

»»» JULY NEWSLETTER «««

STORMWATER INNOVATION CENTER

Monitoring | Training | Community Engagement | Collaboration

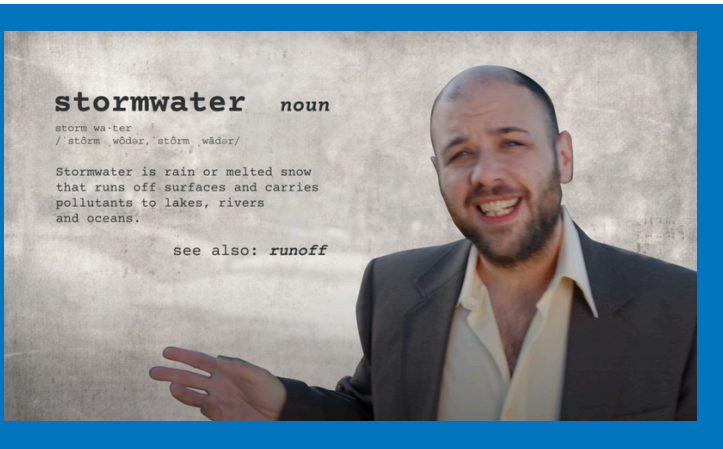


WHAT'S NEW?

»»» NEW STORMWATER PSA

The Stormwater Innovation Center has released a fun PSA video on stormwater and its impact on water quality. Check it out and share with your networks here:

<https://youtu.be/NlCij08rtqY?si=uifaVINzwCSJOJIC>



PROJECTS, PROJECTS, PROJECTS! «««

The Center, in collaboration with our partner organizations, has been involved in a variety of new projects which will be outlined later in this issue.

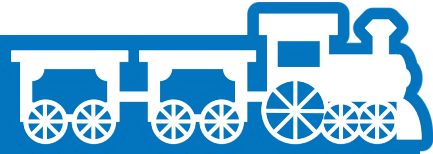




PROJECT UPDATES



TREATMENT TRAIN ANTICIPATED AUGUST 2024



We are excited to share the progress on the City of Providence’s Treatment Train, currently being installed at Roger Williams Park! What is the treatment train? The Mashapaug Pond watershed, which faces significant pollution challenges, flows directly into the Roger Williams Park Pond System, leading to negative impacts on water quality. The treatment train is designed to divert this polluted water and run it through both a jellyfish and biochar filter before the water returns to the park ponds. The Stormwater Innovation Center will also work collaboratively with URI’s Coastal Institute to monitor this water to ensure the filter series is working as intended.



PURPOSE

Ensure clean water flows into the Roger Williams Park ponds

Determine the effectiveness of jellyfish filters

Test out experimental natural filters

Improve maintenance techniques for similar filters across Providence and beyond

Serve as a training site for jellyfish filter maintenance and cleaning

For more details visit our website: <https://www.stormwaterinnovation.org/treatment-train>

ROGER WILLIAMS PARK ZOO STORMWATER MANAGEMENT PLAN

The Center is bringing its expertise to Roger Williams Park Zoo by facilitating the creation of a new Stormwater Management Plan, which will be developed by our partners at Horsley Witten Group. This initiative will tackle cyanobacteria blooms, boost stormwater education and outreach, and implement a comprehensive stormwater strategy, pinpointing key nutrient reduction tactics to clean up the zoo's wetland and downstream ponds.





PROJECT UPDATES



FLOATING WETLAND BELOW AND ABOVE COLLECTIVE

We are excited to announce the planting and launch of the Below and Above Collective's floating wetland at Polo Lake in Roger Williams Park!

THIS FLOATING WETLAND AIMS TO



REDUCE HARMFUL NUTRIENTS



PROMOTE NATIVE PLANT GROWTH AND HABITAT



CURB CYANOBACTERIA

It highlights the important role of native plants and the often overlooked microorganisms — fungal, bacterial, phytoplankton, and zooplankton communities — that are essential for life on Earth.

This project was made possible with the partnership of the Below and Above Collective and the Providence Parks Department. You can visit the floating wetland in Polo Lake until October 2025 to observe its life cycle!

AUDUBON YOUTH CONSERVATION LEAGUE

Audubon's hardworking Youth Conservation League (YCL) completes environmental projects throughout the summer across the state of Rhode Island such as trail maintenance, infrastructure repairs, seed collection, and more. This July, the SIC worked with the YCL, along with the City of Providence Parks Department and Save the Bay to remove invasive species around Roger Williams Park, including burning bush, pokeweed, Japanese knotweed, bittersweet, and more!





COMMUNITY



BECOME A RAINSNAP VOLUNTEER

We are seeking volunteers to participate in stormwater monitoring!

- ✔ Take Videos During Rain Events
- ✔ Help Monitor Green Infrastructure
- ✔ Inform Decision Makers
- ✔ Help Keep Our Water Clean
- ✔ Quick & Easy Training Process
- ✔ Need An Umbrella And Smartphone

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

CITY OF CRANSTON OUTREACH & MONITORING

This month we hosted interactive tabling events to raise awareness about urban runoff and its impact on Spectacle Pond. Residents mapped their locations in relation to the pond, identified pollution sources, and discussed personal actions to mitigate these issues. Our goal is to empower the community to reduce phosphorus runoff, fostering a healthier environment for Spectacle Pond and the Pawtuxet River Watershed.



MEET HELENA WILLIS WATERSHED WATCH



Helena Willis of Warwick, RI retired from her engineering role at Hasbro to pursue her passions for hiking and gardening. Inspired by a Warwick newspaper article and a friend's involvement in watershed work, she began volunteering with Watershed Watch this year.

Helena monitors the Elm Lake outflow spot in Roger Williams Park. She also contributes by collecting rain data and assisting at the Park greenhouse. She finds citizen science rewarding and enjoys spotting blue herons and connecting with other volunteers, including one who kayaks on Roosevelt Lake for sampling. Her dedication and enthusiasm are truly appreciated!





HOT TOPICS



CYANOBACTERIA

Cyanobacteria, or blue-green algae, are single-celled organisms found in all water bodies. They use sunlight to make their own food but also need nutrients like nitrogen and phosphorus to grow. In warm, nutrient-rich waters, they can quickly form large blooms on the surface.

WHY ARE BLOOMS A PROBLEM?



Toxins:

Cyanobacteria produce cyanotoxins, powerful poisons that can harm people and wildlife.



Ecosystem Disruption:

Blooms block sunlight and consume large amounts of oxygen, creating dead zones where other aquatic life cannot survive.

HOW CAN YOU HELP?

- Minimize Fertilizer Use
- Prevent Septic Tank Overflows
- Manage Animal Manure

Keep an eye out for signs of blooms, such as discolored or scummy material on the water's surface. A bloom often looks like spilled green paint in water. If you spot a bloom, report it via EPA's BloomWatch app as soon as possible to help protect the environment and public health.

HARPING ON CARP

Originally from Asia, carp were introduced to control aquatic vegetation, however, their rapid spread has led to ecological challenges and they now threaten freshwater ecosystems.

ENVIRONMENTAL IMPACT

BIODIVERSITY LOSS:

Invasive carp outcompete native fish for food and habitat, depriving native species of crucial food sources.

HABITAT ALTERATION:

Carp consume large amounts of aquatic plants, destroying underwater vegetation, resulting in reduced water quality and increased erosion.

WATER QUALITY DEGRADATION:

Invasive carp stir up sediments, which reduces light penetration, impacting photosynthesis in aquatic plants. They also contribute to phosphorus pollution, excreting this nutrient as they forage.

MITIGATION & MANAGEMENT

PREVENTION:

Implement regulations and monitoring to prevent the introduction of invasive carp.

CONTROL MEASURES:

Use physical barriers to prevent carp movement into new areas and targeted removal programs to reduce populations.

RESEARCH AND INNOVATION:

Continue research into biological controls, such as predators or diseases specific to invasive carp, and other innovative methods to manage their populations.

Invasive carp pose a serious threat to our freshwater ecosystems. By understanding their impacts and supporting efforts to control their spread, we can help protect our water bodies and preserve the natural balance of these vital resources.

UPCOMING EVENTS



RAIN HARVEST FESTIVAL
 SEPTEMBER 29TH, 11 AM - 2 PM

Mark your calendars for the 2024 Rain Harvest Festival this September featuring live music, environmental activities, free food, and much more!

STORMWATER INNOVATION EXPO OCTOBER 16TH, 8:30 AM - 3 PM




The annual Expo is a great event for those interested in a full day of networking and educational opportunities related to green infrastructure. The theme this year is "Partnerships for Statewide Climate Resilience".

Click [HERE](#) to register!



STAY IN TOUCH

FOLLOW & VISIT

-  [@stormwaterinnovationcenter](#)
-  [Stormwater Innovation Center](#)
-  [stormwaterinnovation.org](#)

INTERESTED IN VOLUNTEERING?

Contact reeves@asri.org for more information!



Stormwater Innovation Center