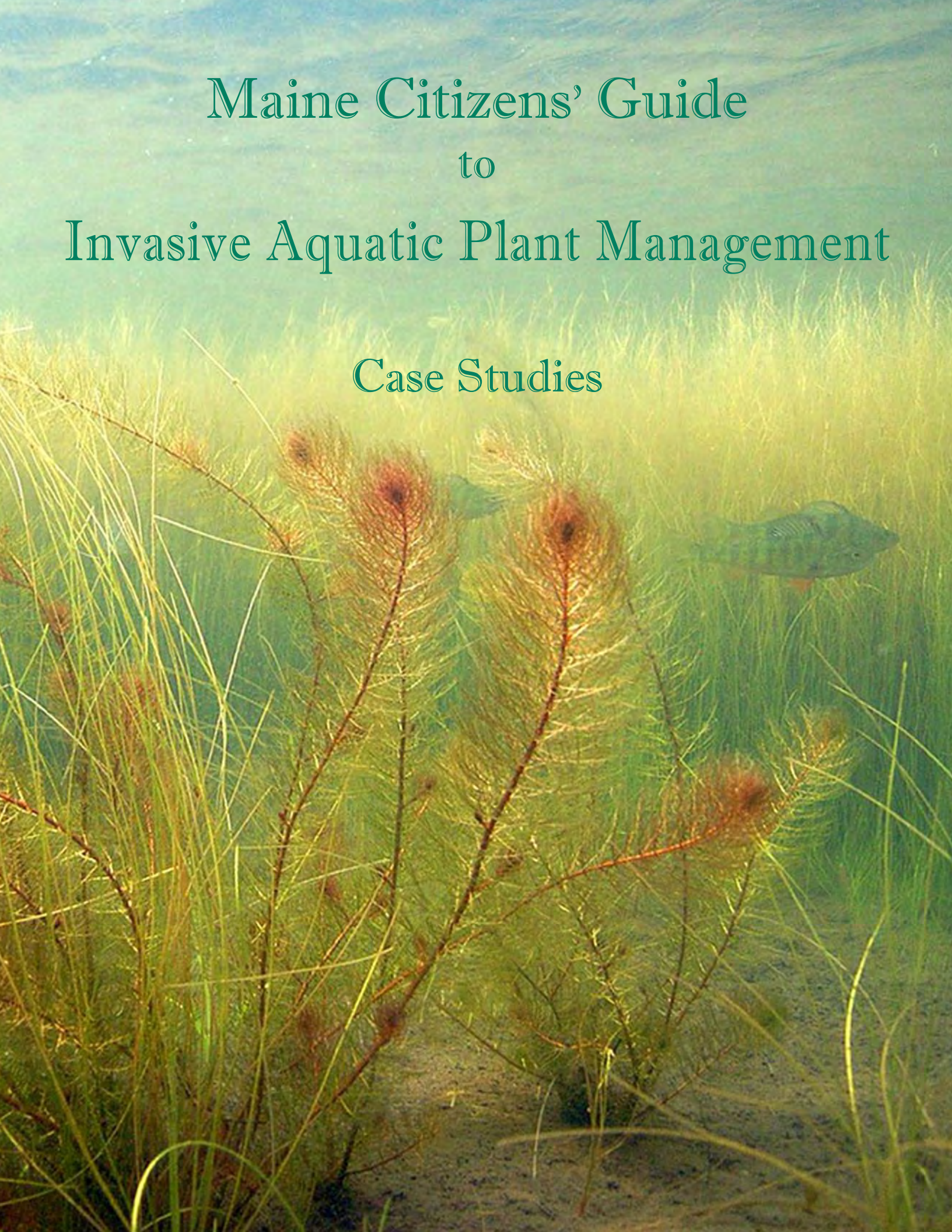
Maine Citizens' Guide to Invasive Aquatic Plant Management

Case Studies



Case Studies

A diver emerging from a hydrilla-infested pond.
Photo: Maine Department of Environmental Protection.

CASE STUDY

Lake Arrowhead: Creative Fundraising

The Challenge

The Lake Arrowhead Conservation Council (LACC) manages the invasive aquatic plant (IAP) control efforts on Lake Arrowhead. They employ two Diver Assisted Suction Harvester (DASH) boats to target high traffic and inlet areas, with a goal of running both boats seven days a week, and also have a benthic barrier program. This aggressive strategy is effective but costly. Raising the necessary funds for one year was feasible but finding those funds for multiple years presented a challenge.

Background

Located in southern Maine, Lake Arrowhead is an 1100 acre impoundment of the Little Ossippee River. The lake has a hydro-power generating facility and borders two towns: Limerick and Waterboro. The lake is very shallow with a mean depth of six feet and maximum depth of twenty-five feet. Variable watermilfoil (*Myriophyllum heterophyllum*) has infested 60% of the lake.

LACC is led by a nine member board composed of residents of the Lake Arrowhead Community (LAC), the largest residential subdivision in southern Maine. The LACC began as an informal volunteer group focused on the invasive variable watermilfoil in Lake Arrowhead. After researching and gathering information on IAP management and education, and realizing the effort that would be needed, the LAC formed LACC, a 501c3 organization. They manage the courtesy boat inspection program, as well as the DASH and benthic barrier programs. The organization is based on memberships and generates funds through dues and other fundraising efforts.

The Approach

Recognizing that they would need significant funds to continue their control program over the long term, the LACC began finding and implementing creative ways to raise money. They pursued the usual fundraising methods with membership drives, applied to relevant foundations for grant monies, and also applied to the State of Maine's grant programs for courtesy boat inspections and aquatic plant removal efforts.

Garnering the support of the surrounding towns was undertaken by a representative of the LACC who made a PowerPoint presentation to both surrounding towns' selectboards and at the towns' budget meetings.

LACC hosts annual fundraising events including a yard sale, golf tournament, and 50/50 raffle. The local bass club sponsors a bass tournament fundraiser for LACC, which is open to the public and offers a winning prize. Their yard sale sells donated goods from area residents, baked goods, and also promotes LACC's work. These popular events are located in a high traffic areas and are publicized through print and electronic media.

The Lake Arrowhead Community has an 18-hole golf course so a tournament was a natural addition to their line-up of events. The

tournament has gained considerable interest and participation from the local golfers. Most recently, the LACC has offered a 50/50 raffle with one-half the proceeds going to the winner and one-half of the proceeds going toward plant control activities.

An on-going fundraising effort is LACC gear sales. Interested supporters may purchase t-shirts, sweatshirts, hats, and cups, all sporting the LACC logo.

The Outcome

LACC has been extremely successful with all of its fundraising endeavors and has been able to supplement funding their control activities. They are now in their sixth year of hosting their three annual events: golf, yard sale, and bass tournament. The events have not only raised the much needed funds but have also provided excellent opportunities for outreach and education.

Going Forward

LACC plans to continue its annual events and gear sales and its board members are exploring some additional fundraising ideas.

CASE STUDY

Little Sebago Lake: Engaging Lake Residents

The Challenge

Mitigation efforts are more effective when the location of aquatic invasive plant (IAP) infestations is known. When divers spend their time searching, they have less time to remove plants. Little Sebago Lake Association (LSLA) recognized that it needed to find a way to involve the boating public in finding new or reoccurring variable watermilfoil populations in order to make their removal efforts more efficient and effective.

Background

Little Sebago Lake stretches 5.5 miles in length, covers 2,009 acres and contains three distinct basins. It is surrounded by the towns of Windham and Gray and has 31 miles of shoreline. In 1999, the variable watermilfoil hybrid (*M. heterophyllum x M. laxum*) was discovered in a small western cove.

LSLA was formed in 1924 and is still leading the charge to keep Little Sebago Lake a safe, clean, stable natural resource that can be enjoyed by everyone. With the discovery of variable watermilfoil, LSLA began the task of designing an IAP management program. They were one of the first lake associations to begin such a program. They pioneered the construction of a Diver Assisted Suction Harvester (DASH) on a pontoon boat and using a sluice system. LSLA had employed the services of aquatic plant survey companies to map their infestation and recognized the value of knowing where to target their efforts.

The Approach

In order to enlist the assistance of landowners in the task of marking variable watermilfoil sightings around the lake, LSLA devised a "noodle program." Colored pool noodles are cut into small (4-6 inch) pieces and attached to simple anchors. The markers are distributed to association members, shorefront property owners, boaters, and others. Along with their noodle markers, participants receive a flyer that explains the color-coded marking system: green noodles designate variable watermilfoil is present, yellow means that benthic barriers are deployed in the area, and red means that all the variable watermilfoil has been removed and the DASH team needs to re-check the area. After initial removal, green markers are replaced with red markers. If nothing is discovered during the re-check, the red marker is removed.

The noodle program is part of a larger campaign to raise awareness of and garner support for the LSLA's variable watermilfoil control efforts program. In addition to information about the noodle program, outreach materials (brochures, newsletter articles, website, signage, etc.) caution boaters to stay 100 feet away from DASH boat divers and provide navigational information and program updates.

The Outcome

The program has been very successful with boaters participating eagerly. Some local boaters began using high-powered lights at night to find the variable watermilfoil and put down markers. Increased fundraising resulted from the outreach. The DASH team can now concentrate on removal; patches that crop up in new areas are getting removed before they can grow and spread.

Going Forward

The LSLA continues to encourage boaters to participate in the noodle program and distributes flyers not only to residents but also to seasonal visitors and visiting boaters. As other infested lakes become interested in adopting the program, LSLA gladly shares their information.

CASE STUDY

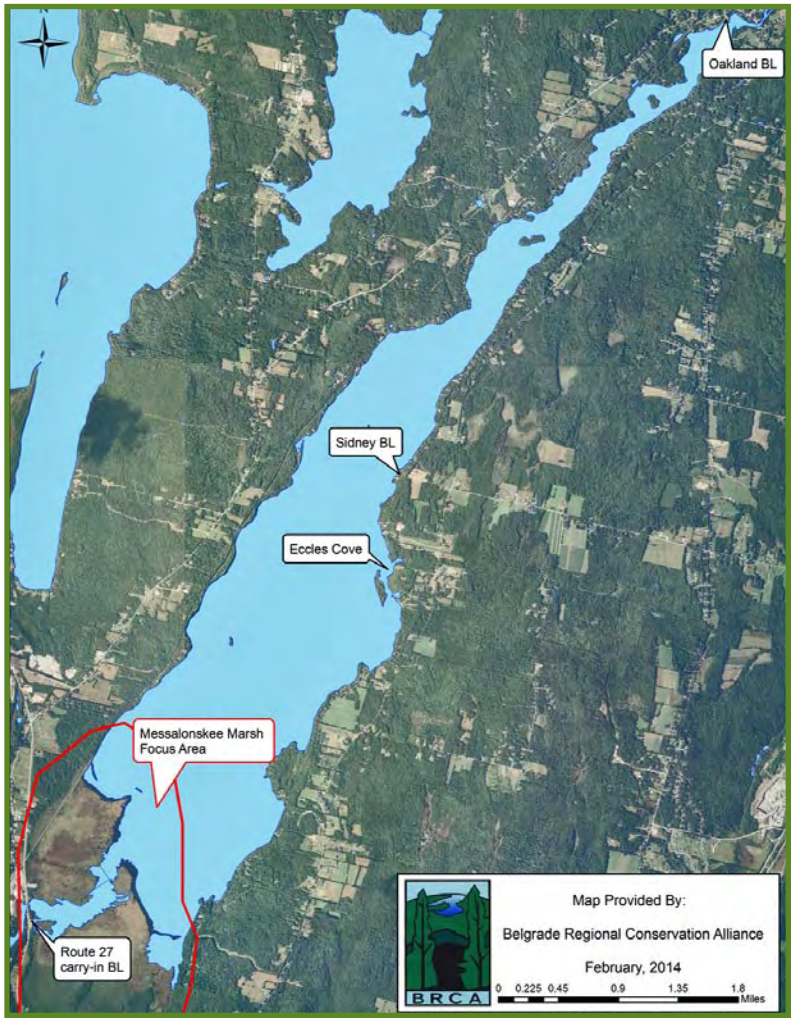
Messalonskee Lake: Infestation Mapping

The Challenge

Messalonskee Lake is a significantly sized waterbody at over 3600 acres. The southern end of the lake hosts an extensive (over 1300 acres) marsh that is visited annually by many migrating birds, including several rare and uncommon species. The Belgrade Regional Lake Association (BRCA) recognized that before they could begin any mitigation effort, they needed to know where the infestations were, the type of habitat they were located in, and the recreational activity that occurred in those locations.

Background

Messalonskee Lake, also known as Snow Pond, is located in Central Maine. It is 3,691 acres, nine miles long, and surrounded by Oakland, Sidney, and Belgrade. It is one of the lakes in the Belgrade Chain. The marsh on the southern end of the lake is considered a significant wildlife habitat for waterfowl and wading birds by the Maine Department of Inland Fisheries and Wildlife. Birdwatchers come to see several uncommon species including least bitterns (*Ixobrychus exilis*), sandhill cranes (*Grus canadensis*), black terns (*Childonias niger*), pied-billed grebe (*Podilymbus podiceps*) and purple martin (*Progne subis*).



The Approach

In 2002, a local university instructor, and his interns, mapped the bathymetry of Messalonskee Lake and the locations of shoreline invasive variable watermilfoil infestations. They resurveyed the lake four years later, in 2006, to determine if there were any new infestation and whether the existing infestations had spread. BRCA enlisted their assistance to do an updated survey in 2010.

The Outcome

At the conclusion of the 2010 survey, the university provided BRCA with detailed maps of the location, size, and density of infested areas, as well as the lake's bathymetry. BRCA used this information to determine where to concentrate their control activities and what type of method would be appropriate for each location. BRCA was able to start efficient mitigation work based on the maps.

Going Forward

At this time there is no plan to have another full survey conducted by the professor and his students. However, surveys are underway by volunteers and control crews.

CASE STUDY

Pleasant Pond: Establishing Priorities

The Challenge

Pleasant Pond is shallow, almost completely infested, and a magnet for anglers and boaters. The Friends of Cobbossee Watershed (FOCW) realized that they needed to find a way to prioritize their approach to managing their infestation.

Benthic barriers have been intensively used in the area around the causeway between Upper and Lower Pleasant, where two of the pond's three public boat landings occur and where boat activity is heavily concentrated.
Photo: Friends of Cobbossee Watershed.

Background

Pleasant Pond, located in the Kennebec Valley region of central Maine in the towns of Gardiner, Litchfield, West Gardiner, and Richmond, has a 217 square mile drainage basin which is also part of the greater Cobbossee Watershed. The pond, an impounded stream channel, covers 797 acres, is approximately five miles long, and has a mean depth of seven feet. With three popular public boat launch sites and an active sport fishery, the pond is highly valued by surrounding communities and is a major contributor to the local economy. Such popularity also means the pond has substantial boat traffic. Variable watermilfoil (*Myriophyllum heterophyllum*) has become established throughout a significant portion of the pond, which is part of a larger infestation sprawling roughly 18 miles of interconnected waterway via Cobbossee Stream. Pleasant Pond consists of two basins: Upper Pleasant Pond (or Mud Pond) and Lower Pleasant Pond.

Incorporated in 2001, the FOCW has experienced significant growth. Its innovative approach towards outreach, program development and constituency-building has attracted local, regional and national recognition. Since 2004, FOCW has overseen invasive aquatic plant (IAP) efforts for the entire Cobbossee Watershed, including Pleasant Pond.

Bright yellow buoy markers warn boaters to use caution as they approach a heavily infested area.
Photo: Friends of Cobbossee Watershed.

The Approach

Beginning in 2005, the primary means of keeping boats out of plants was the strategic use of benthic barriers, manual removal and the placement of buoy markers. Benthic barriers have been intensively used in the area around the causeway between Upper and Lower Pleasant, where two of the pond's three public boat landings occur and where boat activity is heavily concentrated. The result has been a noticeable reduction in variable watermilfoil growth and fragmentation in the boat launch areas.

In 2010, the FOCW built a Diver Assisted Suction Harvester (DASH) unit and focused their removal efforts on: 1) a massive patch at the southern end of the pond where boats enter a channel that leads to a fourth "unofficial" boat landing; and 2) upstream portions of Cobbosssee Stream (in particular the most heavily-travelled channels) where the aim is to reduce the occurrence of fragmentation in the stream and to slow the migration of variable watermilfoil fragments into Pleasant Pond.

In the effort to reduce boat/plant contact, much focus has been placed upon controlling the infestation at the public boat ramps. Here signage informs boaters that the launch site is temporarily closed, allowing the control work to proceed safely without interruption. *Photo: Friends of Cobbossee Watershed.*

The Outcome

After a steep learning curve with the DASH, FOCW is now making noticeable progress in Pleasant Pond. They have also developed an interactive Google Earth based map showing both the extent of the infestation and the progress that is being made in controlling it. As the result of nearly a decade of hard work, variable watermilfoil growth in Pleasant Pond has been reduced, and according to Tamara Whitmore, FOCW Executive Director, "we can now show this result to members of our community! Town officials, shorefront property owners, anglers and others can now track FOCW efforts to open channels, minimize boat/plant contact, and slow the migration of fragments from upstream infested waters. This in turn has led to more active engagement on the part of the towns and community members, and this increased involvement will help us make further progress."

The successful strategy of minimizing boat/plant contact continues. In the future, FOCW will focus on smaller, newer, more remote infested areas. They will step up efforts to recruit more local volunteers in IAP surveys and mapping. The will also develop a Rapid Response Team to control new pioneer plants and plant patches before larger areas are infested.

CASE STUDY

Sebago Lake: Community Collaboration

The Challenge

Sebago Lake is a large waterbody with a well-established infestation of variable watermilfoil (*Myriophyllum heterophyllum*). Due to its immense size and lack of a single, overarching property owners' association on Sebago, a coordinated, collaborative effort to tackle the lakewide infestation has not occurred. Instead, a number of smaller property-owners associations and lake groups have taken on the task of controlling the infestation to the best of their abilities in their immediate areas, with mixed results.

Background

Sebago Lake is located in the Western Lakes Region of Maine and is the deepest and second largest lake in the State, with a surface area covering approximately 45 square miles (29,992 acres), a length of 12 miles, and a shoreline length of 105 miles. Sebago has shore frontage in seven towns (Casco, Naples, Raymond, Sebago, Standish, Windham and Frye Island), and is connected to nearby Brandy Pond and Long Lake by way of a popular route though the Songo River, with a historic lock system. Supporting a State Park, numerous resorts, marinas, and summer camps, Sebago Lake is one of the busiest waterbodies in Maine, visited by approximately 8000 boaters annually. It is also the primary water supply for Greater Portland, the largest metropolitan area in Maine. Variable watermilfoil populations have been found in 18 locations around the lake, including most of Sebago's major tributaries and several prominent inlet coves.

The Lakes Environmental Association (LEA) has been working in the upper Songo (north of the Songo Lock) and Brandy Pond for the last nine years. They use a Diver Assisted Suction Harvesting (DASH) boat, hand harvesting and benthic barriers in these areas and have been quite successful. Although they have not yet reached full eradication, the infestations in the upper Songo and Brandy Pond have been reduced significantly. LEA has supported their efforts through municipal, private, and state agency grants, but has fallen short of actual annual costs so their efforts are proving not to be economically sustainable. One challenge is that the Songo River below the lock still has dense variable watermilfoil populations that are not being controlled. Every time a boat comes up through the lock there is a chance of fragments being released into the newly controlled areas.

The Raymond Waterways Protective Association (RWPA) was formed to preserve the water quality of all lakes in the Raymond area. On Sebago Lake, their focus has been the northeast area of the lake around Panther Run. Prior to 2009 RWPA had conducted some benthic barrier work in the Jordon River and Panther Run cove of Sebago Lake with the help of volunteers. They also hired a commercial DASH operator to come in for a few days of harvesting.

Save Sebago Cove (SSC) was formed by a concerned group of shorefront property owners in response to the variable watermilfoil infestation in Sebago Cove, a large inlet cove located along the northern shore of Sebago

Lake. Initial efforts to control the infestation included installing several benthic barriers and marking a navigation channel with variable watermilfoil caution buoys.

The Approach
In 2009, LEA, RWPA and SSC formed the Sebago-Brandy Partnership Project. Forming this alliance has allowed the group to apply jointly for grant funding, take advantage of large purchase discounts, share equipment, expertise and technology, and create a more holistic and sustainable model for controlling the lakewide infestation.

The Outcome
The Sebago-Brandy Partnership Project was awarded the MMI grant which provided funds for the purchase of equipment to build two new DASH boats, one for RWPA and one for SSC, as well as funds to run all three groups' control programs for a year.

LEA continued to work on the upper Songo River above the Songo Lock and Brandy Pond, making good headway and bringing the infestation to controllable populations. Recognizing that all their hard work would be in vain if the lower Songo River was not cleaned up, they began talks with the State and relevant stakeholders about option to keep any fragments below the lock at bay. Many ideas were discussed and considered, including the closing of the Songo Lock. Realizing that the lower Songo River needed to be controlled in order to preserve the area above the locks, LEA began looking for funding in order to undertake this additional project.

RWPA was able to purchase the needed equipment to build a DASH boat and began their DASH removal program with 40 operation days in the first season. In addition they installed 20 benthic barriers and hand removed for a few days in areas with scattered variable watermilfoil growth. However, due to the fact that the MMI grant was only for one year, the following years the RWPA was not able to run the DASH boat for as many days and has had a challenging time finding additional funding.

SSC was also able to purchase the needed equipment to build a DASH boat and almost 9 tons of plants were removed the first year. Although good progress was made, in order to continue the effort SSC needed to raise additional funds. They did so through a membership drive and a "pay-to-play" program. The "pay-to-play" program consisted of a fee that residents around the cove paid to have the DASH boat work in front of their camp. Part of the fee was also used to cover the expense of DASH in more general use areas as well. Although this system worked well to garner support and get the word out about their work, it also meant that there was less of a strategic approach to their removal efforts. SSC also realized that to sustain their efforts over the long term they needed additional funding resources.

After the successful MMI grant partnership the three groups recognized that, although individually successful, they would need to pull in the other organizations around Sebago Lake to make more progress.

Going Forward
As of this writing, the initiative is continuing its outreach efforts around the lake and coordinating mitigation efforts. To address this need, members of the Sebago Brandy Partnership Project began to focus their attention on the task of forging a broader lake-wide alliance. To kick off their newly envisioned *Sebago Lake Milfoil Initiative*, a Sebago Lake Summit was organized and widely publicized around the lake and beyond. Summit attendees were encouraged to actively participate in the establishment of management, funding, and operational goals for the initiative, and an enormous amount of interest was generated through this lively group-think process. Objectives defined and discussed by the 80 people who attended the meeting are beginning to coalesce and the prospect of more effective collaborations on Sebago Lake is promising.

CASE STUDY

Shagg Pond: Technology Innovation

The Challenge

Each lake involved in invasive aquatic plant (IAP) control has a unique set of circumstances and characteristics which drives innovation in strategy and technology. The Community Lakes Association (CLA) had limited financial resources and needed to find the most economical and efficient way to remove the variable watermilfoil (*Myriophyllum heterophyllum*) populations in Shagg Pond.

Background

Shagg Pond is located in the Western Foothills region of Maine and is relatively small. Roughly forty percent of Shagg Pond's 46 acres are littoral and just over ½ acre is infested with variable watermilfoil. The variable watermilfoil in Shagg tends to be fairly deep, in depths ranging from four to ten feet, and rooted in a substrate of compact sand. There is public access and light recreational fishing on the pond but the surface use is rarely high volume, with holidays being the possible exception.

CLA was organized in 1986 to help protect the health and beauty of a cluster of eleven lakes and ponds (including Shagg) in the towns of Woodstock and Greenwood. CLA became involved in the issue of invasive aquatic plants in 2002 when two patches of variable watermilfoil were found in Lake Christopher (also known as Bryant Pond). Surveys of all ponds in the area in 2003 revealed an additional infestation in nearby Shagg Pond, where the growth was much more extensive and infested areas ranged in size from scattered individual plants to large patches.

The Approach

CLA began by controlling the variable watermilfoil in Shagg Pond with manual harvesting and benthic barriers. Hand harvesting alone in the larger patches proved nearly futile. "You'd never get it all, and it was way too time consuming," says Jim Chandler, who runs CLA's removal program and is the primary source of variable watermilfoil control innovation for the group. Jim therefore began researching benthic barriers and how they were constructed and used in other states.

CLA purchased benthic barriers that were available through a commercial supplier and gleaned the design concepts needed to begin making their own barriers at a lower cost. The initial barriers constructed were 10' x 10' and made out of geotextile fabric. The barriers worked and were durable but they were also heavy, cumbersome and still somewhat expensive.

Determined to find an even more economical option, Jim and his crew started building new barriers out of 6-mil plastic. The material was far lighter, easier to handle, and—at about ten-cents per square-foot—roughly half the cost of the former geotextile design. Because the plastic was lightweight, the barriers could be made bigger (10' x 40') yet still were easier to construct, deploy, and manage in the water. A 10' x 40' barrier could be built from start to finish in thirty-six minutes and in a four-hour period the crew could lay twenty mats. Because the new barriers were more maneuverable, it was easier for the crew to place the barriers in a more consistent pattern and to obtain a better overlap between adjoining mats. The slippery plastic was also less likely to be colonized by algae and plants.

Jim Chandler with CLA's modified ATV winch mat-winder. This system, though somewhat finicky, was an improvement over the earlier bicycle crank-winder. *Photo: Jim Chandler.*

The difficulty was removing the barriers. Hauling a 10' x 40' barrier out of the water took a lot of physical exertion and so Jim and crew developed a hand-crank system from old exercise-bike parts attached to a row boat by a wooden frame. The crank system improved efficiency, but it still took nearly one hour to remove a single barrier. The next year the exercise bike crank was

replaced with a modified ATV winch. This new system, though somewhat finicky, was an improvement, but only ten barriers could be pulled in a four-hour period.

CLA also purchased equipment to build a Diver Assisted Suction Harvester (DASH). CLA's DASH uses a single basket lined with mesh to collect the harvested plants. As CLA does not have access to a dock, nor a large machine or winch system to remove the baskets, their design uses milk crates to catch the harvested variable watermilfoil. These crates are emptied into two 32-gallon garbage cans on the boat. At the end of the day, the crew drags and lifts the cans into the back of an SUV and takes them to a nearby 4-H camp where the plants are composted. During the second year of DASH removal, a modification was made to the DASH pontoon boat that provided a more efficient way to remove their benthic barriers. The DASH was outfitted with a winchable platform made of aluminum mesh and aluminum angle bracing. This lightweight platform can be moved up and down with cables and an electric winch that is operable from the deck of the boat. The platform can be lowered as far as ten feet but usually is deployed to five feet. Using the buoyancy of water to facilitate the process, divers roll up a barrier underwater and then swim it over to the submersed platform. For barriers that are being redeployed, the platform is raised about a foot below the water surface then driven to the new location. If barriers are being removed for cleaning or repair, the platform is raised entirely out of the water into the space between the two pontoons and brought to shore for offloading. To better accommodate this new design Jim and crew have started making slightly smaller 10' x 25' barriers.

As CLA does not have access to a dock, nor a large machine or winch system to remove the baskets, their design uses milk crates to catch the harvested variable watermilfoil.
Photo: Jim Chandler.

The Outcome

The outcome of CLA's plant removal in Shagg Pond has been mixed. Although a great deal of variable watermilfoil has been removed, new patches have started appearing. While the crew was concentrating on the largest patches of dense growth, individual plants and small patches were exploding under the radar. "Think about it this way," says Jim. "A single plant takes about two years to become ten feet tall. When a plant grows to this size it becomes flaccid. At the end of the season the tall stems lie down and new roots shoot out into the sediment all along each stem. The following season, where there had formerly been a single plant, there is now a thick patch 20 feet in diameter." The infestation on Shagg Pond has grown from just over ½ acre to about 3 acres despite intense control activity.

CLA's DASH has been outfitted with a winchable platform, made of aluminum mesh and aluminum angle bracing, a lightweight platform that can be moved up and down with cables and an electric winch that is operable from the deck of the boat.
Photo: Jim Chandler.

Jim and his crew learned valuable lessons from this experience:

1. No matter how clever the tools one uses for controlling IAP, a clear strategy is needed to win the battle. Control of the individual plants and small patches is equally important to controlling more densely infested areas. If resources are limited, the objective for large infested areas may be to keep them in check rather than eradication. Then resources could be used for rapid response to new growth on individual plants and small patches.

2. A good strategy for controlling large patches with benthic barriers is to place a series of barriers in a continuous band around the outside border of the patch. After 45-60 days the barriers are moved inward to form the next "band." This cinching process is repeated as many times as is required to control the patch.

3. Deploying benthic barriers is more challenging in deeper water, but the increased water pressure helps the barriers stay down better.

CASE STUDY

Thompson Lake: Informing the Public

The Challenge

Thompson Lake has likely been infested with variable watermilfoil (*Myriophyllum heterophyllum*) for at least 20 years. But, it wasn't until 2007, with the release of the Maine Department of Environmental Protection's 'Infested Maine Public Waters' map and brochure, that the Thompson Lake Environmental Association (TLEA) recognized they needed to formally adopt a mitigation program. In order to raise awareness and generate much needed funding, TLEA knew they would have to educate the landowners, boaters, and town governments that surrounded the lake.

Background

Situated in Maine's western lakes region, Thompson Lake covers 4,426 acres and is eleven miles long, two miles wide. It is surrounded by the towns of Casco, Otisfield, Oxford, and Poland. Thompson is on eof the clearest lakes in the State and is spring fed by the Poland Spring aquifer. There are 1,200 homes in the greater Thompson Lake area. Variable watermilfoil infests seven discrete areas in the lake with two of the seven populations being especially dense and extensive.

The TLEA was formed in 1971 by lake citizens concerned with maintaining the lake's exceptional quality water and environment. TLEA is an active force for lake conservation in the area, leading the way on a number of issues including: water quality monitoring, public education, identifying and solving soil erosion problems, encouraging Best Management Practices around the lake and in the watershed, preventing the spread of IAPs and, more recently, implementing IAP control activities.

The Approach

To educate local residents and also raise funds to finance their variable watermilfoil mitigation efforts, TLEA conducted door-to-door solicitation, sent out an extensive mailing, and met with town officials to gain their support. The association has created a website to highlight the organization's variable watermilfoil prevention and mitigation work, and also produces a quarterly publication that is mailed to landowners around the lake.

TLEA formed a variable watermilfoil steering committee to plan strategies for mitigation, education and outreach. The directors routinely meet with town boards of selectmen, town managers, and conservation committees to maintain good relationships and promote association concerns.

They provide speakers for school graduation and award assemblies, and host an annual meeting of the general membership to provide a forum for discussion of concerns about

the lake. They regularly provide press releases to area newspapers and have encouraged area TV broadcasters to observe and report on their programs.

TLEA's active lake monitors return annually to survey for invasive aquatic plants. They also serve as ambassadors for the variable watermilfoil program by providing general information on TLEA and updates on control activities and educational programs to interested landowners during their aquatic plant surveys.

The Outcome
TLEA has been very successful in its outreach efforts. They have been able to secure funds to run their mitigation efforts, starting first with hand removal and benthic barriers and then adding a DASH boat to the program in 2008. They have a number of projects that require volunteer surveyors and have succeeded in recruiting a large number of individuals, including some town residents that aren't TLEA members, to participate.

Going Forward
TLEA is continuing its robust public education efforts through a continued online presence, publications, events and meetings with town officials. They also continue to solicit new members into the association, currently over 500 members strong.