- Resource recovery process development for improved agricultural land management
- Conservation, restoration, and enhancement of aquatic habitats
- Risk assessment frameworks for PFAS
- Predict and protect against HABs
- Hg fate and transport in aquatic systems

Water in the Natural Environment

- Predict and prevent flooding; predict and manage drought
- Preserve and restore wetlands
- Track microbial sources; microbial risk assessment
- Manage landscapes to reduce loading of stressors to water bodies
- Model sediment transport

Water Resources Planning and Management

- Sustainable infrastructure planning
- High resolution mapping and forecasting via low-cost sensors coupled with advanced data analytics
- Determine water consumption patterns and factors influencing consumption via detection systems and advanced data analytics

EXTERNAL PARTNERS SEEKING COLLABORATION

Informed by our institutional and faculty research agendas and areas of expertise, the NYS CoE in Healthy Water Solutions is actively working year-round to identify potential external collaborators and partners across water challenges and opportunities – including individual companies and sector-specific industry, municipalities, associations, NGOs, and other organizations. Given partnership needs and funding cycles, the CoE will maintain a reserve fund to help support potential projects, including seed, larger-scale, and commercialization, on an interval and/or rolling basis beyond the timeframe of this RFP. CoE staff will provide regular communications to faculty and teams on “*Projects and Partnerships We are Exploring*” to help facilitate potential collaborations with external partners based on faculty interest and capacity to undertake new projects.

CURRENT POTENTIAL PARTNERS SEEKING COLLABORATION

We have identified two (2) potential projects for consideration that coincide with this RFP with early summer 2025 start dates:

Project Focus 1: Water Quality Monitoring/Analysis

External Partner: Carollo Engineering

Project Summary:

The Carollo Engineering firm expressed an interest in partnering with the CoE on an ultrafiltration (and delineated reuse) pilot study that includes water quality monitoring and mutually-defined analysis responsibilities, the collective results of which will ultimately inform water systems planning, design, and construction as part of Micron’s planned Semiconductor Fabrication Facility in Clay, NY. The pilot project scope includes regular on-site monitoring and data collection by graduate student(s) beginning in early summer 2025 (1-2 hours/2x weekly) for the duration of one year as well as co-analysis and validation work. Per requirements of NYSTAR, the Carollo 1:1 match would include mentoring and staff oversight of students, pilot site, equipment, etc.

External Partner Lead/Pipeline:

The CoE can facilitate an introductory meeting with the Carollo team for interested faculty.

Project Focus 2: Measuring Economic Impact (Including Non-Market Uses) of Water Quality and Management Improvements as well as Healthy Water Solutions

External Partner: The NYS CoE in Healthy Water Solutions (Internal Need)

Project Summary:

The NYS Center of Excellence in Healthy Water Solutions is the only CoE in the state fully focused on water challenges and opportunities, and has the same requirement of all CoEs to demonstrate positive economic impacts such as direct and indirect jobs, increases in leveraged research capacity, and commercialization benefits including new business launches. Unlike other CoEs that may be focused on job creation in a specific sector, water management and water quality improvements do not always translate readily into conventional and measurable economic drivers. As such, the CoE is interested in supporting a project to design or refine models and valuation methods used in measuring and quantifying the economic benefits of improved water management, water quality, and emerging healthy water solutions that will yield valid indicators to help us assess and report the impacts of R&D work supported under the CoE umbrella.

INSTITUTIONAL RESOURCES AND CENTERS

A cornerstone of the CoE is the ability to establish collaborative relationships between Clarkson University and SUNY ESF and across the breadth of resources. The following are some examples of potential partnerships that could be fostered to further your research goals and strengthen your proposal.

CLARKSON UNIVERSITY

[Beacon Institute for Rivers & Estuaries](#)

[Center for Air and Aquatic Resources Engineering and Sciences](#)

[The Center for Advanced Materials Processing \(CAMP\)](#)

[The Shipley Center for Innovation](#)

[Institute for STEM Education](#)

[Institute for a Sustainable Environment](#)

SUNY ESF

[Adirondack Ecological Center](#)

[Analytical & Technical Services](#)

[Cranberry Lake Biological Station](#)

[ESF Open Academy](#)

TIMELINE

5/12/2025 **RFP Release**

6/6/2025 **Proposal Deadline.** Submit to the Center via online portal by 11:59pm (ET). Visit <https://healthywaters.org/funding-opportunities/> to access the link to submit. Proposals are accepted and considered on a competitive basis.

6/20/2025 **Notification of Decision.** Awards are subject to the timely passing of the NYS Budget and availability of funds.

PROJECT & FUNDING PERIOD

Duration of funding will be from the time of award by the institution's Sponsored Research office or department for approximately 1 year.

Funds will be available **after July 1, 2025, and may not be available until on or about September 1, 2025** - pending approval of the NYSTAR contract and accounts being set up.

PROPOSAL CATEGORIES

1. Research Seed Grants

Objective

Seed funding can be used to support novel applied research concepts, but it can also be used for development of plans to support commercialization of a technology. For instance, seed funding could be used to develop an application to an NSF I-Corps regional course (<https://www.unyicorps.org/regional-courses>).

Seed funds **cannot** be used for basic research. All seed proposals should ideally include the involvement of an external partner that is not a NY state agency (NGO, federal agency, municipality, lake or watershed association, company, etc.). Partners may have direct involvement in the research, but they may also be involved by disseminating results, training project participants, offering feedback on policy implications, or similar activities.

Eligibility

All projects must include at least one collaborator from both Clarkson University and SUNY ESF.

Funds Available

Project budgets cannot exceed \$30,000 over the project period (shared between Clarkson and ESF).

Proposed budget must include line item description and amount of 1:1 matching funds. Matching funds must be equal to or greater than the funding request. *[See “MATCHING FUNDS” section for details.]*

Allowed Expenses

Eligible expenses include student salary, tuition, supplies, equipment, analytical costs, and project travel. Summer salary is not allowed for seed proposals as the limited funding is intended to generate knowledge and data for future proposals.

2. Concept Commercialization/Implementation

Objective

A primary objective of the Centers of Excellence (CoE) within New York State is to support development of technology that can be commercialized or development of improved environmental management practices that can bring societal benefit. Thus, besides involving the development of a product that can be sold or a technology that could be patented, these projects may entail implementation of practices that lead to tangible economic gains to municipalities or resource users, possibly in the form of reduced costs. Unlike the seed funding program, these funds are intended for more mature projects that are near a commercialization or implementation phase.

Proposals should justify commercial viability and clearly define project steps and how they will be accomplished.

Eligibility

The key requisite to be eligible for this pool of funds is that an applicant must have 1:1 matching funds from a private sector partner, a federal grant (Clarkson Only) or internal (university) sources (e.g. investigator salary cost sharing or tuition for students). *[See “MATCHING FUNDS” section for details.]*

Additionally, the applicant must be proposing a technology or management approach related to water quality that is at the applied testing phase, such that further work could in the near term lead to commercialization or implementation of a new policy or management scheme.

Multiple PIs from both Clarkson and ESF are encouraged, but not required. A proposal may include a single PI from either Clarkson or ESF.

An individual faculty member may serve as the primary PI for only one proposal. However, any individual may serve as co-PI on multiple proposals.

Funds Available

Project budgets cannot not exceed \$100,000 over the project period.

Allowed Expenses

Eligible expenses include student salary, tuition, supplies, equipment, project travel, and PI summer salary.

Funds **cannot** be used for basic research.

3. Education and Outreach

Objective

This funding category is intended to support projects involving K-12 education, community outreach, partnership building, or workforce development. Examples include providing research opportunities to underrepresented minority high school students in the fields of water science, creating a training workshop to build critical skills in a water-related field; or developing a workshop that builds industry-academic-government relationships around a water-related topic.

Eligibility

Multiple PIs from both Clarkson and ESF are encouraged, but not required. A proposal may include a single PI from either Clarkson or ESF.

Funds Available

Project budgets cannot not exceed \$30,000 over the project period (shared if proposal is between Clarkson and ESF).

Proposed budget must include line item description and amount of 1:1 matching funds. Matching funds must be equal to or greater than the funding request. *[See “MATCHING FUNDS” section for details.]*

Allowed Expenses

Eligible expenses include external partner expenses that directly support the project, student salary, summer salary for faculty, tuition, supplies, equipment, and project travel.

Funds **cannot** be used for basic research.

4. Grant Preparation

Objective

A primary goal of the CoE is to build new partnerships. Of particular interest are the creation of research centers or hubs that provide long term support for collaborative research and development among multiple partners. Writing proposals to obtain grants for hubs or centers is time intensive. The intent of this category is to provide support to PIs who are seeking to coordinate proposals for large grants (> \$1M). While not limited to these items, it could include support to a graduate student or postdoctoral helping write a proposal, support for course release, or summer salary.

Eligibility

Multiple PIs from both Clarkson and ESF are encouraged, but not required. If there are not PIs from both Clarkson and ESF, proposals must then include one or more partners or collaborators from external entities (i.e. business, lake associations). A PI from ESF or Clarkson does not necessarily need to be the lead entity on the grant, but they should play a sizable role.

Funds Available

Project budgets should not exceed \$20,000.

Allowed Expenses

Eligible expenses include external partner expenses that directly support the project, student salary, summer salary for faculty, funds for teaching release, tuition, supplies, equipment, analytical costs, analytical costs, and project travel.

MATCHING FUNDS

Proposed budget must include line item description and amount of 1:1 matching funds.

Matching funds must be equal to or greater than the funding request.

Matching funds can include:

- Cash and in-kind contributions from external partners, including federal funding agencies (for Clarkson only). In-kind contributions can include salary and fringe benefits.
- External partners will be required to complete and submit a Third Party Cost Share Report for the June 30th internal due date of Progress Report periods detailing their contributions by budget lines. Form will be provided by CoE.
- Faculty academic salaries, including indirect costs (15% for salaries and 15% for fringe for this grant) paid by Clarkson or ESF for percent of time working on the project.
 - Clarkson Academic Salaries have a 30.1% Fringe rate

- Student salaries, including indirect costs (15% for salaries and 15% for fringe for this grant) paid by Clarkson or ESF for percent of time working on the project.
 - Clarkson Graduate students have 0% Fringe Rates
 - Clarkson Undergrads have a 7.65% Fringe rate only during the summer, 0% during the school year
- **For Clarkson only:** Graduate tuition paid through a federal or foundation grant, or the university, for graduate students participating on the project (related to industry). Budget must include the name of the agency that provided the grant.

With the exception of federal grants where match can be documented by the research office, matching funds (cash or in-kind) from partners should be stated in a letter of support from the partner and included with proposal submission. *[Sample “Third Party Cost Sharing Commitment” letter template is included in this RFP below.]*

If cost share commitment by 3rd party covers the entire proposed budget when there is both a Clarkson PI and ESF PI, separate cost share letters should be supplied by the 3rd party to outline match for Clarkson side, and separate letter to outline ESF side match to streamline institutional accounting.

REVIEW AND SELECTION CRITERIA

Proposals will be evaluated by an internal review committee composed of representative faculty experts from each campus who are not competing in this call for proposals, as well as a panel of external reviewers.

Proposals will be evaluated on the following criteria:

1. **Feasibility:** Does the project team have sufficient expertise and appropriate institutional resources (e.g. lab space, instrumentation, etc.)? Is the scope commensurate with the budget? Those who received prior CoE funding, was there a demonstration of impactful outcomes?
2. **Quality of Science/Relevance:** Does the proposal provide sufficient description to contextualize the proposed work within the broader state of knowledge in the field? If focused on workforce development, does it provide evidence of need for the training? Is the work timely and important?
3. **Economic Development Potential:** Is there evidence of potential for economic impacts? Examples could include matching funds from an industry partner (ideally from NYS), industry collaboration, technology transfer, workforce development, licensing and commercialization. Applicants should provide concrete details and measurable milestones for success in this area. This is a critical part of each proposal and should not be short changed.

REPORTING REQUIREMENTS

1. Progress Reports **for all projects** are due on December 31st and June 30th of each year. CoE will provide a report format.
2. Economic Impact Forms must be completed by all external partners once a year, and are due with the June 30th Progress Report. CoE will provide the form template.

PROPOSAL FORMAT

Format:

- 1 inch margins
- 1.08 multi-line spacing
- 12 point Times New Roman font
- Number pages

Cover Page which includes items 1-6 (1 page)

1. Category of Funding
2. Ideal Funding Start and End Date
3. Project Title
4. Clarkson/ESF Team Members (names and contact information)
5. External Partners
6. Water research area addressed in proposal
7. For those with prior CoE funding, include a brief description of prior project outcomes.

Project Description (< 2 pages for Seed and Education; 3-5 pages for Commercialization):*

- Problem Statement
- Objectives
- Tasks
- Project Impacts (summarize briefly here)
 - Social/Environmental
 - Business/Economic Development
- Expected Scientific Outcomes
- Expected Economic Development Outcomes

* For Commercialization proposals: include narrative providing overview of technology/management scheme, development history, current status, and next steps for commercialization. This section should clearly indicate how these funds will be used and the benefit of these funds in moving toward commercialization or implementation.

Budget and Budget Justification (<1 page)

Provide a table that identifies

- Primary budget categories (student pay, supplies, travel, etc.).
- Per CoE funding guidelines, 15% indirect cost needs to be applied to all personnel costs. For other costs, indirect costs have been waived.
- Travel is only allowed within NYS unless prior permission is given.

- Budget must include a column with line item description and amount of 1:1 matching funds. Matching funds must be equal to or greater than the funding request. [see “MATCHING FUNDS” section for details.]
- For proposals with more than one PI per institution, include % of effort for each PI and Co-PI for the project.

Budget Template Including Cost Share Identification to Attach to Proposal Submission as a separate Excel file attachment. Clarkson PIs to use Clarkson form. ESF PIs to use ESF form.

- CLARKSON
<https://docs.google.com/spreadsheets/d/1H8PK8R5Omv9fXx8bjYJ9saFLBtcN05/edit?usp=sharing&ouid=113730857010100194335&rtpof=true&sd=true>
- ESF
https://docs.google.com/spreadsheets/d/1EPi_dVDq9vUyo2vDKllbCBZZIDBPFme0/edit?gid=855202691#gid=855202691

Investigator CV

Provide a 2-page biosketch for each investigator following the [NSF](#) or similar format.

PAST FUNDED PROJECTS

See: <https://healthywaters.org/funded-projects>

THIRD PARTY COST SHARING COMMITMENT LETTER

[Date]

[Cost Sharing Source]

[Name]

[Title]

[Address]

[City], [State] [ZIP]

RE: Letter of Cost Sharing Commitment for Proposal [Title, Start Date]

Thank you for matching support in the amount of **\$0** as part of a
[Seed/Commercialization/Education & Outreach/Grant Prep] project proposed to *NYS
Center of Excellence in Healthy Water Solutions at Clarkson University and SUNY ESF* titled
“[Project Title]” under my direction as Principal Investigator. In the event that the proposal is
approved, the University must meet all matching commitments.

By signing this form, [Cost Sharing Source] agrees to supply an auditable record of the above
support to the institution by **June 30th and December 31st** each year for the duration of the
Project. You also confirm this cost share commitment has not nor will be counted or documented
for any other awards.

Cost Share Sample:

Salaries	[\$xxx.xx]
Fringe Benefits	[\$xxx.xx]
Indirect Costs	[\$xxx.xx]
Equipment	[\$xxx.xx]
Materials & Supplies	[\$xxx.xx]
Tuition	[\$xxx.xx]
Travel	[\$xxx.xx]
Subcontracts	[\$xxx.xx]
Other	[\$xxx.xx]
TOTAL Match Provided	[\$xxx.xx]

Best,

[PI Name]

Copy to: [University's Sponsored Research]
Donna Kowal, Program Manager, NYS CoE in Healthy Water Solutions

Signature

Date

CONTACTS

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Clarkson™



State University of New York College of
Environmental Science and Forestry



Division of
Science, Technology
& Innovation

A Division of Empire State Development

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