

GreenSheet

The "Beautiful Solution" to Climate Change

Forty years ago, when CFE/Save the Sound was started, the Connecticut landscape was a beautiful patchwork of family farms. Over time, that has eroded away to just a few surviving remnants of our agricultural past.

Why? There are many reasons, but among them is climate change, which is creating unpredictable and extreme weather patterns that jeopardize soil integrity and rain patterns, and thereby our food system.

Right now, farming and land use account for 25 percent of global greenhouse gas emissions, and that means they can be part of the solution. Since farming can be both a victim and a cause of climate change, some farmers, including Dina Brewster, see it as an "incredible opportunity to include working land" in our climate change adaptation and reversal strategies. How? Carbon sequestration in soil, among other things.

Brewster, CFE/Save the Sound board member and executive director of the Northeast Organic Farming Association, envisions a future where the farming community is a resource in the climate change adaption conversation. She manages 40 acres of The Hickories, an organic farm in Ridgefield Connecticut. Brewster gave up teaching fifteen years ago to be a driving force behind the movement utilizing organic farming as



Bee populations thrive at The Hickories, thanks to native plants.

a means to combat climate change through concrete, quantifiable action.

"Seeking resilience in the face of climate change is now what gets me up in the morning and tucks my kids in at night," said Brewster.

Climate change is taking a toll on farmers, but Brewster is growing tired of narratives that paint farmers as its casualties. Instead she wants people turning to farmers as leaders, looking for ways to turn land use from the problem to part of the solution.

"The amount of awareness building that organizations have done has been so effective and so fantastic, but I am someone who picks up a bucket and starts bailing," added Brewster. "I'm ready to see concrete adaption strategies implemented in the state."

The greatest of these strategies is carbon sequestration in soil, which prevents carbon from entering our atmosphere. Brewster incorporates all typical organic farming methods to maintain her soil as a carbon sink, including cover cropping, re-mineralization, and amending fields with compost. In terms of reversing climate change, a 1% increase in soil organic matter across one acre can sequester over 15 tons of CO2.

There is not just one solution for reversing and adapting to climate change, and Brewster has made it her mission to find and implement as many as possible. She has turned to both traditional and modern organic farming methods to transform her farm into its own self-sustaining ecosystem. She has solar panels on her roof that supply electricity to the farm's refrigerators, pigs that clear her land and remove her compost, and a new seeding crop project that promotes biodiversity with Connecticut's native species and increases the abundance of crucial pollinators like bees and butterflies.



I am someone who picks up a bucket and starts bailing.

- Dina Brewster

"Those plants are our best hope in terms of resilience to this Connecticut climate in the next 100 years," said Brewster.

She is bringing the agriculture community to the table with the scientific and conservation communities to create sustainable solutions that work.

"Instead of saying 'here are 20 things you can't do, here are ways in which living an environmentally conscious life is going to be harder,' instead we say, 'sit down, have a beautiful view, eat some food, laugh and play outdoors,'" explained Brewster. "Our movement to bring people back to farming is about that beautiful solution."



For more farm photos and information, visit our blog at www.ctenvironment.org/media-room/our-blog.

Upcoming Events

Artifishal Film Screening Tuesday, December 3 • 6 - 8 p.m. New Rochelle Public Library

Join us for a screening of *Artifishal*, a film about people, rivers, and the fight for the future of wild fish and the environment that supports them. The film explores wild salmon populations and their journey towards extinction, including threats posed by fish hatcheries and fish farms. Sign up at www.ctenvironment.org/Artifishal.

Mark your Calendars! Give Thanks on Giving Tuesday

Giving Tuesday is coming up on December 3 and this year we hope you choose to give back to your environment again this giving season! Members like you are the reason our experts can continue to do the work that protects your land, air, and water. This year, we hope you consider giving thanks to your environment by donating to the programs that protect it. You can make your Giving Tuesday gift by going to www.ctenvironment.org/GivingTuesday.





M&H Sommer Foundation Donates to Help Save Plum Island

Plum Island is coming closer and closer to being preserved for generations to come. Many thanks to the M&H Sommer Foundation for its generous gift to help us get the island off the chopping block. Recently, in the first phase of a two-part marine study to research the bottom floor communities, some remarkable life was found in Long Island Sound.





These photos of an anemone and crab were taken in the waters around Plum Island.

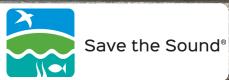
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Curt's Corner: Fighting National Inaction
Farming Against Climate Change
Improving Healthy Water Testing

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SoundBites

Orient, NY

Enhancing Monitoring for Healthy Water

Save the Sound's water quality monitoring team is introducing new methods to get the best information to keep your beaches and harbors healthy. It all began in 2017, when Save the Sound started coordinating the Unified Water Study: Long Island Sound Embayment Research (UWS). Twenty-two partner groups, all of which follow a quality assurance project plan that has been reviewed and accepted by the EPA, currently participate in the UWS monitoring from eastern Connecticut, to New York City, then back out along the north shore of Long Island.

This unified approach to collecting data has strengthened the usage of the results, which have been incorporated into Clean Water Act 305(b) Assessments and specific management plans, such as the NY Long Island Nitrogen Action Plan and CT Integrated Water Resource Management. The findings from this groundbreaking program notably increase our understanding of Long Island Sound bays and harbors which, in turn, informs and supports our actions to preserve and protect them.

This past summer, Save the Sound introduced a new Tier II component that allows a more in-depth look at the health of our waters.

Now, the UWS consists of two tiers of monitoring. Tier I includes the baseline water tests for monitoring for dissolved oxygen, water clarity, temperature, salinity, chlorophyll a, and qualitative macrophytes, or plants and algae. Tier I monitoring is undertaken in thirtynine waterways and, until now, was the only monitoring being conducted. We are pleased to report the successful addition of Tier II parameters at thirteen of these locations as of May 2019, including continuous dissolved oxygen, nitrogen and phosphorus levels, and video surveys on the bay or harbor floor.

"Video surveys of the Long Island Sound floor in bays and harbors give us a vital firsthand look at what is found at depths out of view from the naked eye," said Water Quality Program Manager, Peter Linderoth.

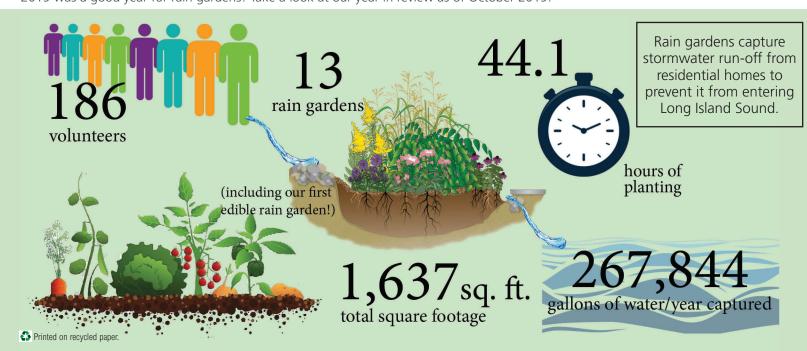
Continuously monitoring dissolved oxygen allows us to understand the impact of

nutrients on a waterway. Getting this data is no easy feat. Monitoring instruments are kept in the water 24/7 from May through October, taking readings every fifteen minutes. Monitoring nutrients, namely nitrogen and phosphorus, can identify how much fuel is available for plant and algae growth in the water. Long Island Sound bays and harbors that have too much nitrogen flowing into them tend to have an abundance of plant/ algae growth, which leaves waterways and their inhabitants on a daily rollercoaster from very high to unacceptably low dissolved oxygen. Our CFE/Save the Sound president Curt Johnson calls this occurrence "panting for life."

Save the Sound is further pushing the boundaries of UWS water testing to bring you the best expertise available. Tier II data collection will give us enhanced knowledge of our bays and harbors to better protect and improve the health of your waters.

Rain Gardens by the Numbers

2019 was a good year for rain gardens! Take a look at our year in review as of October 2019:



Welcoming More New Faces to the CFE/Save the Sound Family



Cary White
Green Infrastructure Project Manager

Cary grew up in western Massachusetts where he saw firsthand the effects of Hurricane Irene on his hometown in 2011. He oversees the design and construction of our on-the-ground stormwater management and habitat restoration projects to prevent major storms from devastating any more local communities.

"Hurricane Irene opened my eyes to the destructive power of nature, the complexities of disaster recovery, and the potential of human ingenuity to develop creative solutions for both people and nature," said White. "Through its committed and knowledgeable staff and its impressive portfolio of projects, I believe that CFE/Save the Sound is uniquely positioned to tackle these increasing challenges."

Charles Rothenberger Climate and Energy Attorney

Charles grew up in Connecticut where his passion to protect Long Island Sound, and the natural areas around it, was born. He works to advance offshore wind, shared community solar, and the expansion of electric vehicles to help Connecticut lead the way to a clean energy future to avoid the worst impacts of climate change.

"I'm proud to be part of an organization that has more than four decades of success in engaging communities to stop water pollution, restore our rivers and marshes, and protect fragile natural areas from unwise development," said Rothenberger. "I'm grateful that I have the opportunity to use my skills to assist CFE/ Save the Sound in its mission and to ensure that Connecticut remains a leader in addressing the leading environmental challenges of our time."



Stepping Into the Future with Offshore Wind

Imagine a world with 100% renewable energy. No more carbon emissions and dirty air, and the threat of climate change just a dismal memory of a time we were almost too late. Thanks to the advocacy of CFE/Save the Sound members like you, this vision is one step closer to fruition in Connecticut. We're bringing energy into our offshore waters — not with spill-prone drills, but with an offshore wind plan that considers both the health of aquatic animals and ecosystems and our growing need for cleaner energy.

It's been estimated that America's offshore waters hold over 2,000 gigawatts of wind power potential, almost double the country's current electricity use. This means the entire country's energy needs could be met by a clean alternative to fossil fuels. This might seem like a daunting goal, but we've just taken the first step toward 100% renewable energy.

"Offshore wind, if responsibly sited and operated, is an exciting new opportunity for Connecticut's energy future," said Climate and Energy Attorney Charles Rothenberger.

This past May, the Connecticut legislature passed a bill to bring the state into the ocean wind revolution. This law will ramp up your access to renewable energy, lower carbon emissions, and create 4,000 good-paying jobs.

The best part? Any development of an offshore wind facility must include an environmental and fisheries mitigation plan to protect habitats and the animals that live around the wind turbines. The plan requires ongoing monitoring of the offshore wind site, active stakeholder engagement, and restrictions designed to protect marine mammals, migrating birds, and other sea creatures.

From whales to birds and back to us, everyone has a reason to celebrate this environmental win.

"This is a step in the right direction for our region and the environment," said Rothenberger. "Robust offshore wind access provides an economy of scale that will increase reliability for Connecticut's electric grid, help meet winter peak demand, and reduce reliance on natural gas to achieve Global Warming Solutions Act targets — all while supporting new, high quality jobs."

Utilizing offshore wind in the waters off of Long Island Sound is certainly a step in the right direction. And here at CFE/Save the Sound, we're looking forward to stepping with you into a cleaner, brighter future.



COASTAL CLEANUP EXPANDS WITH SUBARU PARTNERSHIP

The International Coastal Cleanup (ICC) is an initiative that began more than 30 years ago by the Ocean Conservancy. Since 2002, Save the Sound has been the Connecticut coordinator. Since then, ICC weekend has grown from 18 to 42 cleanup events, and you've tirelessly cleaned over 500 beaches!

This year, Save the Sound partnered with Subaru of New England to make an even larger impact.

"Subaru of New England is much more than a car company," said Subaru of New England Vice President of Marketing, Stanley Lewicki. "We decided to join the ICC this year to make a difference locally and to raise awareness because we believe in making the world a better place by showing love and respect to all people and animals."

To celebrate, we're looking back at where we started and giving you a glimpse of where we're going.

In our first year as coordinator, volunteers cleaned 18 beaches over just one weekend. This year you came out to clean an astounding 42 beaches in one weekend! Your clean beach and river movement is growing, and we have you to thank for it. Last year, there was a total of 50 cleanups throughout the season and in just one year that number has grown to 73 cleanups recorded this year!

Not only are the number of cleanups every year growing, but the types of cleanups are becoming more diverse as well. This year you came out to clean your waters on paddle boards and boats. You even dove under the water for Scuba cleanups to get to the trash no one can see!



Subaru of New England sponsored 12 cleanups this season.

Our partnership with Subaru allowed us to reach new people and clean more beaches this year, and it's the Sound that saw the benefits. Thanks to them and your continued support, we're accomplishing some big things. You're bringing multiple generations together, united by a love of clean coasts and a desire to make a difference. But don't take it from us; hear what our volunteers have to say:

"More and more students of the University [of New Haven] are beginning to recognize their impact in the environment," said ICC cleanup captain Matthew Fleischer. "It's been very inspiring to see so many students taking initiative to reach out and make a difference."

"It's vital to cleanup whenever and wherever we can," said ICC volunteer Caitlin DiBona. "Beginning a cleanup with our beaches and waterways is creating a safer environment for our animals in their natural habitat, as well as setting an example for proper waste disposal and recycling moving forward."

With the help of Subaru and your support,

we're going to keep growing. We're going to bring a love of clean riverbanks, marshes, and beaches to more people and remove more trash until you can go to the beach and swim in water, not plastics. As we grow stronger together, CFE/Save the Sound is looking forward to the day that we'll all celebrate the end of coastal cleanups because there won't be any trash left to clean.



Cigarette butts were once again the top collected item on beaches this year.

Sunken Meadow Before and After

Our Ecological Restoration team has been hard at work restoring Sunken Meadow to create healthy ecosystems that are resilient in the face of climate change and sea level rise by replanting native wildlife, marsh grasses, and shrubs. See the evidence for yourself!





CURT'S CORNER: A QUARTERLY NOTE FROM THE PRESIDENT

Combatting National Inaction on a Local Level



You've proven time and again that together we can face any obstacle ahead of us. Recently, we're facing a lot of obstacles coming from the federal

government. But we can beat them together.

The federal government is weakening environmental protections, from endangered species to clean water. In times like this it's up to organizations like ours and members like you to keep up the fight when no one else will. We're in the fight of our lives, but with you on our side, I like our chances.

We need your help to convert action into progress to protect your region's precious green and blue world, whether it is making sure everyone in our region has access to clean solar power, investing to make your neighborhood more resilient in the face of increased regional flood threats, stopping

sewage spills that pollute your favorite bay or river, or protecting critical forest lands or our beloved Plum Island.

Preserving land as a refuge for vulnerable species is crucial now that the Department of the Interior has announced rollbacks to the Endangered Species Act. At a time when Washington, D.C. is supporting fossil fuel interests in their effort to open up millions of acres to oil and mineral mining, together we're working here to preserve public open spaces.

Ensuring your right to waters that are safe for swimming, kayaking, and fishing is more important now than ever, given that the Environmental Protection Agency has virtually stopped enforcing the Clean Water Act in federal court. As news comes from Washington, D.C. that water pollution regulations are getting weaker, Soundkeeper Bill Lucey and our water quality monitoring team are out on the water tracking down and fixing sewage leaks.

Advancing climate action in Connecticut and New York is essential in a time when we read almost daily of federal rollbacks that gut Clean Car standards, and even restrictions on selling popular LED light bulbs. Legislators on both sides of the aisle in Hartford and Albany recognize the threat of climate change in our region. Your support will allow us to hold these leaders accountable for the rapid reductions in fossil fuel use deemed necessary by science.

So let's let's fight harder to keep our region an environmental leader in times like this when we need one the most.

Curt Johnson
President. CFE/Save the Sound

YOUTH ARE RISING FOR THE ENVIRONMENT

Youth are certainly the future, and they've been taking on larger roles to protect their environment! Check out some of our youth environmental warriors:

John Friedrichsen (15) will install 20 fishing line recycling stations throughout Norwalk as his Eagle Scout project for Darien Troop 53.



"I've seen the damage discarded fishing line can cause and I wanted to fix it," said Friedrichsen. "Protecting the Sound so that all can enjoy it now and for generations to come is very important to me."



Youth around the world gathered on Sept. 20 to strike for climate change. (Photos from New Haven)



Youth in New Haven ended their march with a sit-in.

It is important to get involved in protecting our environment, because if we do nothing, our kids may grow up without one.

- Chris Meeks, 17

Honestly the world as we know it is dying and that little change that we do, or should do, counts.

- Mohammad Halab, 17



Taylor Ruthazer (16) has just started selling Pura Vida bracelets to benefit Save the Sound.

"As I spent more time on the Sound, I felt more of an urge to get involved to protect it," said Ruthazer. "I hope to recruit even more members and slowly but surely make a difference!"