

# in the mainstream

## The Environmental Hazards of Artificial Turf Playing Fields

By Cathy Smith

As Shawn Gregory looks out over the playing fields at Allen's Meadow, he has lots of happy memories. A Wilton High School junior, and member of two high school sports teams, Shawn understands the push for more sports facilities. But installing artificial turf at Allen's Meadow? "That should not," says Shawn, "be in the Town's playbook. Sacrificing the safety of our town's young athletes, Allen's Meadow's natural beauty, and the public health is not the answer."

Shawn and his generation will be the ones who inherit the consequences of the decisions we make now. And when it comes to artificial turf, those consequences include the potential for drinking water contaminated with PFAS ("forever chemicals"), harmful effects on the health and safety of children playing on toxic turf, microplastic pollution, and the creation of dangerous heat islands.

This is not just a matter of opinion. Current and emerging scientific evidence highlights the dangers of artificial turf, with many studies still underway. And yet the artificial turf industry, which is expected to reach revenues of up to \$12 billion by 2027, continues to skew the information the public receives.

Norwalk also has plans to add new turf fields--three at Broad River Park. Both sites are adjacent to the Norwalk River and either on top of (Wilton) or next to (Norwalk) drinking water



*Allen's Meadow, the site of a proposed turf field, is a critical and rare habitat for migrating birds. NRWA is hosting spring bird walks there now, check our website.*

supplies. This means potentially over 25,000 square feet of new fields draining pollutants into our waterways.

### Beware of Greenwashing

Dr. Kyla Bennett, one of the speakers at NRWA's March 1st webinar *The Hazards of Artificial Turf*, explains, "Greenwashing is a form of misinformation that makes something environmentally damaging appear environmentally friendly." For example,

### A New Way to Fund Water Quality Improvements

Two Connecticut cities, New London and New Britain, have joined thousands of towns across 48 states, to tackle water quality and flooding problems by creating a Stormwater Authority. Now Norwalk is considering joining their ranks. A Stormwater Authority charges a fee for a service—that service being transporting stormwater away from roads, housing, and businesses. The fee is based on impervious surface area—pavement and rooftops—which create the stormwater runoff that pollutes waterways. Property owners pay a fee depending on how much impervious surface they own. The fee works as an incentive for developers and homeowners to use pervious surfaces for roads and parking areas, install green roofs, rain gardens, and rain barrels. The result is also a reliable separate source of funding for

stormwater system upkeep, upgrades, innovation, and planning. Let Mayor Rilling know you would like Norwalk to move forward in creating a Stormwater Authority.

*Stormwater Authority Presentation hosted by NRWA at Norwalk Library, March 29th*





Field Turf, one of the largest suppliers, claims their fields are PFAS free and recyclable. This same company, however, is being sued by Portsmouth, NH for false advertising regarding recycling claims—no fields have ever been recycled in the US. A Portsmouth group also cut off a section of the new turf being installed there and had it tested. The tests showed a substantial presence of PFAS.

### Real and Present Dangers

It's vital that Wilton, Norwalk and all our watershed residents inform themselves about artificial turf, relying on science conducted by independent researchers, to accurately weigh the costs against any potential benefits. Here, in brief, are just a few of the reasons to oppose artificial turf.



*The proposed turf field at Allen's Meadows, shown in Dark Green*

**PFAS Contamination.** Research out of Notre Dame University now shows that all artificial turf fields contain PFAS, which persist and bio-accumulate in the environment and in our bodies and move easily into fresh and marine waters. When PFAS leaches into drinking water and the environment, it is known to harm aquatic life and to cause cancer and a host of other human health problems. Allen's Meadow is roughly 300 yards from the Norwalk River and is bisected by Goetzen Brook, which drains into the river. It is also situated over an aquifer designated for future drinking water.

According to recent studies con-

ducted by both NRWA and the town of Wilton, PFAS contamination has already been found in the retention pond downriver of the existing artificial turf fields at Wilton High School. The town also tested underground pipes near the fields that showed no PFAS. The town has highlighted the results from the underground pipes, and takes the position that the contamination in the surface water near the fields could come from other sources. The fact remains, though, that the streams and ponds next to and below the fields show 3- to 5-times the amount of PFAS as the stream at Allen's Meadow above the existing fields.

**The test results are available at [NorwalkRiver.org](http://NorwalkRiver.org)**

In Norwalk, at least one drinking water well operated by the First Taxing District water company 1000 feet from the proposed Broad River fields, is already closed due to the presence of PFAS, so this is a real and present threat in our watershed.

PFAS is not the only chemical problem. Most fields contain other carcinogens and also may contain neurotoxins and reproductive toxicants including lead, zinc, phthalates and plasticizers, as well as respiratory irritants, like silica.

**Health hazards for children.** PFAS and other chemicals can enter the human body through inhalation, dermal absorption, and ingestion. They are linked to a host of health problems, including cancer, adverse effects on the nervous system, lowered immunity, and reproductive issues. Let's listen to the US Women's Soccer team, the NFL Players Association, and many pro football teams which are demanding grass fields because they are safer and better to play on.

**No way to safely dispose of toxic turf.** The presence of PFAS also makes artificial turf fields, which last 8-10 years, impossible to safely dis-

pose of. From landfills, the PFAS will enter groundwater. When incinerated, PFAS remains intact and enters the air for us to breathe.

**Each turf field sheds 480 pounds of microplastics a year.** These can be inhaled by players on the field, and they will wash into storm drains, the Norwalk River and Long Island Sound.

**Extreme heat conditions and climate change.** Instead of absorbing carbon dioxide the way grass does, these fields release CO<sub>2</sub>, methane, and a host of other chemicals. Plastic turf absorbs solar radiation and there is no chance for evaporation, as with natural fields, so surface temperatures have been shown to reach up to 200 degrees F. On average, fields are 50 degrees hotter than grass and air temperature at head height is 70 degrees hotter. Heat illness is the number one cause of death in high school athletes.

These are only a few of the arguments against artificial turf. To quote Shawn Gregory again, "For the health and safety of our town, now and in the future, I hope Wilton makes the well-educated and thoughtful decision to preserve Wilton's natural beauty and to keep our residents safe."

**Join Us for Our Annual Meeting at Nod Hill Brewery 6PM on June 28th!**

Enjoy Nod Hill beer, Copps Island oysters, an update on current NRWA projects, and hear from our speaker, Director of Harbor Watch Nikki Spiller, on the state of water quality in the Norwalk River. Harbor Watch has been monitoring the river for almost 30 years.

More details to come, visit our Events page.

## What are Neonic Pesticides and How Do They Affect Birds, Bees, Water, and Human Health?

Neonicotinoids or “neonics,” the world’s most widely used insecticides, are neurotoxic pesticides linked to massive bee and insect losses around the globe and, increasingly, to vast water and soil contamination, ecosystem-wide harms, and human health concerns. They work systemically, making plants poison to insects—the leaves, pollen, and even the dew on a plant is toxic.

Neonics are linked to the loss of 30% of song birds over the last 50 years, and the EPA recently released Endangered Species Act evaluations for several neonic chemicals which found they were likely to adversely affect between 70% to 80% of all listed species, depending on the chemical.

Legislative Action Alert for NY & CT  
Help Protect Pollinators  
Ask Your Representatives to  
Ban Neonic Pesticides



Neonics frequently show up in state water testing—including, for example, in roughly 30% of Long Island groundwater samples—indicating a very high probability that the pesticides are causing ecosystem-wide damage. Neonics hollow out ecosystems by eradicating aquatic insect populations that birds, fish, amphibians, and other animals depend on for food.

Monitoring by the U.S. Centers for Disease Control and Prevention shows that half the U.S. population is regularly exposed to neonics—with the highest levels found in children. This is particularly concerning given human and animal research linking neonics to potential neurological, developmental, and reproductive harms, including malformations of the developing heart

## Amazing Volunteers Help Plant 100 Trees!

NRWA thanks the Hudson to Housatonic Conservation Partnership (H2H) for a grant funded by the National Fish and Wildlife Service that has allowed us to plant 100 trees, 100 shrubs, 125 wildflowers and 825 marsh grass plugs in the last year at two parks in South Norwalk and along the NRVT in Wilton! We put in the final 26 trees at Oyster Shell Park’s Sandy Hook Memorial and ten at Woodward Park this spring. Thanks also to the amazing volunteers who helped us—all 475 of them! And to the city of Norwalk for helping with plantings.

*Volunteers planting along the Norwalk River Valley Trail (NRVT).*



and brain. While modern filtration systems remove neonics, standard chlorination treatment doesn’t, meaning homes that get water from groundwater, older treatment systems, or unfiltered supplies are at higher risk of finding neonics in their tap. Neonic residues also commonly contaminate produce and baby food, and because neonics permeate foods, they cannot be washed off.

Cornell University research reveals that the neonic uses that pose the greatest threats to bees are also those that provide little-to-no benefits to users or are easily replaceable with safer alternatives. Several states have passed laws prohibiting wasteful uses on residential and commercial landscapes such as lawns and golf courses. **Connecticut has such a bill before the legislature now that would ban the use of neonics for non-agricultural uses—SB 963. New York also has a similar bill, the Birds & Bees Protection Act.** Neonics are widely used to kill grubs in lawns, but the CT Agricultural Experiment Station scientists testifying in favor of SB 963

argued they aren’t effective for this use. There are also less environmentally harmful alternatives. Visit [Pollinator-Pathway.org](http://Pollinator-Pathway.org) for more information.

**Please ask your state legislators to VOTE to restrict neonics!**

## Shoreline Restoration Project for Norwalk’s Veterans Park Gets Underway

NRWA is proud to partner with the city of Norwalk and the Maritime Aquarium on a project to assess the potential for restoring the southern shoreline of Vets Park. The Aquarium secured grant funding for the project, and the team has hired the engineering firm, BioHabitats, to complete an assessment of what a restoration might look like for the area. Vets Park was originally a marsh, then became a dump and then a park. Restoring the shoreline could help reduce flooding and erosion, improve public access and enhance wildlife habitat. We are putting together a local stakeholder group now to help guide the assessment project.



## Wilton's Dana Dam Slated to Come Down this Summer

If you are a fish swimming up the Norwalk River from Long Island Sound, you can go as far as Merwin Meadows in Wilton where you hit the Dana Dam. In 2018, Norwalk removed the Flock Process Dam, behind Hotel Zero on Main Avenue, and now Save the Sound and the town of Wilton are opening this next section. Nearly 10 upstream miles will be reopened for fish passage, reconnecting a 14-mile stretch of free-flowing river with Long Island Sound. The project will mitigate flood risks and eliminate safety hazards posed by the dam, while restoring 1,400 feet of river channel for river herring, eel, sea lamprey, brook trout and other popular sport fish, along with 1.5 acres of riverbank habitat for birds, mammals, amphibians and other wildlife.

Unfortunately the project required the removal of 80 trees, but replanting will begin this summer. NRWA



*Photo by Kate Hogan*  
Dana Dam April 2023

is teaming up with partners to help organize events. Follow us on Instagram or check [NorwalkRiver.org](http://NorwalkRiver.org) for updates.

## Young Butterfly Researcher Discovers Unusual Upside to Emerald Ash Borer Damage

*By Lukas Keras, 9th grade at Cardinal Kung Academy in Stamford, CT, and member of CT Entomological Society*

The Norwalk River Floodplain creates a high-quality wet meadow habitat which supports important nectar plants and a diverse assemblage of butterflies, including one of only two populations in CT of the threatened Dion Skipper.

I first visited the floodplain during a 4th of July butterfly count led by Victor DeMasi, a curatorial affiliate at the Yale Peabody Museum. Mr. DeMasi shared many inspiring stories about saving the Floodplain, which happened long before I was born. Last summer, I had a chance to do a more extensive survey of the floodplain as part of the Ridgefield Natural Resource Inventory (NRI). I visited the site several times a month between April and August to record butterfly species.

The results suggest a revival of the floodplain ecosystem. According to Mr. DeMasi, who has been surveying this site since the 1980's, the floodplain originally supported several rare, wetland specialist butterflies. However,

plant succession caused the habitat to transition into a hardwood swamp with ash trees as the main canopy cover. Ironically, in this case, the habitat was saved by an introduced invasive species: the extremely damaging Emerald Ash Borer beetle killed off all of the mature ash trees, opening the habitat up and making it once again hospitable to rare butterflies. Ash tree saplings, which the Emerald Ash Borer does not attack, continue to grow around the periphery of the floodplain and still provide habitat for moths and butterflies whose caterpillars feed on them.

The main threat to this habitat would be Red Maple trees encroaching on the periphery, and if management is considered, these should be targeted for removal. Read Lukas' full report at [NorwalkRiver.org](http://NorwalkRiver.org) under Habitat Restoration.



*Victor DeMasi and Lukas Keras before surveying the Norwalk River Floodplain*

## Membership Form

Becoming a member helps NRWA continue to protect local water quality, hiking trails, and wildlife habitats.

### Riparian Society

Steward	\$1000+
Protector	\$500 – \$999
Patron	\$100 – \$499

### Membership

Supporter	\$50 – \$99
Friend	\$30 – \$49
Other	\$ _____

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### Donate Online at [NorwalkRiver.org](http://NorwalkRiver.org)

Or mail your tax-deductible Annual Membership gift of \$ \_\_\_\_\_ to  
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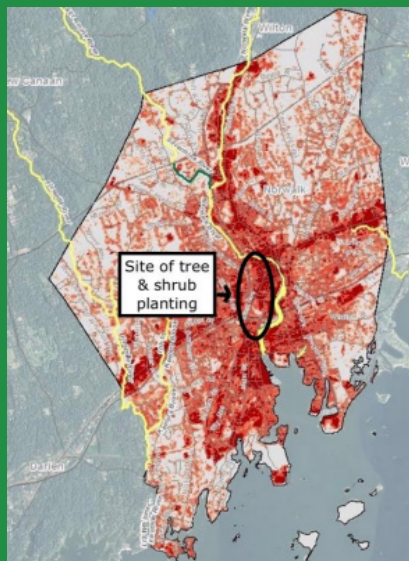
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Norwalk Department of Rec & Parks

Please visit  
[NorwalkRiver.org](http://NorwalkRiver.org)  
to see our Annual Report

## Climate Resiliency Grant Awarded for Norwalk



*DEEP Factsheet: City of Norwalk Water Quality and Stormwater Summary showing the proposed project area is covered in over 50% impervious cover.*

The Pollinator Pathway and NRWA have received a grant from UConn's Connecticut Institute for Climate Resilience and Adaptation (CIRCA) to plant 10 native trees, 30 shrubs and hundreds of wildflowers along the

Norwalk River Valley Trail (NRVT) in Norwalk with students interning at Stepping Stones Museum. The habitat restoration plantings will go in between the four-lane Super 7 Highway and the Norwalk River behind the old Norwalk Y. This project will help shade the NRVT, slow stormwater runoff, reduce flooding, and improve air quality and wildlife habitat. During the planting events, student volunteers will learn why native plants are key to the survival of local pollinators and other wildlife and how trees help improve the city's climate resiliency.

### Congrats Sarah! NRWA Board Member Receives National Award

NRWA Board Secretary and Woodcock Nature Center Director of Education, Sarah Breznen, receives National Garden Club of America award.

Each year, The Garden Club of America offers the Elizabeth Abernathy Hull Award to one or more individuals across the country who provide outstanding environmental

education for children.

Elizabeth Hull, a member of the Ridgefield Garden Club in Ridgefield, CT for more than fifty years, endowed the award in 1992 "to recognize an individual who, through working with children under sixteen years of age in horticulture and the environment, has inspired their appreciation of the beauty and fragility of our planet." Sarah also leads talks and hikes for NRWA and is a tireless organizer at Oyster Shell Park in Norwalk, where you will find her leading volunteers almost every Saturday morning.



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