Representative Policy Board Land Use Committee South Central Connecticut Regional Water District <u>Click here to join the meeting</u> Meeting ID: 213 529 274 386 Passcode: 8xMut8 Or call in (audio only) +1 469-965-2517,,161968919# United States, Dallas Phone Conference ID: 161 968 919#

### **AGENDA**

#### Regular Meeting of Wednesday, December 14, 2022 at 5:30 p.m.

- 1. Safety Moment
- 2. Approval of Minutes November 9, 2022 meeting
- 3. RWA Reservoir Safe Yield Analysis and Streamflow Regulations Impact: Steve Vitko
- 4. Confirm date of special joint meeting for FY 2024 Budget Review Wednesday, April 19, 2023 at 5:30 p.m.
- 5. Updates on land and RWA properties, including invasive species update
- 6. Other land items
- 7. Member to attend December 15, 2022 Authority Meeting: P. Betkoski
- 8. Next Regular Meeting: Wednesday, January 11, 2023 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

### DECEMBER - HOLIDAY STRESS

The holiday season brings with it a mix of joy and stress for workers; 51 percent say they are more cheerful at work this time of year, but 35 percent feel more work related pressure. Among the factors that employees reported increasing stress levels:

- Balancing work and holiday obligations (32%)
- Taking time off and returning to heavier workloads (23%)
- Having smaller staff than usual because of time off (18%)
- Buying gifts for co-workers and contacts (11%)
- Attending holiday office parties (8%)

### To alleviate or prevent job-related stress:

- Before leaving work, list priorities for the next day. Keep a separate list for off-the-job to dos.
- Ask for help if you have too much work. Your supervisor might consider solutions such as adjusting deadlines or delegating.

### Service - Teamwork - Accountability - Respect - Safety





Safety is a core company value at the Regional Water Authority . It is our goal to reduce workplace injuries to zero.



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

### Minutes of November 9, 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, November 9, 2022, via remote access. Chair Betkoski presided.

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

#### RPB: C. Havrda

Management: S. Lakshminarayanan and J. Triana

Staff: J. Slubowski

Chair Betkoski called the meeting to order at 5:30 p.m. He reviewed the Safety Moment distributed to members

On motion made by Mr. Malloy, seconded by Ms. Young, and unanimously carried, the Committee approved the minutes of its October 12, 2022 meeting.

Chair Betkoski stated the need to remove Item 3, *RWA*'s *Reservoir Safe Yield Model*, for reporting at a future meeting. On motion made by Ms. Young, seconded by Mr. Malloy, the committee voted to amend the agenda to remove the *RWA*'s *Reservoir Safe Yield Model* presentation. 8-1-0.

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	<b>Previous Year</b>	Historical Average	Drought Status
October 31, 2022	73%	87%	66%	None

#### Rainfall (inches)

	Current Year	Previous Year	Historical Average
October 2022	2.59	6.43	3.87
Fiscal YTD (6/1/22 – 10/31/22)	15.92	27.93	19.08

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.

### Rental houses:

• 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 riskend 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.
  - o 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 0 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

- Deer hunt The hunt started on Oct. 28<sup>th</sup>. 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.

Mr. Lakshminarayanan, the RWA's Vice President of Engineering and Environmental Services, stated that management is looking for ideas for future special topics for the committee. He suggested that committee members gather ideas for recommendation at next month's meeting.

Mr. Levine stated that he would be interested in water related educational programs for inner city children. Mr. Lakshminarayanan commented that Ms. DiFranceso, the RWA's Water Science Educator, should meet with the committee to provide an update on the RWA's educational programs.

The committee reviewed its proposed 2023 calendar year meeting dates. After discussion, it was the consensus of the committee to adopt the 2023 meeting calendar.

Chair Betkoski reviewed committee member attendance at the upcoming Authority meeting on Thursday, November 17, 2022.

The next meeting is scheduled for Wednesday, December 14, 2022 at 5:30 p.m.

At 5:57 p.m., on motion made by Mr. Levine, 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 December 14, 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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nal **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?

### December 14, 2022 Land Use Committee Meeting

	<b>Current Year</b>	<b>Previous Year</b>	Historical Average	<b>Drought Status</b>
November 30, 2022	75%	85%	66%	None
Dainfall (inches)				

### Reservoir Levels (Percent Full)

<u>Rainfall (inches)</u>					
Current Year Previous Year Historical Average					
November 2022	3.39	1.65	3.94		
Fiscal YTD (6/1/22 – 11/30/22)	19.31	29.58	23.01		

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

- 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. Initial findings were that the parcels were merged administratively and could be separated in the same manner.

Rental houses:

• Hamden, 233 Skiff St. (HA 9A) – Hamden, 233 Skiff St. (HA 9A) – Emails have been sent to assistant town attorney regarding the status of the condemnation and awaiting response.

### 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 winter.
- Madison Nathan's Pond Slash Wall Harvest (MA 6) **100% complete.**
- Killingworth N. Chestnut Hill Patch Cuts, (KI 6) Not started yet. Winter start expected.
  - Compiled a grant request for the USFS Landscape Scale Restoration funding opportunity, and coordinated with a team of collaborators toward submitting a proposal for \$195K for seasonal invasive species control interns and related work and equipment.
  - Communicated evidence of deer inside the Nathan's Pond slash wall among RWA's partners, including a professional hunter, who started hunting the area. Discussed strategies and coordinated hunting activities with research activities.
  - Suspended a woodcutter involved with a property dispute and potential trespassing issue associated with the woodcutter's access to his lot in the Genesee Tract. Fielded numerous phone calls from the woodcutter associated with this action, and met the permittee at this property to discuss and inspect steps toward reinstatement.
  - Met with owner of Extreme Landscaping at the Gaillard tree farm to harvest an overgrown evergreen tree for RWA's donation to the Morris Cove Christmas display at the Pardee Seawall.
  - Met and worked with a group of Seymour volunteers to harvest boughs of evergreen from BUI's former tree farm at the entrance to the Pine Hill trail system.
  - > Arranged for the removal of a skidder from the Peat Swamp Property.

**Recreation** 

- Worked with Environmental Planning staff to acquire DPH permits for the New England Trail in Guilford.
- Latest newsletter was published and delivered.
- Hike at Big Gulph had one participant.
- Reblazed all trails at Big Gulph.
- Cleared downed trees across trails at Lake Chamberlain, Big Gulph and Sugarloaf.

	November		October	
	2022	2021	2022	2021
Permit Holders	4,913	5,578	4,968	5,366

Special Activity Permits

- Yale University School of the Environment- (Dr. Craig R. Brodersen) Field trips in field botany and forestry. North Madison Cedar Swamp off of Rt. 80, (11/2/2022-6/30/2023)
- CT Dept. of Energy & Envir.Protection Wildlife Biologist (Dr. Devaughn Fraser) acoustic monitoring of bats to determine species occupancy of hibernacula and species presence/bat activity in Fall, Spring, and Summer to help inform tree management activities, Lake Gaillard (11/2/2022-11/2/2023)
- McLaren Engineering Group (Craig Plate) Perform a routine and underwater inspection at Waite Street Bridge over Lake Whitney; contracted by CTDOT to perform the inspection; (11/28/2022).
- Resources in Search and Rescue, Inc.-(Ms. Celeste Robitaille and designees)- Training of Search and Rescue K9 teams to locate lost or missing individuals, RT 42 Swamp southeast of RT 42 Bethany; (11/27/22-11/27/23)
- Resources in Search and Rescue, Inc.-(Ms. Celeste Robitaille and designees)-Training of Seach and Rescue K9 teams to locate lost or missing individuals, Lake Watrous and Lake Dawson, (11/27/22-11/27/23).

### Other items

- Encroachments/agreements
  - Agricultural agreements All fields on the western side were mowed.
  - Trespassing Recorded instances of trespassing including dirt bikes, ATV's, hikers with dogs, mountain bikers and hikers in unpermitted areas, picnic table at Maltby Lakes was vandalized, fort in Woodbridge, dumped tires at Skiff St., and the ice house at Gaillard was broken into.
- Invasive plants Treated or documented invasive plant populations in Guilford and North Branford.

Invasive Species Documented/ Mapped (ac)	112.25 acres
Invasive Species Treated (ac/MH)	0.2 acres

• Deer hunt – The hunt ended on Nov. 30th. There were a total of 180 hunters – 129 in North Branford, 23 in Bethany, 20 in Prospect and 8 in Ansonia/Seymour. The total number of deer harvested was 24. There were 4 does and 20 bucks harvested. The breakdown of where deer were harvested by property are as follows:

North Branford: 17 deer - 14 bucks, 3 does Bethany: 5 deer – 5 bucks Prospect: 2 deer - 1 buck, 1 doe Ansonia/Seymour: 0 deer

Post-hunt surveys were mailed out. Deadline to return them is in January.

- East Haven, Beach Ave. watermain Told by town staff that a public hearing on the easement would take place on Dec. 6<sup>th</sup>. Updated the easement agreement and the survey for the town.
- Hamden, Mather St. CITGO station Alerted by the public that a contractor at the CITGO station was dumping brush over the fence at Lake Whitney. Environmental Planning staff investigated.
- Bethany, Simon dam Contacted by Simon's dam contractor that we were flooding his work site with Lake Bethany water. Turned out to be a leaf-dam on the lip of the spillway had broken and released the water.
- Madison, TNC easement over MA 12 Contacted by TNC that they would not perform a physical check of the property this year.
- Easements Looked up information for Operation staff regarding our interests in real estate around the Racebrook PRV in Orange and South Sleeping Giant Wellfield in Hamden.
- Pollinator garden, 90 Sargent Dr. Staff assisted with maintaining the pollinator garden and planted trees.
- Drone flights ISMT performed a drone flights on behalf of Capital Planning at Woodbridge tank and at the West River DAF project.

### Attachments

- November 9, 2022 New Technology Could Help Clean Up Water in the US and the Developing World LifeWire website
- November 13, 2022 Connecticut's depleted acorn crop will have wide-reaching impact WNPR
- November 30, 2022 New England forestry expert says sustainable logging could help meet UN climate goals WNPR
- November 30, 2022 Connecticut's lakes lack funding: the threat of cyanobacteria in your backyard CT Mirror

Upcoming Agenda Items January 2023 - ?

### New Technology Could Help Clean Up Water in the US and the Developing World

### By Sascha Brodsky - November 9, 2022 - LifeWire website

The Minnesota Pollution Control Agency recently purchased machinery to remove concentrations of hazardous substances known as PFAS. The high-tech system works by injecting outdoor air into contaminated water, turning PFAS into foam that can be separated from the water. It's one of a growing number of devices that are helping make water safer.

"Less than one percent of the Earth's surface area is actually freshwater," Prakash Govindan, co-founder of Gradiant, a company that makes water purification technology, told Lifewire in an email interview. "It's a very limited resource, and water stress is the first sign of climate change."

### Water, Water, Everywhere

Using the machine in Minnesota, PFAS levels are significantly reduced when the foam is removed and the water is returned to the environment. The PFAS concentrate then goes to another unit, a second machine in which the carbon-fluorine bonds (the backbone of PFAS chemicals) are broken through electrochemical oxidation.

"This pilot project marks the beginning of a new era for PFAS clean-up in Minnesota," said MPCA Commissioner Katrina Kessler in a news release. "This study will help us address PFAS contamination at the source and develop long-term solutions for cleaner water—ensuring safe drinking water for Minnesotans. We hope to eventually employ this technology around the state, including in Greater Minnesota, where PFAS is a growing concern."

### Not a Drop to Spare

The need for technology like the one used in Minnesota is great, experts say. By 2050, six billion people will suffer from clean water scarcity as a result of climate change. 85 percent of them live in low- or middle-income countries, noted Neil Grimmer, brand president of renewable drinking water company SOURCE Global, in an email interview with Lifewire. He said that part of the problem is water technology hasn't changed much since the Roman Era.

"This outdated system of pumps, treatment plants, and miles of pipes often doesn't reach remote places and is not economically viable for poor countries and communities," Grimmer said. "So we need innovation. We need new thinking, and if we fix the problem in countries where the challenges are greatest, we can unlock clean water for the rest of the world."

Among the recent clean water, innovations in micro-irrigation technology that doesn't need electricity or filtration and can save massive amounts of the water used in agriculture. Some companies are using AI to identify and resolve potable water leaks in real-time, and researchers are working on technology that can more effectively filter water and even detect contaminants.

Gradiant offers membrane technologies, used for separating water from contaminant particles based on size and charge, have evolved over the past few years and are now "one of the most important" water purification technologies, Govindan said. Other approaches, including Gradiant's Carrier Gas Extraction, which mimic the natural rain cycle, ion exchange, and free radical oxidation, are "playing a major role" in treating industrial wastewater.

Ginger Rothrock, a senior director at HG Ventures, a firm that funds sustainability entrepreneurs, said via email that new processes for capturing contaminants include capture media (powders that specifically hold onto contamination) or electric fields that attract and deposit heavy metals. For example, one company HGV invests in, Electramet, uses electricity to pull metals out of a wastestream, much like a Brita filter.

"This is particularly important for regulated metals like copper, and chrome, that have known human health impacts," Rothrock added.

Data could also be an important means of creating clean water. The nonprofit charity: water has introduced a new kind of water sensor that monitors water projects in remote locations across Africa and Asia. The device can remotely monitor water usage and the health of hand pumps in real-time using an IoT-based sensor. The sensor costs less than \$250 and connects with local telecom companies across the globe.

"The developing world often faces the brunt of water problems, although even in the US, we find things like arsenic and Forever Chemicals in our water supply, and [there have been] droughts in many states," Riggs Eckelberry, CEO of OriginClear, a water technology company, said in an email. "Simply put, we must clean, recycle, and protect our water supply everywhere we can."

### Connecticut's depleted acorn crop will have wide-reaching impact

Connecticut Public Radio | By Jennifer Ahrens - November 13, 2022

A humble but key building block of Connecticut's ecosystem is in short supply this year: acorns.

According to the Connecticut Agricultural Experiment Station (CAES), more than 80 wildlife species – everything from mice to bears – depend on acorns as a primary food source before and during winter. But an annual survey of hundreds of oak trees by CAES scientists recently found that Connecticut is suffering from a widespread acorn crop failure.

Each year, the state surveys the acorn crop. Past studies have shown that acorn numbers have a ripple effect throughout nature.

One animal particularly impacted is the white-tailed deer. A low acorn crop means deer may wander more in search of something to eat. Scott Williams, head of the CAES Department of Environmental Science and Forestry, said that makes the animals "more vulnerable to collisions with vehicles."

But he said there are potential positives for people. Low acorn crops mean fewer mice to host ticks. There's also a potential upside for hunters. Those seeking a deer harvest are more likely to have a successful season when acorn supplies are low because deer can't hunker down and hide.

When acorn numbers are bountiful, birds of prey like owls and hawks can benefit. That's because a large acorn supply means the small rodents they hunt have plenty of food to store in their winter dens. Come springtime, those rodents can produce more offspring – yielding more prey opportunities for predatory birds.

Bears are also impacted by acorns. As they prepare for hibernation, bears embark on a power-eating marathon called "hyperphagia," needing to consume 20,000 calories a day. Acorns – a pound contains roughly 2,000 calories – can go a long way in satisfying that need.

Jenny Dickson, wildlife division director at the state Department of Energy and Environmental Protection, said a shortage of acorns could lead to more bear and human conflicts. "We're up to 69 home entries for the year right now," Dickson said. "I wouldn't be surprised if those numbers go up a little bit more between now and the end of the year."

What caused the acorn crop failure?

Last year, Connecticut's oak trees produced a lot of acorns. J.P. Barsky, a CAES research technician, said that as a result, the trees "may not have had enough energy reserves ... to produce acorns." Additionally, oaks have been under stress due to spongy moth caterpillar outbreaks. These invasive insects devour a tree's leaves early in the growing season. The tree then spends a lot of energy in the summer trying to grow those leaves back.

Barsky said he's concerned about the long-term future of oak trees in the state. He said there aren't a lot of oaks making up the new growth in the forest. Instead, it's a lot of maple, beech and birch trees.

"That's a very concerning thing," he said. "Because oaks are a keystone species in our forest."

### New England forestry expert says sustainable logging could help meet UN climate goals

Connecticut Public Radio | By Kay Perkins - November 30, 2022

Members of the New England Forest Foundation (NEFF) attended the United Nations COP27 Convention on Climate earlier this month to confer with other experts and leaders about how forests can help fight climate change.

Forests are an essential part of the effort to meet the United Nations goal to cap global temperature rise at 1.5 degrees celsius, said Andrea Colnes, deputy director and climate fellow at the New England Forest Foundation.

"The only chance we have of getting to 1.5 degrees really no longer depends on reducing emissions," Colnes said. "We also have to figure out how to remove carbon from the atmosphere. And forests are the one major way the world has of removing carbon from the atmosphere at this point."

Colnes said one major sticking point has been incentivizing the logging industry — especially smaller businesses — to follow more sustainable practices. She said NEFF was inspired by international programs designed to incentivize countries in the global south.

"In Connecticut, [our] program will be designed to provide incentives to landowners to put in place climate-smart forest management plans, and manage them through support and education and training," Colnes said.

Colnes also suggested encouraging the use of sustainable lumber in construction projects, the production of which creates fewer carbon emissions than concrete or steel. She said that would, in turn, provide more funding for logging businesses to invest in more sustainable practices.

COP27 ended on Sunday, Nov. 20.

### Connecticut's lakes lack funding: the threat of cyanobacteria in your backyard

CT Mirror - by Skye Embray - November 30, 2022

While this picturesque scene is the reality for some lake goers, the residents of Coventry, CT, experienced something entirely different this past summer. For the first time, Coventry Lake experienced an abundance of cyanobacteria, a photosynthetic microorganism, resulting in a two-week closure and a public health warning issued by the Eastern Highland Health District.

"Public swim areas were shut down ...you were told that you were at risk if you got in the water," said Debby Zeppa of Coventry Lake Advisory & Monitoring Committee.

Cyanobacteria blooms can cause a range of symptoms, including mild rash and irritation to the liver or signs of nervous system dysfunction. More extreme exposure can even result in death. Eric Trott, Director of Planning and Development for the town of Coventry, told me, "Inhalation of cyanobacteria causes damage to lungs and other organs, so even standing near the lake can put an individual at risk."

The 2017 National Lake Assessment found the algal toxin microcystin in 21% of lakes across the country. This deadly toxin threatens human health and kills pets, fish, and birds exposed to water bodies experiencing cyanobacteria blooms.

Lakes are an essential resource for all of us. These freshwater bodies provide drinking water and habitats for fisheries and recreation. They offer aesthetic value and are a tourist attraction for many American communities, Coventry included. Some lakeshore residents have experienced a 30-50% decline in property value across multiple states due to harmful algal blooms and cyanobacteria.

The pursuit of clean lakes is not only a matter of public health but an effort to combat the effects of climate change, as increasing levels of algae in freshwaters also contribute to methane emissions. Although each lake is different, they are all connected. Coventry's bloom contributes to the more daunting issue of global warming; "It's not just Connecticut; it's global," explained Zeppa.

Although the Coventry Lake advisory had the resources to monitor and conduct testing of the lake leading to the termination of the health warning, not all communities have the same experience. Elsewhere, concerned residents wonder if they will be forced to cancel their plans to spend their summer on their local lake. These algal events leave people questioning: "what caused the bloom, and how do we address it?"

We do have the framework for answers. Such questions are addressed through the Clean Lakes Program, propagated by Section 314 of the Clean Water Act. Initially established in 1972, this program historically provided state grants to help study and monitor lakes to manage and restore water quality. The Clean Lakes Program provided over \$145 million in grants to states from 1976 through the mid-1990s. The grants established statewide water quality assessment programs and significant lake, watershed, and water quality restoration projects. This program specifically funded in-lake remediation to address sedimentation, aquatic invasive plants, and cyanobacteria blooms.

But here's the problem. The Clean Lakes Program was reauthorized in 1994 without funding, which means there has been no money for the program in over 25 years. Currently, Connecticut lakes and lakes all around the country are vulnerable to algal and cyanobacteria blooms and other types of degradation. Instead of directly allocating money to address lake issues, the EPA encourages states to use a mere 5% of a grant from another program: the Section 319 Nonpoint Source Management Program. To make matters worse, the EPA does not support funding for in-lake management activities unless it fits the requirements of the Nonpoint Source Management, which does not directly address lake restoration through in-lake management activities.

The answer to protecting our lakes is simple: renewed funding for the Clean Lakes Program. The EPA already laid the groundwork back in 1976 by establishing a system specifically designed to help states manage lakes effectively. Congress must reauthorize funds for this program and increase the annual appropriations.

States need specific funding for in-lake restoration activities and protection measures that prevent healthy lakes from algal blooms and other threats like the one in Coventry this summer. Securing money for Section 314 funding is a win for lakes, which is also a win for communities across the nation.

Skye Embray is a senior at Trinity College, majoring in Environmental Science and Public Policy.