

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

Yale University

Grant Description

to support the study of salt levels in the Quinnipiac River and typical source waters to advance understanding of this emerging pollution threat.

Total Grant Amount

20,000.00

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).

Specific Objectives/Outcomes and How They Were Met:

Measure Salt Levels in Various Parts of the Aquatic Urban Environment

Objective: Conduct salt level measurements at different scales, including individual catch basins, small streams, and the entire Quinnipiac River.

Outcome: The project successfully collected and analyzed salt concentration data from various locations within the urban aquatic environment. This involved sampling from catch basins, smaller tributaries, and different sections of the Quinnipiac River, providing a comprehensive view of salt distribution.

Assess Salt Levels in the Quinnipiac River

Objective: Determine the concentration of salt in the Quinnipiac River.

Outcome: Detailed salt level data were obtained for different points along the Quinnipiac River. This information was used to map and analyze the spatial distribution of salt, highlighting areas of higher concentration and potential sources.

Evaluate Salt Levels in Typical Source Waters

Objective: Measure salt concentrations in typical source waters that contribute to the Quinnipiac River.

Outcome: Salt levels were measured in various source waters, such as runoff from streets and industrial areas, to identify primary contributors to river salt levels. This helped in understanding the pathways through which salt enters the river system.

Advance Understanding of Salt Pollution Threats

Objective: Enhance knowledge about the impacts and sources of salt pollution in the urban aquatic environment.

Outcome: The project provided valuable insights into how salt pollution behaves and its effects on aquatic ecosystems. This includes understanding seasonal variations, the impact of urban infrastructure, and the overall health of the aquatic environment.

Support Watershed Management and Policy Development

Objective: Provide data and analysis to help watershed managers develop strategies to reduce salt pollution and limit human exposure.

Outcome: The data collected was used to inform recommendations for reducing salt usage and mitigating its effects. The project results were shared with watershed managers, local authorities, and policy makers to guide the implementation of best practices and policies aimed at reducing salt pollution.

Each objective was met through a combination of field sampling, data analysis, and collaboration with stakeholders, ensuring that the project's goals were effectively achieved and the findings could be used to address salt pollution in the urban aquatic environment.

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

1. Task Completion: The majority of tasks were completed as planned, which we feel was based on effective initial planning and project management. This indicates that the project team was able to adhere to timelines and deliverables effectively.

2. Adaptability: The project team demonstrated adaptability by continuing the research into a second winter. We believe this flexibility allowed for a more thorough investigation and data collection, compensating for the initially fewer salting events.

3. Learning Opportunity: The milder winters provided an unexpected but valuable learning opportunity. The data collected under these conditions could offer unique insights that might not have been obtained under normal circumstances.

Challenges

1. Unexpected Weather Conditions: The milder than expected winters led to fewer salting events than anticipated. This deviation from the plan required adjustments and additional time to complete the research.
2. Funding and Time Constraints: Extending the project into a second winter under a no-cost extension required some additional administrative work, but we feel it did not impact the project's budget or resource allocation.

Lessons Learned

1. Flexibility in Planning: It's crucial to build flexibility into project plans to accommodate unexpected changes, such as weather variations. Contingency plans and adaptable timelines can help manage unforeseen challenges.
2. Resource Allocation: Efficient management of resources, including time and budget, is essential. Regular monitoring and adjusting resource allocation in response to project changes can help keep the project on track.
3. Extended Research Value: Utilizing extended periods for research, even if initially unintended, can yield valuable insights. It's important to view such extensions as opportunities for deeper analysis rather than just setbacks.

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?

When considering the opportunities and needs of Yale School of the Environment focused on positively impacting the Quinnipiac River, several key factors come into play.

Opportunities:

1. Community Engagement and Education:

o Opportunity: Engaging the local community through educational programs, workshops, and events can increase public awareness and support for conservation efforts.

o Action: Develop educational materials and organize events that highlight the importance of river conservation and offer practical ways for individuals to contribute.

2. Partnerships and Collaborations:

o Opportunity: Collaborating with local governments, businesses, and other non-profits can enhance resources, share expertise, and expand the reach of initiatives.

o Action: Seek partnerships that align with your goals, such as local schools for educational programs or businesses for sponsorships and support.

3. Grants and Funding:

o Opportunity: There are numerous grants and funding opportunities available for environmental and conservation projects.

o Action: Identify and apply for relevant grants and funding sources, and consider developing fundraising campaigns to support your initiatives.

4. Technological Advances:

o Opportunity: Utilizing new technologies for monitoring, data collection, and environmental management can improve the effectiveness of our work.

o Action: We will continue to use advanced tools and technologies, especially automated water quality sensors and GIS mapping systems.

5. Advocacy and Policy Influence:

o Opportunity: Advocating for policies that support river conservation can lead to significant improvements in river health and sustainability.

o Action: Engage in advocacy efforts by working with policymakers,

participating in public hearings, and promoting policy changes that benefit the Quinnipiac River.

Needs:

1. Resource Allocation:

o Need: Adequate funding, staffing, and resources are essential for carrying out projects effectively.

o Action: Ensure proper budget planning and explore ways to increase resources through grants, donations, and sponsorships.

2. Data and Research:

o Need: Comprehensive data on the river's ecosystem is crucial for informed decision-making and effective interventions.

o Action: Conduct or collaborate on research projects to gather data on water quality and other key factors affecting the river.

3. Volunteers and Human Resources:

o Need: Engaged and skilled volunteers are important for executing projects and initiatives.

o Action: Recruit and train volunteers, and consider internships or partnerships with local universities beyond Yale for additional support.

4. Public Awareness and Support:

o Need: Building and maintaining public support is critical for the success of conservation efforts.

o Action: Implement marketing and outreach strategies to raise awareness about your work and its impact on the community and environment.

5. Regulatory and Policy Challenges:

o Need: Navigating regulations and policies can be complex and may impact project implementation.

o Action: Stay informed about relevant regulations and work with legal experts or advocacy groups to address any regulatory challenges.

By addressing these opportunities and needs, our organization can enhance its efforts to positively impact the Quinnipiac River and ensure sustainable and effective conservation outcomes.

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

22 Salt in the Quinnipiac Watershed.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

Street salt2.jpg

Description and Photo Credit

Excessive street salting flows to storm drains and eventually to the Quinnipiac River (Photo credit Gaboury Benoit)

Picture 2

Gabe in vernal pool.jpg

Description and Photo Credit

Professor Benoit installs a gauge in a small surface pond. (Photo credit Steve Brady)

Picture 3

Vernal pool weir medium.jpg

Description and Photo Credit

A V notch weir is used to measure water flow. (Photo credit Gaboury Benoit)