

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

Quinnipiac University

Grant Description

to support monitoring, identifying and quantifying known pollutants from industrial outflows along the Quinnipiac River, specifically industrial areas in Wallingford and North Haven.

This grant was awarded with the condition that the grantee investigates if this project duplicates, overlaps or complements any water monitoring performed by DEEP or any other organization, and reports back its findings at the 2020 QRiver Fall Grantee Meeting.

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).

Objective 1: Collect and analyze water samples for chemical pollutants and water quality parameters from established sampling locations along the Quinnipiac River from Wallingford to North Haven.

Water samples were collected on eight separate dates, and subsequent analysis via GC-MS was completed. The purpose of the sampling is to monitor the health of the river and understand how the chemicals that are dumped (accidentally or intentionally) into the river effect the health of aquatic organisms and individuals who utilize the river for recreational activities such as fishing. Our major findings include the presence of hydrocarbons at Toelles Road and at our collection sites downstream of Toelles Road, namely Quinnipiac River State Park Entrance, Valley Service, DEEP Boat Launch, Sacket Point Rd, State Street, Behind Target and Bestbuy in North Haven, CT. In addition, trace levels of plasticizers and phthalates, specifically bis (2-ethylhexyl) phthalate (DEHP) and bisphenol A (BPA) were found in our samples from Toelles Road, DEEP Boat Launch, Quinnipiac River State Park Entrance, and Valley Service Road. Unfortunately, due to constraints from COVID-19 we were unable to assess the additional water quality parameters in the proposal, including heavy metals, E. coli and total coliform bacteria,

nitrogen, phosphorous, suspended solids, conductivity, turbidity, pH, dissolved oxygen, salinity, hardness or the quantity of hydrocarbons. Much of this portion of the study was going to be completed in collaboration with the School of Engineering Faculty, utilizing their instrumentation.

Objective 2: Investigate wet-weather discharges to the river between our established monitoring stations through desktop analysis and visual inspection and conduct one comprehensive wet-weather sampling.

This objective was eliminated due to the partial awarding of the submitted grant and following discussion with the foundation.

Objective 3: Communicate findings to the community-at-large. Our results will be disseminated by the Public Relations Department at Quinnipiac University to local newspapers like the New Haven Independent, and local municipalities. Fewer communications were disseminated as our public relations team was working tirelessly communicating on COVID-19.

A condition of the grant was to investigate if this project duplicates, overlaps or complements any water monitoring performed by DEEP or any other organization. This proposed research would serve as an independent assessment of the water quality parameters that each municipality with outflows along the river is supposed to conduct, to that point this work would complement and validate the municipalities findings. Lastly, the Engineering faculty on this grant, attempted to work with the Town of North Haven, however they were non-responsive after the initial meeting, perhaps because of the COVID-19 pandemic.

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?

COVID-19 did force us to add additional safety measures (temperature checks, logging in our locations on campus) into our process and while we were initially prohibited from being on campus we did manage to obtain Tier I clearance to conduct this research. All sampling was conducted wearing masks and gloves and those requirements will remain in place for the foreseeable future. Additionally, upon restarting the lab in June we had some complications with the GC-MS, which has now been replaced with a new instrument so moving forward our methodology may need to be adjusted for the new instrument. An added benefit of this new instrument is that we will now have access to an updated chemical library.

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?

We need to be able to continuously monitor the review for point source and non-point source pollutants. This will provide us with a comprehensive understanding of chemical components in the river will allow us to work with municipalities or engineers at Quinnipiac to implement best practices to have a positive impact on the Quinnipiac River.

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

McGinnis Quinnipiac Univeristy Grant 20201261 financial report 2020-2021.xlsx

Pictures (optional): Please attach 1 to 3 pictures of activities that have occurred throughout the grant period (with a description for each) as a result of grant funding. All pictures should be submitted in JPEG format and may be uploaded to www.thequinnipiacriver.com and used in Foundation publications.

Picture 1

IMG_6230.jpg

Description

Quinnipiac University Biology major, Joseph Wojtaski III is collecting water samples from the Quinnipiac River.

Picture 2

IMG_6345.jpg

Description

Quinnipiac University Biology major, Joseph Wojtaski III is collecting water samples from the Quinnipiac River.

Picture 3

IMG_6227.jpg

Description

The Quinnipiac River:Quinnipiac River State Park Entrance