



## OFFICERS & BOARD MEMBERS

Laurie Gee, President  
Ann Hunsicker, Treasurer  
Susan Czerepak, Secretary  
Holly Bull  
Steve Gratton  
Lori Kempton  
Karl Koenigsbauer  
Carol Martin

## ELPA 2021 Fall Newsletter



*Photo by Lori Kempton*

### President's Message from Laurie Gee

Dear Members,

No matter how many times I return home to Echo Lake, take a walk or a swim, or just look out the window on even the dreariest of days, I'm stunned by the beauty around me, the immediate sense of peace and wonder, and deep gratitude. We get to live here! It never gets old. Over the summer and early fall, it was great to see so many people out

visiting with each other, walking, biking, swimming, and boating. As Association members, we are united by our desire to protect Echo Lake so we can continue to enjoy all of these activities, as well as our feelings of wonder and gratitude.

The ELPA board has developed numerous programs to protect the pristine waters of our lake, including the Access Greeter Program, Lake Wise,

Vermont Invasive Patrollers, and Water-Quality Monitoring. This summer, Holly Bull and her committee have been hard at work on a new opportunity, Lake Reclassification, which you'll read more about in this newsletter. Our community outreach efforts center on our popular eco-system education programs for students at the Charleston School. To support these programs in 2021-22, I'm delighted to report we now have a \$2,400 grant from the NEK Fund of the Vermont Community Foundation, in addition to funding from our Watershed Management grant awarded by Vermont's Agency of Natural Resources. We appreciate the work Jean Wilson has done over the last five years to help initiate and develop our school programs, and we are glad to welcome Peter Bestenbostel, who has offered to take the reins from Jean and serve as coordinator of these invaluable programs.

Samantha Stevens has resigned from our board, and we will miss her dearly. At our July annual meeting, we will fill that vacancy, which means

we will have three board seats to fill since Laurie Gee and Susan Czerepak's second terms end in July.

Saving some great news for the end of my message... We are pleased to announce, with cautious optimism, that we plan to hold our 2022 Color Challenge on Sunday, July 3<sup>rd</sup>! Patti Lennon and Maryanne O'Brien are once again chairing this fun and engaging event that we've all missed during our two Covid summers—hurray!

Thank you to our board members, committee members, and volunteers for your continued dedication, enthusiasm, and hard work. We also send a big thank you to all our members for continuing financial support through your dues payments and generous donations.

Happy Thanksgiving to you and your families,

Laurie Gee, President

**Echo Lake Protective Association  
PO Box 41  
East Charleston, Vermont 05833**

For more information, visit our  
website -

<https://www.echolakeassociation.net/>



*Photo by Doug Gimler*

### Treasurer's Message by Ann Hunsicker

Everyone who cares about Echo Lake should give a huge thank you to all the members who continue to support what ELPA does to protect the lake. The support this year has been tremendous, both financially and by volunteers.

We have received dues from 70 family members and 12 individuals to date. In addition, we received a generous contribution from a member through their IRA. This serves as a reminder to all of us that a donation directly from one's IRA is not taxable to you, with certain restrictions. Please consult your financial adviser if you are interested in supporting ELPA in this way.

Although we were not able to hold the Color Challenge again in 2021, we did receive funding through grant sources, including the State of Vermont and the Town of Charleston, which gave us the ability to continue our paid greeter

program into September. Along with our volunteer greeters, this ensures we don't have boats or trailers going into Echo with invasive species.

In addition, we continue to support the education programs at Charleston Elementary which are so important in educating another generation of lake enthusiasts. We also held our annual picnic this year and made another contribution to our contingency fund.

There is still time to make a year-end donation or pay your annual dues if you haven't already done so. Here is a link to a page on our website to get you started:

<https://www.echolakeassociation.net/dues-donations/> ELPA is a 501(c)3 organization so all dues and donations are tax deductible.

### Investment Committee Report

By Peter Bestenbostel

I am pleased to congratulate the ELPA Board and membership for passing the halfway point towards their goal of \$100,000 in the contingency fund! The Echo Lake Protective Association contingency fund is currently valued at \$54,781.06 and is invested in a one-year CD with Community National Bank at

an annual interest rate of 0.39%. The CD comes due in September 2022. The amount of the CD includes the \$6,000 addition authorized by the board this year. The fund's stated purpose is to provide funding to assist in remediation of any invasive species contamination in Echo Lake.

Much of this Newsletter is focused on maintaining the water quality on Echo Lake. As you know, Echo is an exceptional lake and we each need to do our part to maintain and possibly improve this remarkable gem we share.

For years now, the Lakes and Ponds Division of the Department of Environmental Conservation has been encouraging owners to “Go Wild”. The value and importance of a well vegetated lakeshore cannot be overstated. This is the essence of Lake Wise. Each of us should consider having an undisturbed vegetated buffer zone

between our camps/homes and the shoreline. This can be started by simply having a “no-mow” zone. Ideally, replacing lawns with native gardens will help reduce stormwater runoff and help to re-naturalize our shoreline, which is the ultimate goal for lake protection.

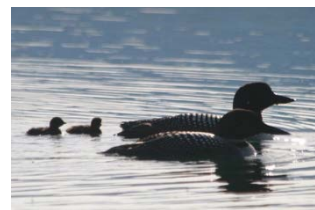
Loon Chicks

By Laurie Gee

Three cheers for our adult loon pair! Once again, these two have successfully raised and nurtured two chicks on Echo Lake this summer and fall. It can't have been easy, what with all the bald eagle taunts, mink visits, and threats from other loons.



We have lake resident George Thompson to thank for our good fortune in the loon-nesting department. He refurbished the plantings on the nesting raft and dragged it into place early in the Spring, put all the floating warning signs out as soon as the pair nested, retrieved the signs when the time came, and dragged the raft back to shore. Doing all of this heavy lifting alone is no small feat—I hope he asks for help next year! I am grateful that George (or the loons?) timed things right this year and



happened to be on his dock to see the first chick tumble off the nest and into the water on the evening of June 11<sup>th</sup>. Another

lake resident, Barbie Follett, captured some terrific photos of the chicks early on, as well as one that shows how the chicks looked as they grew into their awkward-adolescent phase.

Thanks to all who gave the loon family wide berth this summer—they seem to like it here, and we'll hope to see our pair return in early Spring. As for the chicks, our loon expert Eric Hansen (Vermont Center for Eco-Studies) tells us that they'll stay on the Atlantic coast for at least a couple of years before returning to the area.



**REMINDER**

**DON'T FORGET TO PAY YOUR 2021 MEMBERSHIP DUES**

**JUST GO TO [echolakeassociation.net](http://echolakeassociation.net)**

**Click Support ELPA**

**REGISTER TO PAY ELECTRONICALLY OR BY MAIL**

**THANK YOU FOR YOUR SUPPORT**

We sincerely thank the 82 members who, as families or individuals, have already supported Echo Lake with their dues this year, and 2 friends who have made contributions.

Also, we note that the ELPA Membership Committee continues in 2022 with returning chair, Tom Wagner. We are glad to welcome back

Tom after a few years' break. He will surely have many great ideas to strengthen ties with members as we all do our best to support Echo Lake!

Sincerely,

*Ann Beams and Tracey Shadday, outgoing co-chairs. The ELPA Membership Committee*

**Water Quality – How You Can Help**

**Stop Invasives:** Clear ALL plant and animal matter from your boat, kayak, paddles, anchor, fishing gear, etc. BEFORE entering the water.

**Check Fishing Gear:** Ensure your fishing tackle is lead-free.

**Don't Foul the Lake:** Keep trash and plant clippings out of the lake. Avoid gasoline spills. Don't bathe in the lake.

**Scoop the Poop:** Put all pet waste in the trash. Prevent pathogens, such as round worms, E. coli, Giardia, and salmonella from entering the lake.



## You've Come a Long Way, Baby

By Susan Czerepak

Have you taken a look at our website recently? As you may know Kristen Wilson recently offered to take over as Webmaster of the ELPA website. In just a couple of months Kristen has worked wonders. The website now has a nifty new look and feel and improved navigation features to help you find all sorts of information about ELPA and Echo Lake, as well as a link at the bottom of each page that enables you to submit feedback.

- The **Home** page gives you quick access to the latest and greatest – What's New, Topics of Interest, Board Members, Charleston Town Officers, and more.
  - The **About ELPA** tab gives you information about the lake itself, what we do, the organization committees and chairs, by-laws, meeting minutes and newsletters, and information about our Contingency Fund.
  - The **Support ELPA** tab enables you to register, pay dues electronically or by mail, and to have the Amazon Smile Foundation automatically donate .05% of your purchase price to ELPA.
  - The **Activities** tab provides information about the latest projects, workshops, meetings, and events.
  - The **Water Quality** tab provides timely and critical material about preserving and improving the water quality of Echo Lake and the surrounding watershed, including
    - the new Reclassification Project, the Access Greeter Program, the Vermont Invasive Patroller Program, the Vermont Lay Monitoring Program, Lake Wise, Septic information, and the Vermont Shoreline Protection Act.
  - The **Resources** tab provides links to important brochures and websites that you will find both interesting and useful.
  - The **Contact Us** tab supplies contact information for the ELPA Officers and Board Members.
  - The **Calendar** tab shows dates for the Annual Meeting, board meetings, and ELPA events such as the Color Challenge and the Annual Picnic.
  - The **Site Map** tab lists the various site pages as an organized, scrollable list where you can easily access your topic of interest.
- Do visit our website and explore!!  
<https://www.echolakeassociation.net/>



## In Remembrance

### Geraldine (Gerri) Moulton – April 15, 1924 – July 16, 2021

Our Echo Lake neighborhood is sad to lose one of our longest-lived matriarchs, Geraldine Moulton, who passed away on July 16 of this year at the end of a long and rich life. One vivid recent memory we all share is of Gerri, well into her nineties, walking with the aid of her walker, accompanied by her pet goat on her daily rounds of her lawn and gardens.

Geraldine was a model of a hard-working and capable farm wife, and she and her husband Earl worked their Echo Lake farm together for over sixty years until Earl's death in 2006. Gerri was often seen riding down the road behind Earl on the tractor during haying season, or driving the tractor herself, or tending her vegetables, peonies, and other flowers that decorated her porch and front yard. Her calm reserve and quiet smile will be remembered by all who were lucky to know her.

Born Geraldine Charland, in 1924, in Morgan, Gerri married Earl Moulton and moved to the Moulton family farm in 1942. Her sisters, Nataline

and Madeline, married Earl's brothers, Ira and Gerald respectively, and also moved to Echo Lake to farm with their husbands. That whole generation, backbone of this community, is now gone but not forgotten.



Geraldine is survived by her sons, Terry and Tom and his family, who now run the Echo Lake farm, as well as four other sons, two daughters, and their families,

including twenty-four grandchildren and twenty-nine great grandchildren, her brother Donald Charland and many nieces and nephews.

### Eleanor (Ellie) Gavin - November 12, 1939 - August 29, 2021



Born in Boston, Ellie studied at the La Source School of Nursing, in Lausanne, Switzerland and met her husband Paul in the Choir of the Lausanne Cathedral, where they both sang. In 1966 they moved to Connecticut, where they raised three sons. She had a lifelong interest in gardening, sailing, and singing. She modeled a strong work ethic, an appreciation for the arts and the natural world, and a project-filled, active life. She valued opportunities to help others, and sought them out. She worked as a Registered Nurse, volunteered as a life-skills assistant to Hmong (Laotian) refugees, and volunteered in the Hartford Courts as a French (Creole) translator for Haitian immigrants. She studied Chemistry at Trinity College Hartford and at the University of Connecticut where she

developed a strong interest in the geology of the northeast and earned a BS degree. In the 1980's she worked tirelessly for the nuclear weapons freeze campaign and led the nuclear weapons freeze organization in Simsbury CT. This work led to work supporting nuclear disarmament NGO's at the United Nations, and preparing extensive English-French translations on the topic for French-speaking diplomats.

### Mark T. Wilson – May 10, 1963 – January 27, 2021

Mark T. Wilson, 58, of Glastonbury, passed away unexpectedly at Hartford Hospital on January 27, 2021. He was the beloved husband of Mitzi (Bailey) Wilson. Born in Philipsburg, PA, he was the son of Jean (McCamley) Wilson and the late Donald K. Wilson, Jr. Mark graduated from Loomis Chaffee. Mark earned a Bachelor's Degree in Architecture at the Boston Architectural Center and worked for many years as a commercial Architect. He was a member of St. Patrick – St. Anthony Church, Hartford.



In 2002, Ellie and her husband, Paul, retired to the home they designed and built with their sons on Echo Lake. Here she continued to garden, sail, and appreciate the seasons and beauty of northern New England. Ellie was active in the Derby Line Unitarian Universalist Church and served on the Board of the NorthWoods Stewardship Center, where a memorial service was held on October 16th.

The boys plan to use their lake home as often as they can and also make it available to others.

He was a man of many hobbies, including glass blowing, distilling salt, and wood turning. He loved Echo Lake in VT. He loved his dog, also named Echo after the lake. Most of all, he loved his family.

In addition to his wife and mother, Mark is survived by his two daughters, Lyssa W. Becho and her husband Carlos of MI, Ashley M. Wilson of Fairfield, his granddaughter Maya Becho, three brothers; Jeffrey Wilson and his wife Paula of Glastonbury, Donald P. Wilson and his wife Laurie of Glastonbury, Peter Wilson and his fiancée Maureen, of MA, five sisters; Jeanne Farrell and her husband Dave of Glastonbury, Kathleen Galley and her husband Mark of Westport, Kristen Wilson of VT, Ann Marie LeDuc of Glastonbury, Elizabeth Cameron and her husband Matt of Marlborough and many nieces and nephews.



## Water Quality

By Holly Bull

Echo Lake Protective Association has been working to address the increasing phosphorous levels in Echo Lake. We've been pursuing two initiatives:

- First, the implementation of the LaRosa Tributary Testing Grant where volunteers gathered samples from selected streams flowing into Echo for evaluation of nutrient levels and contaminants at LaRosa's labs.
- Second, the investigation of possible A(1) reclassification opportunity by the Reclassification Committee whose members include Holly Bull, Peter Engels, Peggy Stevens, and Tom Wagner.

### LaRosa Testing Results:

The raw data from the tributary testing done over the summer was sent to ELPA at the end of September. Echo Lake was tested for both Chloride (which is usually found in road salt) and Phosphorus (nutrient loading). Our Watershed Manager, Ben Copans, has looked over the data and made a few observations. Chloride levels were consistently low in all tested tributaries. As far as Phosphorus, Dickie Brook's levels were higher in the spring than during the rest of the testing period.

Bennett Brook's levels increased over the summer. Cold Spring Brook, which flows off Winape Hills, had higher levels in the spring and at the end of summer. The Inlet's Phosphorus levels were consistently low, which reflects Seymour Lake's stable Phosphorus levels. Phosphorus levels are usually higher in the spring or during periods of high rainfall. While none of the results were out of the ordinary there were spikes (a sudden or extreme increase) in several of Cold Spring Brook's and Bennett Brook's samples, which may need to be addressed. More than likely ELPA will request a

second year of LaRosa testing to get a more accurate picture of our tributaries. This winter a more formal analysis will be done by the LaRosa Partnership Program in which they will be developing a reporting platform to display and interpret the results. Information on these will be in the ELPA spring newsletter and will be posted on the ELPA website.

For information about the LaRosa Testing Program, see

<https://www.echolakeassociation.net/water-quality/larosa-partnership-program/>

## Reclassification Update:

After a very busy summer of raising awareness and getting support for reclassification, the ELPA Reclassification Committee submitted a petition to the Department of Environmental Conservation (DEC) to reassign Echo Lake to an A(1) classification. Not only was it filed based on Aesthetics (water quality) but also for Recreational Fishing. An A(1) fishing lake's water needs to be managed to achieve and maintain excellent quality fishing with measures of wild salmonid densities, biomass, and age composition consistent with those expected in waters in their natural condition. Vermont Fish & Wildlife confirmed that based on these requirements, Echo Lake is a candidate to be an A(1) fishing lake.

ELPA's goal of reclassification was strengthened when the Charleston Select Board unanimously

voted to support our petition and join ELPA as a competitor. Thank you to the Town of Charleston for this support! DEC will present the petition to the Agency of Natural Resources Secretary, then it will go through the rulemaking process which will include public hearings. ELPA will be sure to let our members know when and where these public hearings will be held. Reclassification is a lengthy process, but ELPA believes it will be worth the time and effort.

For more information, see

<https://www.echolakeassociation.net/water-quality/reclassification-of-echo-lake-and-its-watershed/>

## MISSION STATEMENT

The objective of the Association will be to promote the welfare of Echo Lake which lies within the boundaries of the Town of Charleston, VT. The Association will work to maintain the quality of Echo Lake, the waters, native wildlife, and habitat for all to enjoy for generations to come.

### **LIFE BELOW THE SURFACE – or why I enjoy being an invasive patroller on Echo Lake.**

*by Peter Bestenbostel*

I have always loved being in, on and under water, so when Peggy Stevens asked if I was interested in becoming a VIP (Vermont Invasive Patroller), I was intrigued. Help protect the lake

AND play in the water! How could I say no?

Becoming a VIP started with training by some great state biologists on which plants are native and which are not. Back in the days of actual (as opposed to virtual) training this was accomplished with some tangible examples of native and non-native species in wet trays, with a knowledgeable training leader

walking around and responding to questions as they arose (good times!). There are some remarkable nuances between some of these plants and as I learned they often require very close inspection to make a guess about what we were looking at. Also, as I found out on my first subsurface sojourn, looking at a sample in a dish in a lab setting is much different than snorkeling through a bed of 6-foot tall big leaf pond weed (which is pretty

cool in itself).



Our section of the lakebed to survey is in the northwest corner from Bennet Brook to Duck Rock. It is relatively shallow with the bottom sloping gently in to the deeper reaches of the lake and takes us about an hour to accomplish, more if I'm playing in the pondweed. So, equipped with my mask, snorkel, flippers and wetsuit, and accompanied by Ann in a kayak, we set off. I must point out that Ann in the kayak provides a safety feature as well as a work platform for us to do a quick field review of my finds and occasionally haul out the odd Labatt's can. Also, worth noting, she has not run me over yet.

There are a LOT of plants in this area, the aforementioned big leaf pond weed among my favorites. Diving in them is like being in an underwater forest 12-14 feet below the surface. The light under this crystal-clear water filtering through these large plants is astonishing. I poke around in them looking for milfoil, stony starwort, curly leaf pondweed or any one of 8 or 10 invasives which may get transferred to our lake bed from a boat or fishing gear.

We work our way south from our property towards Duck Rock, mostly on the surface, occasionally diving, sometimes surfacing like a whale breaching when I get startled by a fair-sized lake trout.



*Photo©Paul Vecsei/Engbretson Underwater Photography*

They are really much bigger when they surprise me in the

pond weed forest. "It was as long as my leg I swear!" Remembering not to gasp though my snorkel when suddenly encountering them is a challenge. Not sure what I'd do if I ever meet a loon down there. It'd be fun to find out though.

The plant life diminishes as we work south to Duck Rock and is replaced by a network of downed trees fallen in the lake over time like some paleo-botanical find. It's peaceful and beautiful below the surface (always watching for those sneaky lake trout) and so far in my experience, free of non-native plants. Completing our survey and returning home to fill out the paperwork documentation (of course) always gives me a sense of peacefulness, securing our lake for another season. So, if participating in the lakebed survey interests you at all contact me or Peggy Stevens to find out more, and come on in, the water is grand!

### Photos? Stories?

Do you have a photo that captures a special moment on the lake that you'd like to share – a sunset, a fish, a cookout, a dive from the dock? Or perhaps a poem or a story? Some adventure or observation or special event or concern or reflection? We'd love to have contributions for our ELPA newsletters. Our goal is to have this newsletter be informative and reflect a sense of community. Any contributions can be sent to Susan Czerepak at [susanczerepak@gmail.com](mailto:susanczerepak@gmail.com).

### Vermont Conservation License Plates

A reminder that half of the proceeds derived from the sale of Vermont Conservation License Plates goes towards funding the Vermont Watershed Grant Program, of which we are a recipient. If you are a Vermont resident, please consider purchasing a Vermont Conservation License Plate to support this program.



## Charleston Elementary Programs By Peter Bestenbostel

I have agreed to step in and continue the fine work Jean Wilson has done with the educational programs at Charleston Elementary school. With my deepest thanks to Jean for her insight and tenacity to get this educational ball rolling, I present to you the two programs operating out of Charleston Elementary School supported by ELPA. I feel it is an important way to support our community with this wonderful resource, Echo Lake.

Once again, another excited crew of Mrs. Lahar's 3<sup>rd</sup> grade students are doing a deep dive into the ecology of Echo Lake with ecologists turned educators at Siskin Ecological Adventures/Coutts-Moriarty Camp. Thanks to a grant from the Echo Lake Protective Association, students are taking part in this seasonal series that includes nine

classroom STEM lessons and three field trips to Echo Lake.



Throughout the program students develop the scientific language and the knowledge necessary to

grow a deep understanding and appreciation of both the ecological and economic importance of Echo Lake. In addition, hands-on scientific investigations are coupled with science inspired art and presentations of learning to foster real life connections to Echo Lake and instill a deeper understanding of the role Echo Lake plays in the larger Clyde River watershed and Charleston community.

Echo Lake Explorers is an after-school program for Charleston Elementary School (CES) kids in grades 5-8. Andy Cappello, NorthWoods Education Director, picks up the group and leads them through various outdoor pursuits around Echo Lake on Wednesday afternoons. Building upon educational programming that ELPA has sponsored at CES for many years, this program inspires awareness, connection and stewardship of the unique natural resources that make up our "backyards". To start the school year the group participated in team building exercises, paddled Echo Lake, paddled the Clyde River Fen, hiked to NorthWoods' glacial erratic, practiced map and compass skills, made cedar tea at the NorthWoods beach on Echo Lake, and conducted water quality analysis. Through these and future activities we hope to impact their appreciation of Charleston and the Northeast Kingdom, and to inspire lifelong stewards of Echo Lake and its watershed.

It is an incredible opportunity for the CES students and we are fortunate to have the Northwoods and

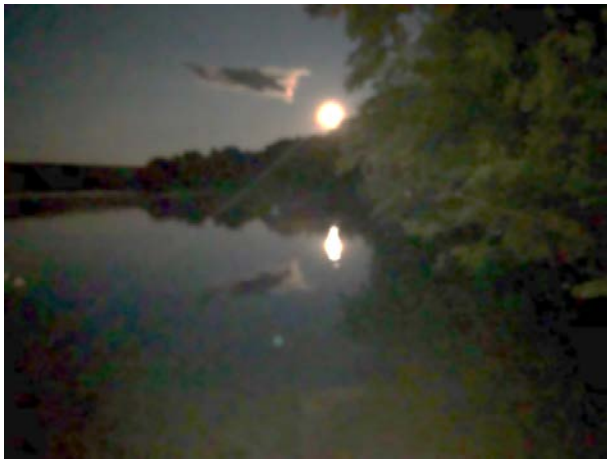
Siskin programs to provide this enhancement to their curriculum.





## Seeing Double by Greg Carpenter

Oddities are a part of human life and the town of Charleston is not immune from them. Take the only lake found in town – Echo. (The other four waters – Charleston, Mud, Pensioner, and Toad are all categorized as ponds and not as lakes.) Just 138 miles from here lies a body of water with the identical lake name to the one here in East Charleston. Odd isn't it? Why would Vermont have two lakes with the same name? How did this come about? I was curious, so I looked to the history books and a few experts to get some answers.



*Echo Lake - East Charleston VT*

The other lake I was referring to is Echo Lake in Plymouth, Vermont, which is located in Windsor County. The answers to my questions would be simple if the names of both lakes had always been that way – but as it turns out, this was not the case. For a considerable length of time Echo-Plymouth was referred to as Plymouth pond. Why? According to April Shaw, from the Vermont Department of Libraries; “This changed may have coincided with the renaming of the

town of Plymouth in 1797.” Before that time, Echo was referred to as Black River Pond with two other bodies of water –that name originating back to 1796. Sometime in the late 20's to early 30's, Plymouth Pond was divided into two sections by campers using the lakes. According to author Esther Swift in her book, *Vermont Place Names*, the northern section became known as Lake Amherst due to the large number of educators summering there from Amherst College in Massachusetts. And the southern section became Echo Lake for the same reason Echo-Charleston was named by James Whitelaw, due to the exceptional way sound travels across the lake. As to who named Echo-Plymouth I asked Midge Tucker from the Plymouth Historical Society for the answer – unfortunately she came up empty. Echo lake in Charleston also did not always have the same name. Echo Pond stood as the official name for almost 200 years. Echo Pond wasn't officially changed to Echo Lake until sometime between 1982 and 1983 even though locals were calling it Echo Lake prior to that time.



*Echo Lake - Plymouth VT*

### Source

Swift, Esther M, Vermont place names. The National Survey. 1977

Duffy, John, Hand, Samuel, Orth, Ralph, Ed's, *The Vermont Encyclopedia*

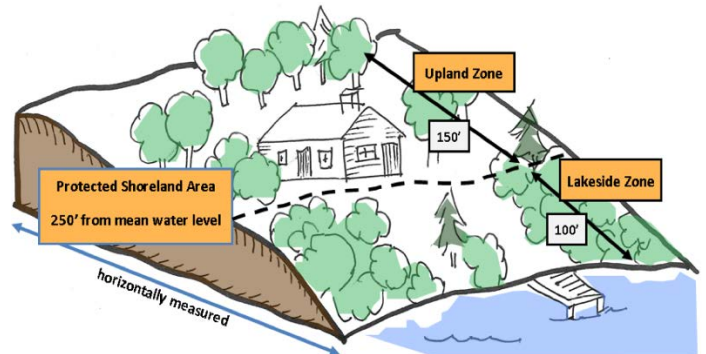
Tucker, Midge Plymouth Historical Society

Shaw, April Librarian, Vermont Department of Libraries

# The Vermont Shoreland Protection Act

## What is the Shoreland Protection Act?

The Shoreland Protection Act (Chapter 49A of Title 10 §1441 *et seq.*) establishes a state regulation for guiding development within 250 feet of the mean water level, in what is known as the Protected Shoreland Area. The Act applies to all lakes and ponds greater than 10 acres in size. The intent of the Act is to prevent degradation of lake water quality, preserve habitat and natural stability of shorelines, and maintain the economic benefits of lakes and their Shorelands.



## How does the Shoreland Protection Act protect Vermont lakeshores?

**Setback:** The Lakeside Zone is especially sensitive – excessive development in this area has a negative impact on fish and wildlife habitat, water quality, and soil stability. By setting new development back into the Upland Zone, the lake can maintain its natural defense.



**Slope:** Steep slopes are prone to erosion and may become unstable. Retaining natural vegetation and directing development to level areas minimizes the loss of soil through erosion.

**Impervious surface:** Hard surfaces (roofs, paved or unpaved driveways, etc.) prevent the natural infiltration of stormwater into the ground. Instead of soaking into the natural forest floor, runoff from these hard surfaces erode soil, which reduces water quality as sediment and pollutants enter a lake. Minimizing impervious surface in the Protected Shoreland Area will reduce the amount stormwater runoff flowing directly into a lake.

**Cleared area:** Areas where natural vegetation has been removed are considered cleared. Native shrubs, trees, and groundcover in the Protected Shoreland Area provide essential fish and wildlife habitat, as well as a natural buffer that allows pollutant-heavy runoff to infiltrate, rather than run directly into a lake. Roots and woody vegetation provide structure and prevent the loss of land due to erosion. Grass lawn provides limited stability and habitat value.

**Permits**

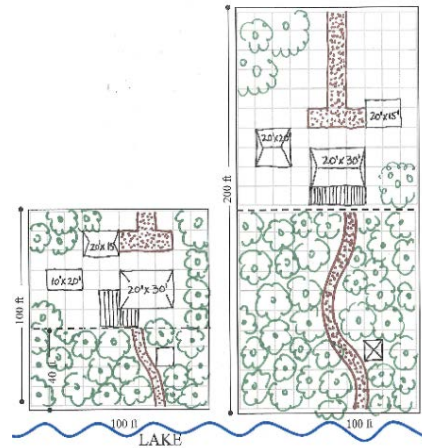
Applicants must submit a [Shoreland Permit application](#) for the creation of new cleared area or new impervious surface in the Protected Shoreland Area. It is strongly recommended that applications be submitted at least 45 days before the proposed project start date.

**Shoreland Protection Act standards**

Shoreland Permit Program staff will work with landowners to incorporate Best Management Practices into projects that exceed any of the following standards.

- The project is setback at least 100 feet from mean water level (unless parcel size or site limitations prevent)
  - The project is on a site with a slope of less than 20%

- No more than 20% of the Protected Shoreland Area is impervious surface
- No more than 40% of the Protected Shoreland Area is cleared area
- Existing development in the Lakeside Zone cannot be expanded closer to a lake



The size of the parcel on the left prevents it from meeting the 100-foot setback – in this situation, existing development cannot be expanded toward the lake.

**Registration**

Applicants can submit a Shoreland Registration form for smaller projects. Registrations take effect 15 days after being received by the Shoreland Permit Program unless additional information or a full permit is required. Throughout the lifetime of a parcel, registrations are limited to the allowances outlined below:

- **Registration A:** Up to 100 square feet of new cleared area or new impervious surface location located between 25 feet and 100 feet from mean water level.
- **Registration B:** Up to 500 square feet of new cleared area or impervious surface located between 100 feet and 250 feet from mean water level. The parcel must meet the 20% slope, 20% impervious surface, and 40% cleared area standards of the Act. Parcels that exceed those standards are not eligible for a Registration B.

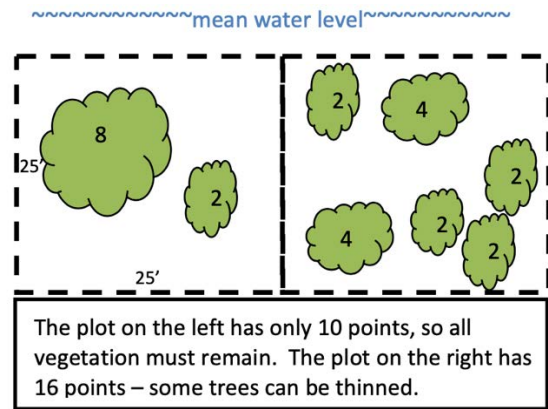
**Activities not requiring a Shoreland Permit or Registration**

- Reconstruction of existing impervious areas without changing the existing footprint, such as rebuilding a house in the exact same spot.
- Changing one type of impervious surface for another, such as building a garage over the footprint of an existing driveway.
- Creation of a 6-foot wide footpath to access the lake through the Protected Shoreland Area.

- Tree removal using the Vegetation Protection Standards (see below).
- The installation or repair of a wastewater system permitted by the Vermont Agency of Natural Resources.
- Dead, diseased, or unsafe trees may be removed, so long as below-ground root structures are left intact.

### Vegetation Protection Standards (VPS)

The VPS uses a point-and-grid system to selectively thin trees. Trees can be removed if at least 12 “points” are in each 25-foot by 25-foot plot. Points are assigned based on tree diameter – larger trees are worth more points. In addition to 12 points, at least 5 saplings and all vegetation less than three feet in height, including the duff layer, must be retained in each plot.



### Contact us

Vermont Department of Environmental Conservation Watershed Management Division, Shoreland Permit Program 1  
National Life Drive, Main 2, Montpelier, VT 05620  
Email: [ANR.WSMDShoreland@vermont.gov](mailto:ANR.WSMDShoreland@vermont.gov)

## Lakebed Survey Report

By Peggy Stevens

Our Lakebed Survey Team has continued to do work as the second line of defense against invasive species, after our Access Greeters. Hats off to them!

Our experienced, volunteer VIP-trained survey team members are Susan Czerepak, Larry Martin, Tom and Amy Wagner, Lori Kempton, Holly Bull, Ann and Steve Gratton, Ann Hunsicker and Peter Bestenbostel, Patti Lennon and Maryanne O’Brien, Hugh Hawkins, Jesse Coe and Peggy Stevens. They continue to monitor the lakebed from the shore to a depth of about twenty

feet, twice-per-summer, section by section.

Most commonly, surveys are done from kayaks, using a scope, but can also be done from pontoon boat or by paddleboarders, swimmers and snorkelers. Most surveyors only are familiar with one or two sectors of the lake bed, and the vegetation that grows within that sector, but a tour with Larry Martin, Holly and Peggy by pontoon provided an enlightening opportunity to get the big picture of the density and variety of vegetation around the lake.

In the summer of 2021, there were concerns about potential invasions due to a few boaters who launched before Greeter inspections could be completed. Good news is that no invasive species were discovered this season. Those few suspicious samples discovered were followed up and determined not to be of concern. One newcomer, filamentous algae,



raised concern, but reassurance was provided by Kim Jensen, our connection at Lakes and Ponds Division of Natural



Resources, that this is not invasive or related to blue-green algae.

Lakebed surveyors also maintain a record of the plants they do find, all of which are native species. So, we continue to develop a mapped inventory of the vegetation and in some cases the other living species inhabiting our lake, like freshwater clams.

We continue to note that there is less vegetation in some areas of the lake as compared to other years, and that more and denser vegetation can be found at inlet areas where streams enter the lake, particularly on the western/northwestern end of the lake. Also, in some areas the lakebed is silting in, as in the entrance of the Seymour Brook into Echo.

This was reported to our contact, Kim Jensen, at Natural Resources last year, and we will continue to monitor this. No one can say for sure what might be the reason for variations in vegetation or increased silt in certain sectors, but perhaps the LaRosa survey Holly Bull has initiated will enlighten us.

It is important to note that lake clarity continues to be excellent and that it is our goal to maintain that clarity however possible. Our petition effort to

have Echo Lake upgraded to A1 status by ANR will go a long way towards bringing increased attention and resources to this goal. We are concerned about rising Phosphorus levels in recent years and are looking for ways to slow and reverse that trend.

As always, the Lakebed Survey Committee asks all who enjoy the lake to *be* a lake patroller--notice what plants or animals inhabit the lakeshore and lakebed and look for any changes. The same is true for plants growing on and away from the shore- Phragmites, Japanese Knotweed and other noxious invasive species, like Wild Parsnip, also threaten our habitat but can be eradicated in their earliest stages.

One very troubling concern that has come up in the last two years are the number of tires our lakebed surveyors have been finding and retrieving from all around the lake bottom. We have filed a formal report with DEC, as it is illegal, an environmental violation, to dump tires into a Vermont waterbody. This past summer, at least eight tires were found and pulled out by our lakebed surveyors. It is suspected that these tires are being placed purposely to create habitat for

fish, however the negative effect on water quality makes this a terrible idea. From now on we will be surveying for tires as well as other invasives!

We would also like to provide information at our Access Greeter station, where boats launch, about the environmental harm dumping tires does to the lake, and the fact that it is an environmental violation punishable by fine. Unfortunately, the State has no educational materials or signs prohibiting tire dumping, so we will have to come up with some signage of our own.

Peggy Stevens invites anyone interested in becoming a lakebed surveyor to contact her, and she is on call as a resource to figure out the best plan for identification of samples and concerns about any invasive species (723-5951). If we can be alert and responsive, we can beat the odds of an irreversible infestation. Our goal is to find and eradicate invasive species which alter the Echo Lake ecosystem for the worse once established.

Let us all commit to being Lake Patrollers! Thank you for your support☺



Echo Lake Shore Trail

By Carol Martin

Thanks to our local ELPA volunteers, the Echo Lake Shore Trail has been well-maintained through the seasons and allows for a pleasant short hike down to the lake from the Lydia Spitzer Kiosk parking area.

The Leopold bench built and installed by the NorthWoods crew with the help of the Charleston Elementary School Echo Lake



*Before*



*After*

Explorers adds a nice resting spot for watching the sunset across the lake.

In addition, the parking areas for Echo Lake Shore Trail and the Jordon Road Trail access have been mowed.



Thanks to Jesse Coe, Holly Bull, Peter Bestenbostel, Lori Kempton, and Matt Breton for their efforts this year.

If you would like to help maintain the shore trail please contact Carol at 802-535-1052 or [carol.martin@weidmann-group.com](mailto:carol.martin@weidmann-group.com)