



Greetings from LQIC!

The Lake Quality Improvement Committee (LQIC) has membership from both sides of Lake Hayward. The goal of the *Gazette* is to foster communication between the east and west sides of the lake by sharing with you some informative, interesting, and fun events happening around the lake.

Get the Gazette Electronically!

Help save our publishing costs and avoid potential litter if you are not here for paper delivery. Just send your **email address and house number (so we don't deliver a paper copy as well) to wolfkoste@gmail.com**. You will get the annual edition and any special editions electronically. Photos look much better! By not subscribing, you missed several editions last year!

Thank you for your cooperation – every little bit helps!

HATS OFF TO RICHIE COPPA!



It's always good to recognize those that contribute to the health of the lake.

A significant source of the nutrients that feed the algae is the soil that is carried into the lake by streams due to erosion. One of the major streams is the one that passes under the East Shore Drive bridge. We call that stream E5. If you boat anywhere near its mouth, you know that it has created quite a large, mostly underwater delta.

Well, Richie owns the section of E5 between the bridge and the lake. He has taken it upon himself to stabilize the bank of E5 with stones. When asked why he's doing it, he says it's "just another project that I love to do. I enjoy working hard and making things better. Trying to reduce the silt washing into the lake has been on my bucket list for some time ". It is still a work in progress but should help minimize erosion and reduce the nutrients that enter the lake. It should also help slow the growth of the delta.

We all thank you Richie!

VOLUNTEER WANTED FOR STREAM MONITORING PROGRAM

If you love the lake and live here all summer and can spare some time to support LQIC's stream monitoring program, please email or see Wolf Koste for details. (wolfkoste@gmail.com).

LET'S TALK DIRTY – SEPTIC SYSTEMS

It's a smelly topic, but it will cost you a bundle if you don't treat your septic system right! If you have a house on Lake Hayward, you have a septic system. First, let's dive into the history of septic systems.

It was the 1860's when Jean-Louis Mouras decided he'd had enough of walking through the freezing snow to do his business. He thought to himself, there must be a better way. He combined the Ancient Greek concept of the flush toilet, using clay pipes to transport the wastewater out of his house, with the more modern concept of cesspools, which collected waste and were routinely emptied. In essence, he ran clay pipes from his home to a concrete tank outside. Mouras added an extra feature that he called the fousse Mouras (translated - Mouras' pit), a sealed tank that would hold the wastewater, allowing overflow to make its way to the cesspool.



After ten years of use with no issue, Mouras was curious to see what was going on inside the tank. When he cracked the lid and peered inside, he was surprised to find the tank nearly empty, with just a thin layer of scum remaining. In the years that followed, he enlisted the help of a scientist, Abbe Moigno, to develop a prototype. In 1881, Mouras patented the Mouras Automatic Scavenger, and within two years, his design had made its way to the United States, where it did not take long for the invention to proliferate.

Early American septic systems adhered closely to Mouras' design and were made of concrete or steel. By the 1940s, septic systems were common from coast to coast, and by the 1960s, when these systems began failing, significant improvements to the overall design were developed. Many of the houses around Lake Hayward were built in the 1940's and still have their original septic systems.

Does yours?



Please note: Septic systems vary. Diagram is not to scale.

The layout of modern septic systems is similar to that shown to the left – though variations exist. Wastewater from the house consists mostly of drains from sinks, toilets, showers, dishwashers, and washing machines. This wastewater drains through a pipe to your septic tank.

A septic tank is a buried, watertight tank designed to receive and partially treat raw domestic wastewater. Heavy solids settle to the bottom of the tank while grease and lighter solids float to the top. The solids stay in the tank while the wastewater effluent is discharged to the drainfield for further treatment and dispersal. The solids are removed when you have your tank pumped out.

The drainfield, or leach field, is a design that has existed for decades. The effluent from the septic tank is piped to a shallow underground trench of gravel or perforated pipe. The effluent filters through the gravel and is then further treated by microbes once it reaches the soil below the trench. By the time it gets to groundwater and reaches your well, it is safe to drink.

A properly maintained and functioning septic system can safely treat your wastewater for many years. Since wastewater also contains nutrients that the algae love, underperforming or failed septic systems can contribute to algae blooms in the lake. Fixing a failed septic system is expensive.

How can a septic system fail?

1. A septic tank is sized for the number of bedrooms in your house and whether or not you have an in-sink garbage disposal (not recommended). **If you add a bedroom or garbage disposal**, then your tank is undersized.
2. The wastewater should only be water, very small amounts of food scraps, stuff that has passed through your body and toilet paper. That's it. **Dumping in grease, hygiene products, plastics, chemicals, paper towels, cigarette butts, or an old t-shirt will cause problems.**
3. **Solids build up in your tank and will clog it up if not removed.** That's why it needs to be pumped out periodically. Even if you only live in the house during the summer. How often? I've heard everything from every two to five years, but it depends. More people in your house, excessive water use, or a smaller septic tank mean more frequent pumping. A good way to decide on a pump out frequency is to ask the guy pumping out your tank. Tell him/her when it was last pumped and

they can recommend a frequency by what they see. Here is a list of the current Chatham Health District’s registered septic tank cleaners.

COMPANY	Mailing Address	TOWN	PHONE
365 Septic LLC	75 Daggett Street	Moosup, 06354	860-949-2199
ADB Construction & Septic	77A Woodland Street	Manchester, 06042	860-432-5996
Admiral Septic LLC	163 Ruby Road	Wilmington, 06279	860-933-1464
Ahearn & Sons LLC	17 Green Hill Road	Killingworth, 06419	860-663-1680
Art's Septic Tank Service	149 Opal Drive	Glastonbury, 06033	860-633-2155
Avery Septic Service	64 Field Rd., Unit A	Somers, 06071	860-749-9964
Bob's Septic	254 Geer Rd.	Lebanon, 06249	860-848-3097
Buttermores LLC	1780 Rt. 12	Gales Ferry, 06335	860-464-8852
C&J Constuction & Septic, LLC	8 Hunters Road	Norwich, 06360	860-887-6542
Christopher Bryant Co.	PO Box 553	Simsbury, 06070	860-243-3500
County Line Septic, LLC	7 River Road	Wilmington, 06279	860-331-0444
CT Septic, LLC	1640 N. River Rd	Coventry	860-331-0444
Drainworks Plumbing & Septic	2316 Route 6	Columbia, 06237	860-500-9130
Duncan Downie Excavation	6 Center Rd. W	Old Saybrook, 06475	860-399-6055
Earthworm	254 Geer Rd.	Lebanon, 06249	860-367-4516
Eastern Environmental Septic LLC	3 Dilaj Drive	Columbia	860-883-0974
Engineered Septic & Sewer	46 Plains Rd., Suite 28	Essex, 06426	860-767-0603
Envirotech Septic Service LLC	PO Box 100	Westbrook, 06498	860-669-9280
Ethier & Sons Septic Service	533 Woodland Street	South Glastonbury, 06073	860-633-2126
Fecal Ferry Septic Service	15 Holmes Road	Newington, 06111	860-772-8989
Flushaway Septic Tank Cleaning Inc.	26 John Drive	Griswold, 06351	860-639-1924
Higqanum Septic Tank Company	PO Box 456	Higqanum, 06441	860-345-2590
Hometown Sanitation	37 Plains Road	Essex, 06426	860-767-8822
Hop River Septic Service	25 Hop River Road/PO Box	Columbia	860-228-9353
John J. Doerrmer Inc	117 Horse Hill Road	Westbrook, 06498	860-669-8752
Lee A Stoltz Excavating & Septic	130 White Birch Road	East Hampton, 06424	860-267-9492
New London County Septic Service	543 Colonel Ledyard Hwy	Ledyard, 06339	860-536-0420
Olsens's Sanitation Co LLC	PO Box 1064	Deep River, 06417	860-526-1474
P & H Construction & Septic Service, I	PO Box 164	Uncasville, 06382	860-848-8507
Primary Sanitation Services	PO Box 543	Glastonbury, 06033	860-659-1009
R+B Vaill LLC	36 Blueberry Lane	Colchester, 06415	860-334-6107
Redi-Rooter	537 Westchester Road	Colchester, 06415	860-267-2563
Riebold Sanitation LLC	PO Box 29	Higqanum, 06441	860-345-2708
Saltwater Septic LLC	PO Box 401	Niantic, 06357	860-912-5204
Saviour Septic, LLC	4 N 5th Avenue	Taftville, 06380	860-808-5806
Septic Works	1 High Street	Old Lyme, 06371	860-598-9525
Signore Septic Service	300 Old New London Rd.	Salem, 06420	860-859-2319
Skips Wastewater Service Inc	6 Nutmeg Drive	Ellington, 06029	860-875-2332
Stepules Sanitation Service, Inc.	327 Forest Lane	Glastonbury	860-883-9688
Suburban Sanitation Service Inc.	80 Middletown Avenue	East Hampton, 06424	860-267-6102
Trickett Septic Service LLC	PO Box 127	Willimantic, 06226	860-423-4255
Vincent Cahill & Sons Excavating Inc.	270 Main Street	Rockfall, 06481	860-349-8551
Violette Silvester & Sons	65 Cherry Street	East Hartford	860-289-3466
Wastewater Services Inc.	21 Cartny Drive	Ellington, 06029	860-875-2332
Wentworth Septic	528 Exeter Road	Lebanon	860-642-6692
Wind River Environmental	46 Lizotte Drive	Marlborough, MA 01752	860-434-0052

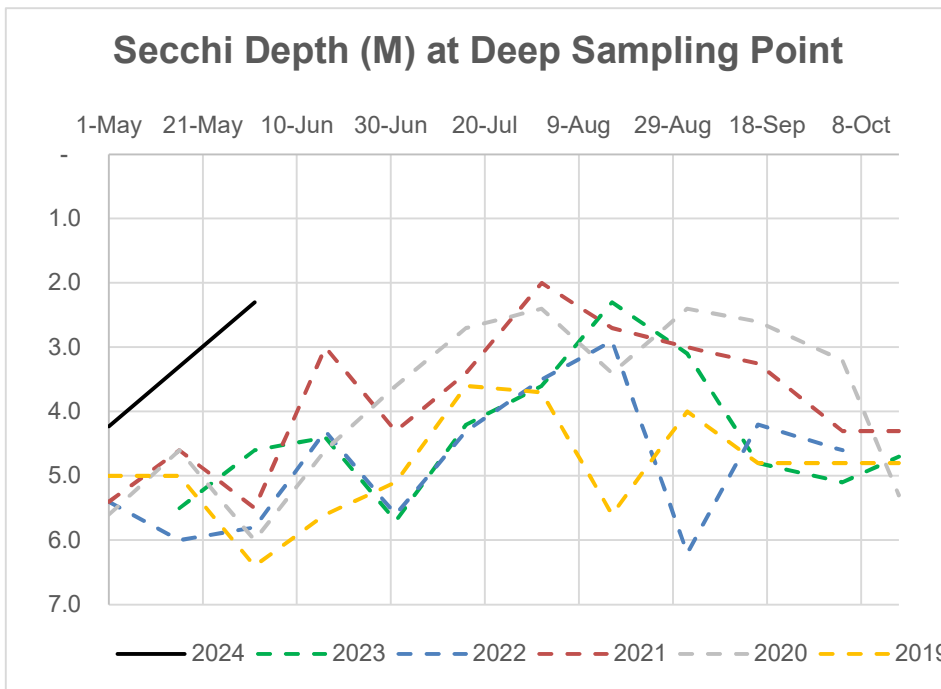
4. **Don't park over your septic tank or leach field. The same goes for planting trees or big bushes.** Heavy objects can crush your tank or piping. Tree roots can enter and clog piping. Don't know where your septic tank and leach field are? The East Haddam Building Department should have maps for newer homes. A professional may be needed to find it for older homes. You can't pump out the tank if you can't find it.

How can you tell your septic system has failed?

1. It's most obvious if you can smell sewage outside
2. There are puddles over your leach field that don't go away
3. Water drains slowly in your home appliances

Take care of your septic system, have it pumped out regularly, and your pocketbook and neighbors will thank you!

WHAT'S THE ALGAE SITUATION?



Here is a chart showing water clarity measurements over the last six years. The Secchi depth is the depth at which a black and white Secchi disc can no longer be seen. The shallower the Secchi depth (up on the chart) the poorer the water clarity. This year's Secchi measurements, so far, are the solid black line. As you can see, water clarity is drastically worse for this time of year than any of the

previous years. Poor water clarity typically means more algae cells are in the water. We've also already had several algae scum sightings that have never started until July in the past. You can see all of NEAR's (our lake consultant) annual water quality reports at <https://www.lakehaywardct.com/lake-quality/northeast-aquatic-research-data-analysis-and-recommendations/>

I fear we are off to a very bad start algae-wise. It is likely that the heavy rains this spring have washed a lot of nutrients into the lake. We had essentially no algae blooms in the dry summer just two years ago. Controlling stream nutrients is the key to algae control.

All of this tells us that a focus on streams and overland water flow is likely to help us succeed in controlling the algae. All of us can help minimize those sources through managing runoff, proper septic system pumping and maintenance (see article above), careful use of fertilizer, and properly disposing of leaves and grass away from the lake and streams.

You will find an excellent guide for identifying cyanobacteria blooms at this link. I encourage you to watch it. https://www.youtube.com/watch?v=8nL_s77FV-o

If you do see a bloom, the common-sense advice is to stay out of the scum! Algae scum can contain high levels of toxins. Keep yourself, your kids, and your dogs away from the scum. Alert your neighbors. If scum gets on skin or fur, rinse thoroughly with clean water. Don't let your dog lick its fur. See a doctor or vet if there is any sign of illness and tell them that there was possible exposure to cyanobacteria toxins.

Even if there is some scum along the shore, it is generally safe to swim elsewhere or off your pontoon boat in the middle of the lake – **IF** the water there is clear of any scum. Yay!

If you do spot a bloom as described in the video, snap a picture and send it to me in an email to wolfkoste@gmail.com with the date/time and location of the sighting. A house number or description of the location will suffice. We are trying to track blooms.

Wolf Koste – LQIC

WEED TREATMENT – TUESDAY, JULY 9

We are scheduled to have the lake treated by SOLitude Lake Management on July 9, 2024. A pre-application survey of aquatic plants will be done June 27 so that we can spot treat only where needed. A post treatment survey is scheduled for September 18.

Treatment is being performed a bit later this year so that the target plants have time to grow.

Last year's treatment was delayed until August 28 while we waited for DEEP to issue the permit. It is a three-year permit, so there should be no delay this year. We were also given permission to treat closer to the boat launch for 2 years.

There will be signs posted throughout our community a few days prior to treatment to alert residents and visitors and will remain posted for seven days after the date of treatment. Please follow the restrictions posted on the signs for the day of and days following treatment. Any unexpected changes to this date will be communicated to homeowners that are signed up to get the Gazette electronically.

Also be aware that the contractor uses gasoline powered boats to perform the surveys and treatment.

THANK YOU, EAST HADDAM PUBLIC WORKS!

The crew that worked on East Shore Drive this spring did a great job! In particular, the rebuilding of the culvert for the stream just south of the bridge that we call stream E6. The new culvert is much larger and longer. This crossing has been deteriorating for many years with the road narrowing and washing out into the stream and into the lake. The wider road crossing and rip rap should reduce the erosion of the road. We have sampled water washing off the road in the past and found it very high in nutrients that encourage the growth of algae in the lake.



LAKE HAYWARD DAM REPAIR PROJECT UPDATE

Current Status

In the late fall of 2023, DEEP added some additional design specifications for the Lake Hayward dam repair project. The formal DEEP application and engineered drawings were submitted to DEEP in February of 2024. DEEP approval of this application is expected to be awarded in late fall 2024. Additional elements and approvals for this project are on hold pending receipt of DEEP project approval.

Why do we need to repair the dam?

Some people have raised the question of why we need to repair the dam when it looks perfectly fine? Based on the scope and potential cost of this project, it is a fair question. Also, to reaffirm the semantics, the scope of this project is to repair the dam and not to replace the dam. This undertaking is a maintenance effort. If your house has a leaky roof or it is time to replace the tires on your cars, most folks would do so without a second thought. Repairs to a dam are a little more comprehensive and may be more difficult to fully understand.

This is a picture of the western spillway taken in the summer of 2023. You can see that the mortar between the stonework has begun to erode and needs to be repointed. More importantly, while the spillway is dry, water continues to drain beneath the infrastructure of the spillway itself. This is a sample of the maintenance issues that this project will rectify.



Why is Work Planned for September 2026 through May 2027?

There are two elements from the contractor’s perspective that must be in place for them to schedule the construction project.

1. DEEP application approval, and
2. POALH funding approval

If the project is approved at the August 2025 POALH Annual Meeting, the contractor awardee will have already committed to other work for the fall of 2025. A goal of this project is to perform the dam repair work in the off season of Lake Hayward activities and therefore the work ‘window’ defaults to September of 2026 through May of 2027.

External Funding

Once DEEP project approval is in hand and preliminary contractor construction bids are available, members of the dam committee will seek out multiple sources of external funding. Grant funding will be sought through:

- Federal assistance for Non-Federal Dam Safety
- DEEP
- CT Bond Commission
- CT Soil Conservation Services
- FEMA
- Small Watershed Rehabilitation Projects

By the way, are any of you experienced at grant writing? Or perhaps you have a friend or colleague that is an experienced grant writer. If so, please forward your/their contact information to Laurie Dworak at lauried@lakehaywardct.com.

Negotiating with the Town of East Haddam

The dam committee members will be introducing and soliciting support from the Town on multiple aspects of the dam repair project. Initial discussions have been held with both the Inland Wetlands Commission and the Director of Public Works. Both have responded that we should present the DEEP approval, the engineered plans, and the project funding plan once they are available. The scope of work for the Town includes:

1. All four spillway headwalls along Haywardville Road and five feet of the western spillway and three feet of the eastern spillway are all on Town property. We will be approaching the Town to fund their prorated share of this project.
2. Rainwater runoff from the western side of Haywardville Road has contributed to significant erosion of the areas around both northern headwalls. The Town will be asked to install two storm water catch basins on both sides of Haywardville Road west of the dam and to discharge that storm water south of the dam.
3. Replacement of the guardrails on both sides Haywardville Road located on Town property.
4. A request will be made to the East Haddam Fire Department to install a dry fire hydrant adjacent to the new dam construction. This will provide an additional

resource for water for the purpose of fire suppression. A dry hydrant is not pressurized, but it gives the fire department direct access to pump water from the lake.

In closing, there are multiple aspects and phases leading to the successful completion of the Lake Hayward dam repair project. Unfortunately, each approval process for this important effort requires authorization and completion one step at a time prior to moving to the next step of the project. It is simply a matter of time.

Tim Pelton
Lake Hayward Dam Committee Chairman

PLEASE HELP PRESERVE OUR LAKE!

Invasive weed treatment, deep water sampling, stream effluent sampling, expert consultants, dam repair, public outreach – in addition to the dedicated volunteers’ work, these lake preservation projects require money.

West side residents contribute to lake preservation through annual tax assessments paid to the Property Owners' Association of Lake Hayward (POALH), but we also know that residents on both the east and west side benefit greatly when the lake is healthy and property values are retained. Annual contributions by East Shore Drive residents have helped fund lake preservation and help to demonstrate to town and state officials that the entire lake community is interested in a healthy lake. Thanks to hard work by our residents, the town of East Haddam budgets to support some water quality and education activities at the three major lakes in town. Please consider starting or increasing your donation to help fund these worthy activities.

Please continue to contribute what you can to help preserve our lake...perhaps a \$100 check. Yes, the suggested contribution has increased. Lake preservation activities are not immune to inflation and lake needs grow. Of course, how much and when you contribute is up to you.

Make your check payable to POALH and designate “Lake Preservation” in the memo line. Your money will go into a special account dedicated to lake preservation. Mail your check in the enclosed envelope to: POALH – P.O. Box 230 - Colchester, CT 06415.

"It's One Lake - It's Our Lake" Thank You!



One of the goals of the East Shore Gazette is to provide information to you on the role of the Lake Quality Improvement Committee regarding the stewardship of our fabulous lake.

We also appreciate learning more about your questions, thoughts, and comments.

Is there something more that you would like to learn about the mission and vision of the committee or our activities in, on, or around the lake?

If so, please drop any of us an email or feel free to stop by and speak to us directly.

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