Representative Policy Board Land Use Committee South Central Connecticut Regional Water District <u>Click here to join the meeting</u> Meeting ID: 235 627 194 819 Passcode: Y99ioP **Or call in (audio only)** <u>+1 469-965-2517,,3457652#</u> United States, Dallas Phone Conference ID: 345 765 2#

AGENDA

Regular Meeting of Wednesday, November 9, 2022 at 5:30 p.m.

- 1. Safety Moment
- 2. Approval of Minutes October 12, 2022 meeting
- 3. RWA Reservoir Safe Yield Model: Steve Vitko
- 4. Updates on land and RWA properties, including invasive species update
- 5. Other land items
- 6. Set Calendar Year 2023 meeting dates
- 7. Member to attend November 17, 2022 Authority Meeting: J. Oslander
- 8. Next Regular Meeting: Wednesday, December 14, 2022 at 5:30 p.m.
- 9. Adjourn

**Members of the public may attend the meeting via remote access using the instructions at the top of the agenda. To view meeting documents, please visit <u>https://tinyurl.com/yp39d7nm</u>. For questions, contact the board office at 203-401-2515 or by email at jslubowski@rwater.com

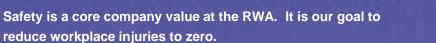
SAFETY MOMENT

ENVIRONMENT AND HEALTH

Your everyday environment can have a huge impact on your physical and mental health and make you feel constantly stressed and difficult to maintain a healthy lifestyle. Below are strategies for improving your environmental wellness:

- 1. Replace chemical cleaning products with natural alternatives such as baking soda, vinegar, lemon juice and essential oils.
- 2. Reduce allergens and improve air quality in your home by washing bedding regularly and opening windows when vacuuming.
- 3. Declutter one area at a time to avoid feeling overwhelmed.
- 4. Get more nature in your life by adding houseplants, going for walks, or using natural materials to decorate.
- 5. Limit screen time by taking breaks during the day.
- 6. Use eco-friendly and recycled materials such as produce bags and reduce single use plastics such as straws.
- 7. Create a stress free zone in your home where you can relax and de-stress in peace.

Service - Teamwork - Accountability - Respect - Safety









Representative Policy Board Land Use Committee South Central Connecticut Regional Water District

Minutes of October 12, 2022 Meeting

A regular meeting of the Land Use Committee of the Representative Policy Board of the South Central Connecticut Regional Water District ("RWA") took place on Wednesday, October 12, 2022, at Lake Saltonstall, 100 Hosley Avenue, Branford, Connecticut. Chair Betkoski presided.

Committee Members: P. Betkoski, P. DeSantis, Brian Eitzer, R. Harvey, M. Horbal, M. Levine, G. Malloy, J. Oslander, and J. Mowat Young

RPB: M. Ricozzi and T. Clifford

Authority: D. Borowy

Management: L. Bingaman, J. Hill, S. Lakshminarayanan, J. Triana, Sgt. Ruggiero, and D. Verdisco

Staff: J. Slubowski

Chair Betkoski called the meeting to order at 4:55 p.m. He reviewed the Safety Moment distributed to members.

On motion made by Mr. Malloy, seconded by Mr. Eitzer, and unanimously carried, the Committee approved the minutes of its September 14, 2022 meeting.

At 4:58 p.m., on motion made by Mr. Eitzer, seconded by Mr. Oslander, and upon unanimous consent, the committee voted to recess the regular meeting to convene in executive session, pursuant to C.G.S. Section 1-200(6)(C), to receive a briefing and discuss security strategies and implementation. Present in executive session were committee members, Messrs. Borowy, Clifford, Hill, Lakshminarayanan, Ricozzi, Ruggiero and Triana, and Mss. Slubowski, Verdisco and Young.

At 5:14 p.m., Mr. Ricozzi withdrew from the meeting.

At 5:16 p.m., the committee meeting reconvened. No votes were taken in, or as a result of, executive session.

Update on *The Land We Need for the Water We Use Program* – Mr. Triana, the RWA's Real Estate Manager, reported:

Reservoir Levels (Percent Full)

	Current Year	Previous Year	Historical Average	Drought Status
September 30, 2022	72%	89%	68%	None

Rainfall (inches)

	Current Year	Previous Year	Historical Average
September 2022	7.02	7.99	3.83
Fiscal YTD (6/1/22 –	13.33	21.50	15.21

Land We Need for the Water We Use Program (Dispositions/Acquisitions)

- Cheshire Corresponded with property owner of 50+/- acres.
- Prospect Corresponded with property owner of 40+/- acres.

• North Branford, Beech St. and Pomps La. properties (NB 4) – Met with Murtha staff to discuss subdivision plans for the two parcels and the "island" parcel. Executed the MOU with NBLCT for selling them the two parcels.

Rental houses:

- Hamden, 233 Skiff St. (HA 9A) The Asst. Town Attorney called and said that an appraiser was hired for the condemnation. Their work would not be done until October. Engineering has contacted demolition contractors to get an estimate associated with demolition of the property.
- Orange, 501 Derby Ave. Contacted owner about a newly constructed kennel that was not approved by us.

Forestry Update

- Killingworth East Hammonasset Leaf Screen Thinning, (KI 4) 30% complete.
- Hamden Overstory removal and Tornado Salvage, (HA 36) Not started yet. Start pushed back to fall or winter.
- Madison Nathan's Pond Slash Wall Harvest (MA 6) 95% complete.
- Killingworth N. Chestnut Hill Patch Cuts, (KI 6) Not started yet. Winter start expected.
 - Monitored the interior of the Nathan's Pond slash wall harvests for signs of deer intrusion on multiple occasions. Communicated deer evidence to RWA's partners, and submitted a work order to Operations Group to fix and reinforce gate area. ISMT performed a drone flight to look for possible deer within the slash wall area.
 - > Documented the large number of ailanthus seedlings at the Seymour slash wall.
 - Marked timber for GU12/12A silvicultural treatments near the Menunketuc reservoir, laid out more harvest boundary, and worked with Operations to install a culvert at the proposed intermittent watercourse crossing.
 - Drafted, edited and submitted a preliminary Landscape Scale Restoration (LSR) grant application to DEEP Forestry to generate a support letter from the State Forester.
 - > Investigated white pine decline issues around Maltby Lake reservoirs.

Recreation

- Carrion beetle walk/talk in Bethany and kid's archery event in North Branford occurred on Sept. 3rd, but only had a total of 6 participants due to the newsletter coming out too late.
- Water Wagon attended the New Haven Labor Day Road Race.
- NBLCT had ribbon cutting for the trail that goes onto our property from the Harrison Preserve.
- Bethany Horsemen addressed the issue of horses on the Chamberlain dam with the offending barn owner. Also said they would overpaint various purple blazes that were incorrectly painted on various trails.
- Anthony Pepe accepted a position in Treatment and will move to that department in October.
- CFPA indicated that they would like to get approval for the errant trail location for the New England Trail in Guilford. Contacted Beth Evans to start work on the preliminary assessment.
- Cleared downed trees across trails at Chamberlain and Hammonasset.

	September		August	
	2022	2021	2022	2021
Permit Holders	5,026	5,684	5,102	5,926

Special Activity Permits

- U. S. Geological Survey (Kaitlin Laabs) Take water level measurement of a monitoring well located on SCCRWA property-Middletown Avenue, North Branford (One short visit between (9/7/2022 to 10/7/2022)
- Wesleyan University (Dr. Phillip G. Resor) Project is for geologic mapping of bedrock outcroppings, mapping, and describing those outcroppings and collecting fist sized samples for laboratory analysis land within USGS 7.5 minute Durham quadrangle (7/21/2021 5/31/2022)
- Univ.of New Haven Army ROTC Program Coordinator (Robert Clark) Squad Tactical and Platoon Tactical Training - 1955 Litchfield Turnpike/West River Training Area, Woodbridge (9/27/22 – 9/27/23).

Other items

- Encroachments/agreements
 - East Haven, 9 Pardee Place (EH 6) Executed the license agreement with Brennan.
 - Cheshire, South Cheshire Wellfield (CH 4) Tracked down automatic payment from Southwick Condos for their license agreement.
 - Seymour, Roosevelt Dr. (SE 3) Communicated with licensee about trees that Eversource was removing and additional items that were placed over the property line.
 - Trespassing Recorded instances of trespassing including dog walkers, hikers, a tree stand, dirt bikes, ATV's, and cut lock at Maltby Lakes.

At 5:29 p.m., Ms. Mowat Young entered the meeting.

• Invasive plants – Treated or documented invasive plant populations in North Branford and Bethany. Worked on Landscape Scale Restoration grant application that would focus on invasive plant management, but include other topics such as bat habitat. Performed a drone flight at Furnace Pond to document the water level and water chestnut mortality due to drought.

Invasive Species Documented/ Mapped (ac)	143 acres
Invasive Species Treated (ac/MH)	5 acres

- Deer hunt Held three pre-hunt meetings. There will be 182 participants in the 2022 archery hunt (131- Gaillard, 23-Bethany, 20-Prospect, and 8-Ansonia/Seymour). Sent letters to wood cutters in hunt areas.
- Easements Checked on the status of easements at NW Cheshire PS, Cheshire; Spruce Bank Rd., Hamden; Tenn Gas Company pipeline, Bethany; Raynham St. PS, New Haven; Mill Plain Rd., Branford.
- WPCAG Watershed Lands Workgroup REM gave presentation about our watershed acquisition and protection efforts.
- Cell phone towers Cell phone towers
 - East Haven, Saltonstall Ridge (EH 2) East Haven assessor staff verified that the card for the tower will not be in our name for the 2022GL. Sprint had contractor remove their equipment, but they also removed and damaged the town's equipment. EH PD and FD are aware of the situation.
- Regional Conservation Partnership Discussed reconvening the steering committee and the whole RCP with Bryan Pines who attended a RCP workshop.
- ISMT performed a drone flight at the Derby tank site documenting construction progress.

• Chamberlain piezometers – Met with special permittee about moving bluebird boxes next to the piezometers to avoid hitting them while mowing.

Committee members discussed the RWA recreation program for inner city youths and the Department of Energy and Environmental Protection's Connecticut Aquatic Resources Education program.

Mr. Bingaman, the RWA's President and Chief Executive Officer, thanked the committee and board members for the support of the RWA's security recommendations and continued partnership.

Chair Betkoski reviewed committee member attendance at the upcoming Authority meeting on Thursday, October 27. 2022.

The next meeting is scheduled for Wednesday, November 9, 2022 at 5:30 p.m.

At 5:40 p.m., on motion made by Mr. Malloy, seconded by Mr. Eitzer, and unanimously carried, the committee meeting adjourned.

Peter Betkoski, Chairman

RWA Reservoir Safe Yield Analysis and Streamflow Regulation Impacts

Presented by: Steve Vitko Environmental Planning Manager

Presentation to the Regional Water Authority Land Use Committee November 09, 2022



≈Regional Water Authority

RWA Reservoir Safe Yield Analysis

- What is safe yield?
- What is available water?
- SY analysis 2019
- Compares current downstream release vs. future streamflow regulations
- RWA has adequate supply



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ional **Water** Authority

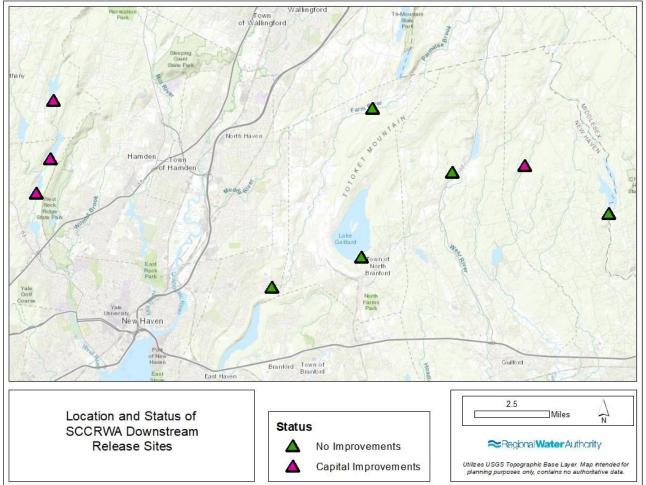
New CT DEEP Stream Flow Regulations

- Regulates flows below dams
- Different releases required depending on size
- "Off ramps" for droughts
- RWA compliance due September 2026
- Impacts to SY of drinking water supplies



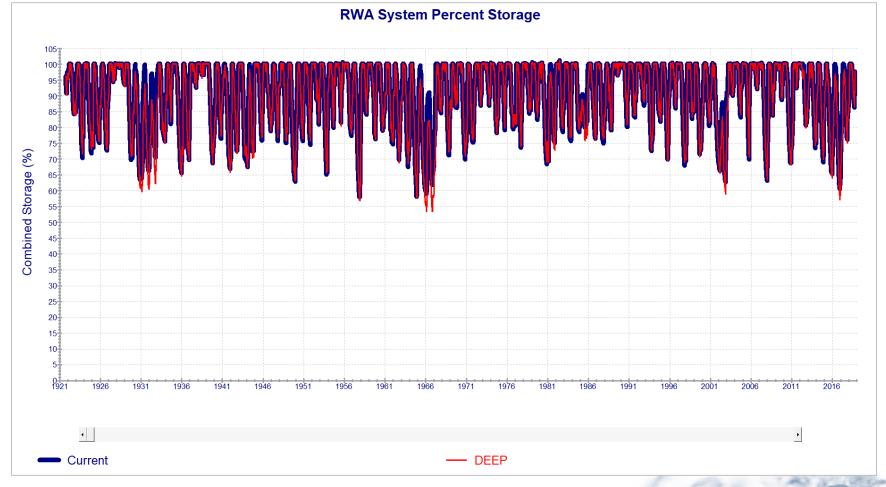


Downstream Release Sites





Current vs. New DEEP Regulations



≈Regional Water Authority

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Conclusion



- Safe Yield study complete
- Streamflow regulation capital improvement projects complete
- DEEP implementation report due September 2025

ional Water Authority

- Proactive implementation
- Adequate supply

Thank You!

Questions?

November 9, 2022 Land Use Committee Meeting

	Current Year	Previous Year	Historical Average	Drought Status
October 31, 2022	73%	87%	66%	None
		<u>Rainfall (inc</u>	<u>ehes)</u>	
		Current Year	Previous Year	Historical Average
October	2022	2.59	6.43	3.87

15.92

Land We Need for the Water We Use Program (Dispositions/Acquisitions)

- Cheshire Corresponded with property owner of 50+/- acres.
- Cheshire Corresponded with property owner of 3+/- acres.
- Prospect Corresponded with property owner of 40+/- acres.
- North Branford, Beech St. and Pomps La. properties (NB 4) Contacted Murtha about the status of the title report.

27.93

19.08

Rental houses:

Fiscal YTD (6/1/22 - 10/31/22)

• Hamden, 233 Skiff St. (HA 9A) – Hamden, 233 Skiff St. (HA 9A) – New testing was done at the house to develop an updated estimate for demolition costs.

Forestry Update

- Killingworth East Hammonasset Leaf Screen Thinning, (KI 4) 30% complete.
- Hamden Overstory removal and Tornado Salvage, (HA 36) Not started yet. Start pushed back to fall or winter.
- Madison Nathan's Pond Slash Wall Harvest (MA 6) 95% complete.
- Killingworth N. Chestnut Hill Patch Cuts, (KI 6) Not started yet. Winter start expected.
 - Continued working on a USFS Landscape Scale Restoration grant request, and coordinated a team of collaborators toward submitting a final grant request following a pre-requisite DEEP review.
 - Monitored the interior of the Nathan's Pond slash wall harvest for signs of deer intrusion on multiple occasions. Communicated deer evidence to RWA's partners, and worked toward finding a professional hunter to remove the deer found within. Performed a drone flight over the Madison slash wall to look for deer that had entered the enclosure.
 - Met with Scenic Dr., Guilford property owner about who has access over a ROW.
 - Met with owner of Extreme Landscaping at the Gaillard tree farm to select an overgrown tree for a donation to the Morris Cove Christmas display at the Pardee Seawall.
 - Worked with Operations to install a culvert at the proposed intermittent watercourse crossing for future timber sale at Menunketuc.
 - ▶ Hosted tour of Seymour slash wall for DEEP Forestry and Nature Conservancy personnel.

Recreation

- North Branford Women's Club walk-a-thon was held with over 170 participants.
- Bird walk with New Haven Bird Club at West River lakes had 23 people.
- Boat rentals wrapped up for the year at Lake Saltonstall. Rental boats were moved to storage at Lake Gaillard and the docks were removed from the lake.
- Recreation staff attended one event with the Water Wagon. Attended meeting about Water Wagon responsibilities.
- Approximately 1300 fingerling sized walleye were stocked into Lake Saltonstall.

	October		September	
	2022	2021	2022	2021
Permit Holders	4,968	5,366	5,026	5,684

Special Activity Permits

• Save the Sound (Jon C. Vander Werff) - Culvert assessment for fish passage and flood risk-end of goal project is a culvert inventory and measurement of culverts, Bethany West River under Hoadley, Hatfield Rd., Downs Rd., Sargent River under Old Mill Rd., Sanford Brook under Rt. 42 (10/27/22 and 10/28/22).

Other items

- Encroachments/agreements
 - Agricultural agreements Issued PO to Charter Oak to clear woody and invasive plants from Matthew St. field in Prospect.
 - Guilford, Saw Mill Hill Rd. (GU 12) Executed renewal of license agreement with Talalas to allow chickens over the property line.
 - Trespassing Recorded instances of trespassing including tree stands, mountain bikers, anglers, graffiti, and people parking on our property.
- Invasive plants Treated or documented invasive plant populations in Bethany and North Branford.
 Invasive Species Documented/ Mapped (ac)
 151 acres

Invasive Species Treated (ac/MH)	8.24 acres
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- Deer hunt The hunt started on Oct. 28th. By the end of the month, 5 deer had been harvested one at Prospect and four at Gaillard.
- Guilford Town Engineer Responded to question from Guilford Town Engineer about the protection of our property as open space.
- Tennessee Gas Company Forwarded information about TGC work along its gas line easement in Hamden, Bethany, and Woodbridge.
- West Rock Ridge access Discussed blocking off road with local trail manager.
- Bethany, 256 Amity Rd. fire Checked on status of ground fire behind Capasso Landscaping.
- ISMT performed a drone flight at West River WTP to document DAF project construction.
- Easements Filed watermain easement for 687 South Main St., Cheshire.
- Bats hibernacula Met with engineers and risk management team to discuss entering Big Gulph tunnel for a bat survey with DEEP biologist.
- Chamberlain piezometers Coordinated moving posts for bluebird boxes to be placed next to piezometers.

Attachments

- November 4, 2022 When destitute small towns mean dangerous tap water Associated Press
- October 11, 2022 Well Water Woes: Report Breaks Down Salt Intrusion Cause in Neighborhood WVIT
- October 11, 2022 Connecticut water systems to receive improvements thanks to infrastructure law The Center Square
- October 17, 2022 Across New England, a group is working to find and save native plants CT Public Radio
- October 19, 2022 Seeking to protect groundwater, N.H. looks to regulate PFAS contamination in soil New Hampshire Public Radio
- November 1, 2022 CT's waters are healthier 50 years after Clean Water Act, but pollution still persists Newstimes website

Upcoming Agenda Items December 2022 - ?

When destitute small towns mean dangerous tap water

MICHAEL PHILLIS, LEAH WILLINGHAM and CAMILLE FASSETT, Associated Press - Nov. 4, 2022

KEYSTONE, W.Va. (AP) — Donna Dickerson's heart would sink every time she'd wake up, turn on the faucet in her mobile home and hear the pipes gurgling.

Sometimes it would happen on a day when her mother, who is 86 and has dementia, had a doctor's appointment and needed to bathe. Sometimes it would be on Thanksgiving or Christmas when family had come to stay.

"It was sickening, literally a headache and it disrupted everything," she said. "Out of nowhere, the water would be gone, and we'd have no idea when it'd be back."

It is hard enough to care for someone with dementia. Caring for someone with dementia with no safe water takes the stress to another level.

While failures of big city water systems attract the attention, it's small communities like Keystone, West Virginia, that more often are left unprotected by destitute and unmaintained water providers. Small water providers rack up roughly twice as many health violations as big cities on average, an analysis of thousands of records over the last three years by The Associated Press shows. In that time, small water providers violated the Safe Drinking Water Act's health standards nearly 9,000 times. They were also frequently the very worst performers. Federal law allows authorities to force changes on water utilities, but they rarely do, even for the worst offenders.

"We're talking about things that we've known in drinking water for a century, that we have an expectation in this country that everybody should be afforded," said Chad Seidel, president of a water consulting company.

The worst water providers can have such severe problems that residents are told they can't drink the water. For 10 solid years Dickerson and 175 neighbors in the tiny, majority Black community of Keystone had to boil all their water. That length of time is nearly unheard of — such warnings usually last only for days. The requirement added gas and electricity costs on top of the water bill. In addition, residents would lose water outright for days or even weeks at a time with no warning.

A coal company had built the original system, but since left, leaving no one in charge.

When Dickerson's water went out, she would drive the dying county's winding mountain roads to the food bank, or buy water at Dollar General – one of the area's only stores. She'd haul containers back home and heat up pots on the stove to fill the tub, so her mother could bathe. She stored water in containers in her mobile home's two bathrooms to flush toilets. Dishes and laundry would pile up.

There was the cost of gas, the cost of 5 gallon water jugs, the cost of washing clothes at the laundromat. There was also an emotional cost.

"It drains you," she said. "You have to learn how to survive."

When President Gerald Ford signed the landmark Safe Drinking Water Act in 1974, he said "nothing is more essential to the life of every single American," than clean water to drink, also mentioning clean air and pure food. The law protected Americans against 22 contaminants, including arsenic. Nearly half a century later, evolving science has broadened the coverage to more than 90 substances, and strengthened standards along the way.

The miracle is that most water systems keep up – 94% comply with health standards.

But Dickerson lives in one of the places that didn't, the AP found, that struggles and fails repeatedly.

After years of problems, Keystone finally got hooked up to a new water system last December, McDowell Public Service District, which focuses on upgrading systems in coal communities. The deteriorating water mains were replaced, and a nonproft called DigDeep helped pay to connect homes to the new infrastructure.

When a water utility doesn't treat water properly or has high levels of a contaminant, states are supposed to enforce the law. They usually give communities time to fix problems, and often they do. But if there is intransigence or delay, the state can escalate and impose fines. In many towns, that doesn't go well.

"Giving them a penalty is not going to get you anywhere. It's just going to make the situation worse in most cases," said Heather Himmelberger, director of the Southwest Environmental Finance Center at the University of New Mexico. The towns can't afford the work.

Some 3% of all systems the AP analyzed landed on the EPA's enforcement priority list last year. Even worse are the 450 utilities that stayed on the list for at least five of the last 10 years. Four million Americans rely on these systems.

Regulators rarely step in to force change.

"Mostly what regulators have is moral appeal and they'll wag their finger," said Manny Teodoro, a professor at the University of Wisconsin who focuses on public policy and water.

The EPA says the vast majority of systems do provide safe water and for those that struggle, the agency has increased technical assistance, inspections and enforcement. Those efforts have decreased the number of systems consistently committing health violations, according to Carol King, an attorney in the EPA Office of Enforcement and Compliance Assurance.

Teodoro said originally water systems sprouted up when communities did, giving rise to a fragmented drinking water sector dominated by small providers. School districts in America formed the same way, but went through a period of consolidation. That's happened far less with community water systems.

The top concern of the sector is funding for infrastructure, according to a survey.

Josiah Cox has a special view of which towns end up in the worst trouble. He spent years working on water issues and noticed many small utility owners failed to save money for maintenance or struggled when experienced staff members left.

So he started a business, Central States Water Resources, buying up problem utilities, doing upgrades and billing customers for the costs over time.

Terre Du Lac, Missouri was one. It's a private, 5,200-acre community of roughly 1,200 homes nestled around 16 lakes. It advertises a relaxed atmosphere an hour south of St. Louis where people come to golf or water ski.

But rust coated the water tower. The community drinking water well was pulling up naturally-occurring radioactive material that can cause cancer.

He has seen a lot: bird feces in drinking water and one place that treated its water with chlorine tablets meant for swimming pools.

"You start what we call the death spiral of these utilities" where they don't have the resources to pay for what regulators are demanding, Cox said.

Michael Tilley, who was slammed by regulators for how he operated the Terre Du Lac system before Cox took over, spent most of his life in the community and knows many residents. He said he felt a responsibility to serve them well, but repeatedly faced hurdles finding grant money.

"I think if I had any claim to fame it was just keeping the rates low and trying to operate this thing on a shoestring," he said. "I look back a lot of times and that was my problem."

Recruitment of professionals to run small water system is also a major issue. The largely white, male workforce is aging, according to surveys.

Earlier in his career, Tim Wilson, a water project manager, spent time running the treatment plant in Wahpeton, Iowa, a community of just over 400 that expands when vacationers rush in during the summertime.

Small, rural communities have a "ridiculously hard" time recruiting certified operators, he said. Then once they trained, they can be lured away by better pay and benefits elsewhere.

The job demands can also be overwhelming. In Wahpeton, Wilson was the lone employee responsible for the treatment plant. He doubled as a snow plow driver and zoning expert at local government meetings. His crowning achievement, he says, was convincing officials to hire another person to help. It took six years.

Nearly 1,000 miles south in Ferriday, Louisiana, staffing is one problem, but the water has failed people in every major way.

You know your water is in trouble when it's being distributed by the National Guard. That's where residents of Ferriday took their bottles and buckets for four months back in 1999.

"I haven't drunk the water since," said Jameel Green, 42, who has lived in town most of his life. He now makes sure his two girls, ages 16 and 8, don't drink Ferriday water either, even if it costs \$60 a month.

He held up a garden hose caked with a white film from the water.

It wasn't always like this. In the 1950s and 1960s, Ferriday had a vibrant music scene – Jerry Lee Lewis was a local and acts like B.B. King stopped by. Some 5,200 people called Ferriday home. There are about 40% fewer people now, and Ferriday is a mainly Black community. The Delta Music Museum that celebrates the town's place in music history is surrounded by mostly empty shops.

In 2016, the water situation was supposed to change. The U.S. Department of Agriculture helped fund a new treatment plant that went into operation.

But when the company that built the plant walked away after completion, the people operating it were left with little training on how to run it. Staff have struggled to find the right mix of chemicals, according to the Rev. James Smith Sr., who was brought in to help with the issue.

"That's the big problem. Everybody is still doing trial and error," Smith said.

Ferriday's water problems represented "a system in total breakdown," according to Sri Vedachalam, director of water equity and climate resilience at Environmental Consulting & Technology Inc, who reviewed public files.

Water disinfection in Ferriday is leaving behind levels of carcinogens that are too high. For failing to fix its problems, the state issued Ferriday a \$455,265 fine in November 2021.

Smith said the water is now significantly improved. It's tested regularly and plant operators are working on new treatment methods.

But Ferriday never responded to the fine and the Louisiana health department is threatening to ask a judge to impose a timeline for improvements and force payment.

Without a lot more money and more aggressive intervention in the worst places, experts say many Americans will continue to endure an expensive search for drinkable water, or else they'll drink water that is potentially unsafe.

"In my view, this is a desperate problem," Teodoro said.

Well Water Woes: Report Breaks Down Salt Intrusion Cause in Neighborhood

A recent study by the state Department of Energy and Environmental Protection provides some interesting insights into an issue hundreds across Connecticut must contend with.

By Len Besthoff • Published October 11, 2022 - WVIT

There has been no solution yet for salt showing up in private wells across the state - a problem for homeowners that can cost tens of thousands of dollars to eliminate.

However, scientists have been getting a better idea of what is causing the problem, and it may not be everything you think.

NBC Connecticut Investigates introduced you to Gabbi Mendelsohn last summer.

The school teacher told us shortly after moving into her Ellington home, she began noticing her drinking water tasted salty, and her appliances got crusty, rusty, and in some cases, stopped working.

"It's just eating away at the pipes and corrosion. Just recently, I had to have my hot water heater replaced again, it's about six times in the space of 11 years," Mendelsohn said.

Mendelsohn got an analysis of her water, and learned it has a lot of salt, also known as sodium chloride.

The town of Ellington, even though it has not said it is at fault, is providing her with bottled water - for now.

"Unfortunately, if I did need to sell my home, I wouldn't be able to. It's, it's one of those things," Mendelsohn said.

The cause? People often point at what's evident to the naked eye - the tons of salt spread on our snowy, icy New England roads.

A recent study by the Connecticut Department of Energy and Environmental Protection (DEEP), while it only examines one cluster of homes dealing with the problem in Tolland, which borders Ellington, provides some interesting insights into an issue hundreds across Connecticut must contend with.

The report said while salt spread on roads is a contributing factor, the amount and frequency of salt released into the ground by water softening systems that many homeowners use also has an impact.

Tolland Town Manager Brian Foley shared the report with us and addressed some of its conclusions.

"Everyone dumps big bags of salt into those systems and that salt should be responsibly maintained. But a lot of times it's not and put right back into our environment. And that has an effect on the groundwater," Foley said.

Foley pointed out his team is attacking this issue on all fronts. He said his plow crews have gone through training which teaches road salt applicators how to minimize its use, but still keep the roads safe.

Foley added the town is also considering bringing some sand back into the road treatment mix to lower salt use, along with other efforts to prevent road salt from getting into the soil.

"Here's some other things we can do. We can seal all the cracks in the roadway where the salt gets put down and we can make sure that sealed. We can make sure there's curving to the storm drains. We can clean out our storm drains more frequently. And look, because of the ARPA (American Rescue Plan Act) funds, we just bought a street sweeper and we bought a machine to clean out and vacuum out our storm drains."

Problem is, the amount of salt that gets in well systems builds up over years and years, and presumably, takes years to decrease.

That's why leaders like Senator Saud Anwar have been trying to act now, coming up just short the past three legislative sessions with bills offering incentives to towns and cities that get training to reduce the amount of salt they put on roads.

Anwar said while the DEEP report identified multiple sources of salt intrusion in a Tolland neighborhood, he still believes it generally comes from one primary source.

"If I was to bet, I believe that the high salt content of use that has been for snow management is the major culprit. Now there are other culprits but statistically and probability, the chances are that water softening is a smaller component of this issue," Anwar said.

There is certainly motivation for local and state leaders to solve this problem on the front end.

The report on the Tolland homes also said that the most effective long-term, reliable solution is to get them on a municipal water system - an expensive proposition.

Connecticut water systems to receive improvements thanks to infrastructure law

By Kimberly James | The Center Square contributor - Oct 11, 2022

The U.S. Environmental Protection Agency recently awarded Connecticut more than \$53 million from the Infrastructure Investment and Jobs Act for water infrastructure improvements.

The state plans to use the funding for lead line replacement projects in New London and Waterbury, as well as PFAS treatment projects in New Fairfield and Danbury. Additional projects are slated for later funding.

PFAS, an acronym for per- and polyfluoroalkyl substances, are widely used, long lasting chemicals, components of which break down very slowly over time. Studies vary on their harmful effects; more is known about their impact on animals than on humans. PFAS, the Environmental Protection Agency says, "are found in water, air, fish, and soil at locations across the nation" and throughout the world.

Betsy Gara, executive director of the Connecticut Water Works Association, told The Center Square that Connecticut's water companies face major challenges in replacing aging water infrastructure at a time when state and municipal funds are limited, and utilities are under pressure to minimize or postpone rate hikes in a difficult economy.

Additional challenges include identifying and replacing lead service lines, testing and treating public water supplies to address contaminants such as PFAS, hardening infrastructure to enhance resiliency, and modifying dams and distribution systems to make state-mandated stream flow releases.

"The additional federal funding is critical in helping water companies meet infrastructure challenges to provide customers with safe, reliable public supplies at a reasonable cost," Gara said. "Given the significant costs associated with meeting these challenges and the tremendous benefit to public health, the environment and economic development, targeting federal funding to water infrastructure investment is a win-win."

One such water utility, Connecticut Water Company, is the fourth largest in Connecticut and serves more than 105,000 connections across 60 towns through more than 60 non-interconnected water systems. As an investor-owned water utility, Connecticut Water has access to capital markets to help fund infrastructure investments and is not dependent on local, state, or federal funding, but does pursue Drinking Water State Revolving Funds.

"Connecticut Water Co. assets are sound, and we have maintained them by continually investing in drinking water infrastructure to deliver high-quality water and reliable service to customers and communities," Daniel Meaney, director of public affairs and corporate communications for Connecticut Water Company, told The Center Square. "We have a long-standing practice of systematically investing in the systems, especially the replacement of aging water mains and investments in water treatment to meet increasingly stringent water quality standards."

Meaney said about \$60 million of the organization's annual budget is invested in infrastructure, of which nearly half is dedicated to the replacement of water mains. This planned, programmatic action enhances water quality and service reliability and is less expensive and more reliable than responding to emergency water main breaks.

"Resiliency of our water systems and wastewater system, whether due to drought, climate change or other considerations, is factored into our short- and long-term planning," Meaney said.

Meaney said Connecticut Water's timely investments help to maintain systems and provide for the health and safety of customers, addressing the water supply needs before there are critical failures.

"As a public water and wastewater utility we know high-quality water and reliable water and wastewater service is essential to human health, economic development and public safety," Meaney said. "The availability of reliable water supplies the quality of life and supports the local economy. The need for investment in drinking water infrastructure is much greater than the federal funds available, but it is a start, especially for those water utilities that have not been able to fully fund their infrastructure needs."

Across New England, a group is working to find - and save - native plants

Connecticut Public Radio | By Patrick Skahill - October 17, 2022

Before you can save a seed, you have to find it. On a clear day this summer, our search began just a few steps off a trail near a rocky ledge in southern Connecticut.

"We're looking for muhlenbergia capillaris, which is the hair cap muhly," said Michael Piantedosi, director of conservation at the Native Plant Trust.

Piantedosi's group travels across New England to search for - and save - native plants.

Earlier this summer, New England lost a plant to extinction – the smooth slender crabgrass, which state officials in New Hampshire said is one of a handful of documented plant extinctions in the region since European settlement.

But many more species are at risk. The Native Plant Trust estimates more than one-fifth of the region's native plants are in danger from development, climate change, rising temperatures, and storm surges.

As we stand near the edge of a rocky ridge, Piantedosi scans the ground and tells me to watch my feet. That's because I'm standing right next to a grassy clump that normally wouldn't rate a second glance. But this is what we're looking for. The hair cap muhly (one of its many common names), which is listed as endangered in Connecticut.

"It's just these clumps," Piantedosi said. "It's not the most significant thing. But it is very rare."

He said this is the only population he knows about in New England. And it's here, in large part, because this ledge is frozen in time.

Across the region, Piantedosi said there are spots that are too rugged to be developed for businesses or housing, which turns them into special places for native plants.

"A lot of mountain, and alpine, and sub-alpine summits have tons of rare plants," Piantedosi said. "Because they're few and far between ... they're still there because it's tough to build a hotel on them."

Piantedosi said the work of hunting for and saving rare seeds is like an insurance policy for plants.

"If a plant does take a downward trend in its population numbers, or if it blinks out and becomes locally extirpated, we can assist it by ... allowing it to eventually maintain itself," he said.

Saving seeds to restore landscapes

A few weeks after we hunted for grass, I met up with Piantedosi at Nasami Nursery in Massachusetts. This is where wildcollected seeds from hundreds of different plants are cleaned and stored. Some will eventually get replanted for habitat restoration.

We step into a large refrigerator. Along the walls are shelves packed to the brim with tiny bags full of native seeds. It's the cold, dry air in here that allows the seeds to go dormant.

"Seeds stored in this way," Piantedosi said, "will last 10, 20, 30, 50 years, even without freezing.

"So you have a lot of seed that, right now, is coming up on a decade old that will still germinate with 70% – 80% germination," he said.

Some of those seeds make their way to a nearby greenhouse. We walked in and were quickly surrounded by seedlings grown from plants that were surveyed and sampled in the wild.

Uli Lorimer, director of horticulture at the Native Plant Trust, said native plants can play a key role in habitat restoration work – because local plants are attuned to local biology.

"In addition to being adapted to the climate, plants that evolved here also have all of the relationships intact with insects and birds," Lorimer said.

Working with other groups, the Native Plant Trust has restored a salt marsh in Connecticut, an alpine landscape in Maine, and coastlines throughout New England hit by Hurricane Sandy.

Other conservation groups are also working to restore native plants in the region, including an effort by members of the Aquinnah Wampanoag to restore a pre-colonization landscape off the coast of Cape Cod.

Piantedosi said home gardeners want native plants too. But he cautioned the work of finding, cleaning and growing native seeds is painstaking and slow. Meanwhile, the threats facing native plants are only increasing.

"A lot of different habitats are imperiled," Piantedosi said. "A lot of different groups are coming to us – coming to others that provide a native species seed – and requesting it in abundance. And it's an abundance we simply don't have."

In the coming years, he said the Native Plant Trust hopes to scale up their work at their nursery in the hopes they can keep up with the growing need across New England.

Seeking to protect groundwater, N.H. looks to regulate PFAS contamination in soil

New Hampshire Public Radio | By Mara Hoplamazian - October 19, 2022

On a normal morning for Anthony Drouin, he's knee-deep in soft, thick muck, reaching a long metal pole into a pile of sludge and shoveling it into a bucket.

He stuffs the inky black material, the consistency of cake batter, into little bottles he'll send to a lab to test for a particular set of chemicals: PFAS.

Testing for these man-made chemicals in sludge is a regular part of Drouin's job with the state's Department of Environmental Services. He's the residuals management supervisor, a nicer way of saying he deals with the afterlives of things most would rather forget: sewage, septage, sludge.

Recently, though, he's focused on another medium: soil.

Concern is growing about PFAS chemical contamination in soil across New England, where the harmful man-made substances have contaminated drinking water supplies.

Now, Drouin and other state regulators are working to better understand how PFAS moves through soil and into groundwater in an attempt to set rules about how much of those chemicals are allowed to remain in the land.

There are a few main ways PFAS can get into soil; industrial pollution and firefighting foam are two significant ones. And the kind of sludge Drouin manages has also been in the spotlight, after it was found to be a major part of soil contamination issues on farms in Maine.

Sludge and soil

Sludge is a by-product of the wastewater treatment process.

"A lot of times people think, 'Oh, it's pure poop,'" Drouin says. Really, sludge is dead bacteria left over from treatment.

That process can concentrate PFAS in sludge, but the contamination doesn't come from the wastewater plant.

Wastewater, Drouin says, is kind of like a mirror for society. And society contains a lot of PFAS – from the string of dental floss that makes its way into the toilet bowl, to the chemicals on beauty products we put on our own bodies.

Some wastewater treatment facilities also deal with industrial wastewater, which can have exceptionally high levels of the contaminants.

After another round of treatment, some sludge can get turned into a substance called biosolids, which are sold as fertilizer. Across New England, biosolids are spread on farms, fields, and yards to strengthen soil, in place of man-made fertilizers.

Earlier this year, Maine banned biosolids spreading out of fears of PFAS contamination, and in particular the effects on farms. One couple there found high levels of PFAS in their soil, crops, chickens, and their own blood, decades after a previous owner spread biosolids on their land.

But in New Hampshire, around 40% of that material is still spread on land in the state. For many, that's an unsettling reality – though Drouin says it has a purpose.

"Prior to the Clean Water Act, we were just dumping this directly into our surface water bodies, creating serious pollution," he says. "In order to properly manage that, we had to separate the sludge from the water. Then managing the material after that became the big question."

There are three ways the state can get rid of sludge right now: burn it, put it in a landfill, or spread it over the soil. The latter option is the only one that keeps our waste in the carbon cycle, helping minimize its impact on climate change, Drouin says, though he's hopeful for a fourth option – maybe pyrolysis or gasification – to be approved soon. Those technologies have come under fire from some environmental advocates when they were proposed as an alternative to traditional plastics recycling.

Plants get their sludge tested a few times a year, depending on their size. Drouin says even though New Hampshire doesn't have a standard for PFAS in sludge, for the most part, his data shows that biosolids in the state are testing at levels close to Maine's "Soil Beneficial Use" screening level, which he likened to a sludge standard.

Maine's screening level was created in 2018, before the state banned the spreading of biosolids entirely. And what makes a level of PFAS low enough to be safe is still a big question; the EPA recently said levels so low they're currently undetectable can be harmful for human health, if they get into drinking water.

From soil to water

When PFAS chemicals make their way into soil, there's concern that humans could be harmed – through ingesting the dirt, or maybe through eating vegetables grown on the land. And as the compounds move through the soil into groundwater, they could also get into drinking water.

New Hampshire already has a "direct contact" standard for PFAS in soil, which is meant to protect people who might ingest the soil or get it on their skin. Now, the state is focused on how to set levels for PFAS in soil that would protect groundwater, the source of drinking water for 60% of Granite Staters.

Developing that standard is not a simple process. Regulators say it needs to be airtight. It could be challenged in court, possibly by the companies that produce PFAS chemicals or sell biosolids as fertilizer, as New Hampshire's drinking water standards were in 2019.

So, the Department of Environmental Services is working closely with federal scientists to back the standard up with a study looking at two main things: how widespread contamination is across all the soils in the state, and how PFAS move around in the environment.

Andrea Tokranov, a hydrologist with the US Geological Survey, is helping lead that study. For the first objective, her team tested 100 soil samples from locations across the state that had no known sources of PFAS contamination. She says that has relevance, even outside of New Hampshire.

"Nobody knows what's in your soil, even if you don't have a [contamination] source locally. We don't know the answer to that. And I think this study contributes to that quite a lot," she said.

For the second objective, she says the scientists are on the hunt for one value in particular: a partitioning coefficient.

That's a parameter that can be used in scientific models to determine how much PFAS stays in soil, and how much moves into water, when it's mixed with both soil and water at the same time.

There are thousands of PFAS compounds, and they all look a little different. The ones that have longer chains of molecules have high partitioning coefficients, meaning that they get stuck in soil and could pose less of a problem for groundwater, Tokranov says. And the shorter ones can travel a lot more in the environment. Different soils can also change that value.

The study's numbers will be specific to New Hampshire soils and will help the state build their standard. Tokranov says they're also building out the scientific literature on PFAS, which other New England states say they're watching.

In New Hampshire, state regulators are required to propose a soil standard to state legislators by November 2023.

What's next?

The main goal of the standard is to add to the rules for contaminated sites. The party responsible for the PFAS contamination would need to remediate the soil so it meets the state's standards.

On the biosolids side, the soil standard will also lay the groundwork for a standard for PFAS in sludge. Regulators plan to start sampling the soil where biosolids have been spread to see if they need to become part of the contaminated sites program.

Regulators can only sample some of the biosolids sites in the state – those that are required to have a permit to spread the material. For other sites, which spread biosolids that are further treated and don't need to have individual permits, the state would need to get permission from landowners, Drouin said.

As the state moves forward, some people in New Hampshire might find out they have unsafe levels of PFAS in their soil – something advocates like Laurene Allen have been thinking about for a long time.

"People are nervous about talking about this," she said. "They're worried if they acknowledge that they have a concern and if this is a problem, they're going to lose their life, right? It's not only what you do, it's also your life savings. Your property is your biggest asset in most cases."

Allen has long advocated against PFAS contamination in her community in Merrimack. She says Maine's ban was bold. And, though she recognizes a similar halt could be hard on some industries, she says the health of the state is on the line.

"The state needs to be able to take the knowledge that's out there and courageously use it to say no, to say the environment needs to come first," she said.

She also wonders what will happen after this soil standard is put in place – will farmers get help cleaning up their land? Who will pay for it? Even state regulators say assigning a responsible party, in the case of biosolids, is really complicated.

Advocates and those in the biosolids industry alike wonder how a standard addresses the root of the problem: the harmful man-made chemicals companies continue to make, and we continue to flush down the drain.

CT's waters are healthier 50 years after Clean Water Act, but pollution still persists

Trevor Ballantyne - Nov. 1, 2022 - Newstimes website

Dr. Raymond Sullivan has seen firsthand the impacts of the 1972 U.S. Clean Water Act. The retired Brookfield director of public health grew up in Waterbury in the 1930s and 1940s, a city like many others in New England where manufacturing companies producing materials like copper, aluminum, and various chemicals reigned, but also polluted nearby water bodies.

"I have to say, from when I was a kid, I remember the Naugatuck River being a different color every day, literally," he recalled. "To the point where now, I can go down to the Naugatuck and see people fishing in the river."

Scenes like the one Raymond grew up around in Waterbury would ultimately inspire Congress to pass the U.S. Clean Water Act 50 years ago — a piece of landmark environmental legislation that would drive substantial improvements in water quality nationwide and direct more than \$1 trillion in investments into wastewater treatment plants around the country.

"It's so exciting to celebrate the 50th anniversary," Katie Dykes, commissioner of Connecticut's Department of Energy & Environmental Protection said of the federal legislation. "At this stage, you think about that, it's more than a generation of Americans and Connecticut residents that have been living with the benefits of having the U.S. Clean Water Act in place — it's easy for us to take that for granted."

But even as advocates, environmental experts and state officials recognize the progress made, they also know lingering and evolving challenges mean there is still plenty of work to be done.

The federal law, which requires states to submit reports on the conditions of their rivers, streams, lakes, and estuaries, originally set a goal to make 100 percent of the country's waterbodies fishable and swimmable by 1983.

But a report released in October from the Washington D.C. based Environmental Integrity Project found 50 percent of all assessed rivers and streams, along with 55 percent of lake acres and 25 percent of estuary miles across the U.S. are classified as "impaired" — meaning they are too polluted to meet the federal standards for either swimming and recreation, aquatic life, fish consumption, or as drinking sources.

In Connecticut, the study found 58 percent of the 1,612 miles of rivers and streams assessed by the state's Department of Energy and Environmental Protection in 2020 to be impaired for water contact recreation, along with 27 percent of the 24,906 acres of lake water assessed that year and 35 percent of the 45 square miles of assessed waters in Long Island Sound.

"We call ourselves the richest nation in the world but in some ways America has third world water pollution problems that persist," said Tom Pelton, a veteran environmental journalist and co-author of the report. "We have raw sewage pouring into our waterways, farm and urban and suburban runoff causing huge algae blooms."

"If we are going to call ourselves an exceptional nation, we are going to have to do more to address our water pollution," he added.

Sewer success in Connecticut?

Prior to the passage of the federal legislation, Connecticut already had its own Clean Water Act on the books at the state level, according to Graham Stevens, chief of the DEEP Bureau of Water Protection and Land Reuse.

"We had been working for some time under (the state's Clean Water Act) as well as in partnership with other states to monitor and address clean water, so we had a bit of a jump-start on the federal system but still, even with that jump-start, when the U.S. Clean Water Act passed, the U.S. Environmental Protection Agency described the Connecticut River as a 'landscape sewer.'"

"So, really it's hard to even fathom the level of pollution in the Connecticut River which many people now see as a treasured recreational resource," he added.

Stevens explained how DEEP's focus over 50 years of the federal legislation has largely honed in on its requirement to address wastewater treatment practices around the state, particularly in those municipalities where so-called "combined sewer outfalls" exist — a lingering feature of early 19th century sewer systems where stormwater and sewage pipes are combined.

During a major storm event, these systems become overwhelmed and are designed with discharge points that push untreated water into nearby water flows.

Through federal money provided to the state under the Clean Water Act, the state has reduced the number of combined sewer outfalls by 60 percent since 1975, but the combined systems still operate today in Norwich, greater New Haven, the Hartford metropolitan area, Bridgeport, and Waterbury.

Stevens said all five cities are following long-term control plans to sequence and implement infrastructure upgrades to reduce the amount of sewage discharged in the state's waterways, adding the project in Waterbury is nearly complete.

"(Combined sewer outflow) communities are all in urban areas," he added. "So, unfortunately this has resulted in an inequitable impact to our urban waterways which is a significant challenge."

Municipalities without the combined sewer systems are also working to upgrade technology at their sewer treatment plants to meet changing standards, handed down from the federal government and implemented at the state level, that deal with the levels of nitrogen and phospherous the facilities may discharge into surrounding water bodies.

One such project underway at the John Oliver Memorial Sewer Plant in Danbury, a facility that discharges treated waste water into the Still River, is an example of work that Stevens said ultimately makes "a significant impact on water quality, particularly in Long Island Sound."

Since 1991, he noted DEEP has worked to improve water quality in Long Island Sound specifically by encouraging municipalities to undertake sewer treatment plant upgrade projects, which he noted are both costly and complex projects.

"We have been spending the money that the federal government provides to us through the Clean Water Fund, the state revolving fund, as well as significant bond funds that have been provided to DEEP to upgrade this infrastructure," said Stevens, adding the recent passing of the U.S. Infrastructure Law will also provide funding for the projects.

Also part of the effort, the state instituted a program where municipalities share "credits" to help meet the standards required by the EPA for discharge of nitrogen into Long Island Sound, he said. Some plants may have an excess reduction in nitrogen, while others have an excess discharge in nitrogen.

Stevens recognized the funding challenges involved with upgrade projects but noted progress, albeit slow, is being made. In 2022, the state reported the lowest amount of nitrogen discharged into the Sound since the nitrogen credit scheme was introduced 20 years ago.

'No teeth' for 'non-point' pollution

When pollution of waterways stems from a single source, such as a sewer treatment plant or manufacturing facility, it is known under the Clean Water Act as "point source" pollution.

More common in contributing to water pollution in Connecticut, and across the country, is so-called "non point source" pollution, which stems from stormwater runoff moving over and through the ground on its way to a nearby water body. During that process, the water can pick up fertilizers, road salt, oil, and materials found in contaminated soils or leaching from faulty septic tanks.

To address this type of more pervasive form of water pollution, the Clean Water Act allows states to file what are called Total Maximum Daily Load, or TMDL, plans that set a target for how much pollution a certain water body may handle before it is defined as "impaired," while also recommending remedial measures that can eliminate runoff.

"It's a cleanup plan with a target for what is the maximum pollution that can that can go in that waterway," explained Pelton, who noted each state sets its own standards for impairment levels. "These plans exist all over the country, but they are toothless, so often they are not followed at all. They will lay out a good idea, but they are purely voluntary, there's no teeth to them."

However, Stevens said Connecticut's DEEP has "implemented stormwater permitting requirements to try to address (non point) pollution from individual activities or development of individual properties." But funding is needed to make those improvements, he said.

"It's a huge problem," Pelton said. "Especially with smaller, older cities like Hartford, New Haven, even Danbury — that they don't have a huge tax base so they don't necessarily have the money to fix up their sewer and stormwater systems and sewage plants they way they should be."

At a recent meeting of the Brookfield Water Pollution Control Authority, a plan to connect hundreds of Candlewood Lake properties currently connected to septic tanks to the town's sewer system met strong resistance from residents concerned over the cost and the potential for expensive sewer assessment fees that would be levied on their properties.

Officials noted the goal of the project, which remains in its early stages, would be to add sewer connections to replace septic systems that studies have found contribute to elevated phosphorous levels in the lake water, causing potentially dangerous algae blooms which can lead to pulmonary infections in humans.

They also said the estimated cost for the sewer connections at \$18.25 million, adding that "if grants are not available to help fund the sewer project, property sewer assessments will be about 8.1 percent of the grand list value for each property, payable over 20 years."

"Is there any plan to address, specifically, the financial burden for residents that have fixed incomes," one Brookfield resident asked at the meeting. "Because this will be like a mortgage for many people — \$40,000 at 10 percent of the home value? That is very high."

Representative Policy Board

Land Use Committee

2023 Proposed Regular Meeting Dates

Second Wednesday of each month

Land Use
January 11 @ 5:30 pm
February 8 @ 5:30 pm
March 8 @ 5:30 pm
April 19 @ 5:30 pm*
May 10 @ 4:30 pm
June 14 @ 5:30 pm
July 12 @ 5:30 pm
August 9 @ 5:30 pm
September 13 @ 4:30 pm
October 11 @ 4:30 pm
November 8 @ 5:30 pm
December 13 @ 5:30 pm

*Moved for Passover – no work permitted