

»»» OCTOBER NEWSLETTER «««

STORMWATER INNOVATION CENTER

Monitoring | Training | Community Engagement | Collaboration



Stormwater Innovation Center



WHAT'S NEW?



RAIN BARREL WINNERS!



Thank you to those who came to the Rain Harvest Festival! The winners of the Rain Barrel Raffle have all officially claimed their barrels and we are excited to see them utilized around Rhode Island.

PROJECT UPDATES

FISH SURVEY IN ROGER WILLIAMS PARK PONDS

We had a productive day of fish surveying in Roger Williams Park! This collaborative effort brought together the Environmental Protection Agency (EPA), Roger Williams Park and Zoo, The Nature Conservancy in Rhode Island, the Providence Parks Department, and the Audubon Society of Rhode Island. Our goal is to explore the potential link between common carp and water quality issues in the park's ponds.

ENVIRONMENTAL IMPACT OF CARP

WATER QUALITY DEGRADATION:

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

HABITAT ALTERATION:

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

BIODIVERSITY LOSS:

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

During the survey, we found a wide array of species in addition to common carp, including red-breasted sunfish, largemouth bass, black crappies, catfish, and more!

The fish were identified, weighed, measured, and released, providing valuable preliminary data on the status of carp in the park's waters.

Stay tuned for more information as we continue to analyze the findings and their implications for water quality!





EVENTS



RAE COASTAL & ESTUARINE SUMMIT

The Stormwater Innovation Center had a great time attending the RAE 2024 Coastal & Estuarine Summit! We shared our work on repairing underperforming green infrastructure in Roger Williams Park, funded through the SNEP Watershed Implementation Grant, and highlighted our Rain Snap community science program, which monitors the performance of these repairs.

It was great to connect with experts and leaders in coastal restoration and to explore the future of restoration practices. Thank you to Restore America's Estuaries for hosting this amazing event!



COASTAL & ESTUARINE SUMMIT

Hosted by Restore America's Estuaries



STORMWATER INNOVATION EXPO

We are thrilled to share the success of the Stormwater Innovation Expo, co-hosted with The Rhode Island Green Infrastructure Coalition. Held at the Roger Williams Park Casino, the event brought together municipal leaders, engineers, and industry professionals to explore this year's theme, "Partnerships for Statewide Climate Resilience."

We were especially proud to lead the outdoor presentations, featuring expert insights from The Below and Above Collective, The Nature Conservancy in Rhode Island, Providence Parks Department, Pare Corporation, University of Rhode Island, Low Impact Development Technologies, LLC (LIDTECH), Everett J. Prescott Inc., and Kleinfelder.

A special thank you to the Rhode Island Department of Transportation for sponsoring municipal and state staff admissions and helping making this event possible!

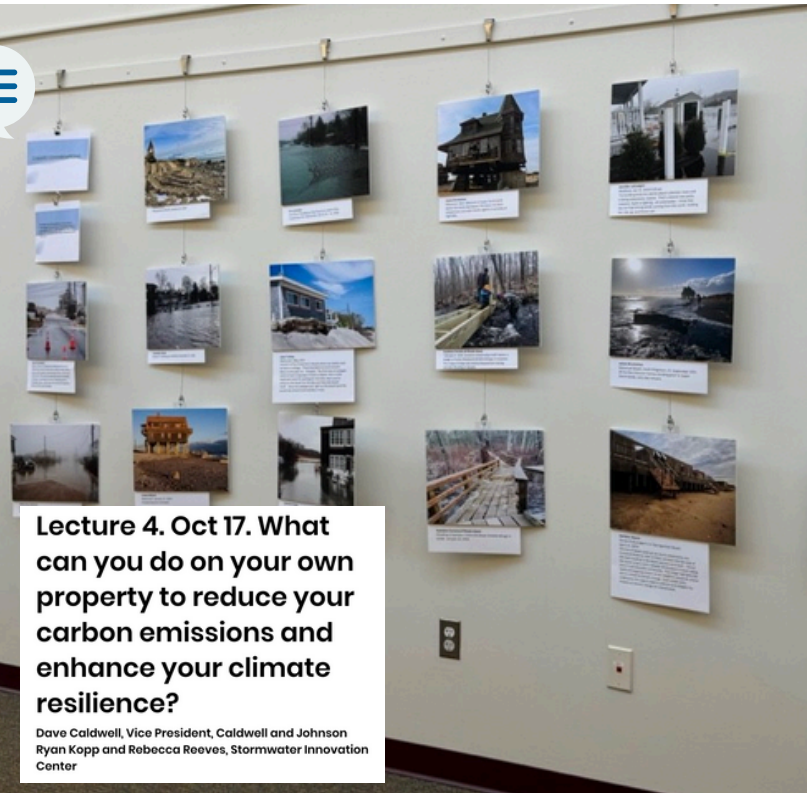
COMMUNITY

CLIMATE CONVERSATIONS



We were proud to participate in *Climate Conversations*, a lecture series organized by North Kingstown residents and the North Kingstown Free Library to engage the community in discussions about local climate impacts and resilience. On October 17, Meg Kerr gave a presentation on behalf of the Stormwater Innovation Center highlighting the importance of adopting green stormwater practices like rain gardens and rain barrels to manage water sustainably at home and in businesses.

The series was a great success and we're excited to continue supporting these vital conversations that empower our community to take action against climate challenges.



Lecture 4. Oct 17. What can you do on your own property to reduce your carbon emissions and enhance your climate resilience?
Dave Caldwell, Vice President, Caldwell and Johnson
Ryan Kopp and Rebecca Reeves, Stormwater Innovation Center



2024 AUDUBON SOCIETY VOLUNTEER OF THE YEAR



We are thrilled to share that Lindsay Dulude, a dedicated volunteer who has been pivotal to the work of the Stormwater Innovation Center, has been named the 2024 Volunteer of the Year by the Audubon Society of Rhode Island!

For the past four years, Lindsay has been collecting water samples in all conditions at Roger Williams Park to provide crucial data that helps us improve our restoration efforts. She's also raised awareness about stormwater management through media interviews, highlighting its importance for clean water, wildlife, and all Rhode Islanders.

Congratulations, Lindsay! We're grateful for your dedication and impact.

See more award recipients and event highlights: <https://asri.org/annual-meeting/>

»»» HOT TOPICS «««

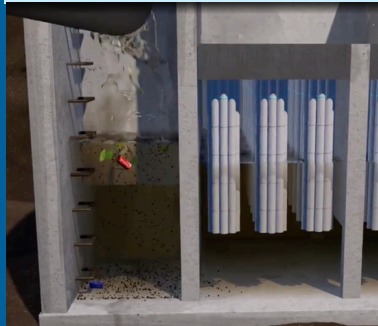
JELLYFISH FILTERS

At first glance, the name "Jellyfish Filter" might be misleading—there aren't any actual jellyfish involved, but the technology inside these filters is just as fascinating. Installed beneath the surface as part of the Mashapaug Pond treatment train, 15 of these state-of-the-art filters have been engineered to improve stormwater quality. Each filter contains 11 reusable and rinseable cartridges, designed to capture and remove pollutants that would otherwise flow into our local rivers, lakes, and ponds.

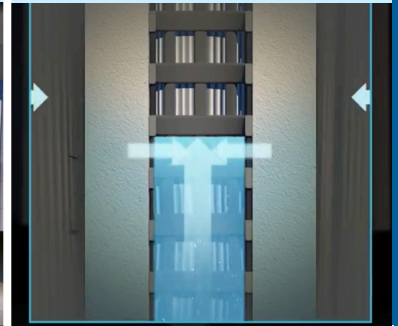
The effectiveness of the Jellyfish filter lies in its combination of up-flow hydraulics, passive backwashing, and high-flow membrane filtration. By maximizing surface area through its innovative membrane cartridges, the filter captures a wide range of pollutants, from fine particles like sand and silt to more harmful contaminants such as nitrogen, phosphorus, metals, and hydrocarbons. The combination of its filtration technology and self-cleaning mechanism ensures long-lasting treatment while maintaining efficient water flow.

HOW IT WORKS

1. INITIAL FILTRATION



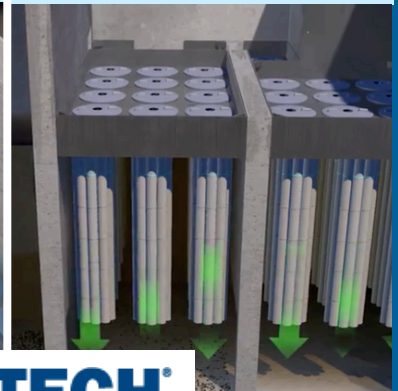
2. MEMBRANE FILTRATION



3. CLEAN WATER DISCHARGE



4. PASSIVE BACKWASHING



With the Providence Parks Department leading this effort to incorporate Contech Engineered Solutions' jellyfish filters into infrastructure, they are helping set new standards for stormwater treatment. These advanced systems work efficiently below the surface, crucial in protecting our waterways.

»»» GET INVOLVED «««



CLEAR YOUR LEAVES

It's that time of year—fall leaves are piling up! Remember, keeping your driveway clear of leaves, grass clippings, and debris helps prevent clogged storm drains and keeps excess nutrients out of our waterways. Stormwater management doesn't have to be spooky—visit our website to learn more about how you can make a difference:

www.stormwaterinnovation.org/athome



BECOME A RAIN SNAP VOLUNTEER

New sites have been added and we are still seeking volunteers!

- ✓ 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/>

»»» STAY IN TOUCH «««

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- stormwaterinnovation.org

INTERESTED IN VOLUNTEERING?

Contact rreeves@asri.org for more information!



Stormwater Innovation Center