

SUMMER 2025 NEWSLETTER

STORMWATER INNOVATION CENTER

Monitoring | Training | Community Engagement | Collaboration



**Stormwater
Innovation
Center**

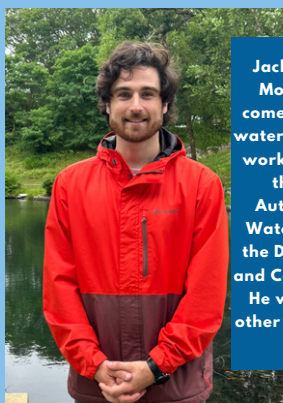


WHAT'S NEW?

INTRODUCING OUR SEASONAL STAFF!

We are so excited to welcome our seasonal staff members: Jack, Ella, and Jaired!

JACK DUNCAN



Jack is our Water Resources Monitoring Technician and comes to us with experience in water resources and GIS. He has worked as a lab technician for the MA Water Resource Authority, and as a Big Sky Watershed Corps member for the Dept. of Natural Resources and Conservation in Helena, MT. He will also be assisting with other SIC monitoring initiatives.

ELLA GILLEN



Ella is an incoming junior at Brown University studying Environmental Science with a focus on conservation science and natural systems. She is from Fairhaven, MA and has worked with the Buzzards Bay Coalition doing water sampling. She is joining us as an Institute at Brown for Environment and Society (IBES) intern, and is serving as our primary point person for cyanobacteria monitoring.

JAIRED FLANAGAN



Jaired is our Water Resources Monitoring Assistant this summer. He is an incoming senior studying Environmental Science and Management at the University of Rhode Island. He is originally from Long Island, NY and is assisting with Watershed Watch monitoring at Roger Williams Park, as well as treatment train monitoring and other projects.



PROJECT UPDATES

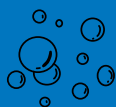


FISH SURVEYING

We have completed two more fish surveys, one in the Roger Williams Park Zoo wetland, and one in Mashapaug Pond. These fish surveys were completed in collaboration with the Environmental Protection Agency, the Roger Williams Park and Zoo, The Nature Conservancy of Rhode Island, the Providence Parks Department, and the Audubon Society of Rhode Island. We are continuing to investigate the impact of invasive common carp on the water quality in the local ponds.

During the survey, we used electrofishing techniques to catch fish, which were then identified, measured, weighed, and released. These data are helping us determine the impact of the carp.

In the future, we are hoping to begin a project that would allow us to remove the invasive carp from a select area in the park's pond system, allowing us to further improve the water quality and conduct investigations to increase our understanding of how the carp are altering the water quality.



IMPACT OF CARP



Water Quality Degradation

The carp disturb sediment at the bottom of the pond, decreasing visibility and light penetration. This makes it harder for aquatic plants to photosynthesize. This also releases phosphorus from the sediment.

Habitat Alteration

Carp feed on aquatic plants, which depletes underwater vegetation. These plants are important for maintaining water quality, so this feeding behavior leads to worsened water quality and increased erosion.

Biodiversity Loss

Carp are invasive and outcompete native fish for food and habitat, making it much more difficult for the native fish to survive.



Malik Neron from The Nature Conservancy holding the fishing net

CYANOBACTERIA MONITORING

Summer is kicking off, and so is our cyanobacteria monitoring. We are partnering with the Nature Conservancy of Rhode Island to assess the cyanobacteria levels at eight locations around the Providence area. In addition to these sites, we are also kayaking to do further assessments within the Roger Williams Park ponds. During the monitoring process, we conduct surveys of the area and take photos of the water. Then, samples are collected to analyze in a fluorometer, which measures chlorophyll-a and phycocyanin levels. These data help us assess whether or not a bloom is present. If a bloom is present, we report this to the Rhode Island Department of Health (RIDOH) and the Rhode Island Department of Environmental Management (RIDEM) so that an advisory is issued and the public is informed.



TNC and SIC interns monitoring for cyanobacteria by kayak



PROJECT UPDATES



GREEN INFRASTRUCTURE RETROFITS

For the past five years, the Stormwater Innovation Center has been monitoring green infrastructure projects across Rhode Island to see how well they manage stormwater during rain events. When a site isn't performing well, we use **adaptive maintenance**, a flexible approach that makes strategic improvements rather than abandoning the site or rebuilding completely. This helps extend the life of these sites, making them more effective at improving water quality!

Thanks to our funding from the 2022 RAE SWIG grant, we have been working on five new retrofits for our green infrastructure sites.

To learn more, you can visit our page [here](#).



17/18: Polo Lake

- improving the inlet to allow for increased flow into the site
- preventing excess deposition in the forebay

1C: Boathouse

- improving the inlet to allow for increased flow into the site
- repairing the erosion between the inlet and the forebay

1E: Maple Ave

- increasing the elevation of the overflow berm to allow more volume of stormwater to flow into the site
- repairing the erosion between the inlet and the forebay

3B: Carousel

- improving the inlet to allow for increased flow into the site
- preventing excess deposition in the forebay

1B: Thinking Man Statue

- improving the inlet to allow for increased flow into the site
- adding riser to overflow to increase the storage and treatment volume



PROJECT UPDATES



SNEP MINI GRANT

The SIC has received funding through a SNEP mini-grant for water quality monitoring equipment!

The ProDSS has sensors that can measure a number of water quality parameters, including temperature, dissolved oxygen, specific conductivity, turbidity, pH, and oxidation-reduction potential. Monitoring these parameters can provide insight into the health of the waterbody; for example, high dissolved oxygen, cool temperatures, and clear waters support fish and other aquatic life.



Our Water Resources Monitoring Assistant Jaired Flanagan lowers the YSI ProDSS Digital MultiParameter Water Quality Meter into Polo Lake at Roger Williams Park to measure water quality.

The Stormwater Innovation Center is proud to announce that we have received a 2025 SNEP Restoration Capital Mini-Grant through the U.S. Environmental Protection Agency's Southeast New England Program (SNEP) in partnership with Restore America's Estuaries (RAE).

This grant, totaling \$8,647, has supported the purchase of a water quality probe that will enhance our monitoring of water quality throughout Roger Williams Park and across Rhode Island. The probe will be used to evaluate green infrastructure performance, track cyanobacteria blooms, and study the impacts of invasive carp removal. As part of SIC's equipment-sharing program, the probe will also be available to partner organizations for use in their own water monitoring projects. SIC staff will provide training and technical assistance to ensure proper deployment and high-quality data collection.

This project is supported by the Environmental Protection Agency as part of a financial assistance award totaling \$8647 with 100 percent funded by EPA. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, EPA or the U.S. Government.



COMMUNITY



JELLYFISH FILTER TRAINING

On June 23, we hosted a training at the Roger Williams Park treatment train along with Stormwater Compliance, LLC on the maintenance and cleaning of the Contech jellyfish filtration system installed there. Attendees came from a diversity of organizations, including many municipalities across the state, RIDEM, EPA, Providence Parks Department staff, and more. They received a basic overview and demonstration of the procedures, and even got to try cleaning the filters themselves. To learn more about our treatment train, visit our [treatment train webpage](#).



LidTech/Stormwater Compliance COO
Nate Marles demonstrating how to clean
the jellyfish filter

NBEP STORYWALK GRANT

We have been awarded a grant to develop an interactive story walk along the 3.7-mile trail loop in Roger Williams Park! This project will engage the public in stations along the trail that feature signage and interactive activities that inform about water quality issues and solutions, stormwater and wildlife management, and ways to improve the watershed. We aim to have the project installed by spring 2026, and we are excited about this opportunity to expand our educational outreach!



More jellyfish filter training fun!



COMMUNITY



UPCOMING EVENTS

RAIN HARVEST FESTIVAL

Join us for our annual Rain Harvest Festival on Sunday, September 28th from 11am to 2pm! We will be located at the Roger Williams Park Botanical Center outdoor pavilion.

The Rain Harvest Festival is a free event celebrating art, music, and the importance of clean water in our communities. The event celebrates the Providence Parks Department's investment in over 40 projects to clean polluted stormwater runoff before it enters the Roger Williams Park pond system. The Festival is made possible through our sponsors and partners, the Providence Parks Department, Roger Williams Park Botanical Center, and the Rhode Island Department of Transportation (RIDOT).



STORMWATER INNOVATION EXPO



Save the date for the Stormwater Innovation Expo! This networking and learning event will be held on **Wednesday, October 8** at the Roger Williams Park Casino. More information and registration to come.



GET INVOLVED



STORMWATER AT HOME

Here are some actions you can take this summer to help manage stormwater!

- Install a rain barrel to water non-edible plants.
- Watch our Stormwater PSA video and share with your family & friends!
- Reduce fertilizers this summer to keep our beaches and waterways clean! View this page for some nutrient-reduction strategies for your yard.



BECOME A RAINSNAP VOLUNTEER!

- ✓ Take Videos During Rain Events
- ✓ Help Monitor Green Infrastructure
- ✓ Inform Decision Makers
- ✓ Help Keep Our Water Clean
- ✓ Need An Umbrella And Smartphone

Register today at <https://rainsnap.org/join-rainsnap/>



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INTERESTED IN VOLUNTEERING?

Contact
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for more information!



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