Instructions

QUINNIPIAC RIVER FUND GRANT AWARD - FINAL REPORT QUESTIONS

This form is to be completed by all nonprofit organizations that received a grant through the Quinnipiac River Fund.

Grant Details

Grant Details

Organization Name

Southern Connecticut State University Foundation Inc.

Grant Description

to support the monitoring of deicing salt pollution in vernal pools and its impacts on amphibian ecosystems in the Quinnipiac River Watershed.

Total Grant Amount

16,000.00

Report Questions

1. List the specific objectives/outcomes of the project and tell how they were met during the grant period. Also, provide an update on any special conditions of the grant (if applicable).

The project proposed developing an innovative, low-cost water quality monitoring system in the Quinnipiac River Watershed using DIY salinity data loggers and community engagement. During the grant period, we completed the design and construction of two water quality monitoring devices, along with the necessary backend server infrastructure for data retrieval and management. We are currently in beta-testing of the devices to ensure functionality before field deployment. We also designed signage to advertise the devices. Device and signage deployment is planned for this summer—placing one device in a tributary and one in a pond within the watershed. Additionally, we recruited an undergraduate student who will complete an independent study focused on device maintenance and community engagement, including building partnerships and involving SCSU students in water quality monitoring efforts on campus and in the Quinnipiac River Watershed. These steps directly address the objectives of designing, building, and deploying low-cost water quality devices and fostering community involvement in water quality monitoring.

2. Please share your successes, challenges and any lessons learned through the implementation of your project. Were there any unintended consequences or lessons learned that may affect how you operate your program moving forward?

Successes include completing the design and assembly of the two water quality monitoring devices and server backend, positioning us for deployment in the summer. We successfully recruited an undergraduate student to help lead device maintenance and community engagement, laying a foundation for student

involvement in water quality monitoring on campus and in the Quinnipiac River Watershed.

Challenges included navigating design complexities for device durability and Bluetooth-enabled communication, which required additional testing iterations to ensure reliability under field conditions. Coordination of backend server setup to interface seamlessly with devices also took longer than initially projected.

Lessons learned include the importance of allowing sufficient time for iterative testing of DIY environmental monitoring devices before field deployment, as well as the benefit of integrating student leadership early in the project to support long-term sustainability and community engagement.

No major unintended negative consequences arose; however, a positive unintended outcome was increased student interest in participating in local water quality monitoring efforts, which may expand the project's community science impact moving forward.

3. What are the opportunities and needs of your organization as it continues to move forward with its work to positively impact the Quinnipiac River?

As we prepare for summer deployment, opportunities include expanding student and community engagement in water quality monitoring within the Quinnipiac River Watershed and using the deployed devices as a springboard for public education on salt pollution and freshwater protection. The project has the potential to develop a network of community members and students collecting, interpreting, and sharing water quality data to support local conservation efforts.

Moving forward, we will need resources to scale device production, refine the smartphone interface for broader community use, and develop workshops to train community members and students in data collection and interpretation. Additionally, building partnerships with local land managers, schools, and environmental organizations will be essential to maximizing the project's reach and long-term sustainability in protecting water quality in the Quinnipiac River Watershed.

Attachments

Financial information (required): Please provide a detailed accounting of how the specific grant dollars were spent based on the budget submitted in the grant application.

Detailed Accounting
SCSU QRF_Final Spending Breakdown.xlsx

Pictures (optional): Please attach one to three pictures in JPEG format, in the highest resolution possible, of activities that have occurred throughout the grant period as a result of grant funding. By providing pictures, your organization is consenting to unlimited use of the pictures by The Community Foundation for Greater New Haven and/or the Valley Community Foundation in publications in print and online (including www.thequinnipiacriver.com). Please include a description of each photo and, when known, the photographer to be credited.

Picture 1
Picture One.jpg

Description and Photo Credit
Terrence Drew (Consultant) assembling the device. Photo by Steve Brady

Picture 2
Picture Two.jpg

Description and Photo Credit
Terrence Drew (Consultant) assembling the device. Photo by Steve Brady

Picture 3
Picture Three.jpg

Description and Photo Credit
Terrence Drew (Consultant) assembling the device. Photo by Steve Brady