



Newsletter

Fall 2016

HPWA is a 501(c)3 Charitable Organization

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Jerry Levine & Phil Angell,
Members-at-Large

Website

www.TheHerringPondsWatershed.org

Upcoming Events

September 19, 7pm
HPWA General Meeting
New Testament Church,
1120 Long Pond Rd.
Tom Flannery, Mass.DCR
will present a program on
invasive fresh water
plants.



*Heron on GHP this summer.
Courtesy of Ulla Dagert*

President's Message

Brian Harrington, President

Out-of-sight, out-of-mind? Some of the most important issues we face in protecting our watershed are not visible to us, rarely staring us in the face until something goes sadly wrong and becomes harmful. Our septic systems, our storm sewer systems, and our underground aquifer are all examples of resources that are critical to the well-being of our watershed, but which are virtually always out of sight. This missive focuses on our underground aquifer. We have an important article coming up in Plymouth's Fall Town Meeting that could affect our aquifer and our watershed.

Too few watershed residents know that almost all of the water in our Herring River Watershed comes from Little Herring Pond, and that LHP gets almost all of its water from seeps and springs that flow and bubble in from an aquifer. Water then flows through the Carters River into Great Herring Pond, then down the Herring River in Bourne towards the Cape Cod Canal.

Our good fortune is the Plymouth-Carver Aquifer. The PCA is a designated "sole-source" aquifer. (That designation is reserved for aquifers that are critical water sources for people living on top of it.) You can think of the aquifer as an under-ground flow of water creeping in a southeasterly direction through our sandy soils. The water originates mostly from rainfall which percolates down to aquifer levels. This mostly takes place in what are known as 'recharge areas'. Good recharge areas are ones where seepage into the aquifer is unhindered by paved surfaces, roof tops, storm sewers and sewer systems draining water away to other places. Many of the

ponds in Plymouth, including some in our own watershed, can be thought of as "lenses" into the aquifer; their water levels rise and fall with amounts of water in the aquifer.

Aquifers are fragile. They need to be protected and carefully cared for. If pollution occurs, clean-up is costly. (Costs for the Sagamore Lens on Cape Cod are expected to exceed \$1.4 billion.) If recharge water becomes insufficient, water levels diminish in lakes and ponds, flow of water through watersheds diminishes, pollutants become more concentrated, and home and municipal wells may need to be deepened.

Through meetings with members of the Open Space Committee, and statements at Board of Selectmen meetings, our Association has encouraged placing Article 7 on the Town Warrant. Now this has been done. Plymouth town meeting representatives now have an opportunity to better protect our aquifer, and its recharge areas, simply by transferring administrative responsibilities for 10 parcels of land from the Treasurer's Office to the Conservation Commission. Doing this would follow a recommendation of Plymouth's Open Space Committee. Article 7 of the October Town meeting, if approved, would add 116 acres of tax-title properties to 166 acres of land previously protected by private and public agencies, and in so doing create the "Long Duck Pond Preserve" (LDPP).

Through the Town Meeting Article, Plymouth has an opportunity to help sustain recharge of the Plymouth-Carver Aquifer that flows under LDPP and into the Herring River Watershed. In short, passing the Article will better protect the important aquifer recharge area within the LDPP boundaries.

Watershed Water Quality - Good News on Many Fronts

by Don Williams, Water Quality Co-Chair

The HPWA Water Quality Committee (WQC) has made significant progress in several areas since the last newsletter. Specifically, our watershed residents can look forward to positive initiatives that will make our watershed more fun for many of its users.

Swimmers:

Although summer testing results for phosphorus and nitrogen for June, July, August and September will not be available until later in the fall, bacteria (E. coli) levels have been “undetectable” according to summer tests. The presence of excessive amounts of bacteria during swimming can cause severe gastrointestinal discomfort and can have more serious side effects. In addition, there has been none of the more toxic cyanobacteria observed.

Fishermen:

The good news for our fishermen is that the MA Department of Environmental Protection, in response to a request from HPWA, sampled Great Herring Pond for mercury in smallmouth bass, perch and sunfish on August 15 (see photo below). Although they did not know when results would be available, these fish have not been tested since 1995 when mercury levels in smallmouth bass were found to be high enough to issue a warning to pregnant women and children to limit their intake of this fish. The mercury comes to our pond through the air from the coal burning power plants in the Midwest and it is hoped that these fish are safe to eat without restriction.



The HPWA dissolved oxygen (DO) meter needs replacement and the Town of Plymouth has stepped forward to purchase a new one for our use. DO is an important measure of pond quality and healthy levels of oxygen are essential for the more desirable gamefish such as bass. The WQC has made it a priority to monitor DO monthly during summer months at many locations to gauge the success of ongoing efforts to improve water quality.

Boaters:

Invasive plant species have a way of clogging water intake ports on boats and excessive milfoil and yellow floating heart can crowd the pond surface preventing boat passage entirely. HPWA Treasurer, John Foye, has been vigilant in keeping the invasive species issue before your Board of Directors and conducted a boat tour of Great Herring Pond with trained members and local expert, Sara Grady, on September 14.



The boat tour surveyed for invasives at locations visited in previous years to look for changes but found none.

Nature Lovers:

Invasive clams, mussels, fish and other wildlife invariably crowd out the native species since they often have no natural predators and reproduce much more quickly than native species. Through the efforts of Director Jerry Levine, the HPWA has reached out to the Mass Maritime Academy. Professor Alan White has shown interest in providing a team of students to take an inclusive invasive species inventory of Great Herring Pond. More details will be available after a meeting to be held with Prof. White and his team of students.

Watershed Residents not Living Near the Pond:

Many of our watershed residents do not live close enough to one of our ponds to be able to frequently enjoy the fishing, boating, swimming and nature. We all, however, have a vested interest in the large aquifer below the watershed; it provides the water for our ponds but also the water that we drink. As part of the effort to better understand the workings of our watershed, the WQC will be looking to summarize existing data for public wells within the watershed.

Funding for the HPWA Watershed Management Plan will be presented at spring Town Meeting. Income from the solar panels (at Exit 5 and along Route 44, for example) was approved at Town Meeting, spring 2016, for use by Plymouth's DMEA for just such purposes. We are optimistic that the needed funding will be approved next spring. The Plan will identify the source(s) (septic, pond sediment, runoff) of nitrogen and phosphorus pond pollutants and make recommendations for remediation.

\$59,910 for Great Herring Pond Runoff Remediation Design

The Plymouth Division of Marine and Environmental Affairs received \$59,910 from the Coastal Zone Management (CZM) Coastal Pollutant Remediation Grant to conduct design and permitting at two storm water sites on Eagle Hill Drive adjacent to Great Herring Pond. In 2015 the Town conducted an intensive storm water survey on town owned structures around Great Herring Pond. The two storm water sites on Eagle Hill Drive were determined to have the most impact on water quality from the amount of storm water flowing into the pond and the amount of nutrients in the storm water. The Town reached out to a consulting firm for cost estimates to complete the design and permitting of the project and applied for grant funding through the CZM program. The Town is currently working with CZM and the consultant with an anticipated start date of mid-October. The design portion of

the project will be completed by June 30, 2017. The Town will reach out via mail to residents along Eagle Hill Drive this fall (October/November) to let them know about the project. As part of the design, residents can expect to see Town Staff and the consultant onsite a few times during the winter and spring. Town Staff will also be digging small soil test pits with the Dept. of Public Works which should take one day or less. These steps will allow design of the project with the maximum infiltration of storm water. In addition, residents will see Town Staff and Consultant performing engineering surveys along the roadway. Once design is underway, the Town and consultant will hold a public meeting (spring target) so that residents can review design elements and ask questions. Also in the spring, CZM will be releasing the next grant application request and the Town will apply for construction funding to implement the design. Should the Town receive funding for construction, it would be completed by June 2018.

This is a very positive forward step for watershed water quality. It is the hope of the Water Quality Committee that long-term, the runoff remediation will result in a measurable decrease in phosphorus and nitrogen pollutants in Great Herring Pond. A decrease in summer algae blooms will improve the health of the pond for fish, swimmers and boaters alike. The Town of Plymouth was one of only 5 Massachusetts towns to receive a CZM grant.

Education Committee News

by Lee Pulis, Chair

HPWA Objection to NOAA

Proposed Increase in Herring By-Catch: On 9/1/16 Martha and Lee traveled to Gloucester at the invitation of Katharine Deuel of Pew Charitable Trust's [Herring Alliance](#). With two other watersheds (Mystic River and Ipswich River) we met with NOAA National Marine Fisheries Service Greater Atlantic Regional Administrator John Bullard to object to proposed rule-making that would increase river herring

by-catch caps in the Atlantic herring industry. The opportunity came as a follow-up on the powerful opposing written comments that HPWA submitted with 30 signatures on July 12. We had a one-hour audience with Mr. Bullard and felt that our personal presence, and description of our volunteer efforts including the Herring River run counts, our *HPWA Stewardship Guide* and herring comics for kids added weight to our data-based concerns for better at-sea river herring protection. The proposed NOAA rule-making would raise the river herring by-catch by 144% over last year in the Cape Cod area. HPWA contends this is counter to scientific fishery management given that the Cape Cod Canal Herring River electronic fish counter data for 2016 shows a 40% decline in numbers of adult herring migrating into the watershed from the previous year.

HPWA will again host a Decorate-a-Herring youth activity table at the Friends of Myles Standish State Forest annual Take Me Fishin' family fishing derby at Fearing Pond in MSSF on Saturday, September 24. Any HPWA members are welcome to participate free, help staff our table, and enjoy meeting the youth and parents that come for a fun personal experience in our globally rare Atlantic Coastal Pine Barrens. Contact leepulis@gmail.com to coordinate your interest in helping and sharing in the fun.

Woods Hole Oceanographic Institute scientist Joel Llopiz is conducting a Sea Grant-funded research directed at seeing how Great Herring Pond compares to a few other ponds in its ability to support the growth and survival of larval river herring—the first 3-4 weeks of their life. He intended to install a “camera system [that] will hopefully be in place in July, since it is actually meant for counting the little guys when they head to sea. It should work for the adults too though next year...” We’ll keep trying to bring you news of the WHOI research “Variability in nursery habitat and its influence on the feeding, growth, and survival of the early life stages of river

herring” as summarized in a video at <http://www.whoi.edu/oceanus/feature/no-stone-untuned>, as well as a similar study by MA DMF assessing Little Herring Pond’s larval herring habitat.

The newly forming [Massachusetts Coastal Pine Barrens Partnership](#) coordinated by the [Southeastern Massachusetts Pine Barrens Alliance](#) to unite organizations working to protect land in the eco-region has many initiatives in the works including bat species monitoring using call recording and identification software, nominating a pine barrens site for National Natural Landmark program designation, and a partners’ poster conference set for January 20, 2017 at Cape Cod Community College. Check out the linked web sites and consider getting involved.

The [Watershed Action Alliance of Southeastern Massachusetts](#) is planning a second conference on watershed problem solutions for Thursday, March 16, 2017 with three preliminary topics now in planning: Communication, Problem Plants, and Water Conservation/Resilience to Drought. WAA’s 2015 Future of Water in SE MA conference and 2016 workshops on aquatic invasive plants were very informative and helpful in spurring HPWA committee activities.

Upcoming HPWA Meeting

Our final meeting of the year will be held September 19 at 7 pm at the New Testament Church large classroom on Long Pond Road. Tom Flannery, an Aquatic Ecologist with the MA Department of Conservation and Recreation, Lakes and Ponds Program, will present a program on Freshwater Invasives, why they can be such a problem in our ponds, how to identify some of them and how to prevent the spread of invasive species from one pond to another. Invasive species can cause serious problems for boaters, swimmers and fish. Join us to learn how to be a part of the solution.

Cold Shock and Hypothermia

by Paula Kuketz, Water Safety Committee Chair

COLD SHOCK can cause Swimming Failure: Within a few minutes in cold water, hands, arms and legs become numb and useless. The victim will now be unable to swim, or even hold on to a capsized boat. Exposure of the head and chest to cold water causes sudden increases in heart rate and blood pressure, which may cause cardiac arrest.

HYPOTHERMIA:

Reduced core body temperature develops more slowly than the immediate effects of cold-water.

Shivering occurs as body temperature drops. Unconsciousness occurs at a core temperature of about 86°F.

Remember - off-season boating carries risks not faced by summertime boaters. An accidental plunge over the side can be fatal regardless of air temperature or your ability to swim.

COLD WATER + NO PFD = NO CHANCE !!!

Member Profile: Jim Smith

by Martha Sheldon, Membership Chair

I sat down over a glass of lemonade this summer to talk with HPWA member **Jim Smith**, who lives on Little Herring Pond (LHP). Jim is an “old timer” on the Pond, a volunteer for HPWA’s herring count, and a new retiree from a demanding job as a Union plumber. “I’m getting out while I still have all ten fingers,” he quipped. His dad built a cabin in 1963 and came down year round on the weekends from Quincy.

Jim remembers the family using propane for cooking, a pitcher pump for water, and of course they had no electricity. In 1979 the family came upon the stretch of land that is now “home.” Jim’s house is a rambling expanse of knotty pine with a rustic, woodsy feel to it. Some of the fish he has caught are dramatically displayed on the walls. Carved waterfowl sit on tables. “Man-cave” came to mind. As a child, Jim fished for perch, pickerel, and small-mouth bass, and swam in the

Pond. A big adventure was to tow a raft down the Pond and into the Carter’s River. In those days, the bogs along the brook were still operational.

Jim told me a piece of history about LHP. In the old days people cut pine around the north end of the Pond, floated it down to the south end where it was taken out near a bog. From there it was brought up to Long Pond Road, most likely by teams of oxen, and then to **Cedarville Landing** for the packet trade to Boston and New York. In 1998 Jim started to investigate whether the Cedarville Landing was a public way open to the water. He traced the land back and the Town agreed they owned it. Sixteen years later the Town asked for his help to stop residents who wanted to block it for a revetment. He documented it as a Town Right of Way to the water. While we were talking, Jim’s ears were



attuned to the sound of a chain saw coming from across the Pond. In surveying the domain of LHP, Jim counted 19 missing trees, cut on property (not his own) too close to the water. The Town’s wetlands protection regulations “presume that an undisturbed forested or naturally vegetated 100-foot buffer zone is necessary to protect the wetlands.” The question is when were the trees cut, by whom, and how does the Town enforce its wetlands regulations.

What changes in Little Herring Pond has he seen over the years? Jim felt there are a lot more weeds now than there was before. But he said there are normally 40-50 swans on the pond summer and winter, and they eat the roots of pond weed. The Pond is just the right depth for the swans’ necks to reach the vegetation. One icy winter Jim counted 185 swans on the Pond, which stays open year round due to its underground springs.

Welcome New Members!

Steve Brown, the Cicerone Family, Nick Clearperry, Christine Cody, Bob Crowell, Dylan Cunningham, Nancy Cunningham, Michelle DuBois, Cheryl Fischer, Edward Glebus, Jenna Grady, Mariah Grispi, Dan and Katherine Hunt, Barbara and Jim Johnson, Judy Livera, Allyn McManus, Donna and Kevin Nolan, Teri Pekol, Dan Reddy, Trudy Tucker, Yemma/Jarreux, the Yngve Family, Jennifer Zelinski

"Thanks to all of you who helped distribute the herring postcards giving 6-month free memberships. The postcards can be submitted anytime.

HPWA Membership Form 2016-2017

Name _____

Address _____

City/Town _____

Phone _____

E-mail _____

___ \$15 Individual Membership.

___ \$25 Family Membership

___ \$55 Contributing Membership

___ \$100 Sustaining Membership

Make checks payable to:

The Herring Ponds Watershed Association, Ltd.

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