

Waves

The Newsletter of Hickory Hills Landowners Inc.

www.hickoryhillslake.com

978-582-6365

hickoryhills@net1plus.com

Spring 2019



THANK YOU, THANK YOU, THANK YOU FOR DONATING YOUR TALENTS, TIME AND TREASURES TO OUR HHLI COMMUNITY!!!

Maintaining the ecological health of our lake requires tremendous efforts. Writing reports for the Lunenburg Conservation Commission, supporting dam maintenance and repair, weed mitigation including controlling the invasive aquatic weed Fanwort, fundraising events to gather monies supporting these activities, Fanwort Survey Committee work including building Fanwort markers, repair and maintenance of the MSI and DASH boats, volunteer staffing of MSI and DASH, and resident monetary contributions to support AB Aquatics are just some of the ways our lake residents provide support on an ongoing basis.

All assistance from residents is most appreciated.

A Giant Thank You to All who so generously give of their Time, Talents and Treasures!

If you can, please consider helping out by...

Joining a committee, Volunteering as a Fanwort Surveyor, DASH or MSI deck hand or diver, Offering your talents to maintain MSI or DASH boats, Helping out at community beach cleanup days, Making a donation to support AB Aquatics Fanwort removal and more!

For more information on how you can help, contact a committee chair or the HHL office:

damchair@hickoryhillslake.com - Dam

dashchair@hickoryhillslake.com - DASH

surveychair@hickoryhillslake.com - Fanwort Survey

lrnchair@hickoryhillslake.com - Land & Resource

lmgchair@hickoryhillslake.com - LMG

msl@hickoryhillslake.com - MSI

hickoryhills@net1plus.com - Office

To make a contribution, please send checks payable to Hickory Hills Landowners and mail to:

PO Box 298, Lunenburg, MA 01462

Did You Know?



Every year logs float up in the lake adding an extra element for the boater to be wary of. Many are long enough to touch the ground while still peering above the water in the deepest parts of the lake. Straight edges on either end with all of the branches removed, always pine, and usually stamped 'U.S.' on one end. Longtime residents Aime and Elaine Charpentier say that there were so many logs in the lake it was difficult to navigate by boat when they first moved here in the 50's. These logs aren't naturally in the lake and they aren't from the original clearing of the land when the lake was created in 1923, they were purposefully put into the lake for storage!

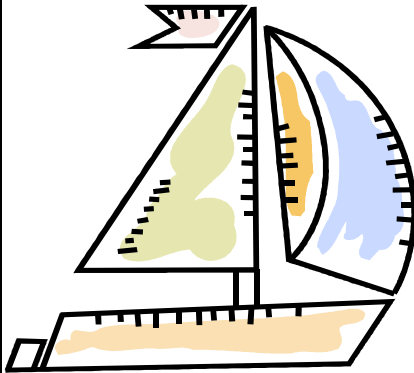
The hurricane of 1938 swept through New England on September 9th 1938, leveling nearly 1,000 square miles of forests in its path. In an effort to mitigate the economic impacts to both landowners and the lumber market, the U.S. Forest Service took out a loan from the Federal Government to buy up salvageable wood. The lumber would then be slowly released into the market (as to not inflate it) over the course of several years, the proceeds used to pay back the loan. This meant the wood needed to be stored somewhere. White pine, of which most of the felled trees were composed, is susceptible to blue stain (a discoloration of the wood caused by a fungus) if not processed within the season. The wood can, however, be stored in water nearly indefinitely! Local ponds and lakes served as 'wet storage' for a significant portion of this wood. A map stored at the Harvard Forest in Petersham shows the locations of both wet and dry storage sites throughout New England and sure enough, there is a blue dot labeled '88' right where our lake is!

The '88' correlates to Dickinson Lake (a previous name of Hickory Hills) in the Northeastern Timber Salvage Administration Book, which also says that 4,654 softwood logs were put into it! Most of these logs were removed from the lake in the years following '38', but a portion of them sank to the bottom and have been appearing annually ever since.

For those interested in learning more, the book '38' by Stephen Long is an excellent read! - written by Matt Charpentier



Spring 2019



**Hickory Hills 2019
Annual Boat Parade
July 6th, Saturday at Noon
From Island Road Beach**



2019 Annual Bills

The 2019 HHL annual license fee statements were mailed on April 1st and are due by May 1st. Included is this seasons Boat Launch Schedule (also found on our website).

Don't forget to update your email address and phone numbers. We only send 1 or 2 emails a month in the summer (rarely any off-summer), and we keep all contact information private.

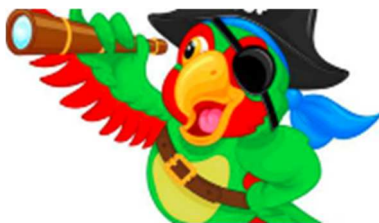
We also ask you to make any changes on the provided boat form for boat purchases and edits to existing boats.

To obtain a **FREE** car sticker which enables you to park in the resident-only beach lots, **please include a copy of your current vehicle registration.** This is one of the few ways we have to insure only residents are using our lake facilities. Even if you had a car sticker before, we cannot issue stickers without first seeing a copy of your current vehicle registration.

Landlords please ensure the office has current names & phone numbers for your tenants and register any boats they have; provide them with IDs; and give a copy of the license you receive from the office. We appreciate your help & cooperation in keeping our records up to date.

Treasure Hunt!

Calling all Pirates – This year we will be having the Children's Treasure Hunt for HHL children ages 12 and under.



In addition, The Sub Committees of the Lake Management Group will have Meet & Greet Stations set up on the main beach during the event. Residents can stop by and learn what each of them do and when they meet. Maybe you would like to join a committee or just become a volunteer. Our lake needs all the love and attention it can get to be healthy and thrive.

More information to follow so keep your eye open (the one that doesn't have a pirate patch).

Volleyball Tournament - Sept 22

The fifth annual Hickory Hills Lake Volleyball Tournament will take place on Sunday September 22, commencing at 10:00 AM on the Island Road beach. The event is a fundraiser for the Lake Management Group, and competing teams will vie for a cash prize. If you would like to participate or enter a team, contact

Contact Information Removed For Web Viewing

Fresh Water Jellyfish — Who knew?

Most people have seen the long flowing tentacles dangling from soft-bodied umbrella-shaped jellyfish in an ocean, but in a lake? You might as well have told me you saw sasquatch!



Freshwater jellyfish are assumed to be a native species to the Upper Yangtze River in China. However, due to migration aided by boats, birds, and aquatic life, these creatures have spread across the world.

The jellyfish has two life stages; one being a polyp, which looks similar to sea anemone, and the second which is the jellyfish appearance.

In the lazy days of August, when the temp is warm, and the water is calm, you might be lucky enough to see some. A good place to spot them is the west side of Peninsula Dr, and out from Blueberry island. They are very small, usually less than a quarter in size, and a translucent blue. They are too small to cause any stinging.

Happy spotting!

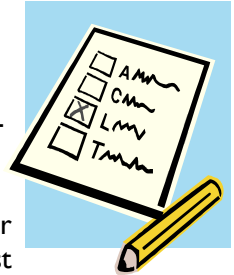


Stay Clear Of Dive Flags

The DASH Team Divers are a great group of people. Some not only volunteer scuba dive to remove the invasive weed Fanwort from our water, they also scuba survey the deeper areas for us marking plants along the way. If you see a **Red & White Dive Flag** floating in the water, **STAY CLEAR PLEASE.**

This indicates a diver is under water close by. To join in on the fun and become one of our DASH or SURVEY Divers, send an email to dashchair@hickoryhillslake.com today.

Board of Directors Nominations



The Nominating Committee is accepting names of people interested in serving on the Board of Directors during 2019-2020. Any shareholder who would like to be nominated must notify the Nominating Committee in writing through our office via email at hickoryhills@net1plus.com or by mail to P. O. Box 298 by May 15. Please include a short bio describing a bit about yourself and experience and why you'd like to be a member of the Board of Directors. The names and biographical data on selected nominees will be mailed or emailed to shareholders in mid July.

Island Road Office Opens May 1st



The office on Island Road will reopen May 1st on Monday's, Wednesday's & Thursday's from 9am - 11am. The drop box located next to the door is there for your convenience and checked often each week. Feel free to drop in envelopes anytime to pay your bills.

Stop by the Island Road Office to purchase bumper stickers, HHL t-shirts & sweatshirts, Boat Stickers & ID Cards.

To contact the Office, feel free to send an email to hickoryhills@net1plus.com or call 978 582-6365.

Get wise about leaf litter. Consider your options.

1. Mulch leaves in place with your lawn mower to put valuable nutrients back into soil.
2. Gather leaves and other "yard waste" into a compost pile, let overwinter and decompose, then use as fertilizer next growing season.
3. Properly dispose of leaves in Lunenburg by taking them to the Town Landfill located off Youngs Road open consecutive Saturday's through May 18th 8am—4pm.

Did you know?

The combination of rainfall with leaves on our driveways, sidewalks, streets and parking lots can produce stormflows into local rivers, streams and lakes that are loaded with nutrients. Proper use or disposal of leaves will help to avoid these contaminated flows.

Lunenburg Landfill accepts leaves, grass and other easily raked materials.
NO plastic bags or stumps.

Annual Shareholder Meeting Reminder

The Hickory Hills Landowners Annual Shareholder meeting is scheduled for Saturday, September 21, 2019. In order to participate in the meeting and the management of Hickory Hills Landowners Inc., you must be a shareholder. Any resident interested in purchasing a share can send a one time fee of \$240.00 (checks made out to Hickory Hills Landowners, Inc.). Shareholders receive a 50% discount for IDs, boat stickers and First Right of Refusal release fees. If you have additional questions regarding becoming a shareholder please email the office at hickoryhills@net1plus.com or call 978 582-6365.





Looking To Help Our Lake?

Come Join the DASH or Survey Teams!



The **invasive weed Fanwort**, continues to be found in our lake. Dedicated volunteers will soon be surveying regularly marking the plant with **Orange AND Yellow** H-shaped plastic markers for future removal by the Diver Assisted Suction Harvester (DASH) teams. Our volunteer Fanwort teams are looking for new members to help this season. Call the Office or email either committee chair to join today!

dashchair@hickoryhillslake.com

surveychair@hickoryhillslake.com



We hired AB Aquatics, Inc. to remove nearly **10,000 gallons** of Fanwort last season in 7 weeks from our lake and we're looking forward to their return July 8th this year!

Their divers perform 6 hours of active suction harvesting per day. Pictured above are bags of Fanwort harvested from one day's work last year. If you see their boat, don't forget to wave hello and say thanks for their hard work!



We are VERY excited to have AB Aquatics, Inc. come back this season to harvest Fanwort for 12 more weeks!



Remember, If We Don't Find It, We Can't Remove It

Fanwort Surveyors travel in any kind of boat or by snorkeling and mark plants with Orange or Yellow H-shaped floating markers.

If a team has 4 members, we ask it's members to survey once a month so each zone is covered weekly.

It just takes once a month for you to make a major impact helping to save our lake :)

To sign up on either the DASH or Survey teams, please contact us by emailing

dashchair@hickoryhillslake.com or surveychair@hickoryhillslake.com

or contact the office at hickoryhills@net1plus.com or 978-582-6365.



Lake Calendar Fundraiser

The LMG is excited to again offer a Hickory Hills Lake calendar. The 2020 Calendar will be offered for sale and delivery at the Shareholder's Meeting in September. We invite you to submit your photos to be included in the calendar. One photo will be included for each month and one photo will be selected for the cover.

Photos should capture life on Hickory Hills Lake. All photo entries must be submitted by July 10, 2019. Sale of the calendar will raise funds for the LMG's efforts in protecting and supporting the lake.

Guidelines for Photo Submission

- Photographs must be original and in digital format (scanned photographs are acceptable)
- Files must be in JPEG or .jpg format and be of high resolution (*minimum 1200 x 1800 pixel size*)
- Images should not have extensive editing or show a time/date stamp. Minor editing such as color correction and cropping is acceptable.
- Submission is limited to 4 photographs per photographer
- Only one winning photo per photographer will be selected for inclusion in the calendar

We look forward to receiving your photographs. **All entries must be submitted by July 10, 2019 to imgchair@hickoryhillslake.com.**

LMG Seeks Volunteers

The Lake Management Group includes volunteers who are concerned about the welfare of Hickory Hills Lake and dedicated to protecting it for future generations. The LMG is also involved in fund raisers to supplement their budget, like the Poker Run, HHL Calendar sales, Raffles, Ice Golf and other events. The LMG meeting the third Monday of each month at 7pm at the Bertram's, 312 Townsend Harbor Road. Drop in at any meeting to find out more.

There are many sub-groups or committees in which you might choose to become involved depending on your interests. Consider participating in one of these important areas:

Aquatic Vegetation Management, Biomass Reduction, Ecological Restoration, Erosion Control, Invasive Species (Fanwort) Removal, Stormwater Management, Water Quality Testing, Weed Mitigation

You might choose to join a DASH (Diver Assisted Suction Harvester) team or Shallow Water Fanwort removal (MS1). Volunteers are also welcome to join in various lake activities, like erosion control events, biomass raking, benthic barrier deployment, etc..

We hope you will consider helping out in whatever way you choose.

To volunteer to participate in any activities, please email imgchair@hickoryhillslake.com

Keeping our Water Clean



Protecting our watershed is still one of our highest concerns for the lake. Even with major reductions in phosphate in cleaning products, and awareness about using too much lawn fertilizers, we still need to do more.

New research points to lawn fertilizers and pet waste as the dominant sources of nitrogen and phosphorus pollutants. The report underscores the importance of household actions in reducing watershed nutrients.

Excessive nutrient runoff causes eutrophication, with abundant algal growth, shifts toward noxious cyanobacteria, reduced water clarity, oxygen depletion, bad odor, loss of key species, and it feeds the fanwort!

We need to continue to manage stormwater runoff, and develop a few key good habits to help protect our lake. There are great alternatives to grassy lawns, including ones that don't require any fertilizers. Picking up dog poop will also greatly help, and not composting lawn and other items near wetlands - in other words move it as far from the lake and streams as possible if you compost.

Managing these excess nutrients will help make our lake clear and beautiful for years to come!

Ref:

1. Nitrogen, phosphorus from fertilizers and pet waste polluting urban water:

<https://phys.org/news/2017-04-nitrogen-phosphorus-fertilizers-pet-polluting.html>

2. Contrasting nitrogen and phosphorus budgets in urban watersheds and implications for managing urban water pollution:

<https://phys.org/news/2017-04-nitrogen-phosphorus-fertilizers-pet-polluting.html#jCp>

3. Spring 2018 Waves article - There is no Poop Fairy

4. Eco-Friendly Alternatives to a Grassy Lawn

<https://gilmour.com/grass-alternatives-backyard-lawn>

Nutrients and our Lake—Good habits, preventing algae blooms, don't compost near wetlands, alternatives to grass

5. Understand the Failure to Reduce Phosphorus Loading in Lake Champlain

http://vjel.vermontlaw.edu/files/2014/01/Issue-2_Osherenko.pdf



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PURPLE LOOSESTRIFE

Purple Loosestrife is an invasive weed found at the shorelines here at Hickory Hills Lake. It can grow between 2 and 7 feet high. Purple loosestrife invades marshes and lakeshores, replacing wetland plants. The plant can form dense, impenetrable stands which are unsuitable as cover, food, or nesting sites for a wide range of native wetland animals. Once in aquatic systems, seeds are easily spread by moving water and wetland animals.

IDENTIFYING PURPLE LOOSESTRIFE



Flower: Individual flowers have five or six pink-purple petals surrounding small, yellow centers. Each flower spike is made up of many individual flowers.



Seed Capsule: As flowers begin to drop off, capsules containing many tiny seeds appear in their place. Depending on where you live, plants may go to seed as early as late July.

Seed: Each mature plant can produce up to 2.7 million seeds annually. As tiny as grains of sand, seeds are easily spread by water, wind, wildlife and humans. Germination can occur the following season, but seeds may lay dormant for several years before sprouting.



Leaves: Leaves are downy, with smooth edges. They are usually arranged opposite each other in pairs which alternate down the stalk at 90 degree angles, however, they may appear in groups of three.

Stalks: Stalks are square, five or six-sided, woody, as tall as 2 meters (over 6 feet) with several stalks on mature plants.



Rootstock: On mature plants, rootstocks are extensive and can send out up to 30 to 50 shoots, creating a dense web which chokes out other plant life.

REMOVING PURPLE LOOSESTRIFE

It easiest to remove plants with larger roots by easing the root out with a garden fork. Remove as much of the root system as possible, because broken roots may sprout new plants.

Once flower petals start to drop from the bottom of the spike, the plant begins to produce seed. Remove all of the flowering spikes by bending them over a plastic bag and cutting them off in the bag. Cutting of stems or pulling can now begin without fear of spreading the tiny seeds.

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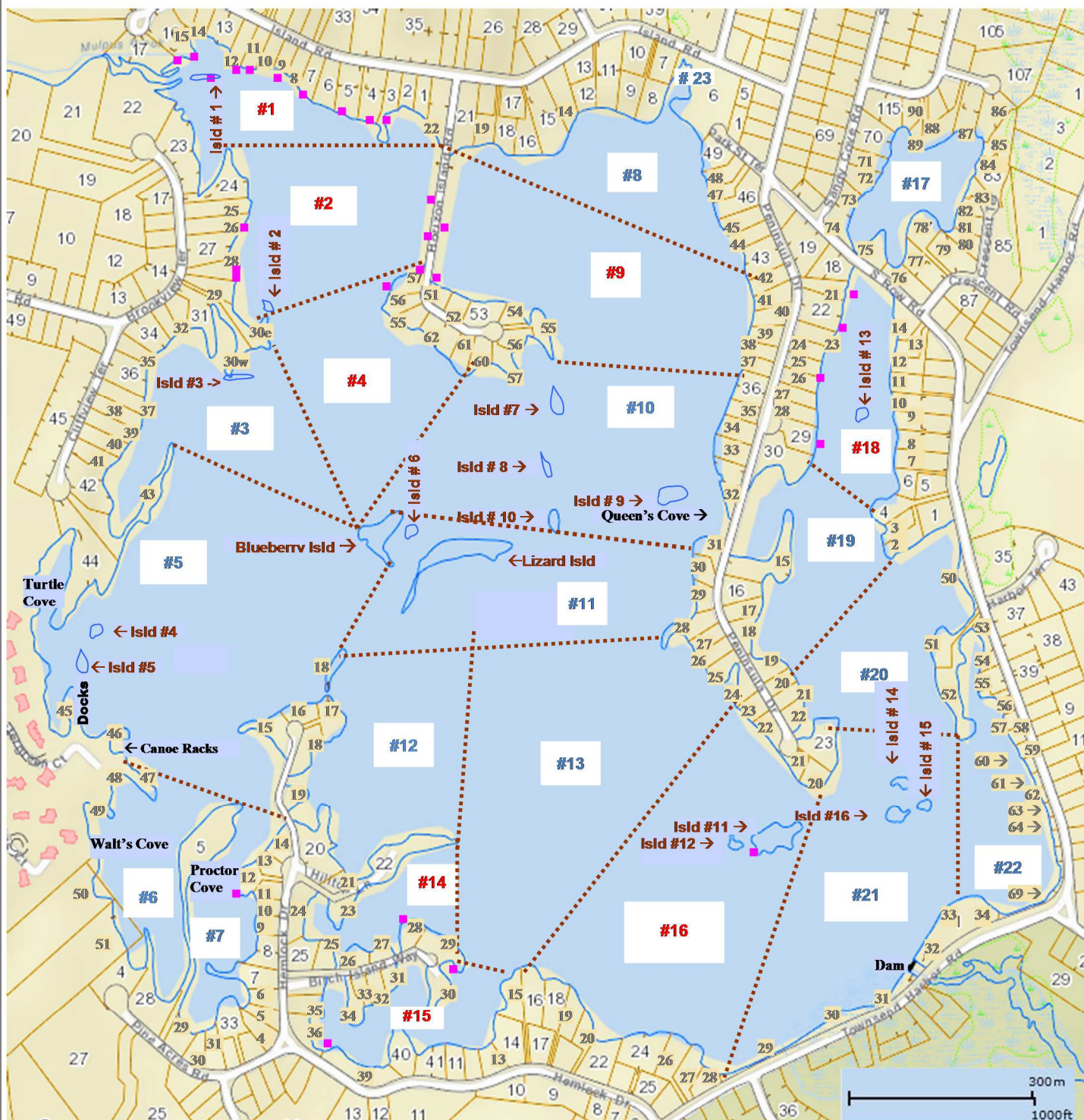
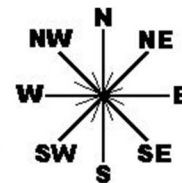
PURPLE LOOSESTRIFE ZONE MAP

NOTE: SOME LOCATIONS ARE ESTIMATES

PURPLE LOOSESTRIFE IS REMOVED FROM RED ZONES BELOW EACH YEAR

Please Consider Helping by Removing This Plant From Our Shorelines

PURPLE LOOSESTRIFE IS MARKED BELOW BY A PURPLE SQUARE



Last updated 4/30/18



Spring 2019

Safety Reminders



Please help us keep our Islands safe from fire and follow our **no fires on islands** policy. Another important safety policy is **no towing from boats**—exception is bringing a broken boat safely home. **Right of Way: Canoes, kayaks, stand up paddle boards and sailboats ALWAYS have the right of way on the lake.** Motorboats must maintain a distance to prevent wash from motors splashing or causing excessive rocking of other boats are state laws. A link to the Massachusetts Boater Safety Handbook is available from our website.

Beach Clean Up Day



Our annual Beach Clean up day is on for **Saturday, May 18th** at 10:00 a.m.. The Land & Resource Committee is looking for volunteers to help clean up the HHL beaches. Meet your neighbors at any of the three beaches with your rakes. Anyone with a truck who can come & take some yard waste to the dump would be greatly appreciated. If people would like to bring baked goods, that would be great! Remember, our beaches are only as beautiful as we keep them. If you happen to be in the area on May 18, join your neighbors for our Spring cleanup. Hope to see you there!

Got Weeds?

The Lake Management Group of Hickory Hills Lake is excited to be able to offer owners of lakefront property a simple means to allow them to use their waterfront **free of the nuisance of lake-bottom weeds.**

The Lake Management Group (LMG) has been installing **benthic barriers** to help control lake-bottom weeds, and this will be the third year that we are offering to purchase materials at cost for any lakefront landowner who would like to deploy them on their own waterfront (materials paid by landowner). We ask that any interested party donate some volunteer time for the activities of the LMG.



The benthic barriers are composed of biodegradable burlap sheeting and are held in place on the bottom with burlap sandbags, also biodegradable. The barrier prevents light from getting to the weeds, killing them in about 10 weeks. We suggest that the barriers be left in place to decompose, but they can be removed if you desire.

We have a limited amount of materials on hand and may have to place orders based on demand. Pricing is based on actual costs with no markup. The barriers are most effective when placed early in the season before weeds get too large.

Pricing (subject to change) – based on cost plus shipping and handling

Burlap sheeting and sandbags:

10' x 30' with 21 sandbags, one buoy: \$ 65

Waterfront 30' x 30', incl 3 strips, 50 sandbags: \$160

Actual costs may vary slightly due to inflation and actual shipping expenses. Sale is contingent on approval of application by Hickory Hills Board. *We will provide instruction but installation is by homeowner.*

IF YOU MIGHT BE INTERESTED, PLEASE EMAIL US AT wmg@hickoryhillslake.com

If you are interested in more than a 30' x 30' benthic barrier or have installed one previously and want to expand your coverage, please put in your request and the Hickory Hills Board will consider your particular situation.



Come on and TAKE a HIKE!

Hiking season is here! Time to enjoy some natural scenery with a hike through Hickory Hills newest acquisition Wildwoods! So set aside **Saturday, June 1st** with a rain date of June 2nd and meet me at 10 a.m. at our new trailhead at 39 Wildwood Rd for a walking tour of our newest property there, Hickory Woods and the Town Forest which abuts it.

The walk is a beginner level hike, and will take us at a slow pace through the woods. We will cover approximately 3 miles, so bring your favorite walking stick and water, and we'll be off! Text or email to confirm or to make arrangements for other dates! (name and contact info removed for web viewing).



Hickory Hills Committee members! Want your event advertised in the Waves? Send your articles in to hickoryhills@netlplus.com by April 1, July 1 and October 1 for our Spring, Summer & Fall editions!

GOING OUT OF TOWN?

LEAVE YOUR HOME IN GOOD HANDS!

I am offering year round **House Sitting Services** for the Hickory Hills Community. Years of experience and knowledge working in property management will give you the piece of mind so you can **SIT** back and **ENJOY** your vacation!

Contact me today to get the full details!!

Mention this ad and receive \$5.00 off your first booking!

Debbie Consalvo 978-870-8621



There is no poop fairy — Please clean up after your dog

While most dog owners have never heard of the mythical figure, they said they wished it was real.

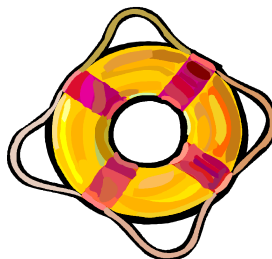


Not only is dog feces unpleasant to look at and smell, it can also make people and other dogs sick. Dog waste contains harmful bacteria and parasites such as E. coli, giardia and salmonella that pets or people can pick up if they come in contact with it.

Bacteria from dog waste can also contaminate groundwater and bodies of water such as creeks, rivers and lakes.

Dog waste also does not biodegrade as quickly as other animal waste. Because of the type of food that most dogs eat, dog waste can take up to a year to decompose. The more hard waste left behind, the more it accumulates.

Boating Basics Course



"Boat Massachusetts" is offered to the public at no charge. The primary purpose of the course is to foster safe boat operation through increased awareness of required safety equipment, safe boating practices and legal responsibilities.

Youth 12 to 15 who successfully complete the course, will be issued a Safety Certificate allowing them to operate a boat without adult supervision, as required by state law. All graduates will be issued a course completion diploma and a Safety Certificate. Taking the class as a family is encouraged and has proven to be highly rewarding.

To find all the course schedules go to the Mass Environmental Police website at <https://www.mass.gov/service-details/boating-safety-course-schedule> or call 508-759-0002.

Ethanol in Your Gas—Where Not to Get It

In previous years, many boat owners here have purchased Sunoco 260 GTX race fuel for their boat from the Sunoco in North Leominster on Route 13. Recently, that gas station has sadly closed due to a fire.

Residents have found that the same fuel can be purchased at Souhegan Motorsports in Milford NH, near the intersection of Route 13 and Route 101, across from Chappell Tractor. The cost is about \$75 for a 5 gallon can. Happy Boating!!

Attention Landlords!

Please remember as landlords in HHL you are responsible to ensure the office has current names and contact information of your tenants. Often, tenants request boat stickers or other information. As a private lake, we provide these stickers to residents or tenants only. Many thanks for helping us.

Also, please remember to register any boats your tenants may have and provide them with ID cards to use our resident-only beaches. Giving them a copy of the annual license you receive from the office once your annual maintenance fees are paid is helpful so they understand our safety rules.

We appreciate all your help in keeping our records up to date and our lake cared for. Thank you!

Help Wanted: Youth Program Director & Assistants

The Board of Directors would like to offer a youth program again this summer. Each year we find this program to be a huge success and a welcomed event.

We are looking for a Director and 2 assistants for the 2019 season.



The program would run approximately six weeks, 3 hours per day, three days per week at the Island Road Beach offering sports, crafts and nature activities. If you are interested in running the program or being one of the assistants to the Director please contact us and include any experience to the HHL office at (978) 582-6365 or email us at hickoryhills@netlplus.com.



GET TO KNOW YOUR LAKE GARDEN - Lily, Shield, Spatter What?

Three main types of roundish/oval floating leaf, rooted aquatic plants inhabit our lake; Spatterdock (*Nuphar advena*) Watershield (*Brasenia schreber*) and Water Lilies (*Nymphaea odorata*). While their floating leaves may look similar at first glance, they are actually three distinct species of aquatic wild flowers.

Waves print version incorrectly read Spatterdock (Nuphar variegata) grows in our lake and has been corrected to Nuphar advena.



been corrected to Bull-head above.

Spatterdock, sometimes called Bull-head Lily, is a perennial emergent, herbaceous plant. It has large, heart shaped leaves with a wide V-notch where the underwater stem connects to the leaf. The yellow, globe like flowers of this plant are just above the water on stiff stalks. The flowers never really appear to open but do produce seeds. This plant likes to grow in slow moving, shallow water, 2 meters or less in depth, where the aquatic bottom is soft and thick with layers of decaying matter. It is often seen in swamps or older, heavily eutrophied lakes. The rhizomes and roots are buried in the muck of the lake bottom. They overwinter and send up new foliage each spring. — *Waves print version read Spatterdock is sometimes referred to as Cow Lily and has*



Water-shield is also an emergent, perennial, herbaceous plant. It has intact, oval leaves and the leaf stem connects to the center of the underside of the leaf. While the leaves are green on the top surface they are maroon on the underside. The small, purple flowers are not very showy. The most unique feature of this wild flower is the gelatinous slime covering the young stems, buds and undersides of the leaves. The USDA Forest Services states that this slime produces chemicals which “kills off competing vegetation” and allows water-shield to “quickly take over shallow ponds and lakes”. This plant also overwinters as tuberous roots and seeds.



Water Lilies can produce white or pink fragrant flowers which typically last three days each. These flowers open in the morning and close around noon. Some of the water lily leaves are submerged at the base of the plant where it roots to the lake floor and some are floating at the surface of the water. The floating leaves are round and have a long, narrow slit ending almost in the center of the leaf where the stem attaches. While the top of this leaf is green, the underside can be purplish. Water lily stems have 4 main air channels which transport oxygen and other gases down to the fleshy rhizomes buried in the muck on the lake bottom and carbon dioxide and methane gas up from the rhizome and out the leaves. This adaptation allows water lilies to flourish in thick, decaying muck where

other plant's roots would suffocate. Water lilies prefer water depths from 6 to 15 feet.

All three of these emergent, aquatic plants provide habitats and food for aquatic animals from insects to vertebrates such as water fowl and muskrats. However, they can experience overgrowth and choke out other native plants reducing aquatic plant diversity and recreational uses of the lake.

DASH Divers Wanted — Fun Group! GREAT Cause!

It's very exciting to dive in our lake and even more when you are part of a team helping to remove fanwort! We may not have beautiful coral reefs, but we do have lots of fish, golf balls, the occasional hat and fishing poles for typical sights along with freshwater jellyfish in late August. They don't sting.

For anyone who is interested in being a DASH diver, we do reimburse for certification and wetsuits.

HHL will reimburse you 100% for the Dive Certification course and volunteering a certain amount of dive hours. The volunteer hours required vary depending on the course fee.

HHL will also reimburse you for a wetsuit up to \$350.00 after 20 additional dives.

HHL supplies the BCD, tanks and stage 1 and 2 for diving. Each diver receives their own Stage 2 (this is the regulator for breathing-we don't share these:)

We currently work with Central Mass Scuba in Worcester who offers classes for certification and Aquatic Specialties in Merrimack is also local if you're inclined although we have not worked with them so far.

<http://www.centralmassscuba.com/classes.html>

Please let us know if you have any additional questions by emailing dashchair@hickoryhillslake.com

