Stormwater Innovation Center

2025 Annual Report

Website: www.stormwaterinnovation.org
Instagram: @stormwaterinnovationcenter
Facebook: @StormwaterInnovationCenter

WHO WE ARE

Our Mission

The Stormwater Innovation Center (SIC) is committed to improving stormwater management, promoting education, and fostering partnerships to enhance water quality throughout Rhode Island. Through applied monitoring and research, water quality restoration projects, education and outreach, and professional training and networking, SIC supports practical, science-based solutions that improve how stormwater is managed across the state.

Our Pillars

- **Monitoring & Research:** The SIC conducts monitoring and research to enhance stormwater management and water quality in Roger Williams Park and its watershed. By assessing green infrastructure performance and tracking key water health indicators with partners and volunteers, we develop and apply best practices for sustainable, science-based stormwater solutions.

- **Water Quality Restoration:** Our watershed restoration projects focus on redesigning outdated stormwater systems, removing pavement, restoring shorelines with native plants, and applying innovative management techniques. From site retrofits to comprehensive master plans, we create sustainable, high-performing stormwater solutions.

- **Education & Outreach:** The SIC collaborates with local schools and environmental partners to help students explore the connection between stormwater, water quality, and wildlife through hands-on learning and creative projects like storm drain murals and painted rain barrels.

- **Training & Networking:** We provide expert-led trainings on stormwater and green infrastructure design, construction, and maintenance for municipalities, non-profits, businesses, and community members. Our experienced presenters offer both virtual and in-person sessions to share practical knowledge and industry best practices.

LEADERSHIP TEAM

The Stormwater Innovation Center **Leadership Team** meets weekly to provide input and ideas that advance our mission. They contribute to projects in research, training, outreach, and stormwater management while collaborating on grants and funding opportunities. This teamwork drives the Center's success and strategic direction.

With recent transitions at Providence Parks, we are pleased to have Kristin Andel, Deputy Superintendent of Parks, and Sam Greenwood, Senior Landscape Architect, step into leadership roles on SIC's leadership committee and help advance stormwater and water quality projects in Roger Williams Park.

Leadership Team Members

Ryan Kopp, *Stormwater Innovation Center*

Sam Greenwood, *Providence Parks Department*

Kristin Andel, *Providence Parks Department*

Q Kellogg, *University of Rhode Island (Technical Advisor)*

Molly Welsh, *Stormwater Innovation Center*

Malia Cafasso, *Stormwater Innovation Center*

Sara Horvet, *Stormwater Innovation Center*

Wenley Ferguson, *Save the Bay*

José Ramirez, *Roger Williams Park Conservancy*

Meg Kerr, *Audubon Society of Rhode Island*

Heather Kinney, *The Nature Conservancy*

Kai LoMuscio, *The Nature Conservancy*

Lee Ann Freitas, *Roger Williams Park Botanical Center*

Alex Gonzales, *Roger Williams Park Botanical Center*

Art Gold, *University of Rhode Island (Technical Advisor)*

Soni Pradhanang, *University of Rhode Island (Technical Advisor)*

OUR PARTNERS

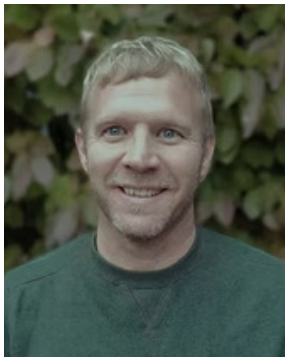
In addition to our dedicated core staff, the Stormwater Innovation Center thrives thanks to the incredible support of our partners, collaborators, and volunteers. These individuals and organizations form a dynamic network of expertise that drives our mission and serves as the foundation of our success. We extend our heartfelt gratitude to the following partners for their invaluable contributions on SIC projects and programs in 2025:

- American Association of State Highway and Transportation Officials (AASHTO)
- Aquidneck Island Land Trust
- Association for Preservation Technology
- Audubon Society of Rhode Island
- BIOPOD Co.
- BloomRI
- Brown University
- Brown Summer High School Program
- Building Futures
- City of Auburn, MA
- City of East Providence, RI
- City of Pawtucket, RI
- City of Providence, RI
- Contech
- EA Engineering
- Environmental Protection Agency (EPA)
- EPA Atlantic Coastal Environmental Sciences Division
- EPA Region 1 Laboratory
- Fuss & O'Neill
- Horsley Witten Group
- Jacqueline M. Walsh School for the Arts
- Narragansett Bay Estuary Program (NBEP)
- Notable Works Publication & Distribution Co.
- Ocean Hour Farm
- Oldcastle Technologies
- Pawtuxet River Authority & Watershed Council
- People's Port Authority
- Prickly Ed's Native Plant Nursery
- Providence Emergency Management Association
- Providence Parks Department
- Restore America's Estuaries
- Rhode Island Department of Environmental Management (RIDEM)
- Rhode Island Department of Health (RIDOH)
- Rhode Island Department of Transportation (RIDOT)
- Rhode Island Green Infrastructure Coalition
- Rhode Island State Council of the Arts (RISCA)
- Roger Williams Park Botanical Center
- Roger Williams Park Conservancy
- Roger Williams Park Zoo
- Roger Williams University
- Salve Regina University
- Save The Bay
- School One (Providence)
- Southeast New England Program (SNEP)
- Southeast New England Program Network
- Stormwater Compliance
- TerraCorps
- The Nature Conservancy
- Toll Gate High School (Warwick)
- University of Rhode Island
- Woonasquatucket River Watershed Council
- Youth Conservation League (Audubon Society of Rhode Island)

Our Team

The Stormwater Innovation Center expanded its full-time staff this year with two key hires. **Molly Welsh** joined as Stormwater Research Program Manager, where she leads field monitoring, research, data analysis and reporting, and project management. **Sara Horvet** joined as Stormwater Outreach and Engagement Program Manager, leading our community science programs, professional trainings and webinars, the Stormwater Innovation Expo, and public outreach and engagement efforts.

New seasonal staff also supported our programs. **Jack Duncan** and **Jaired Flanagan** supported field monitoring throughout the Roger Williams Park watershed, and Jack also developed new GIS Data Dashboards. **Ella Gillen** served as our 2025 Institute at Brown for Environment and Society (IBES) intern, assisting with cyanobacteria monitoring and social media outreach. **Malia Cafasso** began service as SIC's new TerraCorps member, focusing on capacity-building projects, while **Isabella Peterson** of The Nature Conservancy supported collaborative monitoring and outreach in the Park.



Ryan Kopp
SIC Director

Sara Horvet
Stormwater Outreach & Engagement Program Manager

Molly Welsh
Stormwater Research Program Manager

Sophia Motta
Stormwater Researcher

Jaired Flanagan
Field Monitoring Assistant

Jack Duncan
Field Monitoring Assistant

Ella Gillen
IBES Intern

Malia Cafasso
TerraCorps Community Engagement Coordinator

Funding

The past year marked significant progress for the Stormwater Innovation Center through the addition of several new grants and partnership-supported funding awards. These resources have enabled SIC to expand research and monitoring, professional training and technical assistance, and community engagement and education throughout Roger Williams Park and across Rhode Island.

CARP REMOVAL DEMONSTRATION PROJECT

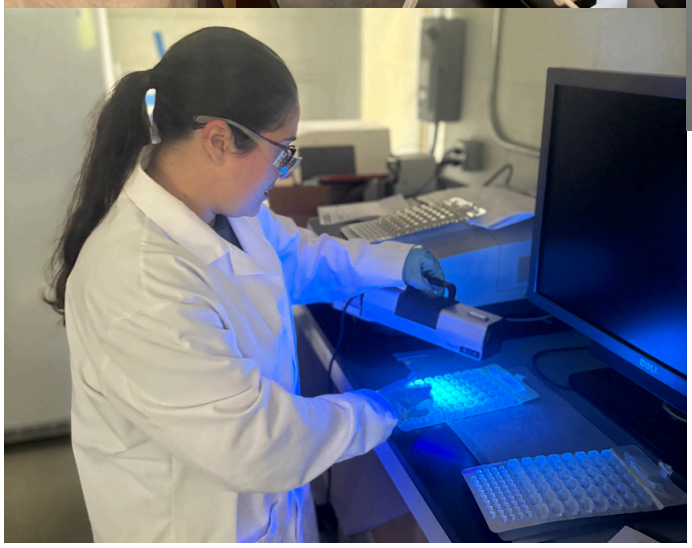
The Stormwater Innovation Center learned that Restore America's Estuaries selected our EPA **Southeast New England Program Watershed Implementation Grant (SWIG)** proposal for full funding to manage overabundant common carp in the Roger Williams Park Zoo Pond. The $254,253 project will be implemented over two years and applies proven, science-based methods. Project activities include constructing a multi-acre carp exclosure, removing carp through electroshocking and traps, PIT-tagging a subset of fish to study movement, and monitoring water quality and habitat to document ecological changes. The effort is supported by partnerships with the Audubon Society of Rhode Island, The Nature Conservancy, the University of Rhode Island, the Environmental Protection Agency, the Roger Williams Park Zoo, the Pawtuxet River Authority and Watershed Council, Providence Parks, and other regional stakeholders to develop scalable carp management strategies and water quality improvements for the broader Southern New England region.

Funding

SOUTHEAST NEW ENGLAND PROGRAM MINI-GRANTS

The Stormwater Innovation Center was awarded two **Southeast New England Program Restoration Capital Mini-Grants** that expand our monitoring and analytical capacity. The source of the funding is EPA's Southeast New England Program (SNEP) through a partnership with Restore America's Estuaries (RAE). The first grant of $8,647 supports the purchase of a new ProDSS multi-sensor water quality probe and establishes an equipment-sharing initiative that will provide partner organizations with access to advanced monitoring tools and technical assistance for their own projects.

The second-round award of $4,928 provides funds for laboratory equipment, including a precision balance, vacuum pump, drying oven, incubator, and ultraviolet lamp, to support post-storm total suspended solids and bacteria analyses.



Top and bottom left: Jack Duncan and Molly Welsh (right) using new lab equipment in Dr. Soni Pradhanang's Hydrology and Water Quality Laboratory through the University of Rhode Island's Department of Geosciences

Top Right: Jack Duncan using the ProDSS multi-sensor water quality probe at Roger Williams Park

Funding

ROGER WILLIAMS PARK STORYWALK

Swan Boat by
Tiahna DeBritto

Cross Country Meet at
Roger Williams Park by
Kolka Alexander

Northern Cardinal by
Daniel Vargas Garcia

Our proposal for the Roger Williams Park Interactive StoryWalk was approved for full funding through a **Narragansett Bay Estuary Program grant** award totaling $13,527. These funds enable SIC to create a 3.7-mile, multi-station educational trail experience that combines community stories, art, poems, and interactive games to highlight ongoing water quality and green-infrastructure initiatives in the Park.

The project will engage thousands of annual visitors, along with local schools and partner organizations, using creative signage and conservation challenges to make stormwater issues relatable and actionable. This award strengthens the Center's outreach mission and provides a new, highly visible platform for building public awareness and stewardship of Rhode Island waterways.

SOUTHEAST NEW ENGLAND PROGRAM NETWORK

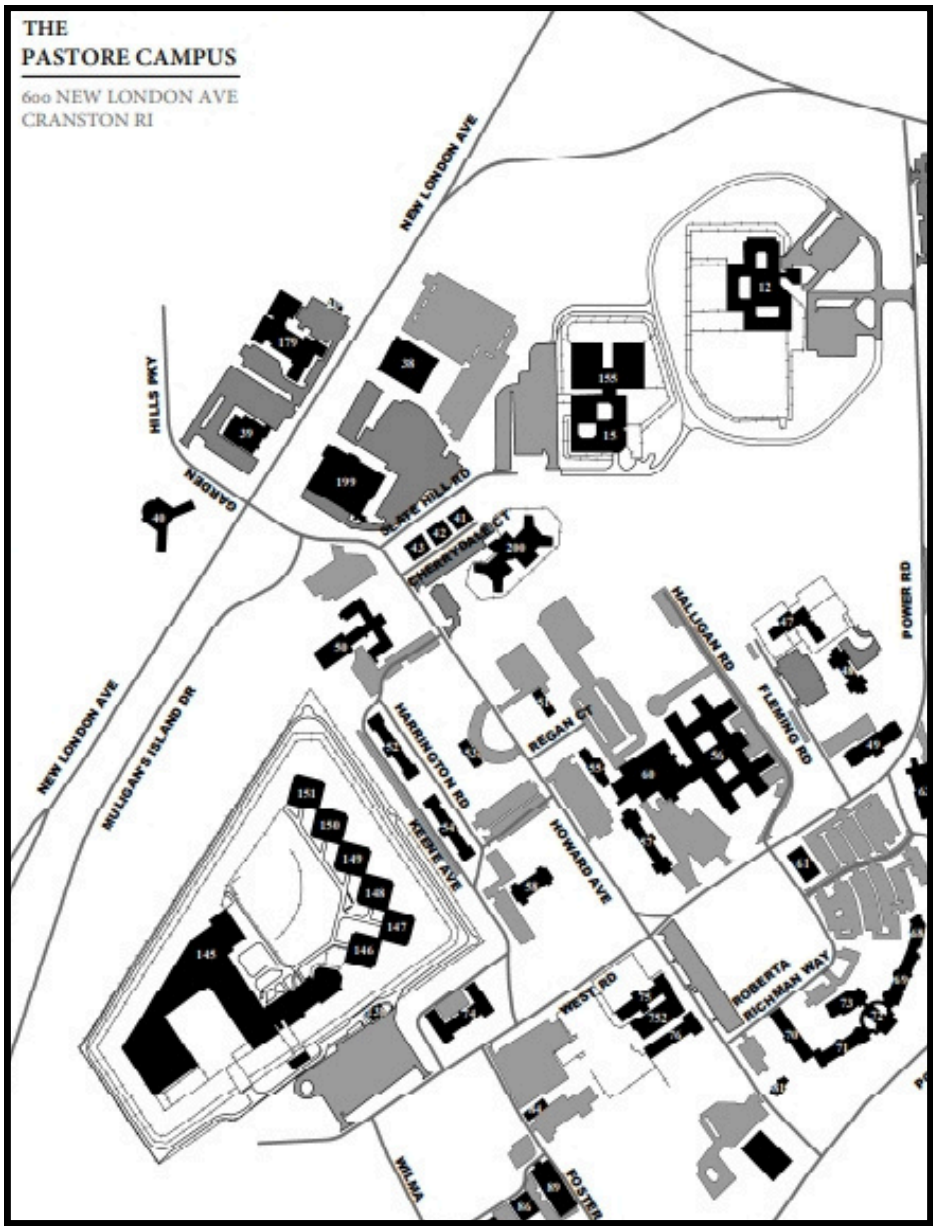
Participants at the SNEP Planning
Series in Douglas, MA

We also signed an agreement for $65,432 in funding through the **Southeast New England Program Network** to support our work in fiscal year 2026. These funds enable SIC to continue providing on-call technical assistance, professional trainings, field tours, and workforce development opportunities for municipalities and partner organizations throughout Rhode Island. The award strengthens regional collaboration and knowledge exchange while helping communities improve the design, maintenance, and long-term performance of green stormwater infrastructure.

Funding

PASTORE COMPLEX OUTREACH PLAN

The Stormwater Innovation Center signed an agreement to provide $7,200 in stakeholder outreach and education support for the Pastore Complex in Cranston, a large state-owned facility regulated through the Rhode Island Department of Environmental Management's Municipal Separate Storm Sewer System MS-4 program. In partnership with EA Engineering, SIC will prepare an outreach plan to engage the approximately 8,000 people who work at the Complex through communication and awareness activities to help meet regulatory requirements. Long term, we hope to contribute to monitoring and inspection of existing stormwater infrastructure at the Complex, and sharing lessons learned on design, construction oversight, and maintenance of new stormwater management to be implemented.



Map of Pastore Campus in Cranston, RI

Stormwater Management & Water Quality Restoration

While the Stormwater Innovation Center is known as a place-based training and outreach hub and a living laboratory for research and investigations, it is also an active water quality restoration site. Through hands-on stormwater management projects, SIC moves beyond demonstration to planning, designing and implementation of stormwater solutions that measurably improve water quality. By pairing long-term monitoring with adaptive design and construction, SIC advances restoration projects that reduce stormwater pollution, extend the life of existing infrastructure, and generate practical lessons that inform future projects across Rhode Island.

ROGER WILLIAMS PARK ZOO STORMWATER MASTER PLAN

SIC continued working with the Roger Williams Park Zoo and the Horsley Witten Group to develop a Stormwater Master Plan for the Zoo property. This work is part of a project funded through the U.S. Environmental Protection Agency's 2023 Southeast New England Program Watershed Implementation Grant in partnership with Restore America's Estuaries, to assess and reduce sources of stormwater pollution from the Zoo drainage area. Activities included background research to document existing infrastructure, mapping and field verification of drainage patterns, and targeted stormwater sampling during rain events to evaluate pollution entering the Zoo wetland.

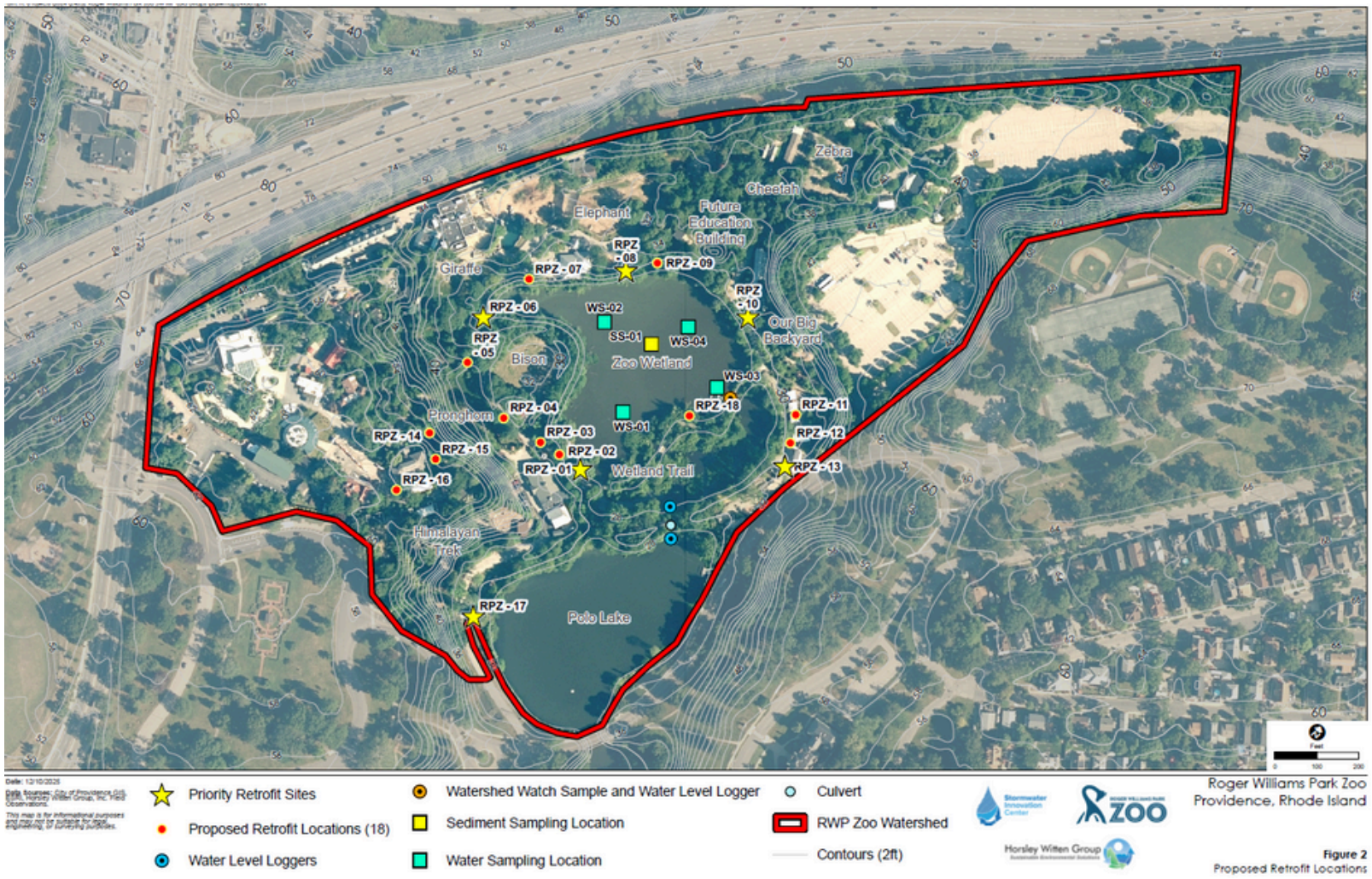
Photo of stormwater sampling set-up during August

A water level logger located near the Zoo culvert

Jaired Flanagan (left) and Molly Welsh (right) setting up a sampling site in July at the RWP Zoo

Stormwater Management & Water Quality Restoration

Hydrologic data were collected to assess water movement between the Zoo and Polo Lake through a connecting culvert, along with water quality and sediment samples from the wetland. Zoo staff were engaged through a design charrette led by Horsley Witten, where conceptual green infrastructure and retrofit options were reviewed. The selected designs were prioritized using stormwater monitoring results and site hot spots identified as having higher pollution levels, ensuring improvements target the most impacted areas. Zoo staff were also given a tour of stormwater sites in RWP, where we shared lessons learned related to design, construction and maintenance. The final stormwater master plan is expected to be completed in early 2026.



Map of proposed stormwater retrofit sites, and sediment and water sampling locations

GREEN INFRASTRUCTURE IMPROVEMENT PROJECTS

For the past five years, the Stormwater Innovation Center has monitored and researched green infrastructure projects across Rhode Island to evaluate how well they manage stormwater during rain events. Monitoring allows SIC to identify sites that need adaptive maintenance, a flexible approach that makes strategic upgrades instead of abandoning or fully rebuilding a practice. These improvements extend the life of existing infrastructure and increase pollutant removal over time. In 2025, SIC completed two retrofit projects to address stormwater sites in Roger Williams Park that were identified as underperforming through long-term assessments.

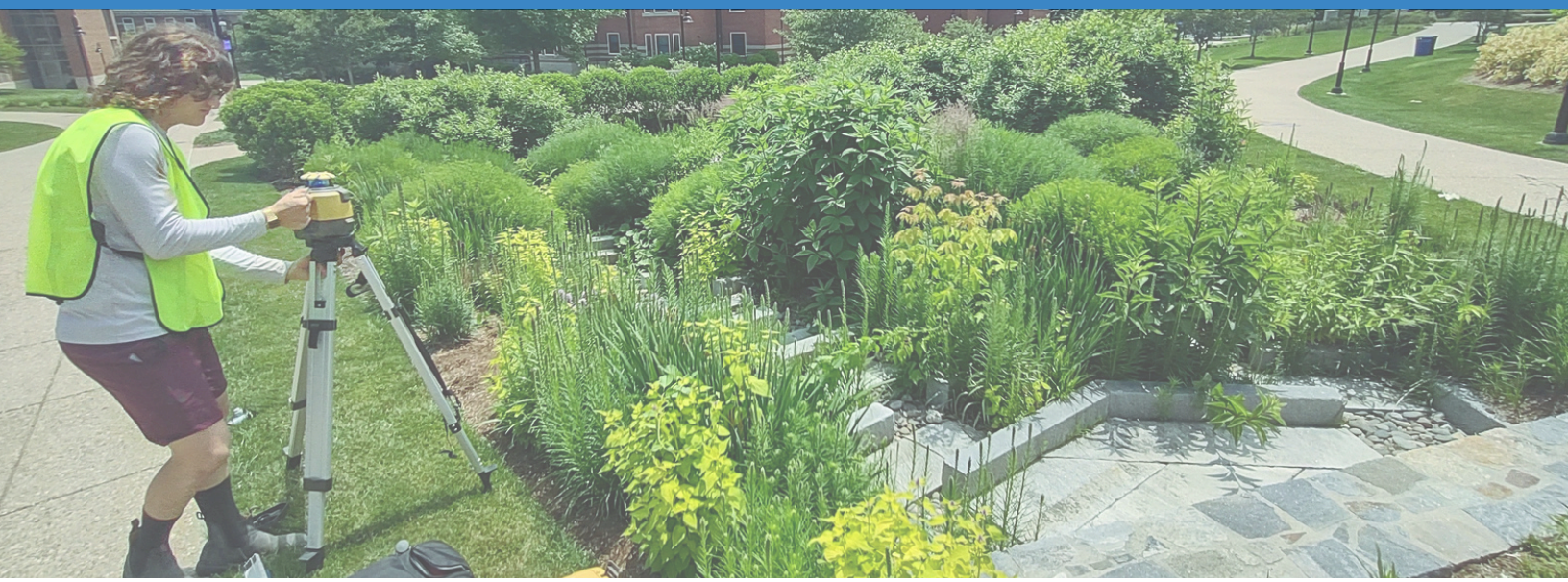
BMP 3B at the RWP Carousel site

SIC determined that 11 existing practices were not functioning as intended due to a mix of design, construction, and maintenance issues. With support from the Narragansett Bay Estuary Program, the U.S. Environmental Protection Agency, and Restore America's Estuaries Southeast New England Program Watershed Implementation Grant, five sites were redesigned and reconstructed, including grading of containment berms, installation of upgraded inlets, and slope stabilization. The remaining six sites were redesigned but are waiting for funding to complete reconstruction. SIC will continue to monitor the performance of these changes and share lessons learned with the professional stormwater community. Before and after performance videos and designs can be viewed on our website.

Brian Byrnes and Sam Greenwood at the BMP 17/18 retrofit site

Dave Manoni of Groundbreaking Design at BMP 12 near the Lover's Retreat Bridge in RWP

Monitoring & Research



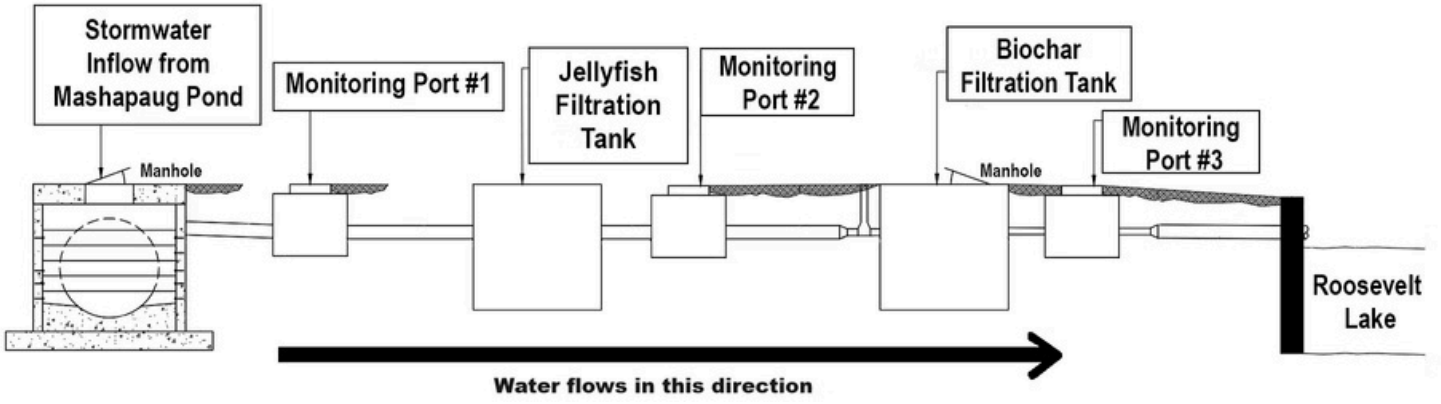
Monitoring and research are at the core of the Stormwater Innovation Center's mission. We conduct this work to evaluate the effectiveness of stormwater management design, construction, and maintenance efforts and to determine whether installed practices are performing as intended. The data we collect provides decision makers and designers with reliable, real-world information that helps projects evolve and improve over time. By monitoring both infrastructure sites and the park's water bodies, we are able to understand how management and restoration actions translate into measurable progress toward the ultimate goal of healthier ponds and better water quality.

Left: Jaired Flanagan and others sampling stormwater runoff in Roger Williams Park Zoo; *Middle:* BMP #34 at Roger Williams Park; *Right:* Ella Gillen using the ProDSS meter

TREATMENT TRAIN MONITORING

Following completion of the construction of the Roger Williams Park Treatment Train (TT) in fall 2024, the Stormwater Innovation Center began instrumenting and monitoring the system in 2025 in partnership with the Providence Parks Department, the Rhode Island Department of Transportation, and Dr. Soni Pradhanang's Hydrology and Water Quality Laboratory through the University of Rhode Island's Department of Geosciences.

Molly Welsh, Stormwater Research Manager, conducting maintenance on the TT in November 2025



The Treatment Train, located at the inflow of Roger Williams Park at Roosevelt Pond, consists of a Contech Jellyfish filter (named for large cartridges that look like jellyfish tentacles) and a biochar tank to intercept and treat storm flow from Mashapaug Brook before it enters the park pond system. Monitoring ports are located at the inflow to the system and after each filtration step.

In each of these ports, water level is continuously measured to calculate flow and water samples are collected during storms to study effectiveness of these underground filtration systems in removing pollutants. Samples are analyzed for total suspended solids, turbidity, enterococci bacteria, and nutrients. Over ten storms were monitored from May through October 2025, and preliminary results indicate the system has been effective at capturing suspended solids. In 2026, we aim to evaluate performance of the Treatment Train before and after cleaning and maintenance of the system.

Monitoring & Research

The Stormwater Innovation Center continued to expand its community science programs in 2025. These volunteer-driven initiatives provide important stewardship for Roger Williams Park while helping SIC collect more data and feedback on existing infrastructure than staff could gather alone.

COMMUNITY SCIENCE PROGRAMS

Through RainSnap, trained volunteers inspect and report on green infrastructure sites using an online tool, allowing SIC to track performance, identify maintenance needs, and document design or construction problems. The Watershed Watch monitoring program involves residents, students, and partner organizations in regular sampling of streams and ponds to create long-term water quality records and evaluate the effectiveness of restoration projects being implemented. Canada Goose (CAGO) Surveys engage community participants in detailed wildlife observations to guide management decisions and reduce nutrient loading from geese into the Park ponds.

RainSnap site at Stillhouse Cove observed on May 31, 2025

(Left to right) Chris Dodge, Richard Pederson, and Michele Pinault being trained for 2026 CAGO surveying at RWP

Watershed Watch volunteer Kayla Winslet collecting samples at Roger Williams Park

These programs give volunteers direct, hands-on experience with waterways and stormwater systems, and participants gain valuable first-hand knowledge by learning about stormwater runoff and water quality problems in detail through data collection. This personal involvement builds awareness, encourages stewardship, and creates informed advocates who can support future stormwater and water quality improvements.

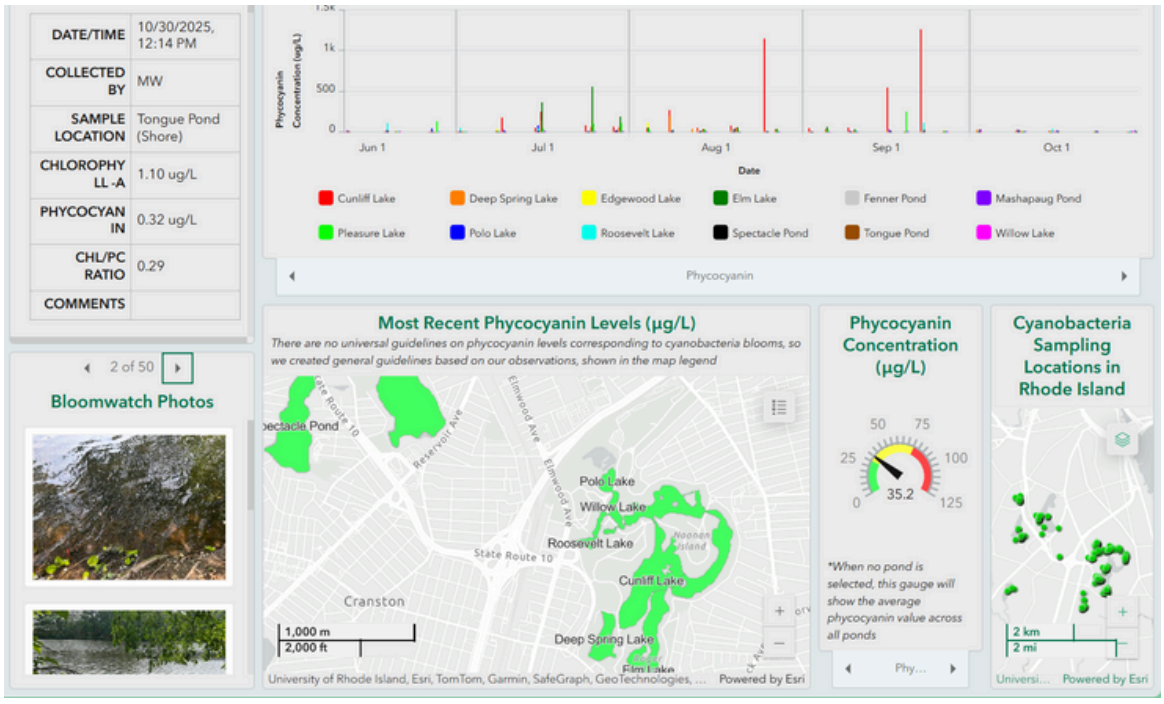
Additional information and program results are available on the RainSnap website, the Canada Goose Survey Dashboard, and the Watershed Watch Dashboard.

Monitoring & Research

Bella Peterson during summer cyanobacteria monitoring in Roger Williams Park

The Nature Conservancy of Rhode Island and the Stormwater Innovation Center continue to collaboratively conduct weekly cyanobacteria monitoring at eight ponds and lakes in the Providence and Cranston area, usually from June through November. Conditions at each site are documented using the Cyanobacteria Monitoring Collaborative protocol, including weather, advisory signage, and recreational use. Monitoring includes visual inspections, photographs, and direct water quality measurements with a handheld fluorometer that tracks chlorophyll-a and phycocyanin pigments. This process can detect cyanobacteria even when no bloom is visible, providing early warning of potential problems.

When phycocyanin levels reach 50 micrograms per liter or higher, additional sampling is performed to evaluate toxicity, and elevated toxin results are shared with Rhode Island Department of Health (RIDOH) and Rhode Island Department of Environmental Management (RIDEM). We also assist municipalities by installing advisory signs to notify the public of potential health risks and to promote awareness and stewardship of local water bodies. All data collected can be viewed in near real-time from our cyanobacteria data dashboard.



Screenshot of our Cyanobacteria ArcGIS Dashboard

Monitoring & Research

In partnership with the Providence Parks Department, the Stormwater Innovation Center continued to evaluate the performance of green infrastructure sites located throughout Roger Wiliams Park through measuring infiltration rates. Several high school and college students from School One in Providence and Brown University assisted with monitoring these sites.

Left: Jaired Flanagan (left) and Jack Duncan (right) installing a water level logger

Right: Photo of a water level logger during October data collection in Roger Williams Park

Eight infiltration basins were instrumented with water level loggers that collect pressure data every minute. Data are adjusted to account for barometric pressure, and infiltration rates are calculated and graphed. A rain gauge is also used to determine precipitation magnitude and intensity, so infiltration rates and water storage volume can be compared for storms with different characteristics.

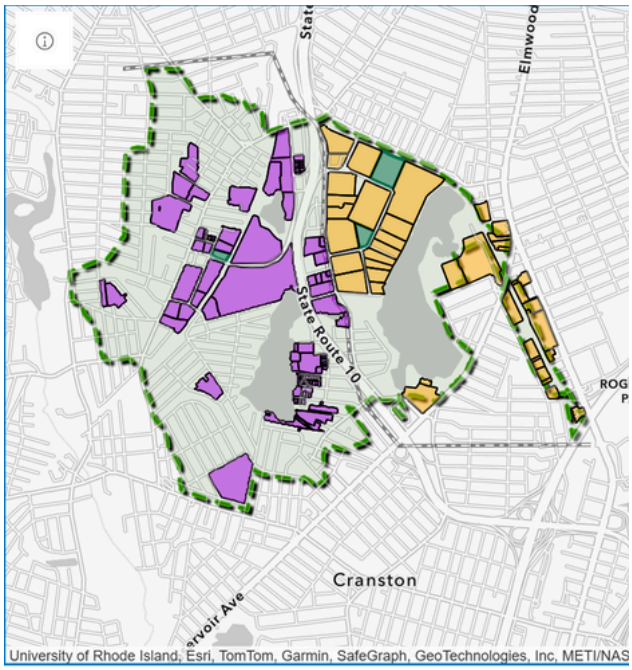
Photo of BMP site 1C in RWP during storm event

These data provide managers and designers with information necessary to repair underperforming projects or adjust maintenance practices. Several underperforming structures that had been newly redesigned and reconstructed were evaluated to confirm performance. LiDAR tools are also used to map infiltration basins to show elevation change of different green infrastructure components pre and post-retrofit construction. In 2026, we aim to continue this program by assessing a different set of green infrastructure sites and monitoring subsurface water movement.

Monitoring & Research

The Stormwater Innovation Center has partnered with the EPA Atlantic Coastal Environmental Sciences Division and the Providence Parks Department to deploy a real-time water quality monitoring buoy in Mashapaug Pond. This collaboration is important because Mashapaug Pond water is the primary source flowing into the Roger Williams Park pond system, so upstream conditions directly affect the park. The buoy is also being used to record baseline conditions with continuous data and to track long-term trends in temperature, dissolved oxygen, and cyanobacteria indicators, which are added to an ArcGIS data dashboard.

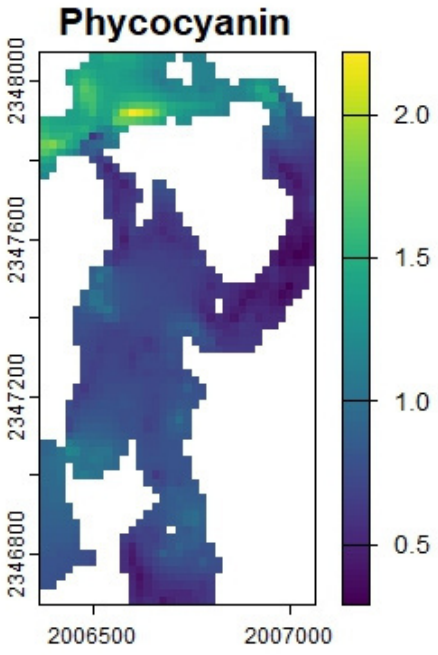
Mashapaug Pond Buoy launched on July 9th, 2025



Commercial property owners around Mashapaug pond subject to new RDA permitting

This monitoring will help assess changes in water quality as management actions are implemented in the watershed. RIDEM's new Residual Designation Authority Mashapaug General Permit mandates that large commercial property owners reduce stormwater pollution from their sites, while the City of Providence is embarking on a Total Maximum Daily Load (TMDL) implementation project that has identified multiple stormwater controls to treat municipal and roadway runoff before it enters Mashapaug Pond. The buoy provides a coordinated way to measure progress from both permit-driven improvements and upcoming City-led stormwater management projects. In 2026, we have applied for permits to deploy 2 similar real-time buoys in Roger Williams Park.

The Stormwater Innovation Center continued to expand its technical partnership with the EPA Atlantic Coastal Environmental Science Division by conducting Fast Limnology Automated Measurement (FLAMe) surveys of the Roger Williams Park ponds. This innovative monitoring approach, piloted near the end of the 2025 field season, produced high-resolution mapping of phycocyanin and chlorophyll concentrations throughout the pond system. The FLAMe surveys deliver an important spatial snapshot of algae-related indicators, providing new insights into how water quality conditions vary from pond to pond and helping identify potential problem areas. Moving forward in 2026, weekly FLAMe surveys will be conducted, and these recurring maps will be combined into a spatial time series that tracks changes across the ponds during the 2026 monitoring season. The project demonstrates how emerging technologies can be applied in a practical setting to support local management and restoration decisions.



Training & Technical Assistance

Professional training and technical exchange are essential to advancing effective stormwater management. Through workshops, the annual Stormwater Innovation Expo, site tours, and ongoing technical assistance, the Stormwater Innovation Center provides a platform for practitioners to share lessons learned from research and monitoring as well as experiences from projects across the region. These events create valuable opportunities for engineers, municipal staff, contractors, and community partners to network and learn together. By bringing professionals into the field to see real systems and real data, we help build the knowledge and connections needed to continually improve how stormwater projects are planned, maintained, and implemented.

ANNUAL EMERGING STORMWATER TECHNOLOGIES SERIES

The Stormwater Innovation Center coordinated and hosted the 4th annual webinar in the Emerging Stormwater Technologies in Rhode Island Series, featuring the Nutrient Separating Baffle Box (NSBB) from Oldcastle Technologies. Presenters from Oldcastle Technologies delivered detailed content on NSBB design, implementation, and maintenance, while partner organizations including the SNEP Network, RIDEM, and SIC provided brief presentations connecting the technology to regional programs and priorities. The webinar drew over 80 registrants and more than 60 attendees, included an engaged and practical Q&A session, and generated multiple requests for follow-up information. A full recording of the webinar is posted on the SIC website.

BUILDING FUTURES COLLABORATION

This year, the Stormwater Innovation Center strengthened its growing partnership with Building Futures by collaborating with three different class cohorts to build practical skills in green infrastructure and stormwater management. The collaboration engaged more than 30 young adults in total and helped advance a professional certification pathway for green infrastructure maintenance and inspection, while also supporting the Building Green Futures program and its mission to prepare Rhode Islanders for careers in the park management, landscaping, and environmental fields.

Student cohort surveying the site on Building Futures Tree Farm

Students at Roger Williams Park from the Building Green Futures class

Across multiple sessions, SIC coordinated a blend of classroom instruction and field-based, hands-on training focused on surveying, inspections, and maintenance of stormwater systems within Roger Williams Park and along the Woonasquatucket River. Participants assessed real-world site conditions, learned to identify signs of under-performing infrastructure, and learned to restore systems to their original design elevations to improve function and water quality benefits.

Student cohort working at bioswale site on Building Futures Tree Farm

Training & Technical Assistance

The Stormwater Innovation Center coordinated and delivered numerous guided site visits for professional, university, and community organizations throughout the year, creating opportunities to share practical lessons learned from stormwater projects in Roger Williams Park. These visits highlighted real-world examples of green infrastructure design, construction, inspection, and maintenance, drawing directly on SIC research, monitoring, and performance assessments. They also served as an important learning platform for groups to see the full range of green infrastructure design options and to understand how different design approaches can be matched to varying site constraints and maintenance regimes.

Left: American Association of State Highway and Transportation Officials at RWP tour
Top Right: Aquidneck Island Land Trust members at the Treatment Train
Bottom Right: Roger Williams University engineering students at Roger Williams Park

Organizations toured included Aquidneck Island Land Trust, Little Compton Garden Club, American Association of State Highway and Transportation Officials, Roger Williams University engineering students, a Roger Williams University Hydrology class, Providence Emergency Management Association, Association for Preservation Technology, and Ocean Hour Farm.

This peer-to-peer exchange continues to help evolve stormwater practice in Rhode Island by connecting decision makers and practitioners with demonstrated approaches that are both effective and maintainable.

CONTECH JELLYFISH FILTER TRAINING

The Stormwater Innovation Center coordinated a practical, field-based training focused on maintenance of the Contech Jellyfish stormwater treatment filter system. The workshop was organized in partnership with Stormwater Compliance, Contech, and the Providence Parks Department to strengthen local capacity for long-term stormwater management. Participants received an overview of the installed system and its role in removing sediment and pollutants from runoff. The training then shifted to a hands-on component in which the filter unit was opened, cartridges were removed, and attendees actively power-washed the individual membrane filters before reassembling them. This real-world exercise helped municipal staff, contractors, and planners better understand the routine maintenance requirements of the technology, including the tools, time, and personnel needed to service it effectively.

Top Left: Nate Marles with Stormwater Compliance removing a filter cartridge
Bottom Left: Training attendees gathered around the Jellyfish filter system
Bottom Right: Christopher Dill with RIDEM and Nate Marles power washing a filter cartridge

ANNUAL STORMWATER EXPO

In collaboration with the Rhode Island Green Infrastructure Coalition, the Stormwater Innovation Center hosted the 7th Annual Stormwater Innovation Expo on October 8th at the Roger Williams Park Casino. The event highlighted climate-resilience strategies and innovative stormwater management approaches through a full day of indoor presentations, an expert panel, vendor exhibits, and outdoor presentations. Despite rainy weather, the Expo generated active peer-to-peer networking and meaningful conversations about emerging technologies, expert services, and practical, community-driven solutions from municipalities, state agencies, universities, and non-profits across New England. The day drew strong participation and engagement, with more than 200 people attending, reinforcing the Expo's role as a regional forum for sharing lessons learned and advancing stormwater practices.

Top: Expo attendees at the keynote speaker event; *Bottom left*: Caleigh McLaren conducts a culvert assessment demonstration at the treatment train; *Bottom middle:* Molly Welsh presenting on the RWP Zoo Stormwater Master Plan; *Bottom right:* Attendees at RWP Stormwater Master Plan outdoor presentation

Education & Outreach

The Stormwater Innovation Center continued prioritizing education, outreach, and community engagement as core elements of our mission. This work is important because effective stormwater management depends not only on sound engineering, but also on informed and involved residents who understand how everyday actions influence local water quality. Through public events, school programs, tours, and partnerships, the SIC helps community members recognize issues such as flooding, pollution, and harmful algal blooms and learn practical steps to manage rainwater where it falls. Outreach strengthens trust, builds stewardship, and prepares residents to take action at home and to support clean-water policies when opportunities arise to vote or advocate for protecting Rhode Island waters.

The Stormwater Innovation Center assisted BIOPOD Co. with advancing plans to install a BioPods floating wetland system in Roosevelt Lake by preparing and submitting an application for a RIDEM Freshwater Wetlands Permit, obtaining approvals of the Providence Parks Department, and helping secure plant funding in partnership with BloomRI.

The Providence Parks Department approved integration of an educational signboard near the proposed installation to highlight project purpose and function for park visitors. SIC will incorporate the BioPods site into guided site visits, the self-guided stormwater brochure tour, and Stormwater in Schools programs to expand awareness and allow professionals and community members to see firsthand how floating wetlands can complement the many other green infrastructure design options. Final permit approval is still pending, with installation planned for spring 2026.

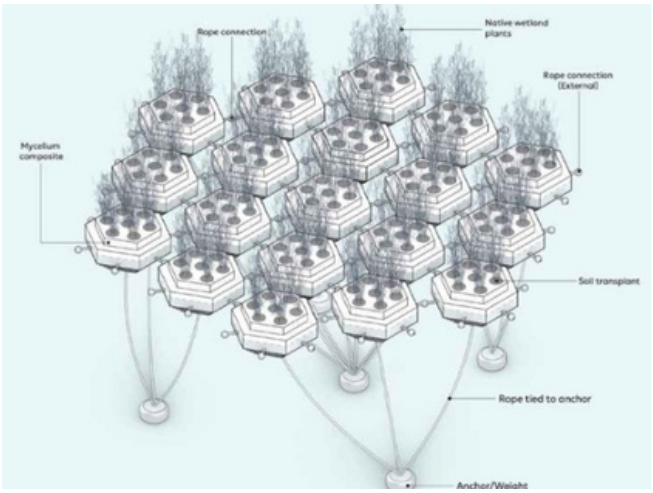
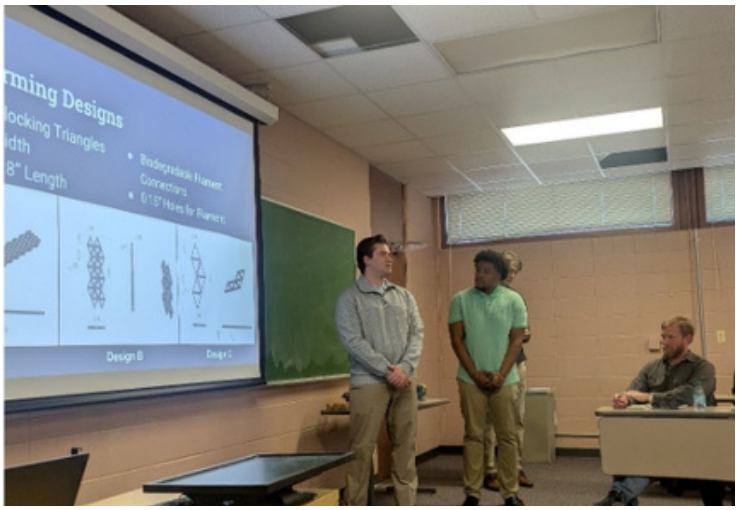


Diagram of floating wetland design from BIOPOD Co.

Education & Outreach

In 2025, The Stormwater Innovation Center partnered with multiple Rhode Island universities as a guest presenter and community advisor. Our goal in working with these classes is to help the next generation of potential stormwater and water resources professionals learn about practical, real-world topics for future careers and to share lessons learned within the industry. We served as a community partner for the University of Rhode Island Public Engagement with Science class, where students developed inclusive seasonal engagement strategies for Roger Williams Park focused on invasive carp management and Canada goose control using community art, interactive signage, storytelling, and community science to build public trust and encourage participation.

URI students presenting in their Public Engagement Science course



Guests at the Salve Regina University Natural Resource Management course

SIC hosted a technical tour for the Roger Williams University Engineering Hydrology class, demonstrating how systems are sized, how EPA pollutant-reduction curves guide design, and how inlet, pre-treatment, treatment, and overflow components function in practice, along with common construction oversight challenges. We delivered guest instruction to the Salve Regina University Natural Resource Management course, providing an overview of SIC programs and adaptive management projects within the park watershed. In addition, SIC advised a team of Roger Williams University civil engineering students in an erosion-control technology project, supporting prototype testing of eco-friendly materials for possible pilot installation at a green infrastructure site in Roger Williams Park.

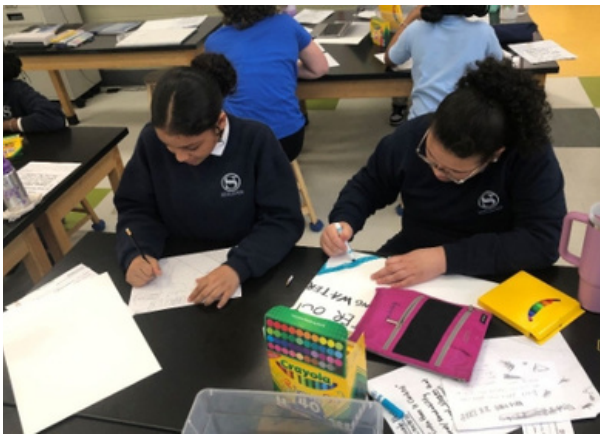
Together, these collaborations connect academic learning with workforce pathways and expand professional capacity in the growing water quality industry.

Education & Outreach

In 2025, the Stormwater Innovation Center expanded hands-on learning through our Stormwater in Schools program, partnering with municipalities, teachers, engineers, and students to connect classroom concepts with local water resources and real-world stewardship. We collaborated with the City of Pawtucket to support their Earth Day rain barrel giveaways, working with art students from Jacqueline M. Walsh School for the Arts to paint and transform barrels into functional pieces of community artwork for distribution to residents.

Painted rain barrels from Jaqueline Walsh art students

SIC supported two Environmental Science classes with in-class stormwater education and hosted a field trip to a newly completed green infrastructure installation on Pine Street in Pawtucket, where City representatives and an engineer from Fuss & O'Neill involved in the site design demonstrated how the system functions and how it is maintained using a vac truck.



6th grade students at Sophia Academy

Additional school partnerships included Sophia Academy in Providence, Toll Gate High School in Warwick, and Alvarez High School in Providence. At Sophia Academy, 6th graders piloted a train-the-trainer model by leading learning stations for younger students and promoting peer-to-peer awareness. Toll Gate High students explored the Pawtuxet River watershed through field sampling, filtration model building, and turbidity testing, while Alvarez High students learned about Mashapaug Pond water quality concerns, examined macroinvertebrates, painted themed bird boxes, and created art inspired by green infrastructure and aquatic ecology.

We also welcomed students from the Brown Summer High School Program to Roger Williams Park, where they engaged with an interactive watershed model and learned how stormwater runoff and common pollutants impact the places they live and recreate, observed demonstrations of water quality sampling methods, and received an overview of cyanobacteria identification and monitoring procedures. These activities encourage practical skills, community awareness, and creative problem-solving.

Brown Summer High School students using the watershed model

ANNUAL RAIN HARVEST FESTIVAL

The 2025 Rain Harvest Festival was highly successful, continuing our mission to engage the community around practical stormwater stewardship and creative environmental learning. The event featured more participating and tabling organizations than in previous years, including new partners such as Notable Works Publication & Distribution Co. and the People's Port Authority, which broadened the range of audiences and perspectives involved. Nkéke Harris opened the festival with a land acknowledgment and a traditional Narragansett song, setting a meaningful and welcoming tone. Live music from the John Allmark-Dino Govoni quintet helped maintain a lively atmosphere throughout the day.

Jessy Minker presenting her StoryWalk project at the festival

Overview shot of the tables and organizations presenting at the festival

Attendees had multiple opportunities to participate through poetry, visual art, and writing stations that encouraged personal expression connected to rainwater and local waterways. The festival raffle included a more diverse selection of prizes and generated record ticket purchases, reflecting strong public interest and enthusiasm.

Malia Cafasso tabling for the Canada Goose Survey volunteer program at the festival

Feedback from attendees, performers, and tablers was overwhelmingly positive, and we valued our continued collaboration with the Roger Williams Park Botanical Center, whose outdoor pavilion and community-oriented venue remain an ideal fit for the festival, as well as RIDOT, as the main event sponsor. Looking forward to 2026, SIC is transitioning to a less frequent schedule for the Rain Harvest Festival, hosting it every other or every third year, and focusing on a variety of outreach opportunities to engage the local community throughout the year rather than through one large end-of-year event.

Education & Outreach

In 2025, the Stormwater Innovation Center participated in numerous community outreach events through presentations, tabling, and guided tours in RWP. Our outreach work makes residents aware of local stormwater and water quality issues and shares practical actions they can take at home to reduce polluted runoff.

We supported a Rhode Island State Council of the Arts (RISCA) funded collaboration with Notable Works Publication & Distribution Co., delivering a community presentation aligned with their theme of coming together for a common goal while contributing to a community-sourced publication and original video inspired by SIC projects.

SIC gave presentations or tabled at Prickly Ed's Native Plant Nursery Yards Alive series, Audubon's Transforming the Landscape conference, World Ocean Day at Roger Williams Park Zoo, and the Audubon Society of Rhode Island Raptor Weekend.

Bella Peterson tabling at World Ocean Day at Roger Williams Park Zoo

SIC hosted non-technical educational tours for several homeschool groups and other community organizations. Looking forward to 2026, SIC will continue emphasizing year-round engagement through monthly community events and tours.

Jack Duncan tabling at Audubon Raptor Weekend

AUDUBON YOUTH CONSERVATION LEAGUE

In 2025, the Stormwater Innovation Center also benefited from collaboration with the Audubon Society of Rhode Island Youth Conservation League (YCL). The Youth Conservation League is a grant-funded seasonal program that creates summer jobs for high school-age youth to perform challenging and rewarding outdoor stewardship projects for Audubon, land trusts, towns, and watershed groups throughout Rhode Island.

The YCL team cleaning donated rain barrels

Participants shared that they enjoyed the project as a welcome change of pace from their usual intensive field labor. Working with YCL helps SIC's mission by supporting accessible workforce pathways, engaging young people in meaningful conservation activities, and demonstrating how practical stormwater stewardship can directly connect to future careers protecting local waters.

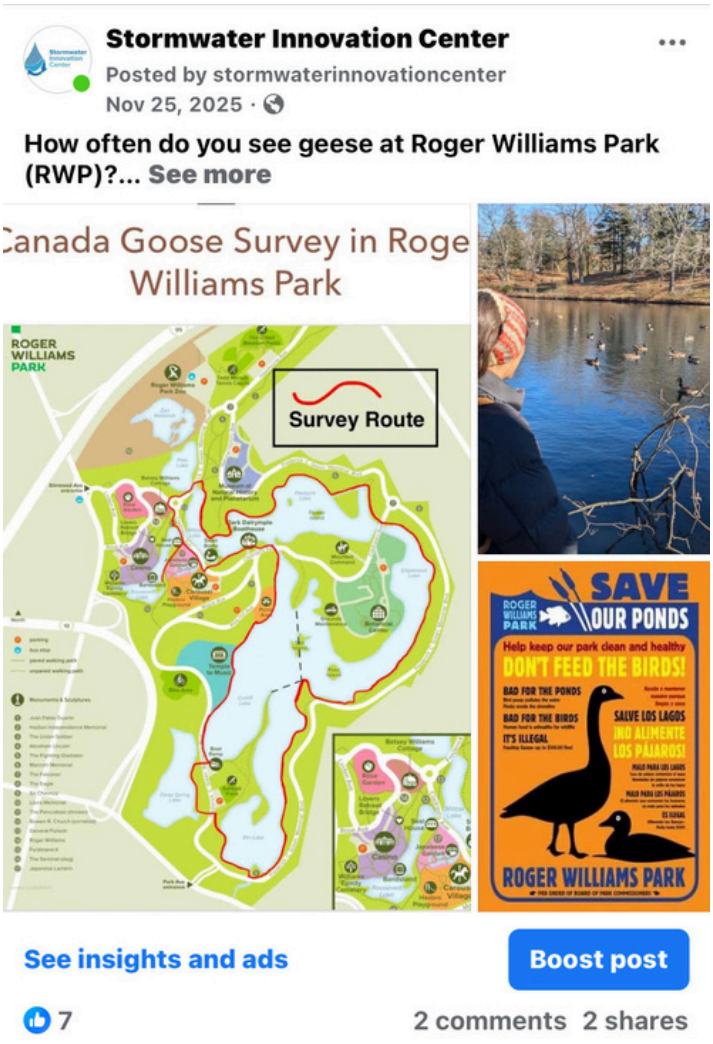
As part of this partnership, the YCL team assisted SIC by cleaning, priming, and painting four donated rain barrels, which will be used as raffle prizes for community members.

2025 SOCIAL MEDIA STATISTICS

In 2025, the Stormwater Innovation Center focused on expanding its digital outreach to connect with a broad and diverse audience across Rhode Island. Our social media platforms (Instagram and Facebook), serve as an important extension of the SIC's education and outreach efforts, allowing us to share timely project updates, promote events and volunteer opportunities, highlight partners, and translate complex stormwater concepts into accessible and engaging content.

Moving into 2026, analyzing social media performance data will provide valuable insight into who we are reaching and what content resonates most. These metrics help inform future outreach strategies by identifying effective content formatting, topics, and timing, allowing the SIC to strengthen existing connections to our followers while intentionally expanding our digital network among community members, students, stormwater professionals, and more.

Screenshot of SIC Instagram feed



Screenshot of SIC Facebook post about our CAGO community science program

Education & Outreach

2025 SOCIAL MEDIA STATISTICS

Instagram January 1, 2025- December 31st, 2025

39,952	789	231
Total Views	Total Likes, Saves, Comments	New Followers

Facebook January 1, 2025- December 31st, 2025

37,100	1,600	53
Total Views	Total Likes, Saves, Comments	New Followers

Facebook Audience Insight

31.1% Male

69.9% Female

Instagram Audience Insight

31.9% Male

68.1% Female

Overall Top Performing Content

- Rain Harvest Festival Announcement Post — 16,300 views
- StoryWalk Announcement Post — 6,100 views

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