Spring 2018 Newsletter

Special Report: The Dams of Norwalk River – Part 1 Let the River Run Free

There have been mills on the Norwalk River since 1725. And where there's a mill, there's bound to be a dam. Many of the dams still straddling the River were built to power these mills, though at least one was built for recreational purposes – to create a swimming hole for a wealthy landowner's children.

All of the dams, however, share at least one of these traits. First, they don't provide flood protection or serve any other useful ecological purpose. Second, they are "out of work", the purpose for which they were built having long since been abandoned. And third, they are in varying states of disrepair.

What they each do continue to do is to block the free flow of the Norwalk River, creating migratory barriers for aquatic organisms and causing a host of harmful consequences for riparian ecosystems and for people. In fact, they wreak such havoc that removing the three dams closest to Long Island Sound is a key focus of the Norwalk River Action Plan, last updated by the Norwalk River Watershed Initiative



The Flock Process Dam on the Norwalk River

in 2004. While progress has been slow, the first dam upriver from the Sound is slated to come down this summer.

Step One: Norwalk's Flock Process Dam

As reported in our Spring 2014 issue, Norwalk received funding in 2013 to remove the Flock Process Dam, the first and largest barrier upriver. Now, after completing the necessary engineering work and clearing several planning hurdles, things look good for the project to move forward.

The dam was built in the 1850s to generate power for the production of flock, the term used for the tufts of wool and cotton used to stuff mattresses. Like most abandoned dams, the Flock Process Dam is deteriorating, and is a threat to property and natural habitat downstream.



Let the River Run Free

continued from cover

With the safe removal of the dam, the River will once again flow freely for seven miles up to Wilton, allowing sea-run trout and other anadromous* fish such as Alewife and Blueback Herring to head for their historic spawning habitats beyond the dam.

"It's exciting to think that by 2019 fish runs could bump their noses against the Merwin Meadows Dam in Wilton for the first time in decades," says Steve Gephard, Supervising Fisheries Biologist at Connecticut DEEP, Fisheries Division. Steve has been one of the driving forces behind the removal of Connecticut dams.

Dam Removal and the Health of Rivers

Well, you may say, that's nice for the fish but is it really worth all the effort and cost to remove a dam just for them? It turns out that the presence of migratory fish is not only an indicator of a river's health, the fish also play a major role in keeping it healthy, in part by contributing nutrients to the ecosystem through decomposition and excretion. This also creates a healthy environment for amphibians, turtles, invertebrates and birds of prey. These fish are important food sources for osprey, heron, otters, striped bass and many other species.

Dams prevent the free movement downstream of sediment, which is vital to the watershed's health. Above a dam, sediment and toxins build up in impounded waters, water temperatures

Feedback? With this issue, we launch our new design and a return to our former newsletter name. We welcome your feedback!

increase, and oxygen levels change, creating unsuitable conditions for much aquatic life.

Dams and People

For many people, dams and the waterfalls they create are pretty parts of the scenery. However,

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the slack-water ponds above them can diminish biotic diversity, with algae and weeds often taking over. Once a dam is removed, people are usually surprised by the beauty of the restored water course and the speed with which this renewal happens.

Dams put a damper on

recreational activities too. With fish stocks diminished, anglers are likely to go elsewhere. And dams are bad news for canoeists and kayakers. For those who do venture out on the river, they present serious safety hazards, particularly when storms turn normally lazy streams into fast-flowing currents. Sadly, there have been at least four deaths at Wilton dam sites within living memory.

And since abandoned dams are unmaintained, it's not a question of if but when they fail, with potentially harmful consequences for aquatic life, and for human life and property too. The dangers, liability and litigation risk associated with an accidental rupture are far greater than those related to a carefully engineered and executed dam removal. Moreover, the repair and ongoing maintenance of a dam is often more expensive than the cost of its removal, while

replacing an old dam is more expensive still.

Any negative impacts associated with dam removal, such as increased turbidity, are temporary during the demolition activity, and have shortterm effects on a river system.

What's Next

Once the Flock Process Dam comes down, the Norwalk

River Action Plan has targeted the Merwin Meadows Dam and the Cannondale Dam in Wilton. When all three are removed, people, fish and other aquatic life will have 17 miles of unfettered passage along the River, all the way from Long Island Sound to Georgetown.

To Learn More

- Hear Soundkeeper Bill Lucey speak about dams during his talk at NRWA's Annual Meeting – 7 pm, May 31 at the Ridgefield Library.
- Read part 2 of this special report in our Fall 2018 issue.
- Visit our Facebook page for updates.

^{*} Anadromous fish return to fresh water to breed but live their adult lives in the ocean.

Septic Systems and Long Island Sound's Nitrogen Overdose Problem

Nitrogen is an important element in sustaining life on this planet. But too much of it can have the opposite effect. High nitrogen levels in water are linked to low dissolved oxygen levels (a measure of water quality), algae blooms, tidal wetland loss, and aquatic plant and fish die-off. All this can in turn lead to beach closures and intensify the impact of hurricanes.

Long Island Sound has suffered from nitrogen overdose and its consequences for decades. While sewage treatment plants and storm water runoff contribute to the problem, the Nature Conservancy made an alarming discovery in a study concluded in 2014: in the eight Long Island Sound watersheds it looked at, the main culprit was found to be pollution from home septic systems.

The Norwalk River wasn't part of that study, and indeed its dissolved oxygen levels have been improving. However, areas of the River still suffer the consequences of nitrogen overload, including low aquatic species diversity.

You can contribute to the improved health of the Watershed and the Sound by having your septic system inspected and pumped annually. And if your system is old, consider upgrading it. It's a lot cheaper to maintain it properly than to have to foot the bill to replace it.

For more on this, visit norwalkriver.org and savethesound.org.

NRWA Welcomes a New Intern



We are thrilled to welcome Sarah Emigh as an intern for 2018. Sarah recently graduated from the University of Connecticut with a BA in Environmental Studies. While there she was active in a variety of volunteer activities and completed an internship with UConn Public Interest Research Group. Sarah, who also has her Associate's Degree from Norwalk Community College, will help organize and run our spring events and is working on the launch of the Norwalk Pollinator Pathway.

You Can Help Extend the Impact of New Insecticide Restrictions

In a follow-up to a feature in our Spring 2017 newsletter, we note that Connecticut DEEP's Restricted Use Policy covering neonicotinoid insecticides came into effect on January 1, 2018. Research shows that neonicotinoids (neonics) contribute to bee die-off and also change bee behavior. While this doesn't ban the use of neonics, it limits use to licensed pesticide applicators.

Here's what you can do to help:

• The restriction applies to all stored materials so check your home for any products containing Imidacloprid, Clothianidin, Dinotefuran, and Thiamethoxam. Dispose of them properly at a Hazardous Waste Day event, which you can find listed at norwalkriver.org.

• Choose non-chemical solutions for your pest problems. They usually have a more permanent impact.

• Find out if your nursery and landscaping company use or sell seeds or plants treated with neonics. And ask your landscaper not to use pesticides on your property.

• Check at your town hall to find out whether your town uses neonics.

For more information, go to norwalkriver.org and propollinators.org, and visit our Facebook page for updates on neonic use in our watershed towns.





Native Plants: A Skunk by Any Other Name

Just when you've given up on the return of spring, you walk into the woods one day—around about now—to see a blanket of tropical-looking greenery spreading across a low-lying wetland.

This is the eastern skunk cabbage (Symplocarpus foetidus), the earliest of spring bloomers, indeed often making its appearance on warm winters days. But don't be betrayed by its name. It's definitely not a candidate for cold slaw! Like other members of the Arum family, skunk cabbage is poisonous if eaten. It earns the skunk part of its name from the nasty scent it releases when damaged.

But the odor serves an important purpose. Some of the year's earliest pollinators—gnats, flies, butterflies and bees—think they're smelling rotting flesh and make a beeline. In addition to the odor, pollinators are attracted by another remarkable evolutionary trait—the plant's ability to generate enough heat to melt the snow even on cold winter days. Scientists speculate that the heat may also help the skunk cabbage spread its odor.

Add a few skunk cabbages to your garden if you don't have small children or pets. Its distinctive smell can help attract pollinators and may also repel four-legged garden vandals. Their deep roots make it tough to dig them up but also mean they don't bounce back easily from deforestation or loss of wetland habitat, so providing a home for them is important!

What to look for:

- In early spring, look for a leaf-like hood peeking through the mud. This green to purple spathe surrounds a spadix, a cylinder covered with tiny flowers.
- Later in spring, spathes give way to very large leaves arranged in a rosette around the base.
- Skunk cabbages die back by late summer and go dormant until they reappear next spring.

Pollinator Pathway News



Volunteers removing invasive black swallow wort, a menace to monarchs, on the new Ridgefield Pollinator Pathway. The Pathway began in Wilton and has also extended south to Norwalk. See below for opportunities to participate. And check norwalkriver.org/events or the new Pathway website pollinator-pathway.org for details and updates, or follow us on Facebook.

Pollinator Pathway Events

"Bee" On the Pollinator Pathway: Bring Bees, Butterflies and Birds to Your Yard Wed., April 18, 7–9 PM. To celebrate the launch of the Ridgefield Pollinator Pathway, come and hear four experts explain how to attract pollinators to your yard. Register at Ridgefieldlibrary.org.

Lend a Hand to Expand the Pathway! Register at pollinator-pathway.org

- Ridgefield: Sun., April 22, 12–2PM. Join us on Earth Day behind Ballard Park.
- Norwalk: Sat., April 28, Plant a Pollinator Garden in Norwalk. Norwalk Community College. More details at norwalkriver. org/events.

Butterfly Walk in Redding

Sat., August 11, 10AM. More information at norwalkriver.org/events

Events subject to change.

Be sure to check for updates at norwalkriver.org/events.

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Special Thanks to Interns

Paige Lyons, Peter Richards, Sarah Emigh

Membership Form

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

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Spring Events



Soundkeeper Bill Lucey on the Health of Long Island Sound

Thurs., May 31, 7–9PM. Join us for our annual meeting to hear an update on NRWA's activities at 6:30 pm, then stay to hear Bill Lucey at 7 pm. Bill will talk about the Soundkeeper Movement, pollution in the Sound, dams, and efforts to monitor water quality to track progress. Bill, a Wilton native who took over the job last year, is a fish and wildlife biologist, a former commercial fisherman, and an experienced advocate. Ridgefield Library. Register at Ridgefieldlibrary.org.

Vernal Pool Walk Sat., April 28, 1PM. Register for this free event at WoodcockNatureCenter.org, space is limited.

Update: 41 CT Towns Ban Fracking Waste

We are helping volunteers in each of the CT watershed towns work to pass local ordinances banning fracking waste. Redding voted for a ban in February and Ridgefield, Weston and Norwalk are likely to vote this spring. More information, including what's happening in Wilton and New Canaan, is available at norwalkriver.org.



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Norwalk River Watershed Association, Inc.

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