SPRING 2025 NEWSLETTER

STORMWATER INNOVATION CENTER

Monitoring | Training | Community Engagement | Collaboration

Stormwater Innovation Center

WHAT'S NEW?

WELCOME, MOLLY!

Meet our new Stormwater Program Manager, Molly Welsh!

Molly has a background in environmental science, with a focus on water and wetland resources. She holds a Ph.D. from the State University of New York College of Environmental Science and Forestry and most recently was a Postdoctoral Research Hydrologist at the USDA Agricultural Research Service. As a native Rhode Islander, she is excited to connect with you over green infrastructure and water quality issues in the Ocean State!

WHAT'S NEW?

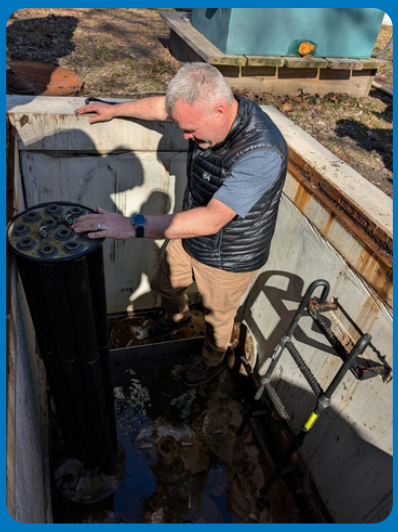
READ OUR 2024 ANNUAL REPORT!

This report details projects we completed, new relationships we built, and contains a look ahead at our planned work in 2025. Read on by clicking the image below!

PROJECT UPDATES

JELLYFISH FILTER

We were pleased to host a visit from Contech Engineered Solutions, the designers and manufacturers of the Jellyfish Filter installed as part of the Treatment Train in Roger Williams Park. Contech has been a valuable partner, lending equipment and supporting the development of our monitoring and quality assurance plan. This was their first time seeing the installation in person, so we fully opened the monitoring ports and Jellyfish Filter vault to give them a comprehensive look at the system. During the visit, they also provided helpful troubleshooting guidance to address some of the monitoring challenges we've encountered.



John Pedrick, Contech Engineered Solutions, inspects Jellyfish Filter cartridges at the Treatment Train site in Roger Williams Park.

STORMWATER RETROFITS

With funding from the Narragansett Bay Estuary Program, the Stormwater Innovation Center has completed a multi-year project focused on improving stormwater management in Roger Williams Park. Over the past five years, SIC has monitored green infrastructure sites across Rhode Island, identifying performance issues due to design, construction, or maintenance challenges. Rather than abandoning or fully reconstructing these underperforming systems, SIC applies an adaptive maintenance approach—making targeted improvements to extend the functionality and lifespan of these important water quality assets. Working closely with Groundbreaking Design and an SIC advisory team, we developed redesigns for 6 RWP sites, with construction funding currently being pursued. The lessons learned through this project continue to be shared with practitioners via tours, workshops, and presentations to support more successful stormwater infrastructure implementation across the region.

Dave Manoni, Groundbreaking Design, surveys the green infrastructure site near the Lover's Retreat bridge in Roger Williams Park, currently undergoing redesign.

PROJECT UPDATES

SNEP GRANT FUNDED!

The SIC received news that its application for a SNEP mini-grant has been fully funded!

This grant will allow us to purchase important monitoring equipment. It will be used to assess the stormwater treatment train performance and evaluate impacts of invasive carp removal from impaired ponds. It can also be used to monitor cyanobacteria in urban areas in partnership with RIDEM, RIDOH, and TNC to support EPA research and state public health programs.

A ProDSS device will be used at stormwater treatment systems, pond restoration sites, and cyanobacteria-prone areas. An SIC intern will be trained on equipment use to ensure data accuracy, consistency, and equipment longevity. This intern will provide technical assistance to collaborators via an equipment-sharing program.

A field technician lowers the YSI ProDSS Digital MultiParameter Water Quality Meter into a stream to measure water quality.

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.

COMMUNITY

CITY OF PAWTUCKET COLLABORATION

We have partnered with the City of Pawtucket for our Stormwater in Schools program this year. We delivered programming to two environmental science classes at Jacqueline M. Walsh School for the Arts in Pawtucket, taught by teacher Laura Ciano. We then held a field trip for these students at a new green infrastructure site on Pine St. in Pawtucket. City representatives, as well as a scientist from Fuss & O'Neill involved in the site design, also joined us to showcase the site and demonstrate how it is cleaned using a vac truck. We enjoyed highlighting a site in the City where students are learning and living, and plan to collaborate with the City of Pawtucket for this program again next spring, potentially featuring GI projects currently being completed.

Fuss O'Neill scientist Stefan Bengston speaking about Pine St. infrastructure in Pawtucket

URI PUBLIC ENGAGEMENT COURSE

Audubon TerraCorps member Jessy Minker pointing out geese at Roger Williams Park

The SIC is serving as a community partner as part of URI's *Public Engagement with Science* class, taught by Sunshine Menezes. We evaluated student pitch presentations for outreach strategies on benefits of carp removal and Canada Geese management in Roger Williams Park. Students proposed a multi-phased approach to public education, including compiling public perceptions and memories of the park in phase one, making connections with the public via workshops and events in phase two, and engaging the public in environmental monitoring and reflecting on public engagement in phase three. The students had many interesting ideas and we look forward to continued collaboration to refine the proposed strategy over the next month!

COMMUNITY

WHERE ARE THEY NOW?

Each year, the SIC collaborates with the Institute at Brown University for Environment and Society (IBES). A Brown student is selected to intern at the SIC over the summer months, working on a variety of projects. Here's what our previous interns have been up to since their time with the SIC!

FIONA HARRINGTON

Fiona has continued to develop her GIS skills with her Senior Capstone project, studying vulnerability to coastal flooding and sea level rise in Rhode Island. She recently presented her work at the American Association of Geographers conference in Detroit. She will continue her work with SIC this semester, analyzing water level data for green infrastructure sites around Providence as part of a Physical Hydrology class.

YUNA SATO

Yuna graduated from Brown with a degree in Environmental Studies on the Sustainability in Development track. She has been working full-time as an Environmental Specialist in Somerville, MA, working at client sites to help them dispose of hazardous waste safely and in a manner compliant with federal regulations - keeping these materials out of waterways! She hopes to continue working at the intersection of the environment and built spaces.

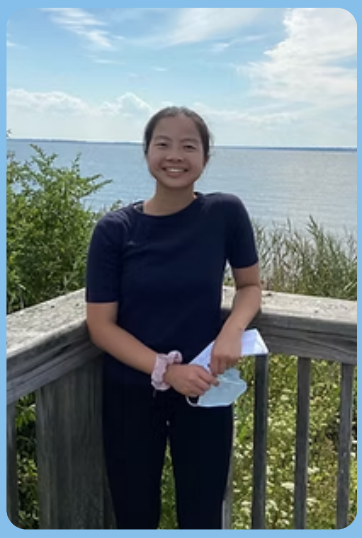
CONTINUE

COMMUNITY

WHERE ARE THEY NOW? (CONT.)

THOMAS PATTI

After graduating from Brown University in 2022 with degrees in environmental science and English, Thomas completed two internships with Audubon Vermont—one in bird monitoring and the other in environmental policy. He now works as communications coordinator at Wildlands Trust, a nonprofit organization that conserves land across Southeastern MA. He has continued to consult with the SIC on stormwater management during restoration projects.



CASEY CHAN

Casey has remained interested in environmental science and is now finding ways to connect her passion for chemistry with this field. Casey finished her undergraduate education at Brown in 2023 with a major in Chemistry (Chemical Biology). Casey also graduated as the captain of Brown's Division I Women's Fencing team and two-time All American, competing in the NCAA Championships during all of Brown's years competing. Casey continued on to attend graduate school at Stanford University as a PhD candidate. At Stanford, Casey is finding ways to connect her interests in sustainability with biochemistry in Dr. Elizabeth Sattely's lab, where she studies plant-insect coevolution to better understand pesticide resistance.

MEET OUR 2025 INTERN, ELLA GILLEN!

Ella is a sophomore working towards a degree in Environmental Science on the Conservation Science and Natural Systems track. She is from Fairhaven, MA and has both experience lab and water quality sampling experience. We are SO excited to have her as part of our team this summer!

GET INVOLVED

STORMWATER & YOUR GARDEN

Spring can be a rainy time of year - start planning some garden additions that can help soak up stormwater!

- Plant a rain garden! Visit this website for more instructions and help sizing your garden.
- Plant a tree - a single tree can soak up thousands of gallons of water per year.
- Install a rain barrel to water non-edible plants!

BECOME A RAINSNAP VOLUNTEER & EARN MONEY!

- Take Videos During Rain Events
- Help Monitor Green Infrastructure
- Inform Decision Makers
- Help Keep Our Water Clean
- Earn a limited time stipend!
- Need An Umbrella And Smartphone

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

STAY IN TOUCH

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INTERESTED IN VOLUNTEERING?

Contact rreeves@asri.org for more information!

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