

Town Committees

Sudbury, Massachusetts



Ponds and Waterways Committee

Master Plan

Appendix 2 – Report on Pond Committees

M E M O R A N D U M

TO: Sudbury Board of Selectmen

CC: Maureen Valente

FROM: Ponds & Waterways
Committee

DATE: December 19, 2006

RE: Report of the Ponds and Waterways Committee on
Other Towns' Similar Committees

The Mission Statement of the Ponds and Waterways Committee ("PWC" or the "Committee") established by the Sudbury Board of Selectmen ("BOS") requires the PWC "to identify similar pond and waterway groups in other towns in Massachusetts (or elsewhere if applicable), and summarize and evaluate their mission, make up, relationship to other town boards and commissions, success rate, [and] challenging issues."

I. Regional Groups

There currently exists a plethora of regional nonprofit organizations dedicated specifically to the conservation of rivers, ponds and waterways. The most visible local organizations are the Organization for the Assabet River ("OAR") and, to a lesser extent, Sudbury Valley Trustees ("SVT"). The Federally-designated Sudbury, Assabet & Concord Wild and Scenic River

Stewardship Council ("RSC") is another active local organization, These regional organizations are important resources for information sharing. The RSC offers potential grant funding. We assumed for the purposes of this initial inquiry, however, that the BOS is interested in evaluating the function of *municipal* committees similar in structure to the PWC.

II. Analogous Municipal Committees

A non-exhaustive search of available public records indicates the existence of hundreds of local non-profit associations or committees that are similar in scope, structure and organization to the Hop Brook Protection Association ("HBPA"). These private groups generally strive to work in partnership with municipalities, in order to effectuate site-specific goals.

On the municipal level in Massachusetts, generally pond and waterway conservation efforts are managed exclusively by local conservation commissions. The PWC's structure appears to be a hybrid of the two models, i.e. a municipal committee dedicated to water quality issues that is separate and distinct from the Conservation Commission.

In Massachusetts, we identified four that we believe might be instructive in evaluating the organization and function of the PWC. They are:

- Wayland Surface Water Quality Committee;
- Wellesley Natural Resources Commission;
- Edgartown Pond Advisory Commission; and
- Walpole Water Quality Commission.

1. Wayland Surface Water Quality Committee

The Wayland Surface Water Quality Committee ("SWQC") was chartered by the Board of Selectmen in 1976 to "oversee, monitor, maintain and improve the health and quality of bodies of water in the Town of Wayland... SWQC shall take appropriate action to maintain water quality, contain invasive weed growth, and seek and manage appropriate grants to improve the surface waters."

The SWQC is comprised of five appointed volunteers and works closely with Park & Recreation, Board of Health, Water Department, Conservation Commission, It is a member of the state-wide council on lakes and ponds. According to the SWQC Chairperson, Jackson Madnick, despite roadway, storm drain, septic and water quality improvements, invasive weeds plague the Town's waters. Restoration, remediation and conservation are

the SWQC's greatest challenges. SWQC members attended a major international conference of lakes management in November 2003 to review new approaches, techniques and other towns' water management successes to see what might work in Wayland.

During the past several years, according to Madnick, SWQC successfully addressed and performed the following projects and programs:

- **Dudley Pond**

For management of the invasive weed called Eurasian Watermilfoil, in 2003 Dudley was tested with a "plan test" to create a scientific baseline to determine how much Sonar herbicide was necessary to control the weeds. Two applications of Sonar were applied during the summer of 2003. However, repeated use of herbicides is expensive and can create herbicide resistant plants. There are also environmental concerns for native fish, birds and wildlife. Equally, there are health concerns for children, elderly and drinking water. A range of complimentary programs and research was implemented to try to eliminate or seriously extend the period between future chemical treatments. The SWQC researched weed control methods used around the country and brought in experts to explore options.

Alternative programs were also developed. A waterproof barrier was installed in Dudley Pond to protect a small stand of invasive weeds from the herbicide as part of a pilot test area. Weevils, native weed-eating beetles, were introduced to the test site in the spring of 2005 to see if they would survive in the ecology of Dudley Pond. A weed management consultant did a "draw down" feasibility study of Dudley Pond and found that this method could "save the Town millions of dollars over the long run." Draw down can be used alone or in conjunction with hand pulling weeds and/or beetles, or a fish called Japanese Carp (when legal) or other methods.

In the spring of 2004, SWQC was informed of the success of a Clean Water Act § 319 grant filed by the Dudley Pond Association, that will be financially managed by SWQC. This grant will cover the introduction of more beetles, address a runoff problem by the middle school, and fund some public education and stenciling of storm drains.

Since 2004, under SWQC organization, divers have been hand pulling milfoil weeds. In 2004, 12,000 weeds were pulled; the next year, 40,000 weeds were pulled; and last summer, 140,000 weeds were pulled. The

problem is not close to being eradicated yet. In conjunction with this effort, there are two ongoing pilot tests using biological controls: 1) milfoil-eating weevils are still being studied; and 2) mechanical pond circulators that mix the water column are also being evaluated.

This past fall, the SWQC received Town funding to perform water and soil testing in and around Dudley Pond for baseline pollutants, including pesticides and nutrients.

- Heard Pond

A harvesting vendor (ACT) was selected by SWQC to harvest invasive water chestnut. SWQC devised a plan to compost the weeds at the Wayland landfill instead of using a private contractor to haul them away. SWQC tested the weeds to affirm acceptable quality and non-toxicology of the final compost. The SWQC worked with the Departments of Health, Highway, and landfill to use excess Town resources to bring the cut water chestnut weeds to the Wayland landfill. According to Madnick, "This saved the Town over \$150,000 from 2003-2005 in private contractor hauling and incineration fees and Massachusetts from more air pollution."

During the first year of harvesting, 1.2 million

pounds of high grade weed compost were created. In 2004, that number dropped to .5 million pounds. In 2005, 140,000 pounds were extracted, and in 2006, the volume was reduced to 26,000 pounds. The success in reducing the water chestnut volume has resulted in a program that has nearly paid for itself. The composed water chestnuts are offered free to Town citizens. The remaining volume has then been traded for necessary top soil for Town projects, which the Town otherwise would have had to have purchased. The SWQC intends to continue overseeing Heard Pond's harvesting for the next couple of years in an effort to eradicate this weed completely. The SWQC will also explore getting the Federal government to cover most of the future harvesting cost at Heard Pond, which is mostly on Federal land.

SWQC was also successful in persuading Channel 4 TV News to do a live remote broadcast to promote the environmental and cost savings activity at Heard Pond and bring positive public relations to the Town. Positive print stories were also placed in the Boston Globe and Metrowest News.

In the future, SWQC intends to assemble a joint meeting of Town boards, departments and committees

related to ground and surface waters, to discuss Town water-related issues and public education. It is in the process of installing new signage at boat launch areas to prevent the spread of weeds. It is also seeking to undertake an aerial infrared remote scanning project to identify leaking septage from septic systems in the vicinity of the Town's three great ponds (and possibly also certain public water supplies). The remote scanner would also identify buried oil or chemical storage tanks. Although the cost of the scanning has been estimated at between \$5,000 and \$6,000 in the immediate vicinity of the three ponds, the company offering these services, A W Research, must fly a plane from Minneapolis for this purpose, at a cost of an additional \$20,000. To defray that cost, the SWQC is seeking partners in other nearby Towns, including Sudbury.

The greatest challenge to the SWQC is funding. For the past thirty years, the Town has provided annual line item funding to the SWQC of \$5,000, which in today's dollars is far too little for the tasks at hand, according to Madnick. Over the years, supplemental Town funding has come from Town Meeting approval of various warrant articles. This year, the

SWQC will be seeking a sizable increase in line item funding. In addition to Town funds, the SWQC is constantly researching and pursuing different sources of State and Federal funding. Chairman Madnick stated that he has to be very creative in organizing volunteers and encouraging community spirit as a result.

2. Wellesley Natural Resources Commission

The Wellesley Natural Resources Commission ("NRC") was formed in 1992 "to provide stewardship, education and advocacy of the Town of Wellesley, park, conservation, recreation and open space system so that the full value of the Town's natural assets can be passed on to future generations." The NRC has five elected board members and functions as a coordinator of the activities of the Conservation Commission, the Park Commission, the Tree Warden, the Town Forest Commission, the CPC, and Pesticide Application Controllers.

The NRC's department head, Janet Hartke Bowser ("Bowser") provided information regarding the NRC's relationship to other Town boards, success rate and challenging issues. Bowser stated that NRC works closely with the Department of Public Works, as well as with "friends of ponds" groups, which are mainly

neighborhood associations, and the Charles River Watershed Association. The NRC maintains a distribution list of organizations to help keep them plugged in to local activities and events.

Bowser characterized the NRC's success rate as "high," but "not as high as they would want." She stated that the NRC has secured funding for the remediation of four (4) ponds, a significant accomplishment given the dearth of available state funding. However, she did note that the NRC has been successful in obtaining Water Quality Improvement Grants under the Federal Clean Water Act, § 319. This has been one of the NRC's largest funding sources.

Bowser opined that permitting can be a major challenge and that they had hired an independent consultant to assist. She also noted that the town engineer and the DPW have taken a special interest in the NRC, and that this has helped them significantly. The biggest challenge is clearly managing the complexities of pond restoration. She said their Longfellow Pond was particularly challenging in that they expect that they will need to do weed harvesting indefinitely. However, she pointed out that they have a

new harvesting technique using a depth finder, which allows them to do selective targeting.

Finally, Bowser noted that the Community Preservation Act (CPA) has been key in helping them with some of their funding challenges. Additional information regarding the NRC can be found at www.ci.wellesley.ma.us/nrc/index.html.

3. Edgartown Pond Advisory Commission

The Edgartown Pond Advisory Commission ("PAC") was formed in 1990 when pond water quality was identified by the Town as "an area of critical concern." Its mission is set forth in its By-laws:

The Board of Selectmen shall appoint an Edgartown Ponds Advisory Committee for the purpose of advising Town Boards, Commissions, Committees or Departments with respect to the use and management of uplands, wetlands and surface waters within the Edgartown Ponds Area District as set forth in the Edgartown Zoning By-laws Section 14.6.2 and assist in carrying out the programs designed to meet the needs of the commercial shellfishing industry and the family shellfish program of the Town of Edgartown.

We spoke with PAC member Jane Varkonda. The make-up of the PAC includes:

- A representative of the Marine Advisory Board;
- A representative of the Planning Board;

- A representative of the Conservation Commission;
- A representative of the Board of Health;
- A representative of the Shellfish Committee;
- Four representatives of the riparian owners and property owners whose interests and properties are located in the Edgartown Ponds District;
- A representative of the commercial shell fishermen; and
- A representative of the interests of conservation groups.

Ms. Varkonda stated that a representative on the PAC was also a member of a private group called the "Great Pond Foundation" (<http://www.greatpondfoundation.org>). She said that this private group worked cooperatively with the PAC to raise money to support the initiatives of the PAC. She said it also paid for related studies. Ms. Varkonda noted that representatives on the PAC work cooperatively with "Friends of Sengekontacket," which she described as a 'powerful neighborhood association, as well as the "Martha's Vineyard Barrier Beach Task Force."

As noted, PAC members include representatives designated by these various Town boards and commissions. Ms. Varkonda believes the model has been very

successful. She noted as examples of successful projects: (i) regulating the horsepower of motors on certain bodies of water; (ii) initiating by-laws for reviewing construction near waterways; and (iii) educating the public.

Ms. Varkonda identified several success factors for the PAC, noting that Committee members are driven, motivated, and keep the committee running effectively. She highlighted the presence of a strong chairperson, who has been instrumental to "get at the PAC to work together, bring new ideas, be creative, and get things done." She also noted that working with the external groups has been very important. They have helped provide emphasis on priority setting, and they have assisted with cooperative fund raising. Information on the PAC can be found at <http://www.edgartown-ma.us/department.php?depid=50>.

4. Walpole Water Quality Commission

The Town of Walpole Ponds Management Committee ("PMC") acts in an advisory capacity. The group is made up of 5 appointed members who have a general interest in the conservation issues regarding preservation of the waterways. Some members have

specialized knowledge and interest that assist the group in meeting the goals of the committee.

According to Conservation Commission Ponds Liaison Roger Turner, the mission of the PMC is to protect Town-owned watersheds. In addition, it offers outreach education to the general public. Some of the educational programs offered by the committee are co-sponsored with the Department of Conservation and Recreation or the Department of Natural Resources at the state level. The PMC also writes and secures grants to be used for the evaluation and planning of aquatic treatments.

Several of the committee members sit on other Town boards such as Conservation, Finance and Capital Budgets, Emergency Management and Land Development & Management. Involvement in these other Town committees and boards assists with facilitating funding, and keeps the committee members abreast of other Town activities that might affect the committee goals.

The PMC is also involved with other groups, such as the Neponset Watershed Association, which offers a quality assurance program. This program assures continuity across all groups that conduct water samplings for all towns that are members.

The PMC struggles with securing funding to provide educational outreach programs to the general public. Lack of funding directly affects PMC's ability to apply aquatic management treatment and planning to the waterways as well. Many of the grants that had been offered in the past are no longer available. The Town does not adequately fund the goals of this committee because other needs, such as education, are seen as a higher priority.

A single most challenging issue that the PMC faces is controlling privately-owned water bodies, They can become polluted, and some flow into publicly-owned waterways, resulting in even greater concerns. Another challenge is the control of invasive water plants by non-chemical means.

Some of the successes the PMC has experienced in years past include securing funds to support a trial use of beetles to control invasive water plant growth versus chemical treatment. The PMC also performs harvesting of water chestnuts on an annual basis to control this invasive plant. Finally, the PMC has co-sponsored educational programs annually with the Department of Conservation and Recreation, such as "Exotic Plants in Waterways." The PMC has also

organized an educational fair in cooperation with state groups (such as Water Watch), vendors (such as LYCOT Environmental) and UMASS Amherst to provide a venue of all interested parties to come together and share information.

III. Conclusion

The municipal groups studied share similar goals and organizational structures with the PWC. All struggle with insufficient funding but rely upon building relationships with town departments and local watershed associations in order to achieve levels of effectiveness. Of all the groups, however, the Wayland Surface Water Quality Committee emerged as the brightest example of an organization that consistently accomplishes positive results. We attribute the SWQC's strength to several factors, including: (i) creative leadership and innovative event planning; (ii) support from a broad spectrum of Town departments and political constituencies; and (iii) a willingness on the part of Town government to lend credibility and financial support to well-planned initiatives, including but not limited to dedicated line item funding in the annual Town budget. We believe the Wayland model is a good example of how the PWC could be most effective in accomplishing the goals outlined in the Mission Statement.