THE IPA NEWSLETTER

Mystic Lake, Middle Pond, and Hamblin Pond

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NEW GRAY WILLOW REMOVAL PLAN

A plan has finally been developed for the removal of the invasive gray willow from the shores of the Indian Ponds. It is hoped that waterfront property owners will view this plan favorably. A series of meetings that began in late summer and involved Bartlett Tree Experts of Osterville, Rob Gatewood of the Town's Conservation Division, Town Attorney David Anthony, and IPA Board members finally led to an agreed approach on November 2.

Jim Ingram and Steve Heywood from Bartlett Tree Experts (right) get ready to examine gray willows on Mystic Lake with Don Houghton (left) and Emory Anderson from the IPA.

The new plan will involve a single group permit from the Town's Conservation Commission for the removal and treatment of gray willows. This single permit, the paperwork for which will be handled by the IPA, will be applied for collectively by all the owners of waterfront property on the three ponds who sign up to participate. The permit will authorize Bartlett Tree Experts to cut and dispose of gray willows and treat the stumps with herbicide. Contracts will be drawn up between Bartlett and the individual owners to define work to be done and the cost.

The IPA Board of Directors invited Bartlett to join this effort when it became evident that professionals experienced in the removal and treatment of gray willows would be needed to effectively and legally address this complex problem. Bartlett was selected because of the Stamford, CT- based company's proven 100-year track record of scientific technology in the care of trees. Since gray willows grow in restricted areas that fall under the jurisdiction of the Commission, not only are permits required, but special procedures must be followed to properly and permanently remove this stubborn invasive. Cutting the willows without treating and killing the stumps only leads to a bigger problem as they will sprout and spread. Only licensed experts are permitted by law to administer the herbicide Rodeo needed to eradicate gray willows. In short, property owners should not attempt to remove gray willows without the assistant of experts.

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PUBLIC INFORMATION MEETING ON ALUM TREATMENT

In competition with important games by the Boston Red Sox and the Boston College Eagles, a public information meeting on the Mystic Lake alum treatment design and permitting process was held October 25 at 7:00 pm at Town Hall. Dr. David Mitchell, Kate Dunlap, and Sarah MacDougall of ENSR, a global provider of environmental and energy development services to industry and government, gave a very informative PowerPoint presentation to an audience of 17 interested citizens. The hour-plus meeting began with an introduction to ENSR and the project team, headed by Mitchell, the project's objectives and scope of work (see article on page 4), as well as some background information on Mystic Lake.

Considerable time was spent reviewing available data and information, such as the results of the pond study funded by the IPA and completed by the Cape Cod Commission in 2006, describing field work done by ENSR in August 2007 (see article on page 5) and results from that work, and identifying additional field tasks and analyses to be completed in spring 2008. The remainder of the meeting was devoted to summarizing possible options for inactivating the phosphorus in Mystic Lake, such as aeration or circulation, dredging, and alum treatment. (*Continued on page 2*)

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PRESIDENT'S REPORT

As I write this report, falling leaves remind me that another summer has passed and an uncertain winter lies before us. Aware that our lake and pond levels have been low because of below-average rainfall, let's hope the coming winter brings sufficient precipitation to replenish the aquifer that controls the water levels.

This has been a very good year for the IPA. The Town Council approved funding for phase one of the alum treatment that should, providing the Town funds phase two (the actual alum treatment), improve the water quality of Mystic Lake. There has been steady progress in developing a plan for the removal of invasive gray willows from the shores of the Indian Ponds that we hope will be satisfactory to waterfront property owners. Our membership is currently at a record-high 172 households, a 12% increase from 2006 and a 72% leap from 2003, indicating that residents increasingly view the IPA as a strong, vibrant, and worthwhile environmentally-focused organization with relevant objectives.

The IPA still plays an active role in the Town's Danforth Property Advisory Committee chaired by Councilor Leah Curtis. The last few meetings have dealt mainly with the Cape Cod Airfield and input to a Request for Proposals for a new 3-year contract for the management and oversight of the Airfield. The current operator, Chris Siderwicz, is expected to bid on the new contract. The Committee considers its initial mandate of recommending possible conservation and recreation uses for the 217 acres to basically be complete, but plans to offer its continued services to the Town Manager. IPA members Emory and Geri Anderson, Bob Frazee, Holly Hobart, and Don Treimann serve on the Committee.

The year 2008 will mark the 50th anniversary of the establishment of the IPA. The Board has considered how to commemorate this milestone and has decided to prepare and publish, under the guidance of Holly Hobart, a revised and expanded version of *A Resident's Guide To Living On The Indian Ponds* originally issued in 2003. Other ways to celebrate the anniversary are being explored. Suggestions from members are welcome.

Lastly, let me say how privileged I feel to serve with such a talented and dedicated Board of Directors. The three new members, Bob Derderian, Lewis Solomon, and Carl Thut, bring new ideas and useful experience to the table. When coupled with the talent and expertise of the longer-serving members, a powerful governing body emerges. The IPA membership should rest assured that its best interests are very ably being served.

Emory D. Anderson, Ph.D.

PUBLIC INFORMATION MEETING ON ALUM TREATMENT (*Continued from page 1*)

Results from ENSR's August 2007 field work on water quality and bottom sediments confirmed the findings from the recent pond study and enforced the recommendation for remediation. Both dissolved oxygen and temperature exhibited a sharp decrease at a depth of about 9 m (29.5 ft), while phosphorus increased sharply at the same depth. Sediment samples from nine locations in the lake averaged 43% muck rich in phosphorus. The highest concentrations of phosphorus were found in sediments in the southern, deeper part of the lake.

Sensitive species in Mystic Lake, as identified by the Massachusetts Natural Heritage & Endangered Species Program, include three freshwater mussels and three dragonfly/damselfly species. Only the mussel species are relevant for the proposed alum treatment. The August ENSR survey indicated that the mussels are most prevalent in depths of 5–15 ft.

ENSR has determined that alum is the most appropriate approach for inactivating phosphorus in Mystic Lake. It can provide long-term (10–20 years) reduction of phosphorus recycling, does not require any permanent structures, and can be done quickly with immediate positive results. Mystic Lake is ideal for using alum because the internal source (i.e., in the sediments) of phosphorus is high relative to external sources (e.g., from septic systems), retention time of water in the lake is high (1.1 years), water chemistry (e.g., pH, alkalinity) is amenable to an alum treatment, species potentially sensitive to alum are few or avoidable (e.g., mussels), and density of rooted plants in the area at the time of treatment is low.

The proposed alum treatment would be applied only to areas 30 ft and deeper (about 33% of the lake surface) and would be done in fall 2008, assuming 1) no further monitoring requirements, 2) all permits and approvals are given by the Town and State agencies, and 3) funding for the alum treatment is authorized by the Town Council. ENSR's final report will be submitted by mid-summer 2008.

Emory D. Anderson, Ph.D.

TRIBUTE TO TED ELIOTT

Ted Eliott
1937–2007

Theodore "Ted" Eliott, a former IPA Board member and vice president, lost his battle with cancer and passed away on August 27.

Ted was a long-term member of the IPA. He was vice president when the IPA was "rejuvenated" in early 2001. His waterfront home on Mystic Lake was a frequent venue for IPA annual meetings as well as Board meetings. When the IPA launched the major study of the water budget and water quality of the Indian Ponds in spring 2004 and began soliciting contributions from members to cover its cost, Ted generously provided significant financial support.

Ted was a dedicated educator and taught English in both Quincy and Wareham schools before retiring in the mid-1990s. He enjoyed travel and regularly scheduled ocean cruises with a large group of friends from all around the country. He also had a special fondness for Christmas decorations and purchased his first lighted display at an early age. His collection of holiday decoration eventually numbered in the hundreds. Initially, they adorned his family home in Milton, but several years ago he moved them to his home on Indian Pond Point. Those who had the opportunity to view his massive lighted display will always remember it.

Ted will especially be remembered for his tradition of cruising around Mystic Lake and Middle Pond on his decorated pontoon boat on July 4. Each year he would gather friends and family members and, with patriotic music playing, would distribute small American flags to children on the various public and private beaches. This year, Ted was unable to make the trip because of poor health and inclement weather. However, he did have one final ride on his beloved boat with friends just a few weeks before his death. Ted Eliott's presence around the Indian Ponds will be greatly missed.

Emory D. Anderson, Ph.D.

Ted Eliott aboard his pontoon boat decorated for his annual July 4 excursion around Mystic Lake and Middle Pond to distribute American flags to children.

GRAY WILLOW REMOVAL PLANS (*Continued from page 1*)

The new plan with Bartlett will constitute a team approach by certified arborists and licensed herbicide applicators. James Ingram, Vice President and Division Manager of Bartlett, with whom the Board has interacted primarily, will provide the Conservation Division with a step-by-step protocol for the removal and treatment of the gray willows. Steps in this protocol will include 1) proper identification of gray willows on the properties of participating owners, 2) optimal timing of their removal, 3) cutting process, 4) herbicide application process, 5) removal and disposal of debris, and 6) follow-up monitoring in the following year(s) to ensure total eradication. Bartlett will use vegetable-based bar oil in all its chainsaws to avoid contaminating pond water with petroleum-based oil.

Early in 2008, the IPA will write to each waterfront property owner explaining the gray willow removal process, its cost, the rationale for why the removal of these invasive trees is important, and instructions for signing up with this program. A deadline for signing up will be specified in the letter. Each owner who signs up will be put in touch with Bartlett to arrange a contract for the work to be done. Those who sign up will be required to sign the application for the group permit.

The cost for each owner will be determined by Bartlett based on the number of trees and the extent to which the owner may wish to dispose of the debris rather than have Bartlett handle the entire process. Based on a survey of sample properties on Mystic Lake on October 10 by Ingram, Steven Heywood, Local Manager of Bartlett, and Don Houghton and Emory Anderson of the IPA, estimates of brush cutting and removal and herbicide treatment costs were developed by Bartlett. These estimates generally ranged between $630 and $2,835, depending on the number and size of gray willows, with 56% of each estimate for the brush component and 44% for the herbicide component. The brush component cost can be reduced if the property owner handles some or all of the debris disposal. The herbicide component cost is high because the herbicide Rodeo is expensive and the training and licensing of Bartlett personnel in the application of the herbicide is also costly. Bartlett will allow a 10% discount if at least 20 properties sign up, and a 15% discount if at least 40 properties sign up. It is planned that all cutting and herbicide treatments will be done during the period July 14–28, 2008.

In order not to disrupt or damage other vegetation in the buffer zones of waterfront properties, most cutting and treating will be done from the waterside. Cut trees will be loaded onto a floating brush platform, transported to an access point on the pond, offloaded, chipped, and trucked away. As noted above, owners will have the option to self-stack debris and dispose of it at their discretion (e.g., burning during the winter burning season), but must adhere to procedures specified by Bartlett to avoid inadvertent rooting of cut branches.

Emory D. Anderson, Ph.D.

PHASE ONE OF MYSTIC LAKE ALUM TREATMENT– WHAT'S INVOLVED

ENSR Corporation was selected by the Town of Barnstable for conducting the Nutrient Inactivation Design and Permitting Project (Phase 1 of alum treatment). Its lake assessment and management staff, which performs diagnostic/feasibility studies, has a cumulative experience of over 50 years and 200 projects, and has published technical papers and lay guidance documents on lake management. ENSR is very familiar with the design and permitting of successful nutrient inactivation treatments and has performed similar work for municipal clients, government agencies, and private lake associations on Cape Cod. For example, in addition to the original design work on Hamblin Pond in Barnstable, ENSR provided the design, helped obtain permits, and provided technical oversight for the Ashumet Pond treatment in neighboring Falmouth/ Mashpee. It recently permitted the nutrient inactivation treatment for Long Pond (Brewster, Harwich) and provided oversight for the alum application in fall 2007.

Purposes of Nutrient Inactivation

To address the internal phosphorus recycling, inactivation of sediment phosphorus with aluminum sulfate (alum) buffered with sodium aluminate is being currently considered. While other means are available for inactivating phosphorus (e.g., hypolimnetic aeration, artificial circulation, dredging), based on the available data, large size for treatment, and the excellent long-term performance of the alum treatment in neighboring Hamblin Pond (see figure), an alum treatment appears favored. The purpose of the proposed alum treatment is to:

- Inactivate phosphorus in the sediments of Mystic Lake, thus reducing the amount of nutrients available for phytoplankton growth in the pond.
- Improve the ecological health of Mystic Lake, including increasing dissolved oxygen levels in the deeper waters of the pond and increasing water clarity.

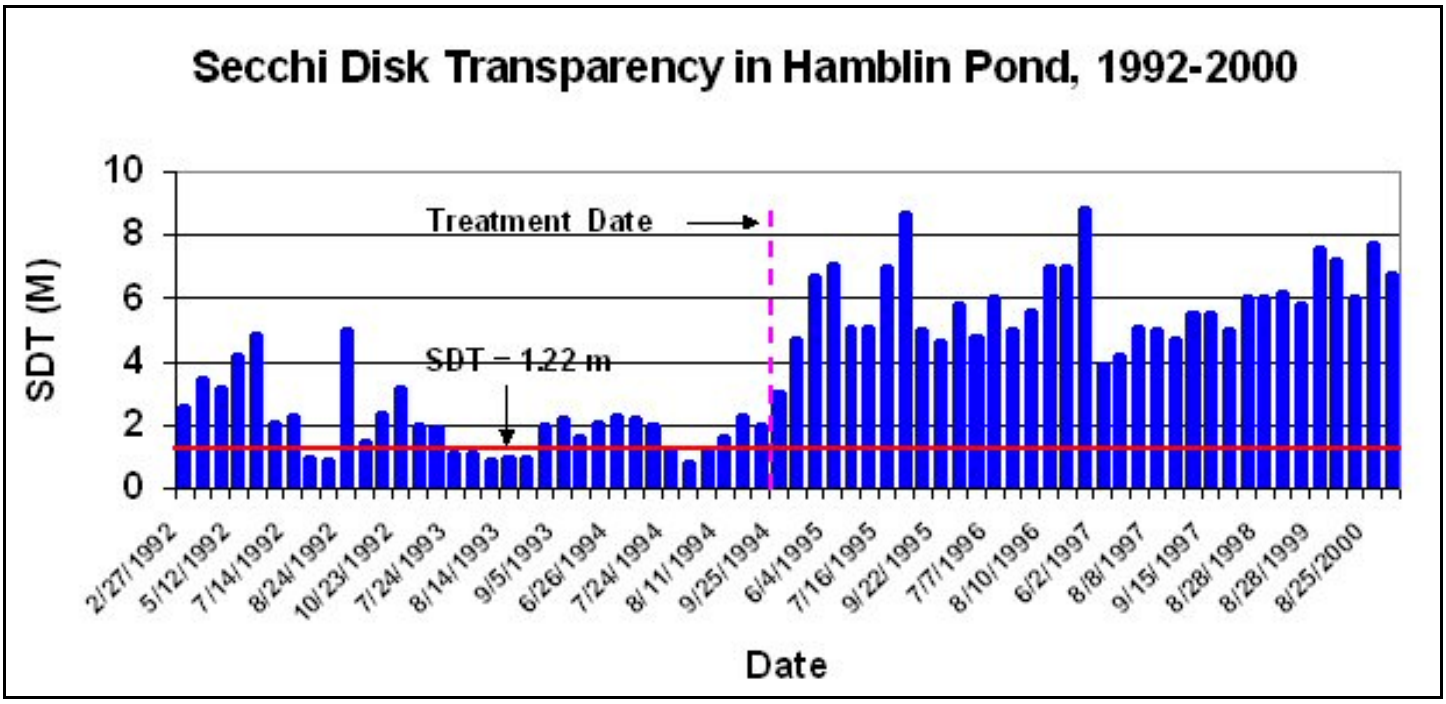
The first phase of this process is the design and permitting of the nutrient inactivation treatment.

Project Tasks and Activities

Supplemental data need to be collected to support the specialized calculations required to design the treatment plan, including sampling of water quality, sediments, and sensitive species. This has been partly accomplished in three pond surveys conducted in late summer, one of water quality, a second of sediments, and a third of freshwater mussels (see article on page 5). Two additional pond surveys will be done in spring/summer of 2008.

In addition to data collection, ENSR held an initial kickoff meeting (see article on page 1) for purposes of discussion and project coordination. After all assessment and evaluation activities are completed, ENSR will develop a detailed conceptual design of a phosphorus inactivation treatment plan. This will be used to support lake management decisions and the permitting process, and for preparation of an RFP for Phase 2 (actual alum treatment) of the project. Since ENSR does not do actual alum treatments, a subcontractor must be employed. ENSR will prepare a draft Notice of Intent for the Town Conservation Division and assemble the input for the permitting required under the Massachusetts Endangered Species Act. Finally, they will prepare a report summarizing the conceptual design and including a draft technical scope of work and a schedule.

Source material: "Mystic Lake Nutrient Inactivation Design and Permitting Project Fact Sheet" provided by Dr. David Mitchell of ENSR.



FIELD WORK FOR PHASE ONE OF ALUM TREATMENT

On August 14, 15, and 21, personnel from ENSR completed surveys of water quality, sediments, and mussel distribution as part of the design and permitting phase of the Mystic Lake alum treatment. Boat service for these surveys was provided by IPA members Don Houghton, David Dawson, and Emory Anderson.

Water quality samples (for nutrient analysis) and measurements of dissolved oxygen, temperature, pH, alkalinity, and conductivity throughout the water column were obtained at three locations in the lake on August 14 by Kate Dunlap and Sarah MacDougall of ENSR.

Kate Dunlap from ENSR prepares to remove a sample of "muck" from a full Eckman bottom dredge collected in Mystic Lake.

On August 15, Dr. David Mitchell, Senior Ecologist and Project Director from ENSR, joined Kate and Sarah for the sediment sampling. On an otherwise beautiful day and even with the use of two anchors on Don Houghton's pontoon boat operated by Emory Anderson, strong southwest winds and a balky Eckman dredge made for a challenging day of collecting bottom sediment samples from nine locations throughout the lake. Most samples consisted of strong-smelling, black "muck" characteristic of lake bottoms rich in organic matter and excess phosphorus.

On August 21, Kate and Wendy Gendron from ENSR conducted a mussel survey from Don Houghton's pontoon boat (also operated by Don). Holly Hobart accompanied as an IPA observer. The purpose of this survey was to evaluate the areal and depth distribution of freshwater mussels determined to be rare or endangered by the Massachusetts Natural Heritage & Endangered Species Program.

The survey was done using the point-intercept method. On a map of Mystic Lake, 17 transects, lines drawn from points on the shore out to the nearest deep water contour line, were superimposed. These transects were spaced equidistantly from each other. For each transect, a set of readings was taken at each 5-ft depth change. For example, on transect #1, the boat was stopped and the first reading was taken at 10 feet of depth, the second reading at 15 feet, the third at 20 feet, the fourth at 25 feet, and the fifth at 30 feet. A reading, or data point, consisted of recording the depth, the GPS latitude/longitude coordinates, and four observations (plant cover, plant height, presence or absence of mussels and other organisms, and bottom type) with an underwater video camera.

Wendy Gendron from ENSR looks through the viewing screen of the video camera system used to survey the distribution of freshwater mussels in Mystic Lake.

The video camera system had a viewing screen, located on the boat, connected by a transducer cable to a small, immersible camera equipped with its own lighting system. This equipment produced a remarkably clear picture of the lake bottom. With the boat positioned at the desired depth along a transect line, the camera was lowered into the water, and the operator (Wendy Gendron) recorded whatever was seen.

Consistently heavy plant cover was observed between depths of 10 and 20 ft. Live mussels were generally profuse between 15 and 25 ft of depth all around the lake, although they were less concentrated along the northeastern corner of the lake than in other parts. Mussels were not observed below 25 ft, and no life of any kind was observed below about 28 ft, where the bottom consisted predominately of fine black silty material, as was found in the dredge survey. The camera survey was also unable to ascertain to whether there were mussels beneath the heavy plant cover in the 10– 20-ft depth range. In addition, frequent users of the lake will have seen large concentrations of mussels on shallow sandy bottom (e.g., sand bar on northeast end of Ram Island, along the entire south end of the lake).

A second water quality survey will be conducted in spring 2008 and a further survey of the distribution of sensitive species will be done in spring/summer 2008.

Holly Hobart and Emory D. Anderson, Ph.D.

QUESTIONS ABOUT ALUM, PUBLIC HEALTH, AND SAFETY

What is alum?
Alum is the common name for aluminum sulfate, a compound derived from aluminum.

Is alum safe?
Yes. Alum and related forms of aluminum are extensively used in food (baking powder), medicines (antacids, buffered aspirin), and to purify drinking water. Alum is also extensively used to provide effective control of algae in contaminated lakes. Alum has been shown to be harmless to water creatures and aquatic plants.

Is aluminum safe?
Aluminum, the most abundant metal on earth, is found in soil, water, and even the air. Aluminum also occurs naturally in many foods, especially tea. Because aluminum is present throughout the environment and is used in a wide variety of products and processes, it is impossible to avoid exposure to aluminum on a daily basis. Because of this unavoidable exposure, researchers have long been studying its effects on humans. Research has focused on possible link between aluminum ingestion and Alzheimer's, Parkinson's, and Lou Gehrig's disease. No evidence exists to suggest that ingested aluminum poses a health threat. Early studies suggested aluminum may play a role in Alzheimer's disease, but more recent work negates these reports. The U.S. Food and Drug Administration, the U.S. Environmental Protection Agency, and leading medical experts concur that aluminum does not pose a health risk.

How is alum used in water treatment plants?
Most surface water treatment plants around the world use alum to help remove harmful waterborne microorganisms and other particles by causing them to clump together (coagulate) into larger particles that then are easily removed by sedimentation or filtration. In the United Stated alone, hundreds of thousands of tons of alum are used annually by water treatment plants.

How does alum control algae in lakes and ponds?
An alum treatment does not kill algae. Alum is not a poison. What it does is greatly reduce the availability of phosphorus – a necessary food source for algae.

How does alum trap phosphorus?
When alum is injected into water it becomes aluminum hydroxide (the principal ingredient in common antacids). This fluffy substance, called a floc, settles to the bottom of the lake. On the way down, it interacts with phosphorus to form an aluminum phosphate compound that is insoluble in water. The results: phosphorus in the water is permanently trapped in lake bottom sediments and can no longer be used as a food by algae. An added bonus: as the floc moves through the water, it also collects other suspended particles in the water, carrying them to the bottom and leaving the lake noticeably clearer.

What happens to the alum that has been added to the lake?
The floc settles to the bottom of the lake. As it combines with and traps the phosphorus it becomes an insoluble and permanent part of the sediment layer at the bottom of the lake.

Carl Thut, Ph.D.

Source material: Executive Office of Environmental Affairs, Commonwealth of Massachusetts "Eutrophication and aquatic plant management in Massachusetts, Minneapolis Park and Recreation Board "Alum treatments", Health Canada "Aluminum and Human Health", American Chemical Society "Aluminum compounds", and Q Chef "Cooking with Alum".

DON HOUGHTON – IPA VOLUNTEER EXTRAORDINAIRE

The IPA is able to function only because of the efforts of its dedicated Directors and others who give of their time and effort. One such person who has consistently volunteered and been of considerable service the past several years is Don Houghton. This past August, Don, who lives on Mystic Lake, provided his pontoon boat on two different days to serve as a work platform for ENSR field work. In October, his pontoon boat again was used to ferry personnel from Bartlett Tree Experts around Mystic Lake to estimate gray willow removal costs. In preparation for that exercise, he assisted in placing boundary markers on some of the properties to be examined. In previous years, both Don and his wife Judy have participated in pond sampling and in the derelict boat and debris clean-up.

The IPA salutes Don (and Judy), with appreciation, for their generous help.

IPA member Don Houghton skillfully navigates his pontoon boat during the August 21 video camera mussel survey conducted by ENSR personnel.

Left to right: Eric Lavigne, Reneé Lavigne, Peter Lavigne (Leader), Nick Atcheson, and Nolan Ryan.

COASTSWEEP 2007

Coastsweep 2007 is the 19th annual beach, pond, and stream cleanup held in Massachusetts and sponsored by the Massachusetts Office of Coastal Zone Management and the Urban Harbors Institute of UMass Boston. Massachusetts Coastsweep is one branch of an international campaign organized by The Ocean Conservancy in Washington, DC in which volunteers all over the world collect shoreline debris and record the types of trash they find. This information is used to develop programs to reduce littering in oceans, ponds, and streams.

IPA has participated in Coastsweep for the past five years. This September two groups worked on the ponds. Boy Scout Troop 54, under the leadership of Peter Lavigne, cleaned up the Hamblin Pond Town beach. Scouts Peter, Michelle, and Nick Atchison, Eric Lavigne, and Nolan Ryan collected 150 pounds of trash including 55 food wrappers and containers, nearly 200 cigarette butts, and 54 bottles, cans, caps, and lids of beverage containers. On the Mystic Lake Town beach, Jim McGuire and Ken and Holly Creighton collected an additional two large bags of trash. IPA thanks all who participated and urges all beach users to leave only footprints.

P IS FOR PHOSPHORUS, P IS FOR PONDS

The battle to remove phosphates from laundry detergents was successfully fought and won in state legislatures a decade or more ago. But many dishwasher detergents still contain phosphorus, which moves into the groundwater from our septic systems and eventually ends up in our ponds where it promotes the growth of algae and degrades water quality. On October 3, the Massachusetts Senate passed Bill S-536 which would limit phosphates in household detergent products. The bill is now in the House Ways and Means Committee. Please send letters and e-mails to the Committee Chairman and the Speaker of the House urging them to support the passing of this important legislation.

Robert A. DeLeo, Chairman, House Ways and Means Committee, Room 243, State House, Boston MA 02133. E-mail: Robert.DeLeo@state.ma.us.

Salvatore F. DiMasi, Speaker of the House, Room 356, State House, Boston MA 02133.
E-mail: Rep.SalvatoreDiMasi@hou.state.ma,us.

And while we're waiting for this bill to pass, do our ponds a great favor and buy dishwasher detergents that don't contain phosphorus!

VILLAGE DAY 2007

Marstons Mills 18th Annual Village Day was held Sunday September 9. Following the 4th Annual Road Race of 4 miles at 11 am with 61 participants, a host of activities and displays were enjoyed by a sizable crowd on a humid, but generally pleasant afternoon.

The IPA again had a display table and children's craft table. The display featured information on invasive plants, the alum treatment for Mystic Lake, and various activities associated with the IPA's mission, all mounted on a new, recently purchased tabletop fabric display board.

Various IPA Directors and members assisted at the table, including Jane and Don Smith, Jim McGuire, Carl Thut, Jon Halpert, Holly Hobart, Don and Judy Houghton, and Emory and Geri Anderson.

Patrick Thut (front right) and his sister Abigail (rear right) assist (left to right) Annie Endicott, Rylie Garlington, and Jett Doherty in decorating turtles at the craft table sponsored by the IPA.

EXOTIC VISITORS TO MILL POND

Sometime toward the end of September of last year, my wife called me to say that there were some strange ducks on Mill Pond. I, of course, having nothing better to do, grabbed my binoculars and one of our bird identification guide books and went off on a hunt. We are speaking of Mill Pond in Marstons Mills at the intersection of Routes 28 and 149.

Male American wigeon.

When I got there, I immediately assumed that she was not speaking of the population of mallards, so I concentrated on the other big population of ducks on the pond. They were not really hard to identify since the males were present. They turned out to be American wigeons. Once known as baldpates, because of the male's white crown which resembles a bald man's head, these ducks have distinctive green ear patches extending back from their eyes and have a small, light blue bill. The females, naturally, are not so ornamental, and resemble mallard females. They have a light grey head and the same light blue bill as the male, with a dark eye patch.

We have not been birding long and have only accidently acquired a fairly good list, but we do like to see new species, so this was an interesting find for us. Now, these birds may have been coming to Mill Pond for years and we just hadn't noticed them before, so I was looking forward to their return this year. The American wigeon breeds, in the summer, in northern North America, Alaska, northern Manitoba, southern Quebec, the Dakotas, and the Great Lakes region and migrate to winter along the Pacific, Atlantic and Gulf coasts. About the end of September or the first of October, I noticed some female wigeons on the pond and learned another fact about them. The males and females don't seem to migrate together. The males showed up about two weeks later.

Someone else had noticed the arrival of the females too. The Cape Cod Bird Club has a list serv for people to note bird spottings. On that site, someone from Marstons Mills noted that among the arriving females was a single, much rarer, Eurasian wigeon. This, of course, set me off on another hunt. The Eurasian wigeon breeds in Iceland, the British Isles, Scandinavia, and northern Russia. It winters, more often, along the Pacific coast and only rarely along the Atlantic. The literature suggests that there may be only a hundred of these birds along our coast.

Male Eurasian wigeon.

Sure enough, upon arrival at Mill Pond, we found the lone female, but also noted that the male American wigeons had arrived and among them was a male Eurasian. The Eurasian has a rufous-brown head with the same white to yellowish-white crown, but without the green eye patches of the American and the same short, light blue bill.

As of mid-October, they had all been there for about a week, and I saw them every day. Some stragglers could be found in the front cove to the right as you're standing at the viewing pullover, but most of them were out in the middle of the pond, so a pair of binoculars was needed to see them. The Americans spend the winter here, so I hope the Eurasians will be around that long too.

Dave Reid

MILL POND

Mill Pond, well known for its scenic beauty, waterfowl watching, and herring run, is also important for other reasons. It has been designated, together with Mystic Lake and Middle Pond, a "Core Habitat" by the Massachusetts Natural Heritage & Endangered Species Program because it is home to rare plant and animal species and exemplary habitats. Mill Pond also helps remove nitrogen from water flowing into and through it from the Marstons Mills River by the process of attenuation. Thanks to one of the three lake/pond restoration projects funded by the Town Council in April 2007 (design and permitting for the eventual dredging of Mill Pond), the pond is expected to remove as much as 25% more nitrogen, pending successful dredging plans and additional Town funding, and assist in reducing the nitrogen load entering and polluting the Three Bays Estuary.

IPA CAPS FOR SALE

Support and publicize the IPA!

Price: $15

To buy caps, call Geri Anderson (508-420-2303)