

What is Resilient Newburyport?

Our changing climate is presenting new challenges for Newburyport, and we want to ensure that our city remains resilient and strong for generations to come.

Resilient Newburyport is about more than just the environment and climate; it's about every one of us who calls Newburyport and our neighboring towns home. Through our Community Action Project (CAP), we are setting out on a mission to speak to as many of you as possible. We want to hear your stories, concerns, and ideas about our shared future. We believe in the power of a community that's informed, engaged, and connected.

[Newburyport's Resiliency Committee](#) is leading this project, but at its heart is each and every one of you.



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Newburyport's Eco-Explorers

Nock 8th Graders Dive into Recycling and Renewable Energy

Nock Middle School's 8th graders recently explored Newburyport's Recycling Center and Yard Waste Facility on Colby Farm Lane.

Organized by 8th grade teacher, Mary Kate Allen, and Molly Ettenborough, Newburyport's Sustainability Director, the tour provided students with practical lessons in waste's impact on local and global natural resources.

Located near a capped landfill, hiking trails and the city's largest vernal pool, the Recycling Center and Yard Waste Facility are more than drop-off points. Students learned that these facilities also offer free swap shops, compost, and educational materials.

Recycling, recognized for waste reduction, also plays an important role in carbon reduction and mitigating climate change.

Another stop on the tour was a visit to Newburyport's landmark windmill located in the business park. Students met with Mark Richey, the owner of the windmill, and talked about the benefits of renewable energy.

Events like these tours are a great opportunity for students to experience first hand the vital link between waste reduction, preserving our precious natural resources, and mitigating climate change.

This event is one of 26 climate-related projects funded through a Resilient Newburyport's CAP Community Partner grant. Stay tuned for news on more Partner projects in future newsletters and online!



The Latest From the CAP Team

Hello! I'm Jane Healey, Chair of the Newburyport Climate Resiliency Committee and co-leader of the Resilient Newburyport **Climate Action Project (CAP)**.

We've heard from many of you since our last newsletter and the interest and encouragement has been truly inspiring! Please continue to [reach out](#), we want to know what is on your mind when it comes to climate change and Newburyport.

It's been a busy couple months to say the least. We're thrilled to announce the completion of our first staffing round - meet the new team on p. 2! You can also discover more about our initiatives on our new [CAP Story Map](#), detailing the Project's diverse activities, including info on all of our Community Partners' projects.

Exciting developments are underway for our upcoming Community Action Forums, including new partnerships with two great organizations to develop and facilitate the events. We hope that you will consider participating next Spring!

Talk About Climate Change: It Matters!

Conversations about our changing climate can be tricky, but here are some quick tips:

- **Make it relatable** - Focus on homes, families, jobs, and beloved places like forests or beaches.
- **Highlight immediate impacts** - This could include increased flooding or rising air conditioning bills.
- **Share the positives** - There are positives to taking action, like improving health, saving money on utility bills, and the introduction of cool tech like electric cars and solar panels.
- **Remember that seeing others act inspires action!** Discussing what you are feeling and doing can motivate friends and neighbors.

For ideas on how to take individual action, there's lots of information on websites like [EnergizeNewburyport!](#)

Meet the Community Action Project Team!

We're thrilled to welcome four new members to Resilient Newburyport's Community Action Project team!

They join co-leaders Jane Healey and Sarah Tappan, city Conservation Administrator Julia Godtfredsen, and city Sustainability Director Molly Ettenborough. Here's a bit about them!

Susan Acquaviva, Financial Administrator - A South End resident for 23 years, Susan is a CPA and a part-time city consultant. She's excited about CAP's mission as it combines her interests in environmental preservation and making sure hard-earned money is spent wisely.

Zoe Kakuba, Community Activist - A 17-year-old high schooler at Newburyport High, Zoe is passionate about sustainability after a recent conference in Germany and Switzerland. As an active student leader, she's eager to promote sustainable living in Newburyport.

Kerry Patty, Program Administrator - A Newburyport resident for almost 37 years, Kerry has volunteered extensively, including at AJH Association and local schools. Thrilled to now bring her project management expertise to CAP, she's dedicated to preserving the city's beauty and natural resources.

Olivia White, Community Activist - Serving as the Resident Services Coordinator at the housing authority, Olivia was inspired to join CAP after a Community Partner's kick-off meeting. She's excited to be leading a project creating a climate-related mural at the Sullivan Building as well as serving as a project Community Activist.



Left to right: Susan Acquaviva, Julia Godtfredsen, Zoe Kakuba, Molly Ettenborough, Kerry Pattie, Jane Healey, Olivia White, Sarah Tappan

CALL FOR VOLUNTEERS!

Eager to make a difference?
We're seeking creative minds
for editing, marketing, and
outreach. Shoot us an [email](#) and
let us know how you'd like to
contribute!

Protecting Newburyport's Water Supply: Today and Tomorrow

Our Water Supply Needs Our Attention

In Newburyport, along with our neighbors in Newbury and West Newbury, we're largely reliant on the Artichoke and Indian Hill Reservoirs for our drinking water. The challenge? They're under threat from rising sea levels and more intense storms.

A Nod to the Past, Eyes on the Future

The peril is not new. Post the catastrophic 1936 floods, the city waged a desperate battle to safeguard our water supply. Residents had to boil water as a precaution, and the water treatment plant, shielded by sandbags, narrowly escaped contamination.



Following this disaster, the Army Corp of Engineers built the Franklin Falls dam and other flood control mechanisms in the Merrimack River Watershed, so it is unlikely we will see that exact flood scenario again. However, fast forward to today, and the stakes are even higher.

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Two Community Partner Projects Will Help Students Understand Risks to Water Supply

In the next few months, 150 fifth-grade Molin students in Newburyport will participate in a “Keeping Water Clean” Greenscapes program. This hands-on Ipswich Watershed Association initiative will offer a comprehensive, place-based learning experience, educating students about the intricate relationships between human-made infrastructure and the natural water cycle.

In an engaging, in-class session, students will navigate through five interactive stations, each offering a unique perspective on the water journey – from its source to the point of consumption. These stations will explore water purification, conservation techniques, and the interconnectivity within local watersheds. The program also actively involves parents, inviting them to assist at the stations.

In addition to the Greenscapes program, Newburyport’s 5th graders will participate in a series of educational field trips. These excursions include visits to the Artichoke Reservoir, a water treatment facility, and Newburyport’s wastewater treatment plant.

These interactive and informative field trips are designed to help students understand human impacts on ecosystems and the importance of preserving our precious water resources.

With our region experiencing increasingly erratic precipitation patterns leading to droughts and flooding, these programs are a step towards building climate awareness and resilience. Resilient Newburyport is glad to be able to support these projects through our grant-funded Community Action Project!

This summer's heavy rains led to a mind-boggling 1.5 billion gallons of sewage ending up in the Merrimack. And, by 2050, we could see sea levels rise enough to seriously challenge the spillway separating the Merrimack River from the Lower Artichoke Reservoir.

The Details

Newburyport relies on the Artichoke and Indian Hill reservoirs for approximately 80% of our drinking water. The intake pipe for the city's water treatment plant is located near the Lower Artichoke Dam. There's a significant risk that contaminated waters from the Merrimack River, if they overflow into the Lower Artichoke, would contaminate our entire water network. Currently, even slightly higher than usual tides combined with elevated river levels from rainfall or storm surges could backwash over the dam, endangering the city's primary water supply and leading to a public health crisis.



The Lower Artichoke Reservoir is particularly at risk because the overflow spillway is only slightly above the river, making our water supply susceptible to flooding during high tides and heavy rains. The spillway is 3 feet below the FEMA 100-year flood elevation and the Massachusetts Department of Environmental Protection recommends that critical assets like water supplies should be protected a few feet above the 100-year flood elevation.

Looking to the future, with sea levels anticipated to rise by up to 2 feet by 2050, the Lower Artichoke spillway is expected to face regular tidal reach and potential overflows. The combined impact of the anticipated sea level rise and normal storm conditions could pose a serious threat to this essential water source by 2050. But even today there is significant risk if we delay taking action.

Proactive Steps for Drinking Water Security

Protecting Newburyport public water supply is one of the city's highest climate resiliency priorities. The City's 2020 Climate Resiliency Plan describes the potential of the Merrimack River overtopping the Lower Artichoke Dam and contaminating the Lower Artichoke Reservoir as an urgent level risk. The city is working on short and long-term protection plans for the Lower Artichoke Reservoir Dam.

Short-Term Measures: To fortify our defenses immediately, a stone foundation is being installed at the Lower Artichoke spillway. This foundation is designed to anchor super-sack sandbags, averting potential breaches. The City expects completion by early 2024.

Long-Term Strategy: More ambitiously, the city is reimagining the Lower Artichoke Dam to address future intense storms and rising seas. A conceptual design is underway that includes elevating the dam and spillway, thereby protecting the reservoirs from the Merrimack. Raising the water level may not be allowed by the State, but our water supply can still be fortified against sea level rise and backwater events.

Your Part in This Journey:

This isn't a spectator activity – we need you involved! Stay informed, especially during extreme weather. Voice your support for solutions with local officials and at public meetings discussing the dam project. And spread the word. Your advocacy can make all the difference in prioritizing the reconstruction of the Artichoke Dam.

Stay in the Loop: Track the progress of Newburyport's resilience strategies through the [Newburyport Resiliency Projects Story Map](#). Your engagement in this journey towards a more secure and sustainable future is invaluable.

Funding for Resilient Newburyport: Climate Action Project is provided by the MA EOEEA Municipal Vulnerability Preparedness (MVP) Action Grant program. Information on this program can be found at resilientma.org/MVP.



Keep in Touch!

To subscribe to this newsletter: select "Resiliency" under the City's [News and Announcements](#).

For questions or to get involved: email resilientnewburyport@gmail.com.

We're starting to make headway on social media! Help us by spreading the word:

