

THE IPA NEWSLETTER

Mystic Lake, Middle Pond, and Hamblin Pond

Spring 2004

A quarterly publication of the Indian Ponds Association, Inc.

Vol. 4 No. 2

IPA LAUNCHES STUDY OF ALL THREE INDIAN PONDS

The IPA, in collaboration with the Cape Cod Commission and the Town of Barnstable, will initiate a multi-faceted study of the three Indian Ponds this spring. The study, in keeping with one of the Association's agreed long-term objectives, is expected to be the first in a series of scientific investigations over the coming years aimed at enhancing our collective understanding of how the ponds function and how they are responding to man-made stress. This first study will consist of a **first-order assessment of the physical and chemical characteristics** of the three ponds as well as a **water budget study and delineation of the watersheds** for each pond.



Photo by Kris Clark

The IPA Board of Directors received a draft scope of work for the study last October from Tom Cambareri of the Commission's Water Resources Office. Following discussion at several Board meetings and a follow-up meeting in December with Cambareri and colleague Ed Eichner, the draft proposal was unanimously accepted by the IPA Board at its January 31 meeting. A very successful and well-attended 3-hr meeting was held on March 1 with Cambareri and Eichner (Commission), Dale Saad and Rob Gatewood (Town of Barnstable), Emory and Geri Anderson, John Hansen, Ed Schwarm, Sheila

Place, and Alex Frazee (IPA), and Kris Clark (Marstons Mills River Day Coordinator) to discuss plans for the study. All data previously collected and analyzed were identified, all aspects of the study were outlined and clarified, sampling and equipment needs were discussed, water analysis was discussed, and various options for grants and other types of funding were considered. It was very gratifying and extremely informative to have all the relevant people gathered around the table at one time sharing data and good ideas.

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EIGHTH ANNUAL RIVER DAY IN MARSTONS MILLS – SUNDAY MAY 2

Every year, this free event brings hundreds of villagers together on the private property of Kevin and Judy Galvin to celebrate, learn, and love the river and its watershed. We bring attention to this resource in the Village, knowing that some villagers aren't aware that there is a river in Marstons Mills, that together with the Indian Ponds, is a significant feature of the Marstons Mills River watershed.

Events like the free catch-and-release fishing derby, free kayaking on Mill Pond, and free boat tours on Prince Cove, along with the exhibitions and displays, help bring the community together for sharing, learning, and having fun. Attendees can learn about the features and properties of the river and

watershed – like trends in water quality – and discover ways to participate in improving our whole watershed. We hope to engage the stakeholders of the watershed in being good stewards of the land for the benefit of the water quality that is important for the Village and beyond.

River Day this year is on Sunday, May 2 from 10 am to 3 pm. The complete program will be posted on the Village web site (www.marstonsmills.org). Volunteers are always welcome. Call Kris Clark (428-8754) or Donna Lawson (420-9480) so that we can work you into our plans

Kris Clark

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PRESIDENT'S LETTER

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The IPA is a 501(c)(3) organization and a registered public charity. All dues and contributions are tax deductible.

This Newsletter is a forum for the exchange of ideas on matters germane to the IPA mission and, as such, the views expressed by authors of articles do not necessarily

We learned recently that the IPA's efforts to encourage the Town to buy the Marstons Mills airfield property and get someone to operate it were successful. It's a nice success story, and clearly shows what the IPA can do. Ed Schwarm, who has been on the Town's airport committee, describes the final stages of that effort elsewhere in this issue. We are also grateful to Town Manager, John Klimm, his staff, Council member Milne, and former Council member Blazis for their efforts.

Working with the Cape Cod Commission, the IPA is launching a new initiative to assess the health of the Indian Ponds. You'll find more details on the "Pond Study" in this issue. Emory Anderson "led the charge" to get this program organized, and at our March 26 Board meeting, the Directors voted to thank Emory for his efforts, and also to purchase the first scientific equipment needed. While your dues and contributions have helped pay for some of the instruments needed for the study, we are still seeking additional funds for other parts of the study. A few generous donations have already been received from IPA Directors and others, but additional contributions are most welcome. Donations may be sent to the IPA, P.O. Box 383, Marstons Mills, MA 02648. For further details, please call me (420-4520).

As you may know, Long Pond in Centerville suffered a serious problem in 2002 when the presence of *Hydrilla*, an aggres-

sive invasive aquatic plant species was discovered. A major effort was quickly organized in an attempt to eradicate the troublesome plant. We need to learn more about how the Long Pond problem developed and was subsequently dealt with so that we can be prepared in case *Hydrilla* should suddenly emerge in any of the Indian Ponds.

Repairs are also well underway on the herring run flume, the waterway for the herring (alewives) that enter Middle Pond and Mystic Lake in the spring to spawn and return to the sea in the fall. Again, the man of the hour has been Ed Schwarm whose earlier efforts resulted in a \$20,000 grant to fund some of this work and who has represented the IPA on the Marstons Mills River Committee.

Your Directors have also been busy working with the several owners' associations, Town and Commonwealth officials, and groups such as the Marstons Mills Village Association to improve the environment of the Indian Ponds.

We will be displaying some IPA items of interest at the "River Day" on May 2 (10 am - 3 pm). We hope to see you there.

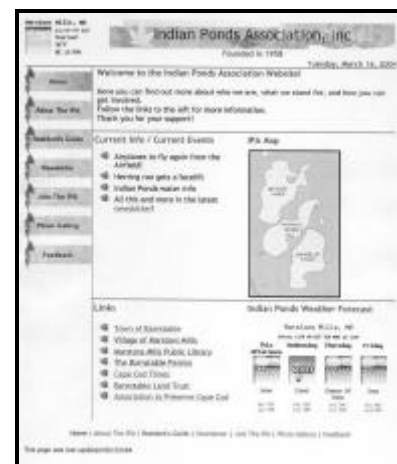
On a final note, the IPA Annual Meeting will be held on Sunday, July 11 beginning at 2 pm at the home of Ted Elliott, 1073 Race Lane. We'll keep you posted.

John Hansen

NEW IPA WEB SITE

Our webmaster and newsletter computer consultant, John Anderson, has recently redesigned and modernized the IPA web site making it much more attractive and user-friendly. The home page offers an extensive menu including a brief history of the IPA, the recently published *A Resident's Guide to Living on the Indian Ponds*, current and past issues of *The IPA Newsletter*, how to join the IPA, current information/current events, Marstons Mills current weather conditions and forecast, a map of the IPA area, and a series of links to web sites for the Town, Village, local newspapers, Marstons Mills Library (CLAMS), and several relevant non-profit organizations.

If you haven't already done so, please check out the new web site at <http://www.indianponds.org>. If you don't have a home computer, the Marstons Mills Library and other Town libraries have them for public use.



GREETING FROM LEAH CURTIS



Leah Curtis

I would like to thank the IPA for giving the Town Councilors from Marstons Mills the opportunity to speak with you directly. One of my positions has been to keep government open and accessible to all of my constituents and to all in the Town of Barnstable. I would also like to let you know how impressed I am with your work and commitment to enhance our community.

The Town is in the process of reviewing the Local Comprehensive Plan (LCP) which outlines goals, policies, and strategies for land use. The Planning Board has been charged with coming to the Town Council with the results of the review. To accomplish this large task, each village has been asked to form a committee to review the existing plan and, after an initial comment period, make recommendations for the revised plan. Like all the other villages, residents of Marstons Mills will have the opportunity to meet and discuss what we want to have happen in the Village. A committee has been formed, under the auspices of the Marstons Mills Village Association, to review the existing plan.

The plan looks at the entire Town of Barnstable and then at the unique issues for each village. There are currently six

topics discussed in the Marstons Mills Village Plan: Village Character, Population, Housing and Residential Development, Commercial Development, Roads and Transportation, Village Facilities and Open Space and Village Improvement. The two topics that stand out for me in relation to the IPA mission are Village Character (how our physical landscape including plains, ponds, and important water supplies, and our historic character of farms, agriculture, and mills should be preserved and recognized as we continue to be one of the fastest growing villages in the Town) and Village Facilities and Open Space (the areas to be reviewed include Burgess Park, the airfield, and the amenities at the ponds).

I would urge you to access the LCP form and Town web site and, in particular, the section on Marstons Mills and to bring your comments to the Marstons Mills Village Association as we begin this process.

These next few months, the Town Council will be working very hard on the budget for 2005. We are in the process of finishing our Strategic Plan for next year, and would welcome your suggestions as we go forward with making very hard decisions about policies, priorities, and services.

Leah Curtis
Town Councilor, Precinct 12
Marstons Mills

HERRING RUN REBUILDING CONTINUES

It has been a cold, cold winter, but the reinforced concrete ladder was successfully poured and is complete. The next step is to regrade and replace the first 140 feet of the sluiceway to match the new elevation of the ladder to the existing sluiceway. The frozen ground kept the crew from doing this work until a few weeks ago. As the run must be opened about mid-April for the upstream herring migration, we have to use a temporary approach. When Al Baker approached Botello Lumber and Hardware Company, they kindly contributed seventeen 4 x 8 sheets of plywood to line the new trench until the permanent liner can be installed this summer or fall. The plywood has been installed and, except for a few minor things, the run is ready to open for the spring upstream migration.

Initially, it looks like we will have a good run as the herring are already schooling down at the Mill Pond entrance in the Village Center. Following their usual behavior pattern, they should be up the Marstons Mills River and schooling at the sluiceway entrance in about two weeks.

The Liberty Hall Club, the Marstons Mills River Committee, and a construction subcommittee are the centers of activity for this project. The Marstons Mills River Committee has several members who are available as speakers on the river

or herring run activities. If your group would like to hear more about these local recreational and environmental activities, contact me (428-0556) and I will put you in touch with one of the speakers. Also remember River Day in Marstons Mills Village Center on May 2. In addition to fun for all ages, there are exhibits showing the many volunteer activities that make your village such a great place in which to live.

Edward Schwarm

THANKS AND A REMINDER . . .

Our thanks to everyone who has sent in their 2004 dues and to those who have made additional contributions. We appreciate your ongoing support of the Indian Ponds.

To those who haven't renewed their membership, and to those who have not yet joined, please take a minute to send your 2004 dues of \$20.00 to IPA, Inc., P.O. Box 383, Marstons Mills, MA.

As you can see from various articles in this newsletter, particularly the Pond Study, your support has never been more urgently needed.

Thank you, from the officers and the board.

CAPE COD AIRFIELD TO REOPEN

We have a new fixed-base operator (FBO), Chris Siderwicz, who will now operate the Cape Cod Airfield for the Town of Barnstable. He will operate as an independent contractor and pay a lease fee to the Town. Chris assures us that planes will be flying in May and possibly even in April. I quote his operating philosophy from his proposal: "By making it a safe place for aircraft activities and preserving its beauty and historic value, all Cape Cod residents can enjoy it, while protecting the taxpayers' investment." We cannot ask for more.

Chris Siderwicz brings a wealth of appropriate experience to the Airfield. Some of you may remember him as the owner and pilot of the C-47 twin engine transport with which he helped us celebrate the successful purchase of the airfield land. It was some spectacular flying which brought out the

sin of envy in me. He has all of the requisite requirements for the position. Chris is a semi-retired (but young enough) Boeing 737 airline captain. He, of course, holds the usual flying licenses including air transport rating with jet and multi-engine type ratings, instructor's rating, instrument rating, sea plane rating, etc. Also, he is a licensed aircraft and power plant mechanic. Additionally, Chris is designated by the Federal Aviation Examiner as having Inspection Authorization privileges (IA). This allows him to certify major mechanical work and restorations as ready for flight. He has restored several aircraft. Chris learned to fly at the age of 18 at the Cape Cod Airport and began his flying career there, moving up to senior captain at Provincetown-Boston Airlines in 1979.

I am looking forward to a chance to fly with Chris. I hope he will let this new great grandfather shoot a few touch-and-goes with him for old times sake.

Edward Schwarm

LAWN SENSE

KEEPING YOUR LAWN ATTRACTIVE AND PEST-FREE THE HEALTHY WAY



SOIL BASICS FOR A NATURAL LAWN

Soil is key to establishing a lush sustainable lawn. A lawn is made up of thousands of individual plants. Plants need good soil to thrive and be healthy. Healthy plants extract nutrients from the soil that make them strong and able to survive.

Six inches of good loam are needed to develop a healthy soil. Don't accept sand or clay mixes labeled as loam. If you use six inches of good loam as a lawn base you'll have fewer problems altogether. If you don't have six inches of loam, build up to it by adding compost, good quality loam, or a mix of both. Add ½ inch of loam/compost twice a year to your lawn until you build up to six inches of well draining soil.

Get a complete soil test before adding nutrients or lime. Adjust pH to 6.5 (preferably with calcitic lime). If your soil shows, 5% organic matter, apply ¼"-½" of finished compost every fall.

Plant a mix of grasses - e.g. fine fescue with perennial rye and small amount of bluegrass that is endophytically enhanced for dealing with chinch bugs, billbugs, and sod webworm. A turf monoculture does not compete as well against weeds as a mixture of grasses. If your lawn area is shaded, consider various low maintenance native ground covers instead of grass. You reap what you sow.

Use organic 3-1-2 fertilizer at the rate of 1 pound per 1000 square feet (at least a should be in water-insoluble form) if you are also fertilizing with compost and grass clippings. Don't feed with synthetic chemical fertilizers. Don't over fertilize - it can create juicy, succulent blades vulnerable to disease. If you live by a water body, don't fertilize at all.

ALTERNATIVES TO CHEMICALS

Pesticides and synthetic fertilizers can kill beneficial critters like earthworms, ladybugs, honey bees, butterflies and other pollinators; they pollute water supplies as well. There are many effective alternatives to using pesticides and synthetic fertilizers.

USE CORN GLUTEN TO SUPPRESS CRABGRASS AND OTHER WEEDS

Make sure to apply corn gluten early in the year (when the forsythia is blooming) before weeds emerge. Spread only on established lawns at 20 #/1000 square feet. It also contains 10% nitrogen - so factor that in if you also fertilize. Use 1:1 vinegar-to-water mixture to kill weeds; pull the rest before they go to seed; flame weeds in walkways.

CORRECT THATCH BUILDUP by cutting back on water and fertilizer and eliminating pesticides. Spread a light layer - d" - of compost over the lawn. Compost microbes will break down the thatch and also suppress disease. Aerate, if necessary.

USE GRUB GUARD (beneficial nematodes) or **MILKY SPORE** for control of grubs.

DON'T USE PESTICIDES (herbicides, insecticides, fungicides, etc). -Cides suppress the soil's biological activity which in turn reduces its ability to suppress pathogens (disease-causing microbes); -Cides also kill earthworms which build and aerate the soil. It takes a while for some soil microorganisms to get over a hit with pesticides; some species never recover, leaving your soil vulnerable to further disease and infestation. You may undo all your other good lawn practices by applying pesticides.

The above information was provided by Susan Phelan, Director, Cape Alliance for Pesticide Education, P.O. Box 631, West Barnstable, MA 02668, 508-362-5172. To learn more about alternatives to pesticides, please visit them at: www.greencape.org



IPA LAUNCHES POND STUDY

Continued from page 1

The study will consist of a series of tasks shown below.

Pond Study Tasks

- P Review of existing data and preparation of an Indian Ponds Quality Assurance Project Plan
- P Volunteer monitoring and sampling program (April--October 2004) to collect bi-weekly vertical profiles of dissolved oxygen and temperature as well as visibility readings, and monthly water samples for detailed laboratory nutrient analysis
- P Water budget study and delineation of watersheds for each pond
- P Phosphorus budget for each pond
- P Draft assessment report and public presentation of results
- P Final assessment report with recommendations for necessary further studies

The cost for these six tasks was originally projected to be \$15,000 (much more if the costs of the work to be done by volunteers were to be included). Adding an estimated \$1,500 for equipment to be purchased for use by the volunteers results in an overall total of \$16,500.

At its most recent meeting on March 26, the IPA Board voted to incrementally fund the pond study as funds become available and to authorize the expenditure of up to \$1,500 for equipment needed for the study.

About \$6,300 of this total, which is the cost of the laboratory analysis of water samples to be done at the University of Massachusetts School of Marine Science and Technology

The IPA Board voted to incrementally fund the pond study as funds become available

(SMAST) at Dartmouth, has been waived thanks to the generosity of the Town of Barnstable. This is because the Town has agreed to include, in its current agreement with SMAST, the analysis of water samples for our study with the analysis of other water samples being collected in the Indian Ponds and elsewhere as part of a larger Estuaries Project. An additional \$200 for the start-up meeting with the Commission, Town, and IPA held March 1 has also been waived.

Lastly, the cost for the necessary water monitoring and sampling equipment was less than estimated. The Town Health Division, through Dale Saad, has agreed to loan us several items of equipment. Two remaining instruments, a dissolved oxygen/temperature meter and a Niskin water sampler, were purchased for less than \$1,200.

Consequently, what had originally been an estimated total cost of \$16,500 for the study and necessary equipment, has been reduced to \$9,700.

The IPA presently does not have sufficient funds to cover the full cost of the study, but has at least \$2,200 that could be

applied to the study, thanks to the generous payment of dues and extra contributions by our current IPA members. Several Board members have recently contributed or pledged \$1,650 for the study. Donations from others in the IPA community for this specific project would be greatly appreciated.

Some previous sampling of the Indian Ponds was limited to one-time efforts that provided only a "snapshot" of pond conditions. Information like this was included in a *Cape Cod Pond and Lake Atlas* issued in May 2003 by

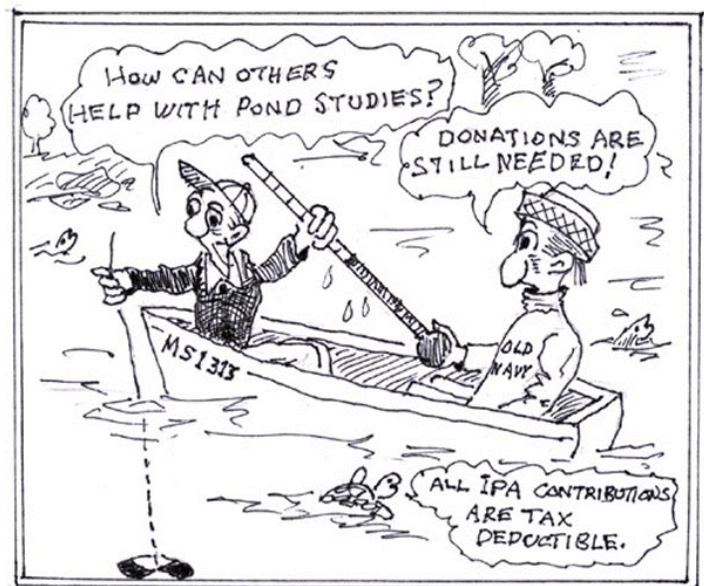
the Cape Cod Commission. Samples were also taken for inclusion in studies, now complete and published, for institutions such as UMass Amherst. Frequent sampling has been done, and will continue to be done, in all three ponds under the supervision of Dale Saad, from the Town Health Division, to ensure acceptable water quality for swimming. Additional monitoring of Mystic Lake and Middle Pond has been funded by Three Bays Preservation, Inc. to look for potential nutrient sources flowing from Mystic and Middle down the Marstons Mills River and into the Three Bays. The sampling and monitoring activities for the IPA study will be designed to complement all of these efforts while providing a more complete "picture" of pond conditions.

Volunteer sampling for the IPA study will begin in April. Samplers include Alexena Frazee for Middle Pond, David and Nancy Dawson for Mystic Lake, and Susan Sawyer for Hamblin Pond. We are extremely grateful to these individuals for donating their time and effort to this important work.

Emory D. Anderson, PhD

SMEDLEY

by Gordon Nelson



THE EFFECT OF RUN-OFF ON BODIES OF WATER

Run-off is a significant source of pollution in bodies of water. Invariably, it is the result of both natural and human-induced activities. These include sources from agricultural, industrial, motor vehicles, and the keeping of pets and farm animals. The paving or black-topping of bare ground that may prevent water from naturally filtering through the soil is another contributing factor. With the approaching re-paving of Race Lane, this article is especially relevant and timely.

To give one an appreciation for the magnitude of the issue, consider that the Indian Ponds are surrounded by or in fairly close proximity to heavily traveled roads, housing developments, an airfield, and a golf course that abuts the Sheriff's horse ranch for boys.

The officially listed sources of water run-off pollution are highway deicing, storm water run-off, septic systems, above-ground and underground storage tanks, vehicle washing, and waste from animals. Also, small quantity chemical use, airport de-icing, fertilizers for agriculture, turf grass, and home gardening, large- and small-scale applications of pesticides, and sewer overflow.

With the elimination of lead dibromide from America's road-sides as a result of the banning of tetraethyl lead in gasoline, the EPA approved the addition of MTBE (methyl tertiary-butyl ether) as an oxygenate to improve combustion of gasoline. Unfortunately, this compound exits unchanged in the exhaust from the tailpipe of a vehicle. This compound is now appearing in surface water and wells, and is already a significant problem in New Hampshire adjacent to highways. Instead of lead poisoning, we may be dealing with a higher incidence of leukemia, which MTBE is known to cause in humans. Having appreciated this issue after the fact, the EPA has mandated the removal of MTBE from gasoline within the next several years.

A recent survey by the Federal Highway Administration (FHWA) regarding point-source and non-point-source

causes of pollution found that the pollutants of major concern discharged from highways into lakes are phosphorous and heavy metals. The major concern for those discharged from highways into streams is heavy metals such as cadmium, copper, lead, and zinc.

To deal with this problem, the considerations must be site-specific and are affected by traffic volume, road or highway design, surrounding land use, climate, and accidental spills.

Here are some suggestions for how you can help the situation:

- ★ Buy hybrid cars to raise your gas mileage from 20 to 60 miles per gallon.
- ★ Encourage wind farms to reduce fallout from fossil fuel plants (the Sandwich plant is a case in point); wind farms should be located in areas acceptable to all, but should not be rejected outright.
- ★ As population density increases around bodies of water, sewage treatment facilities should be included in the design of developments.
- ★ Minimize the use of non-biodegradable chemicals in your life.
- ★ Encourage communities to follow the Coastal Zone Act Reauthorization Amendments of 1990 which include a set of guidelines published jointly by EPA and NOAA to properly design roadways near bodies of water and to retrofit bridge and roadways that do not conform.
- ★ If any residents in the IPA area have their wells tested, it would be helpful to relay the data to the IPA so that it can be collated.

We must all work together if we want to preserve our water source and these beautiful lakes.

See www.epa.gov/ebtpages/alphabet.html for more information.

Curtis Clayman, MD

BIRDERS WANTED

If you're keen about birds,
we'd like to hear from you.

Volunteers are needed
to help the IPA
quantify and describe
the avian society
around our great ponds.

What could be more fun than that?

To volunteer,
please call Paul Craig
@ 508-428-9458

YOU'RE ONLY AS WELL AS YOUR WATER

Private well owners need to be concerned about their drinking water. You may have staining in your sinks or an odd taste in your tap water. You may not be able to detect threatening contamination of your well from septic systems, underground fuel tanks, or spills of hazardous material.

If you drink water from your well, it is wise to have your water tested for contaminants. The Barnstable County Department of Health & Environment has a Water Quality Testing Laboratory that will test your water for various contaminants at a reasonable cost.

Barnstable County Department of Health & Environment
Water Quality Testing Laboratory
Barnstable Superior Court House, P.O. Box 427, Barnstable
Village
508-375-6605
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