Representative Policy Board
Land Use Committee
South Central Connecticut Regional Water District
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Phone Conference ID: 585 519 196#

AGENDA

Regular Meeting of Wednesday, January 11, 2023 at 5:30 p.m.

1. Safety Moment
2. Approval of Minutes – December 14, 2022 meeting
3. Environmental Education Update: L. DiFrancesco
4. Updates on land and RWA properties, including invasive species update
5. Other land items
6. Member to attend January 26, 2023 Authority Meeting: G. Malloy
7. Next Regular Meeting: Wednesday, February 8, 2023 at 5:30 p.m.
8. 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 https://tinyurl.com/jh9wjcuj. For questions, contact the board office at 203-401-2515 or by email at jslubowski@rwater.com

SAFETY MOMENT

JANUARY – PREPARE YOUR CAR FOR WINTER

Tap Into Safety

Regional Water Authority

Prepare Your Car for Winter

In addition to annual maintenance, here are some tips to winterize your car:

- Test your battery; battery power drops as the temperature drops
- Make sure the cooling system is in good working order
- Have winter tires with a deeper, more flexible tread put on your car
- If using all-season tires, check the tread on your tires and replace if less than 2/32 of an inch
- Check the tire pressure; tire pressure drops as the temperature drops
- Check your wiper blades and replace if needed
- Add wiper fluid rated for -30 degrees
- Keep your gas tank at least half full to avoid gas line freeze

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.

Regional Water Authority

UNAPPROVED DRAFT

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

Minutes of December 14, 2022 Meeting

The regular meeting of the Land Use Committee of the Representative Policy Board ("RPB") of the South Central Connecticut Regional Water District ("RWA") took place on Wednesday, December 14, 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: N. Campbell, C. Havrda, and S. Mongillo

Authority: C. LaMarr

Management: L. Bingaman, J. Hill, S. Lakshminarayanan, J. Triana, and S. Vitko

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 Mr. Horbal, and unanimously carried, the Committee approved the minutes of its November 9, 2022 meeting.

Mr. Vitko, the RWA's Environmental Planning Manager, provided an overview of the DEEP Stream Flow Regulations and Implementation and RWA's Reservoir Safe Yield Model, which included:

- Overview of Safe Yield
- Current and new regulations
- Release sites
- Future impact, implementation, and supply

Committee members discussed improvements and CT DEEP selection of Safe Yield sites.

At 5:48 p.m., Mr. Bingaman withdrew from the meeting.

The special meeting date for the FY 2024 budget review was set for Wednesday, April 19, 2023 at 5:30 p.m.

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**
November 30, 2022	75%	85%	66%	None

Rainfall (inches)

	Current Year	Previous Year	Historical Average
November 2022	3.39	1.65	3.94
Fiscal YTD (6/1/22 –	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. 6th. 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.

Due to a conflict in schedule it was determined that Mr. Harvey would provide the Land Use Committee report at the Representative Policy Board meeting on Thursday, December 15, 2022.

Chair Betkoski reviewed committee member attendance at the next Authority meeting.

The next meeting is scheduled for Wednesday, January 11, 2023 at 5:30 p.m.

At 6:11 p.m., on motion made by Mr. Levine, seconded by Mr. Harvey, and unanimously carried, the committee meeting adjourned.

_____
Peter Betkoski, Chairman

Whitney Water Center

The Whitney Water Center in Hamden offers free, hands-on water science programs for K-8 students within our district.

- Public and Private Schools
- Homeschool Organizations
- Girl and Boy Scout Troops
- Libraries
- Community Organizations

Regional Water Authority
Tapping the Possibilities™

Whitney Water Center

We offer outreach and onsite programs, Project WATER field study, and loan boxes.

- In-school programs are most popular with early elementary educators
- Project WATER is the most popular option for middle school educators

Regional Water Authority
Tapping the Possibilities™

Whitney Water Center

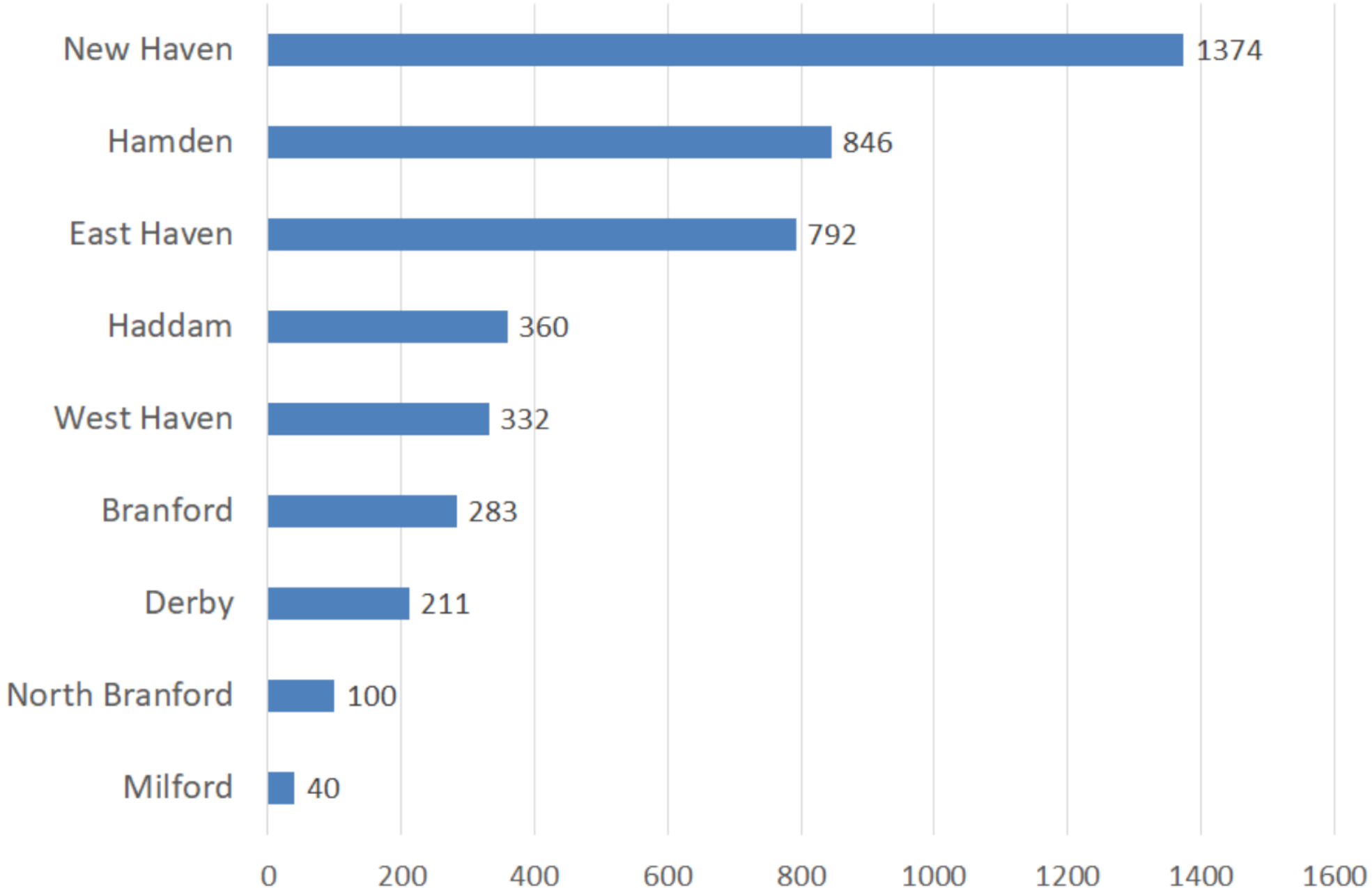
Since the inception of the Whitney Water Center, over 364,000 students have participated in our programs.

Included in that total:

- 16,100 students participated in Project WATER
- 50,300 students have used our Water Science Loan Boxes

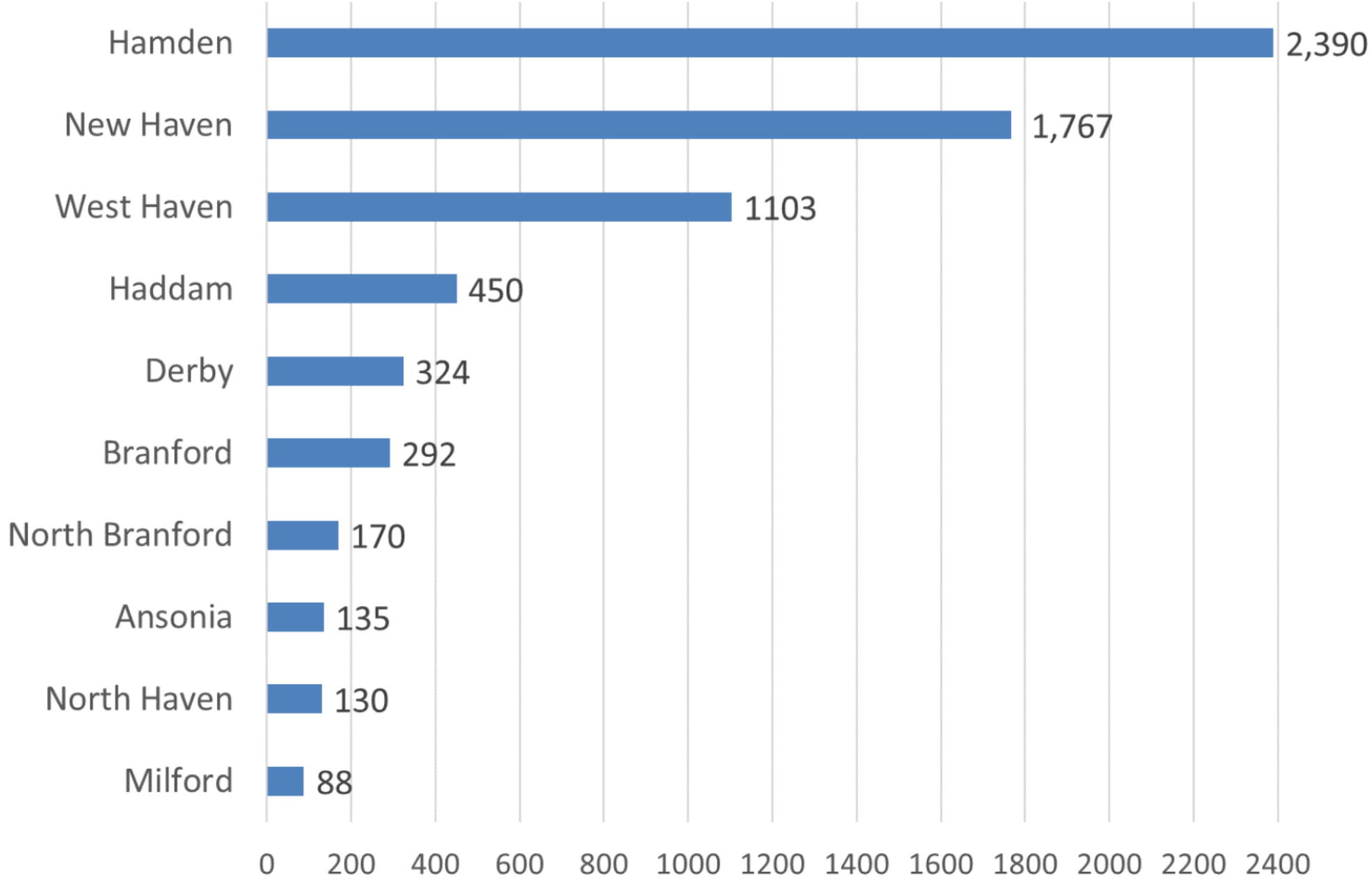
Regional Water Authority
Tapping the Possibilities™

2020-2021 Whitney Water Center Participation



Total 4338

2021-2022 Whitney Water Center Participation



Total 6849

Overall COVID Impacts and Trends

Pre-COVID Average

School Years 16-17, 17-18, 18-19

5,000 students

COVID Average

School Years 20-21 and 21-22

2,691 students

(-48%)

Current School Year

Programs booked YTD

3,631 students

(+35% from the last 2 years)

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Classroom Programs COVID Impacts

Pre-COVID Average

School Years 16-17, 17-18, 18-19

4,200 students

COVID Average

School Years 20-21 and 21-22

2,015 students

(-52%)

Current School Year

Programs booked YTD

2,877 students

(+42% from the last 2 years)

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Project WATER COVID Impacts

Pre-COVID Average *School Years 16-17, 17-18, 18-19*	**800 students**
COVID Average *School Years 20-21 and 21-22*	**676 students** *(-15%)*
Current School Year *Programs booked YTD*	**759 students** *(+12% from the last 2 years)*

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Digital Improvements

- Digital programs created to teach remote programs translated into improved in-person programs
- Smartboards are installed in almost all classrooms and teachers are familiar with their use
- Improved visuals for programs equals increased student engagement

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Digital Improvements

These two classroom programs are 30% of the booked programs this year

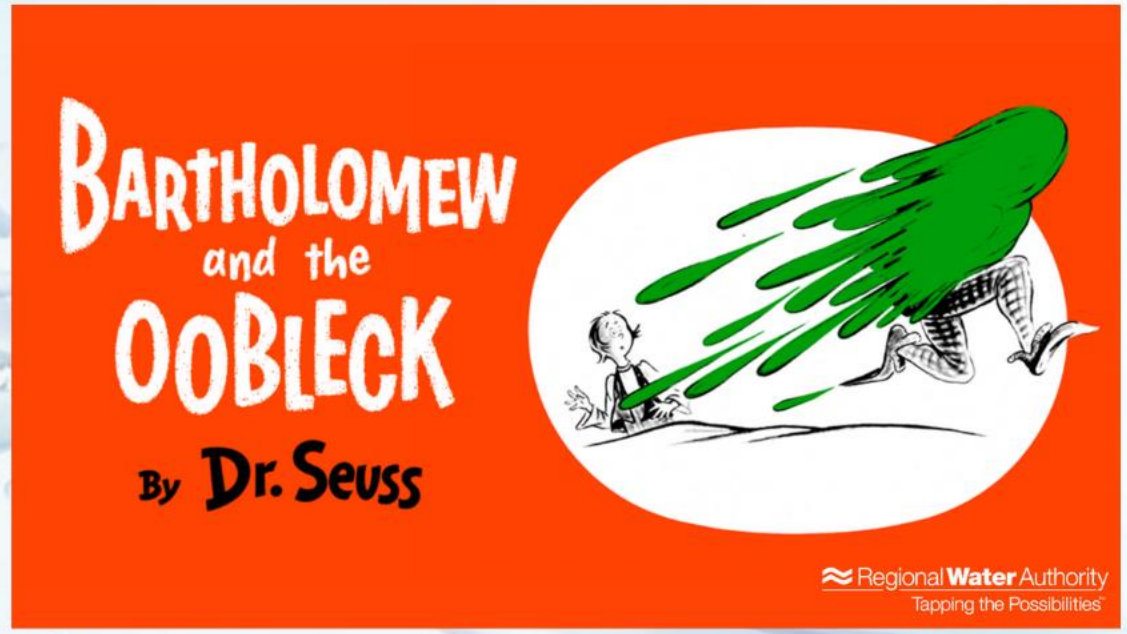
Invasion of the Aliens - Invasive Species

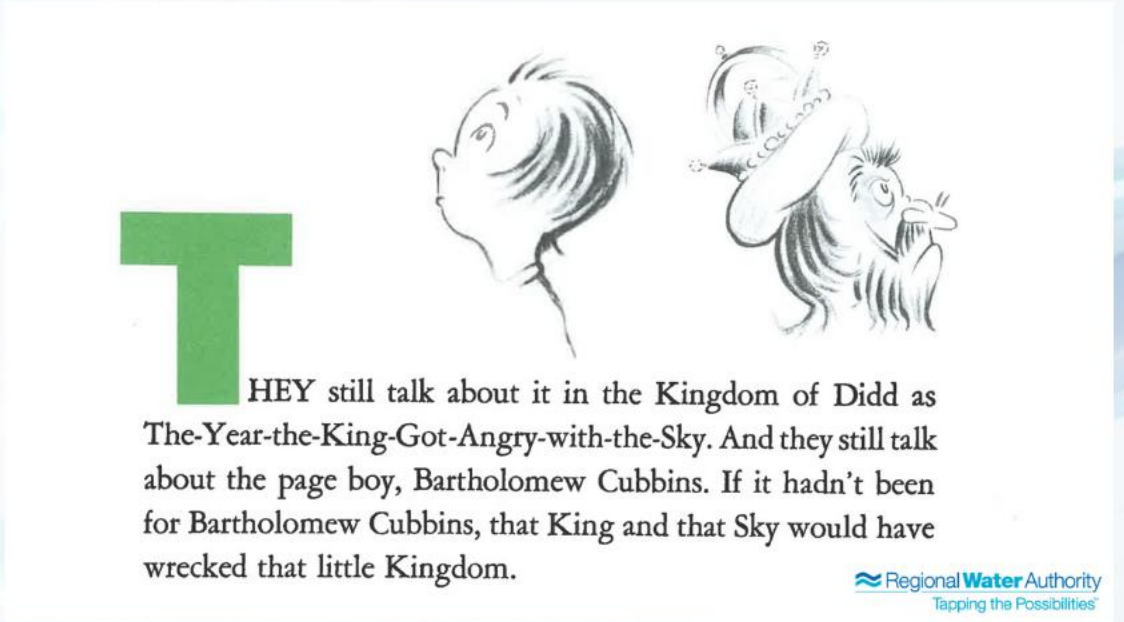
Macro-invertebrate Messages - Water Quality

Regional Water Authority
Tapping the Possibilities™

Digital Improvements

My narrated video of *Bartholomew and the Oobleck* has over 29,000 views on YouTube





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Digital Improvements

Project WATER has also benefited from digital improvements

- Prep classes before the field trip are done through guided videos by the classroom teachers allowing more time for field trip experiences and reaching more students

- Improved directions which make it easier for the students to work independently during the field trip

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Tapping the Possibilities™

Experiment #1
Dissolved Oxygen

Materials

- Dissolved Oxygen test kit (flat black box)
- Water from the river in container labeled "fill with river water"
- Waste container

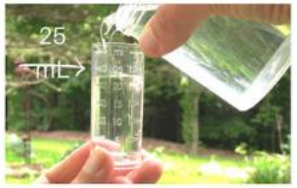
Procedure

1. Fill the small plastic test tube in the dissolved oxygen kit to the 25 mL mark with the river water sample.
2. Place the glass ampoule into the small plastic test tube you just filled. **Snap the tip of the glass ampoule by pressing it against the side of the cup near the bottom.** The water will flow into the glass tube.
3. Mix the contents of the glass test tube by turning it so the bubble inside the test tube will travel from end to end. DO NOT PUT YOUR FINGER OVER THE END WITH THE BROKEN GLASS.
4. Set the timer for 2 minutes. Wait two minutes for the color to change completely.
5. Compare the color in your test sample to the different blue colored test tubes inside the cover of the black box. Match it to the closest color and record the answer on the data sheet.
6. Give the glass ampoule with the blue liquid in it to the instructor.
7. Empty the water in the small plastic test tube into the waste container.
8. Put everything that belongs in the dissolved oxygen test kit back in the black box and place it in the bucket.
9. Begin the second experiment.

PROJECT water
REGIONAL WATER AUTHORITY

Experiment #1
Dissolved Oxygen

1.



Fill the test tube in the Dissolved Oxygen kit with river water to the 25 mL line.

2.

Get a glass ampoule from the instructor.

3.

Place the thin end of the ampoule into the test tube and snap the end off by pressing the top of the ampoule on side the test tube.

4.

Take the ampoule out of the test tube and slowly turn it over a few times to mix it. Set the time for 2 minutes.

5.

Compare your ampoule to the comparator. Write your answer on the datasheet.

6.

Empty the water from the test tube into the waste container. Give the used ampoule to the instructor.

PROJECT water
REGIONAL WATER AUTHORITY

Questions?

Regional Water Authority
Tapping the Possibilities™

January 11, 2023
Land Use Committee Meeting

Reservoir Levels (Percent Full)

	Current Year	Previous Year	Historical Average	Drought Status
December 31, 2022	80%	85%	72%	None

Rainfall (inches)

	Current Year	Previous Year	Historical Average
December 2022	4.55	1.55	4.09
Fiscal YTD (6/1/22 – 12/31/22)	23.86	31.13	27.11

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

- Prospect – Corresponded with property owner of 40+/- acres.
- Hamden – Corresponded with property owner of 2+/- acres.
- Cheshire – Corresponded with property owner of 50+/- acres.
- Cheshire, former Ricci property – Corresponded with Town staff about the status of the OSWLA grant.
- North Branford, Beech St. and Pomps La. properties (NB 4) – Murtha confirmed with Assessor that the "island parcel" could be split administratively, but needed to follow-up about the other parcels.
- New Haven, Munson St. – Filed water main easement and map on the city land records.

Rental houses:

- Hamden, 233 Skiff St. (HA 9A) – Many tires dumped at the property. Some taken to disposal facility. Additional calls and emails placed to asst. town attorney to address the condemnation matter. Asst. town attorney replied to VP. Spoke to appraiser about the matter and he expected to work on the appraisal in January.
- Hamden, 95 Ives St. - Corresponded with owner about work at the property. Work began by the end of the month. Activity at the house prompted various reactions through email and online, many of which had erroneous information.
- Woodbridge, 1029 Johnson Rd. – Corresponded with owner about work at the property.
- Guilford, 1155 Great Hill Rd. - Corresponded with owner about work at the property.

Forestry Update

- Killingworth - East Hammonasset Leaf Screen Thinning, (KI 4) – **40% complete.**
- Hamden - Overstory removal and Tornado Salvage, (HA 36) – Not started yet. **May be pushed to summer due to ground conditions.**
- Killingworth - N. Chestnut Hill Patch Cuts, (KI 6) – **20% complete.**

  - Marked timber for GU12/12A silvicultural treatments near the Menunketuc reservoir, laid out more harvest boundary, and worked with Operations to improve drainage along an access road.
  - Worked with professional deer hunter to remove deer from within the Nathan's Pond slash wall. Cut up tops and debris, and dragged and positioned brush and logs to plug a hole in the wall that deer were using to gain access.
  - Worked with a suspended woodcutter involved with a property dispute to resolve the permit suspension issue. Inspected the partially completed access road, which he voluntarily initiated across his property, and outlined additional steps necessary before reinstatement could be considered.
  - Worked with Killingworth Tree Warden to obtain permission to remove a town-owned tree obstructing truck access to a log landing.
  - Contractor removed overgrown evergreens from the Gaillard Christmas tree farm.

- Reached out to three woodcutters requesting removal of apparently abandoned equipment from their respective woodlots.
- Found and removed coin collection at Dudley Pond. Turned into Police.

Recreation

- Owl walk at Lake Bethany had about 30 participants.
- Invasives species identification walk at Lake Saltonstall had 9 people.
- Started the process for hiring new recreation staff for the 2024 fishing season.
- Website link for getting permits was broken. Addressed by online vendor.
- Cleared downed trees and limbs from trails at Lake Chamberlain, Big Gulph and Saltonstall.
- Gave tour of recreation areas to two new Customer Service Reps.
- Submitted DPH recreation activity use application for the alternate route of the New England Trail in Guilford.

	December		November	
	2022	2021	2022	2021
Permit Holders	4,851	5,655	4,913	5,578

Special Activity Permits

- New Haven Bird Club (Chris Loscalzo) - Annual Christmas Bird Count survey - Saltonstall, Whitney, Wepawaug, Maltby, Dawson, Glen, Chamberlain, Watrous – (12/17/2022).
- Dr. Chris Loscalzo (at request of CTDEEP) - Annual Midwinter Bald Eagle Survey - Lakes Saltonstall and Gaillard – (1/7/2023).
- McLaren Engineering Group (Craig Plate) – Perform a routine and underwater inspection at SR707 over Lake Whitney; contracted by CTDOT to perform the inspection; (12/13/2022).
- CT Agricultural Experiment Station (Dr. Jeff Ward, et al) - General forestry and wildlife research, tick/Lyme Disease studies - Lake Gaillard, North Madison, Prospect, Seymour, Branford, Bethany (12/7/2022 – 12/7/2023).

Other items

- Encroachments/agreements –
  - Agricultural agreements – The Matthew St. field in Prospect was cleared of invasives, as well as large trees and rocks, for the tenant.
  - North Branford, Forest Rd. (NB 17) – Sent letters to many abutters about encroachments after remarking the boundary.
  - Trespassing – Recorded instances of trespassing including hunters, ATV's, hikers with dogs, and hikers in unpermitted areas.
  - Milford, Low Pressure Agreement – Low pressure agreement at 543 Plains Rd. was released.

- Invasive plants – Treated or documented invasive plant populations in North Branford, Bethany, East Haven, Branford and Prospect.

Invasive Species Documented/ Mapped (ac)	44 acres
Invasive Species Treated (ac/MH)	10 acres

- Deer hunt – About half of the post-hunt surveys have been returned.
- East Haven, Beach Ave. watermain – Town Council approved a resolution to convey an easement across town property between Morgan Ave. and Beach Ave. for the new watermain.

- Hamden, 364 Putnam Ave. (HA 8) – Corresponded with manager of abutting property since retaining wall was failing and needs to be replaced. Sent draft of license agreement to them to review allowing the access to our property to do the work.
- Hamden, Walden St. request (HA 5) – Rejected request from an abutter to put a sign on our fence regarding their business.
- Durham, Higganum Rd. (DU 6) – Fielded complaint from property owner downstream that the town was releasing water from a beaver-clogged crate and causing erosion.
- Boundaries – Checked and remarked boundaries in Guilford.
- Assisted with the 90 Sargent Dr. pollinator garden.
- ISMT performed drone flights at the Derby Tank sight and the DAF project at West River.

Attachments

- December 7, 2022 - Efforts to identify a backup water supply have taken a key step forward – WTOP
- December 14, 2022 - Inside the Effort to Reduce Road Salt Amounts in Connecticut – WVIT
- December 11, 2022 - More 'forever chemicals' found in WA drinking water as cleanup costs mount – Seattle Times
- December 19, 2022 - No longer a pipe dream: State in line for $150M to replace lead service lines – CT Mirror
- November 30, 2022 - New England forestry expert says sustainable logging could help meet UN climate goals – CT Public Radio

Upcoming Agenda Items

February 2023 - 2022 deer hunt summary – Nicole Smith

Efforts to identify a backup water supply have taken a key step forward

Neal Augenstein – WTOP - December 7, 2022

‘This is the first step:’ Study to identify backup drinking water supply for DC area gains strength

D.C. and its Virginia and Maryland suburbs are dependent on the Potomac River as the main — or sole — source of drinking water.

D.C. Delegate Eleanor Holmes Norton said the final version of the Water Resources Development Act of 2022, or WRDA, would authorize the U.S. Army Corps of Engineers to conduct studies to find a secondary drinking water source and additional drinking water storage.

“There is an urgent need for Congress to act to protect the drinking water and other infrastructure of the nation’s capital from serious vulnerabilities,” said Norton in a news release.

Michael Nardolilli, executive director of the Interstate Commission on the Potomac River Basin, told WTOP the water supply is vulnerable: “We do run the risk of the Potomac River becoming unavailable due to, say, an extreme drought caused by climate change, or a contamination event that could be either accidental or intentional.”

Earlier this year, the House approved a bill that would authorize an engineering and feasibility study to consider backup water supplies, but the study was not included in the Senate’s WRDA.

Since then, staff has been working behind the scenes, to include the study for both chambers.

“That will go before the House and Senate, we think, in the next two weeks for approval, and then to the president for his signature,” he said.

As with all major government projects, funding would be required to pay for the study. Ultimately, funding the suggestions of the study would be a major financial undertaking.

“So, we’re talking about a very long journey, but every journey begins with a single step, and this is the first step,” Nardolilli said.

‘Everything is on the table’ for backup supply

The study would not dictate how local water utilities should bolster their supplies.

The Potomac River is the sole water supply for the District, Arlington County and the City of Falls Church, and the primary water supply for two other local water utilities.

WSSC Water, which serves most of Montgomery and Prince George’s counties, draws 30% of the water it sends to customers from the Patuxent River. Fairfax Water, which serves Fairfax and Prince William counties, gets a portion of its water from the Occoquan Reservoir.

“Everything is on the table,” said Nardolilli. “A lot of things have been suggested: a pipeline down the Potomac from Harpers Ferry, tapping the aquifers under the city, some ‘toilet-to-tap’ program where water from the Blue Plains treatment plan could be retreated and used,” as drinking water.

As WTOP first reported in 2016, local water officials have been studying the possibility of utilizing the Travilah Quarry — which is located on Piney Meetinghouse Road in Rockville, Maryland — to provide water storage for local D.C., Maryland and Virginia water utilities, in the event that water from the Potomac River would become unavailable or undrinkable.

Nardolilli says local water suppliers have secured and are turning other quarries along the river into reservoirs.

However, he said the need to store water that is safe to drink will likely intensify. “We look at the demand increasing in the D.C. area over time. And if we are to make our system resilient, we need to have an additional backup system for what we already have.”

Inside the Effort to Reduce Road Salt Amounts in Connecticut

While road salt is essential during the winter in New England, it also comes with environmental consequences.

By Siobhan McGirl • Published December 14, 2022 • WVIT

A UConn program is training cities and towns to reduce the amount of salt used on roads during snowstorms.

With snow and ice now on the ground in New England, salt is not far behind. It is used to keep Connecticut's road ways safe during the winter, but too much road salt comes with consequences.

“It performs this function, it works well for many things that we use it for, but it has environmental consequences that are very hard to deal with," said Dr. Michael Dietz, an extension educator at the University of Connecticut. "Once it gets into our soil and our aquatic system, it is hard to get it out.”

Dietz, along with a team of researchers, has been looking into the effects of road salt for years. He said research shows that excessive road salt negatively impacts infrastructure, aquatic life, and humans.

"We obviously drink water and many of us, in rural parts of Connecticut, rely on well water. The salt travels very easily through the soil, it gets down into the groundwater, and becomes a big problem for people who have wells that draw that water from our aquifers," explained Dietz.

While too much road salt can cause problems, Dietz also points out that there is no better alternative to take the place of road salt right now.

“Until some miracle product comes around the only way we can address this problem is to reduce what is being applied, but still keep the roads safe," said Dietz.

That is where the Connecticut Green Snow Pro Training comes into play. The CT Training and Technical Assistance Center at UConn began hosting the training in 2018 and has since trained nearly half of the state's cities in towns in best practices for salt application.

“We talk to them about how using less actually can be more impactful to the winter operation and to make the road safer," said Mary McCarthy, director of training at the center.

Along with best practices, the class focuses on maintenance of facilities and equipment. Operators learn more about how salt works and how best to calibrate equipment so that they are applying salt at the proper time and rate.

The facilities team for the University of Connecticut took the course. They went from using about 5,300 tons of salt per year in 2017 to, now, using about 2,100 tons of salt per year.

“We are using half the amount of salt so it is not going into the streams, it is not going into the rivers. It is important because it just saves money across the board. It saves money on repairs. It is better for everyone’s vehicles, our own vehicles," said Wesley Ayers, manager of landscape services for the university. "It is just a money saver and better for the environment.”

The CT Green Snow Pro Training is now expanding. Recent legislation allotted the team seed funding that has enabled them to hire for a new position and offer the course to private commercial applicators as well.

"It is not just the roadways that are receiving the salt application. There are the parking lots, the residential communities," said Shannon O'Loughlin, an educational program coordinator working with the Green Snow Pro program. "We are just trying to cast our net and reach as many individuals that are working in winter operations and maintaining our roadways, parking lots, and sidewalks."

To learn more about the Green Snow Pro Training and other resources to maintain sustainable winter operations, click here.

“We are moving in the right direction and hopefully we can make a significant impact on this issue," said Dietz

More ‘forever chemicals’ found in WA drinking water as cleanup costs mount

Dec. 11, 2022 - The Seattle Times - By Hal Bernton and Manuel Villa

LAKEWOOD, Pierce County — The water pumped from the ground here was once considered pure enough to mix with a little chlorine and then pipe directly to homes.

Today, every gallon from two water district wells must first be flushed through six enormous tanks, each filled with 40,000 pounds of specially treated coal, to remove contaminants.

This pollution, known as “forever chemicals” or PFAS, can increase health risks for certain cancers and other diseases when present in drinking water in minuscule concentrations measured in parts per trillion. Lakewood is one of more than a dozen Washington public water systems with detections above levels defined by the state to be suitable for long-term consumption — and widespread testing is just ramping up.

Massive filtration systems can remove the contamination, but at a steep cost. Lakewood, where PFAS entered the ground from firefighting foams used at nearby Joint Base Lewis-McChord, spent $5.5 million on its system. Through the decades, operating costs and maintenance are forecast to soak up millions of more dollars.

Now, a massive legal battle is playing out across the country as more than 200 providers of public drinking water, including Lakewood, sue manufacturers, distributors and in some cases the Defense Department in federal court to determine who will pay the cleanup bills that will tally in the billions of dollars.

“The frustration is … the cost. We didn’t create this problem. But we have to deal with this,” said Marshall Meyer, engineering manager for Lakewood Water District.

Firefighting foams have emerged as a major source of PFAS contamination. They were first developed by Minnesota-based 3M in collaboration with the Navy. The lawsuits, including five filed by Washington public water systems, allege 3M failed to disclose internal studies dating back to the ’60s documenting the persistence of these chemicals in the environment, their toxicity and their widespread presence in human blood. In 1998, 3M finally shared over 1,200 studies with the Environmental Protection Agency, drawing a $1.5 million fine for failing to report them earlier.

In court and public comments, 3M had denied allegations that corporate officials sought to suppress information about the environmental and health risks of PFAS, or per- and polyfluoroalkyl substances..

“3M acted responsibly in connection with products containing PFAS — including AFFF (aqueous film-forming foams) — and will vigorously defend its record of environmental stewardship,” the company said in a written statement.

In Washington, public water systems with PFAS exceeding the state action levels range from Western Washington communities of Highline and Issaquah to the city of Airway Heights at the eastern edge of the state.

The public water systems now grappling with this pollution collectively serve nearly 570,000 people, 7.4% of the state’s population, according to a Seattle Times analysis of test results. The analysis also shows:

In Washington, a large cluster of contamination has been found in communities near Joint Base Lewis-McChord, where firefighters in the ’70s began training with PFAS foams. Ongoing testing of wells used by Lakewood, Dupont and Roy has detected PFAS in amounts that exceed state action levels.

Airway Heights, near Fairchild Air Force Base, suffered some of the nation’s worst public drinking water contamination. City officials say an alternative supply now available from Spokane is not enough to meet future needs. A federal public health survey found residents had blood levels for one firefighting-foam chemical 56 times higher than the national average.

Some sources of drinking water contamination remain a mystery. Vancouver water utility officials said there is “no smoking gun” for the sources of the contamination in six of nine stations that pump from aquifers to supply the residents of the state’s fourth largest city.

Washington public water systems have responded in different ways to the detection of PFAS. Some, such as Airway Heights, Lakewood and Issaquah, quickly moved to take these wells offline, and develop treatment systems for those that remained in service. Vancouver lacks alternative supplies, and has yet to build treatment systems for wells that test modestly above state action levels. So they remain in use.

The state action levels went into effect in January. They apply to five PFAS compounds, including two — PFOA and PFOS — found early on in firefighting foams. PFAS concentrations at or below those levels are considered safe for someone drinking this water source through the course of their lifetime. Water systems that test over those levels need to inform their customers and investigate the cause.

The state action levels result from a lengthy state Department of Health review of studies that indicate long-term exposure to minute amounts of PFAS can increase risks of kidney and testicular cancer, thyroid disease and harm the immune system. For PFOA, the 10 parts per trillion action level is the equivalent of a half drop placed in an Olympic-sized pool.

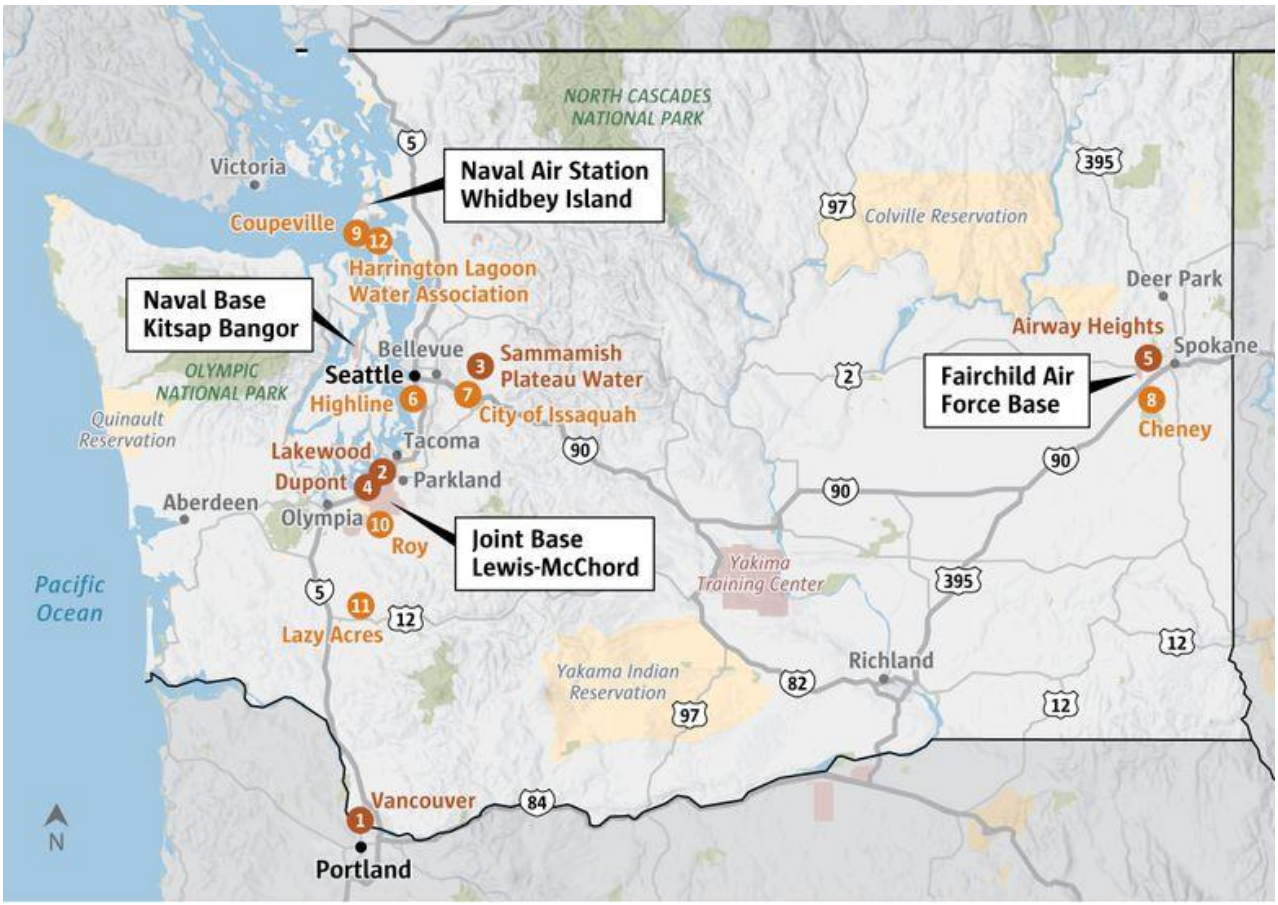
So far, more than 600 of the state's public water systems have voluntarily tested for PFAS, and some 1,900 other public water systems will be required to test for PFAS during the next three years.

The EPA is gearing up for a big federal regulatory move. The agency is expected to soon propose a rule that will establish maximum acceptable levels for some PFAS — and require water systems to keep within those limits in all water delivered to customers.

"Drinking water is one of those things in this state that we expect to be clean and unlimited. But it's not, at least not anymore," said Mike Means, a DOH official.

Where PFAS exceeded state action levels in Washington public water systems

The state action levels were set to protect people who drink the same water source over the course of their lifetimes. Utilities with wells that exceed these limits must inform their customers and investigate causes. PFAS have been detected over state action levels at some wells in water systems that together serve close to 570,000 people, or 7.4% of the state population.



No longer a pipe dream: State in line for $150M to replace lead service lines

by Jenifer Frank – CT Mirror - December 19, 2022

As soon as he heard that President Biden's Bipartisan Infrastructure Act would include more than $4 billion to replace lead water pipes in the country, Joseph Lanzafame, New London's public utilities director, knew two things:

First, no matter how much money Washington spent on the undertaking, it wouldn't be enough.

And second, Lanzafame knew he wanted New London to be first on the state's priority list for funding. "If we get out ahead of it," he said, "we're more likely to get additional subsidies … and we're going to help set the standard for the state."

Over the past two years, New London has been aggressively inventorying its pipes, the first step in the replacement process. Lanzafame has pored over historical records, hired engineers to do predictive modeling, and arranged for exploratory "test pits" to be drilled throughout the city to determine how many of its public water lines are made of lead.

"We have a significant portion out there," he said. Last week's estimate**:** More than a third of New London's 6,500 service lines are lead.

'It's historic'

Between 6 million and 10 million lead water pipes are in use today, most frequently in older cities and in homes built before 1986, according to the U.S. Environmental Protection Agency. Lead pipes were used in the decades after the Civil War until the 1940s, and many have never been replaced.

Although lead paint and leaded dust and soil cause most of the lead poisoning cases in the country, especially among babies and young children, 20% of people's exposure to the highly toxic metal is through drinking water, the EPA says.

Connecticut is slated to receive about $30 million in each of the next five years through the Bipartisan Infrastructure Act to find and replace lead pipes with those made of copper, said Lori Mathieu, public health chief of the Drinking Water Section of the state Department of Public Health.

Although Lanzafame is correct that the federal money won't cover anywhere near the cost of replacing the pipes, Mathieu is exuberant about the funding. "We've *never* seen this level of money," she said. "It's very exciting. It's historic."

The inventory

Lead service lines are the pipes that connect homes, apartment buildings and businesses to water mains, which run down the middle of streets. The public side of the service line goes from the water main to a shutoff valve, or curb stop, at the property line, while the customer's side goes from the shutoff valve to a home or business's indoor plumbing.

Once test pits are bored at the point where the two sections meet, engineers can determine whether one or both parts of the water service line are made of lead. Engineering companies that specialize in statistically predictive modeling are hired so every water line in a municipality doesn't have to be dug up. The cost of that would be "astronomical," even in a small city like New London, said Lanzafame.

As it is, he estimated the total project cost for New London at $40 million over the next five years, though it could be lower with federal grants or principal forgiveness loans.

Social vulnerability

Problems caused by lead pipes were most recently in the public eye during the 2014 water crisis in Flint, Mich. Officials in the cash-strapped city changed the source of drinking water from Lake Huron, whose water was treated, to the Flint River, whose water was untreated. The corrosive water flowing through lead pipes led to health problems throughout Flint and resulted in thousands of children under 6 registering high lead levels in their blood.

The Infrastructure Act requires "socially vulnerable" areas to be priorities for lead pipe replacement. The government's Social Vulnerability Index (SVI), developed by the U.S. Centers for Disease Control and Prevention, uses Census data such as socioeconomic level, housing conditions, access to transportation, and racial and ethnic minority status to identify Census tracts that need more resources to thrive.

However, Lanzafame said, "The SVI doesn't have anything to do with the statistical model. The statistical model doesn't care about color or race or economic situation, it just says lead line or no lead line." As it continues to process information about the location of lead service lines, he said, the city will apply the social vulnerability index to the data. "So, people who happen to live in areas that are higher SVI are going to get their lines replaced first," he said.

Poison in the home

Unsurprisingly, many areas with high SVI rankings also have large numbers of lead-poisoned children. The CDC stresses that any amount of the heavy metal is unsafe, now defining lead poisoning as 3.5 micrograms per deciliter of lead or more in the bloodstream. Before May 2021, the CDC benchmark for lead poisoning was 5 micrograms per deciliter.

In Connecticut, 3,000 children under 6 years old — nearly 5% of children in that age group — were reported as lead poisoned in 2020, the latest year for which the state DPH provides numbers. More than a third of those children lived in Connecticut's poorest cities: New Haven had 376 poisoned children, Bridgeport had 298, Waterbury, 252, and Hartford, 171. That year, 58 New London children were poisoned. That was 12% of all of the city's children under 6, one of the highest percentages in the state.

In 2020, using the CDC's higher criterion for lead poisoning, 5 micrograms per deciliter, the state reported the number of lead-poisoned children at just over 1,000. The new, stricter, criterion of 3.5 micrograms triples the number of poisoned children that year to 3,000.

Babies and toddlers can be exposed to the heavy metal in vitro or if they drink formula made with lead-tainted water.

Before its use was banned in 1978, and despite common knowledge of its dangers, lead was added to both interior and exterior paint to increase its durability. Even if painted over, as it inevitably degrades, it can cause problems.

Young children are especially vulnerable to its dangers during these critical developmental years. With their hand-to-mouth exploring, they are more liable to ingest flaking paint chips or leaded paint dust, created by doors and windows in older housing opening and shutting, grinding down the paint. Soil near the base of older, dilapidated buildings is also frequently contaminated.

The CDC warns that even small amounts of the toxin ingested by children can cause "damage to the brain and nervous system, slowed growth and development, learning and behavior problems, and hearing and speech problems," though these may not show up until years later.

Adults are also vulnerable to the toxin. Higher levels of lead can lead to cardiac and kidney problems, high blood pressure and fertility issues.

Looking To Newark

Earlier this year, as the state was gearing up for its lead service line project, the DPH's Mathieu invited Kareem Adeem, director of the Water and Sewer Department in New Jersey's largest city, to give a presentation to water district officials in Connecticut.

When Adeem was named to his position in 2020, he was quoted as saying, "We are doing something no city in the country has done." After several years of reports of dangerously elevated lead levels in its drinking water, Newark launched an intense program to replace every lead water pipe. In less than three years, it has replaced more than 23,000 lead lines.

In doing so, Newark became a model not only because of how quickly it worked but also because of how well it engaged its residents in the project. Most noteworthy, perhaps, is the website Newark created, which is filled with information on why the project was launched, advertising public sessions, explaining the health consequences of lead, where to pick up free water filters and water sampling kits, and dates and locations of the work.

New London

After studying the results from 150 test pits**,** Lanzafame said the city is just about ready to put its project out to bid. But before that happens, he needs to learn whether the city will receive any loans or, better still, subsidies.

"The good news," he said, "is that the federal government and the state understand that lead service lines are a very big issue, they're a very big cost, and there's no way towns and communities could just do it without finding some other source of either funding or loans or something to extend it out."

But because New London is No. 1 on the state's lead service line priority project list, he's feeling pretty optimistic.

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 Forestry Foundation (NEFF) attended the United Nations COP27 Convention on Climate in November 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 U,N. goal to cap global temperature rise at 1.5 degrees Celsius, said Andrea Colnes, deputy director and climate fellow at the New England Forestry 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 Nov. 20.