2011 Project Completion Report
Invasive Aquatic Plant Management Program at Foster's Pond
Andover, Massachusetts

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December 20, 2011

INTRODUCTION

In 2011 an herbicide treatment program was conducted at Foster's Pond and at the hydraulically connected basin known as Dug Pond to control two non-native and invasive plants, fanwort (*Cabomba caroliniana*) and Brazilian elodea (*Egeria densa)*. This report summarizes the herbicide application process, results of the associated monitoring and observed response of the targeted weeds. Recommendations for ongoing aquatic plant management at Foster's Pond and Dug Pond are also provided.

All work performed at Foster's Pond in 2011 was conducted in accordance with the Order of Conditions (OOC) issued by the Andover Conservation Commission (DEP # 090-535) and the License to Apply Chemicals issued by the MA DEP – Office of Watershed Management (# 11083).

A chronology of this past year's management efforts brief description of events follows.

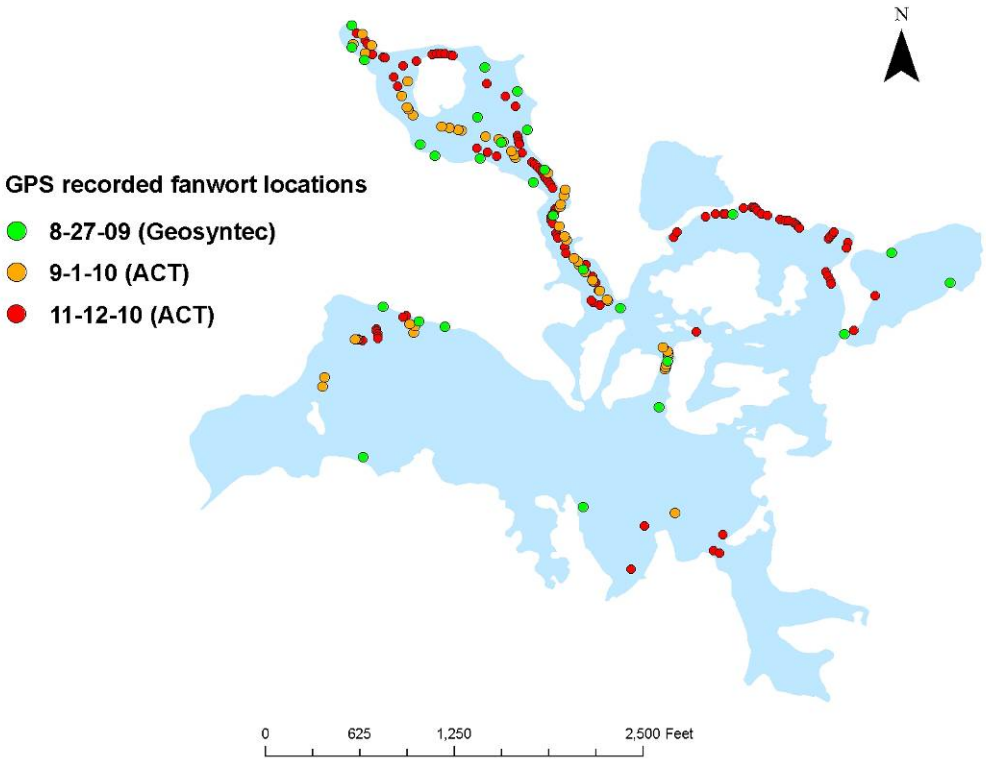
2011 PROGRAM CHRONOLOGY

- DEP annual License to Apply Chemicals issued 4/11/11
- Pre-treatment inspection 5/6/11
- Initial Sonar (fluridone) herbicide application 5/13/11
- FasTEST immunoassay monitoring round 6/13/11
- Sonar herbicide booster application 6/24/11
- Pre-treatment survey at Dug Pond 6/24/11
- Reward (diquat) herbicide treatment at Dug Pond 7/7/11
- FasTEST immunoassay monitoring round and inspection 7/7/11
- FasTEST immunoassay monitoring round and inspection 7/26/11
- Late Season Vegetation Survey 9/19/11

PRE-TREATMENT CONDITIONS AND TREATMENT APPROACH

Pre-treatment surveys performed by GeoSyntec and Aquatic Control, in 2009 and 2010 respectively, documented aquatic plant composition and the fanwort distribution in Foster's Pond. In 2009, Geosyntec documented significant increases in the distribution of fanwort after several seasons of low-density growth following the whole-lake Sonar herbicide treatment that was performed in 2005 and the subsequent spot-treatment performed in 2007. Based on the distribution and density of fanwort seen in 2009, another whole-lake treatment with Sonar was recommended. The report also recommended spot-treatment of spiny-naiad (*Najas minor*) with Reward herbicide, which was performed by Aquatic Control in 2010. It was decided that the Sonar herbicide treatment should be delayed until the 2011 season. (Please refer to the "2009 Foster's Pond Aquatic Vegetation Survey & Water Quality Monitoring Report" prepared by Geosyntec for a full report for their findings and recommendations.)

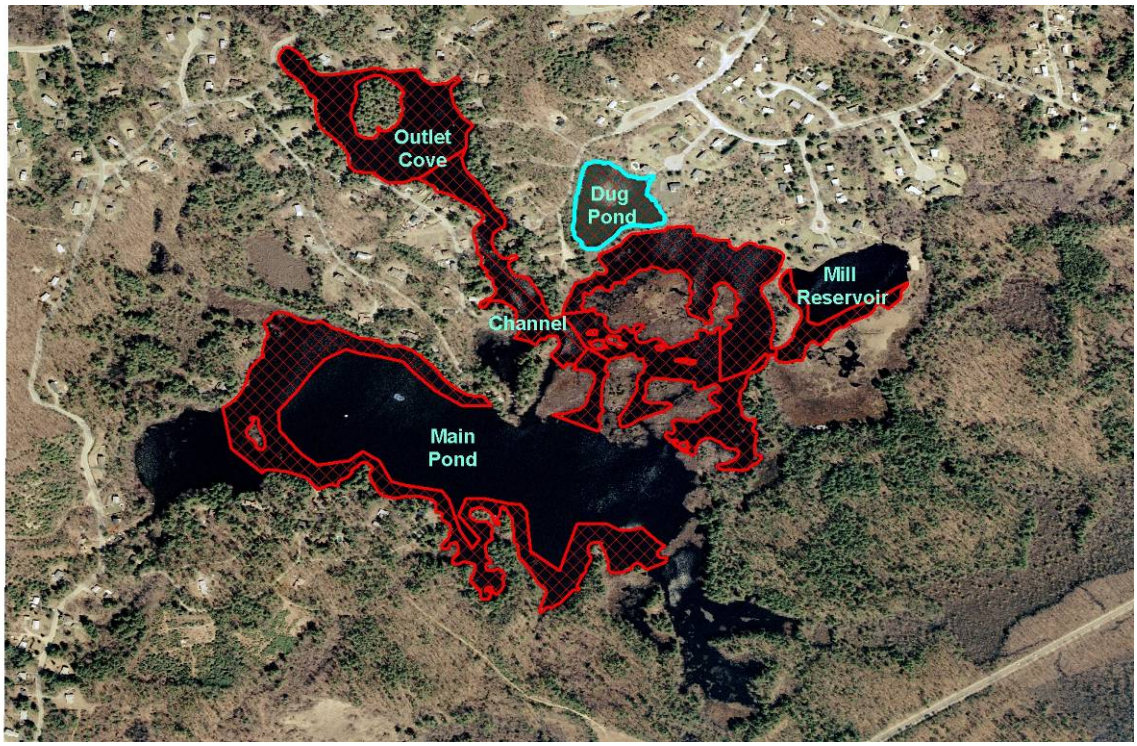
In 2010, Aquatic Control surveyed Foster's Pond on September 1st and November 12th. During both surveys the entire water body was toured and aquatic vegetation was identified and spatially referenced. A handheld GPS was used to mark locations of fanwort. Approximate locations of Fanwort recorded by Geosyntec in 2009 and Aquatic Control in 2010 are depicted in the map below.



Fanwort was found in moderate to abundant densities throughout the Outlet Cove, the Channel and the northwestern portions of Mill Reservoir. Some isolated fanwort plants were found along the edges and at the opening of the dredged eastern basin of Mill Reservoir. Fanwort growth in the Main Pond was confined to the edges of dense waterlily beds found along the western and southern shorelines. No fanwort was found in deeper water areas towards the middle of Main Pond or in the shallow southwest and southeast coves that support nearly 100% waterlily cover. Fanwort plants in the northern half of the pond were robust and were not showing any signs of senescence even during the November 12th survey.

No fanwort was found in Dug Pond, but there was regrowth of Brazilian elodea (*Egeria densa)* since the 2006 Sonar herbicide treatment that was performed there. Brazilian elodea was found in varying densities along the shoreline. This is another invasive species that was present when Dug Pond was treated with Sonar in 2006. Regrowth of Brazilian elodea was documented by ACT in 2008 and by Geosyntec in 2009.

During the winter of 2010/2011 a treatment plan was developed for Foster's Pond and Dug Pond. A combination treatment using SonarOne, a time-release pellet, and Sonar A.S. liquid was recommended for Foster's Pond. The use of the pellets would allowed for the treatment program to be initiated earlier in the growing season when the fanwort plants were more susceptible and allowed for the herbicide to be targeted in the infested areas. This approach reduced the total amount of herbicide required, reduced the number of herbicide applications that were needed and reduced the treatment program cost. The areas with red hatching below are where the SonarOne pellets were applied.



A pre-treatment inspection was performed on May 6, 2011. Fanwort plants in the Channel and Outlet Cove areas were exhibiting signs of active growth and most plants had 0.25 to 0.5 feet of "new" stems and foliage. The initial Sonar application was scheduled and performed the following week (5/13/11).

Dense fanwort in Channel (S. Cotton 9/1/10)

Close-up of fanwort in Channel (S. Cotton 9/1/10)

New fanwort growth in Channel (ACT 5/6/11)

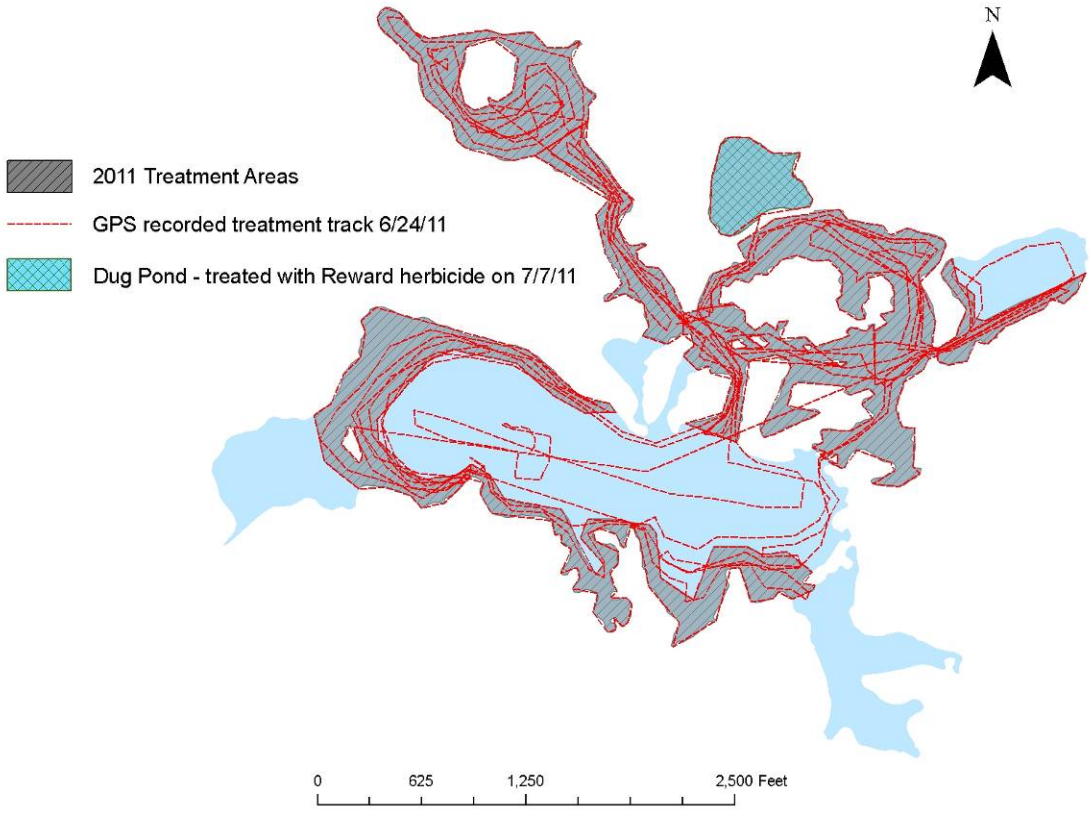
The use of Reward (diquat) herbicide was proposed at Dug Pond since there was no fanwort growth established in Dug Pond and diquat has provided faster and longer-duration control of Brazilian elodea than Sonar at other New England ponds in recent years. Diquat is a contact-acting herbicide, so treatment was delayed until early July (7/7/11) when the Brazilian elodea was actively growing.

TREATMENT SUMMARY

Foster's Pond

Consistent with the "Schedule and Program for Proposed 2011 Sonar and Reward Herbicide Treatment of Foster's Pond" provided to the Town on February 18, 2011 Foster's Pond was treated with Sonar (active ingredient fluridone) herbicide for control of fanwort. Two formulations of Sonar herbicide [SonarOne (pellet) - EPA Reg. No. 67690-45 and Sonar AS (liquid) – EPA Reg. No. 67690-4] were applied on two separate occasions.

GPS was used during each application to insure an even application through the treatment area. A map depicting GPS track recorded during the treatment on 6/24/11 follows:



Herbicide Applications:

Herbicide applications were conducted by Aquatic Control using an 18-foot airboat. The SonarOne pellet formulation was applied using a calibrated spreader mounted on the bow of the airboat. The Sonar A.S. liquid formulation was diluted with pond water and injected subsurface through weighted hoses using a calibrated pumping system. Each of the treatment areas were preloaded into a GPS unit that was used for real-time navigation during the treatment to insure that the herbicide was applied accurately.

Prior to all applications notification of the treatment was submitted to FPC and posters warning of the temporary water restrictions to be imposed following treatment were posted along the shoreline of the pond.

2011 Herbicide Treatment Summary:

Date	Product Applied	Estimated Lake-wide Concentration (ppb) applied	Comments
5/13/11	SonarOne Sonar AS	SonarOne - 12ppb Sonar AS – 5 ppb	• Water level estimated to be 1.0-foot below normal/full pool • Fanwort plants were starting to actively grow but were only 3"-6" inches in height at the time of the initial treatment
6/24/11	SonarOne Sonar AS	SonarOne - 5 ppb Sonar AS – 5 ppb	• Small amount of chlorosis (whitening) noticeable on fanwort and white waterlily
7/7/11	Reward Dug Pond ONLY	Reward 2 gal/ac	• Fanwort and lilies in main pond very chlorotic • One fanwort plant found in Dug Pond
TOTALS	SonarOne Sonar AS Reward	SonarOne – 17 ppb Sonar AS – 10 ppb Reward – 8 gals	• Totals for all three applications

Water samples from Foster's Pond were collected for FasTEST immunoassay analysis of remaining fluridone residues. Samples were collected on three occasions during the course of the treatment program to help assist in the timing and dosing of subsequent Sonar applications and ensure that sufficient fluridone concentrations were maintained in the pond for a minimum of 60 days. FasTEST samples were collected by ACT, Inc. and shipped to the SePRO Laboratory in Whitakers North Carolinian via overnight carrier for analysis. Results of the FasTEST sampling performed at Foster's Pond in 2011 are listed below. Laboratory reports from SePRO are attached.

Foster's Pond FasTEST Results:

Foster's Pond	Locations	6/13/2011	7/7/2011	7/26/2011
Sample Site 1	Mill Reservoir	-	2.7 ppb	2.1 ppb
Sample Site 2	NE Wetland	-	16.4 ppb	10.9 ppb
Sample Site 3	Main Pond East	-	7.0 ppb	5.3 ppb
Sample Site 4	Main Pond West	-	6.7 ppb	5.7 ppb
Sample Site 5	Channel	13.4 ppb	9.0 ppb	6.7 ppb
Sample Site 6	Outlet Cove	10.6 ppb	10.9 ppb	10.4 ppb

Dug Pond

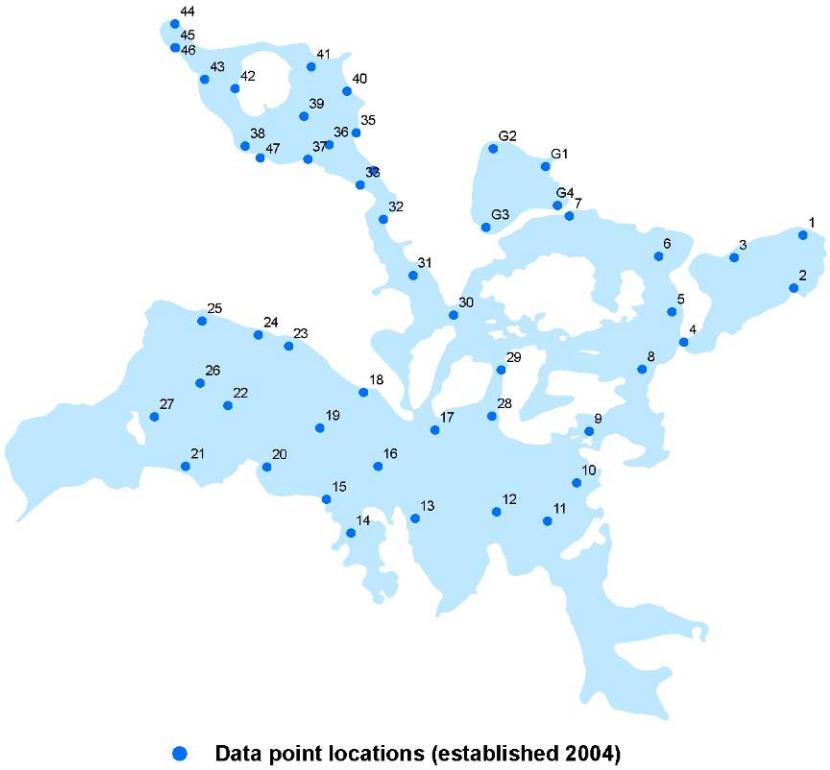
Consistent with the proposed 2011 treatment plan, Dug Pond was treated with Reward (diquat) herbicide on July 7th for control of non-native Brazilian elodea. Growth of Brazilian elodea was confirmed prior to treatment during an inspection performed on June 24th. At the time of the inspection Brazilian elodea was growing in varying densities around the entire shoreline of Dug Pond. Brazilian elodea growth was still fairly immature at the time of the inspection and most pants were generally only 0.5 – 0.75 feet tall. Other plants common in Dug Pond were: lowly watermilfoil (*Myriophyllum humile),* bladderwort (*Utricularia sp*.), ribbonleaf pondweed, (*Potamogeton epihydrus*), white waterlilies (*Nymphaea odorata*) and stonewort (*Nitella sp*.)

Treatment was performed using a 12-foot jon boat and small outboard motor. Reward herbicide was diluted with pond water in a 10:1 ratio in a mixing tank on board the boat and the solution was injected subsurface using weighted drop-hoses and a low pressure spray pump.

The treatment worked very well. No Brazilian elodea was found in Dug Pond during the course of the post-treatment survey on 9/19/11. A single fanwort plant was seen in the southwest corner of Dug Pond during the Reward application; however we were unable to re-locate the fanwort plant during the post-treatment survey for hand removal. This is the first known occurrence of fanwort in Dug Pond in recent years so close attention should be paid in 2012 so any fanwort growth in this basin can be immediately removed.

POST-TREATMENT SURVEY FINDINGS

A post-treatment survey of Foster's Pond was conducted on September 19, 2011 to document post-treatment aquatic plant composition and distribution. The survey methodology used was consistent with surveys performed in 2004, 2005, 2008 and 2009 and utilized the same transects and data points established in 2004. In total 50 data points were surveyed. A map depicting transect and data point locations follows; the data collected on 9/19/11 is attached to this report.



Fanwort in Foster's Pond showed signs of fluridone exposure soon after the initial treatment and chlorosis or bleaching was evident at the time of the first FasTEST sample collection on 6/13/11. While fanwort remained in the water column into early August, chlorosis persisted and progressed throughout the summer. By the time of the final FasTEST collection round on 7/26/11 fanwort throughout the pond was chlorotic (i.e. bleached white) in the upper 0.5 – 1.0 foot of the plant and in some areas had already started to collapse out of the water column.

During the post-treatment survey (9/19/11) n**o viable fanwort was found anywhere in Foster's Pond.** Evidence of prolonged fluridone exposure was apparent and many of the remaining native aquatic plants were highly discolored. Consistent with previous years, vegetation in Foster's Pond was sparse following treatment and what remained was dominated by white and yellow waterlilies (*Nuphar variegatum*), which, albeit thinned, remained abundant in most of the shallow cove/wetland areas. Cover of watershield (*Brasenia schreberi*), ribbonleaf pondweed, coontail (*Ceratophyllum demersum*), bladderwort and nitella was also common, but where encountered growth was generally low-density and scattered.

A list of the plants observed in 2011 with historical comparison of plant presence and absence follows:

Type	Macrophyte Species	Common Name	2004	2005	2008	2009	2011
Submersed	*Bidens beckii*	Water marigold	X			X	
	Cabomba caroliniana	Fanwort	X	X	X	X	
	Callitriche palustris	Water starwort				X	
	Ceratophyllum demersum	Coontail	X	X	X	X	X
	Chara vulgaris	Musk grass				X	X
	Chlorophyta	Filamentous algae	X	X	X	X	X
	Egeria densa	Brazilian elodea		X	X	X	
	Elodea canadensis	Common waterweed				X	
	Hypericum boreale	Northern St. John's wort				X	
	Isoetes	Quillwort		X	X	X	X
	Ludwigia palustris	Water purslane				X	X
	Musci	Water moss		X	X	X	
	Myriophyllum humile.	Lowly Milfoil		X	X	X	X
	Najas flexilis	Bushy pondweed		X	X	X	
	Najas minor	Spiny naiad				X	
	Nitella sp.	Stonewort		X	X	X	X
	Potamogeton amplifolius	Largeleaf pondweed	X				
	Potamogeton epihydrus	Ribbonleaf pondweed	X		X	X	X
	Potamogeton gramineus	Variable-leaf pondweed	X			X	
	Potamogeton natans	Floating leaf pondweed			X	X	
	Potamogeton perfoliatus	Clasping-leaf pondweed	X				
	Sagittaria sp.	Arrowhead			X	X	
	Utricularia	Bladderwort	X	X	X	X	X
	Valliseria americana	Wild celery	X			X	
Floating Leaf	*Brasenia schreberi*	Watershield	X		X	X	
	Lemna minor	Lesser duckweed				X	
	Nuphar variegatum	Yellow waterlily		X	X	X	X
	Nymphaea odorata	White waterlily	X	X	X	X	X
	Spirodela polyrhiza	Big duckweed				X	
Emergent	*Decodon verticillatus*	Water willow	X	X	X	X	X
	Eleocharis sp.	Spikerush				X	
	Eriocaulon sp	Pipewort	X	X	X		
	Lythrum salicaria	Purple loosestrife	X	X	X	X	X
	Peltandra viginica	Arrow arum				X	
	Pontederia cordata	Pickerelweed	X	X	X	X	X
	Scirpus sp.	Rushes	X	X	X		
	Sparganium sp.	Burreed	X		X	X	X
	Typha sp.	Cattail	X	X	X	X	X

There was also a microscopic algal bloom reported by FPC early August. Algal blooms are usually fueled by excessive nutrients and favorable weather conditions. Algal bloom conditions have developed in prior summers, but the surface "scum" of decomposing algal cells reportedly has not occurred. The surface scum was broken-up by heavy rainfall and wind and disappeared after a couple of weeks. No surface algal scum was observed during the post-treatment survey on September 19th.

The Sonar herbicide treatment may have partially contributed to the bloom conditions that developed in 2011, but this was not observed following prior treatments at Foster's Pond. Algae blooms following Sonar herbicide treatments are uncommon; because Sonar works so slowly that the plants do not decompose and release a "slug" of nutrients into the waterbody. However, if the aquatic plants were not actively utilizing available nutrients due to impacts from the Sonar treatment, then the algae may have been able to capitalize on available nutrients.

The fact that there was an algal bloom suggests that there is excessive nutrient loading at Foster's Pond. Abnormally low water levels in Foster's Pond over the past two years – intentional lowering for dam repairs followed by drought-like conditions – may have impacted water quality, but there are no data available to validate these suspicions. Comprehensive water quality monitoring should be considered in future years to help determine if the nutrient loading is being caused by external (watershed runoff) or internal (bottom sediment and decomposing plants) sources.

No Brazilian elodea was seen in Dug Pond during the post-treatment inspection. Remaining plant cover in Dug Pond appeared to healthier and less impacted than aquatic plants in Foster's Pond, probably due to the shorter herbicide exposure time that occurs with diquat herbicide. Dense bottom cover of bladderwort and shoreline patches of white waterlily were the dominant species observed.

CONCLUSIONS AND RECOMMENDATIONS

Overall the treatment performed in 2011 appears to have provided excellent control of fanwort throughout Foster's Pond. Based on the results of previous Sonar treatments at Foster's Pond, we expect that nuisance-level fanwort control will be maintained through the 2012 and 2013 seasons. Some limited regrowth may be evident as early as next year, and significant regrowth may evident by 2014. We expect that native aquatic vegetation will rebound quickly and more diverse vegetative composition should be evident by the end of next summer. Waterlilies and other floating leaf species that were impacted by treatment should recover rapidly and dense cover of waterlilies in the shallow wetland areas should be evident next year.

Considering the shallow water depths, organic bottom sediments, elevated nutrient levels and the presence of invasive aquatic plants - specifically fanwort, Brazilian elodea and spiny naiad - Foster's Pond and Dug Pond will likely continue to struggle with problematic aquatic weed and algae growth in the future. Recent herbicide treatments and monitoring efforts have helped to limit the impacts of the invasive plants and maintain open-water conditions. Ongoing management efforts should continue to focus on controlling invasive species, while starting to consider long-term water quality improvements. Some specific management recommendations are offered below:

- Fanwort – Presently Sonar (fluridone) is the only herbicide registered for aquatic use in Massachusetts that effectively controls fanwort. While the pellet formulations do help to reduce dilution, Sonar is still not particularly effective for spot-treatments due to its long contact-time requirement. A new formulation of Sonar will be registered within the next year that reports to offer quicker plant uptake, which may help facilitate spot-treatments. There is also a new herbicide to aquatics called Clipper (flumioxazin). It is a fast-acting contact-herbicide that is very effective on fanwort. It is not expected to be registered for use in Massachusetts until 2013 or later, but it will be a good option once it is available.

- Brazilian Elodea – We expect to see 2-3 years of control of the Brazilian elodea in Dug Pond following the 2011 diquat treatment. Dug Pond should continue to be monitored annually. Hand-pulling should be utilized to control any fanwort growth or scattered Brazilian elodea when it begins to recover.

- Spiny Naiad – The spiny naiad was effectively controlled by the Sonar treatment in 2011. It is possible that there may be some recovery in 2012 if there were any surviving seeds in the bottom sediments. The sections of the Main Pond and Outlet Cove that were treated with diquat in 2010 should be inspected in late June or early July. Spot-treatment with diquat or possibly hand-pulling could be used to control any regrowth.

- Purple Loosestrife – The shallow wetland areas in the Mill Reservoir section suffered from an explosion of purple loosestrife growth during low-water conditions when the dam was being repaired in 2010. Only a narrow open-water channel remains in one section. Purple loosestrife can be controlled using biocontrol (weevils and beetles) or herbicide treatment methods. However, it may take several years for the woody stems and root structures to decompose. It may be worthwhile considering some limited hydro-raking in this area at some point in the future to remove the plant and root biomass and to reestablish the open-water channel that leads to the northeast corner of the pond.

- Algae and Nutrient Management – The noxious microscopic algal bloom that developed in August 2011 is symptomatic of excessive nutrient availability in the pond. External (watershed inputs) and internal (bottom sediment and decomposing vegetation) are both likely contributors. More comprehensive water quality testing should be considered to try and determine which is the primary source of nutrient loading. Algal blooms can be rapidly and cost-effectively treated with copper-based algaecides like copper sulfate, but this only treats the symptom. Preventing algal blooms from developing and improving water quality will require longer-term management efforts. Source reduction (i.e. watershed Best Management Practices – BMPs) and source mitigation (i.e. alum treatment) efforts would probably both be necessary to achieve substantive and sustainable improvements.

Overall, Foster's Pond and Dug Pond responded favorably to the invasive plant management efforts that were conducted in 2011. Effective control of the targeted fanwort and Brazilian elodea plants should be maintained through the 2012, likely through 2013 and possibly beyond. Spiny naiad may recover more quickly since it primarily propagates by seed. Foster's Pond should be surveyed next summer to see if spiny naiad regrowth is present in levels that require management. Dug Pond should also be surveyed mid-summer to see if there are any surviving fanwort plants that require hand-pulling.

Attachments

- Post-treatment survey field data table
- FasTEST laboratory reports

Plant Species		# stations present	# stations dominant	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	G1	G2	G3	G4
				Monitoring Locations																																																		
White waterlily	*Nymphaea odorata*	6	16	D	D	X	D			D	X	X		D			D	D		D			D	D				D		D	D			X						D				X							D	D	D	X
Yellow waterlily	*Nuphar variegatum*	6	1			X	X				X	X		X		D		X																																				
Stonewort	*Nitella sp.*	4	7		X		X	X			D	D														D	D	X					D	D										D										
Ribbonleaf pondweed	*Potamogeton epihydrus*	1	1			D	X																																															
Bladderwort	*Utricularia*	3	1																																																X	X	X	D
Watershield	*Brasenia schreberi*	1	0				X																																															
Purple loosestrife	*Lythrum salicaria*	2	1		X			D																			X																											
Pickerelweed	*Pontederia cordata*	4	0		X		X			X		X																																										
Water marigold	*Bidens beckii*	0	0																																																			
Fanwort	*Cabomba caroliniana*	0	0																																																			
Water starwort	*Callitriche palustris*	0	0																																																			
Coontail	*Ceratophyllum demersum*	0	0																																																			
Musk grass	*Chara vulgaris*	0	0																																																			
Filamentous algae	*Chlorophyta*	15	4					X		X	X	X	D			X	X										X	X			X	X	X	X	D	X	X			X			D							D				
Brazilian elodea	*Egeria densa*	0	0																																																			
Common waterweed	*Elodea canadensis*	0	0																																																			
Northern St. John's wort	*Hypericum boreale*	0	0																																																			
Quillwort	*Isoetes*	0	0																																																			
Water purslane	*Ludwigia palustris*	0	0																																																			
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Big duckweed	*Spirodela polyrhiza*	0	0																																																			
Water willow	*Decodon verticillatus*	5	3								X	X	X																			D				D	D						X	X										
Spikerush	*Eleocharis sp.*	0	0																																																			
Pipewort	*Eriocaulon sp*	0	0																																																			
Arrow arum	*Peltandra viginica*	0	0																																																			
Rushes	*Scirpus sp.*	0	0																																																			
Burreed	*Sparganium sp.*	0	0																																																			
Cattail	*Typha sp.*	1	0	X																																																		
		# species present		2	4	3	6	3	0	3	5	6	2	2	0	2	2	2	0	1	0	0	1	1	0	1	3	3	0	1	2	2	2	3	1	2	2	0	0	2	0	0	2	3	0	0	0	0	0	1	2	2	2	2

Plant species list from Geosyntec - 2009

SRTC SePRO Research & Technology Campus

Chain of Custody EF81CDDD-6

Customer Company		Customer Contact	
Company Name:	Aquatic Control Technology, Inc.	Contact Person:	Gerald N
Address:	11 John Road	E-mail Address:	gnsmith@aquaticcontroltech.com
City:	Sutton	Phone:	
State:	MA 01590-2509	Fax:	

Payment Information

Payment Type:	Invoice	Card Number/Expiration Num:	

Waterbody Information

Waterbody:	Fosters Pond	Waterbody Size (acres):	120.00
Depth Average:	0.00		
Target Plants			

Sample Information

Sample Site ID	Date Treated	Date Sample Collected	Sample Location	Products	Acres Treated	Rate	Active	Result
1	05/13/2011	06/13/2011	outlet	Sonar A.S., Sonar One	60	17	Fluridone	**10.6 ppb**
2	05/13/2011	06/13/2011	channel	Sonar A.S., Sonar One	60	17	Fluridone	**13.4 ppb**

Laboratory Information

Date Received:	6/15/2011	Date Analysis Performed:	6/16/2011
Date Results Sent:	6/16/2011	Storage Conditions	Analyzed Immediately

SRTC SePRO Research & Technology Campus

Chain of Custody 81064DFE-2

Customer Company		Customer Contact	
Company Name:	Aquatic Control Technology, Inc.	Contact Person:	Gerald N
Address:	11 John Road	E-mail Address:	gnsmith@aquaticcontroltech.com
City:	Sutton	Phone:	
State:	MA 01590-2509	Fax:	

Payment Information

Payment Type:	Invoice	Card Number/Expiration Num:	

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Sample Information

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1	06/24/2011	07/07/2011	Mill Reservoir	Sonar A.S., Sonar One	125	20	Fluridone	**2.7 ppb**
2	06/24/2011	07/07/2011	NE wetland	Sonar A.S., Sonar One	125	20	Fluridone	**16.4 ppb**
3	06/24/2011	07/07/2011	Main Pond East	Sonar A.S., Sonar One	125	20	Fluridone	**7.0 ppb**
4	06/24/2011	07/07/2011	Main Pond West	Sonar A.S., Sonar One	125	20	Fluridone	**6.7 ppb**
5	06/24/2011	07/07/2011	channel	Sonar A.S., Sonar One	125	20	Fluridone	**9.0 ppb**
6	06/24/2011	07/07/2011	outlet cove	Sonar A.S., Sonar One	125	20	Fluridone	**10.9 ppb**

Laboratory Information

Date Received:	7/11/2011	Date Analysis Performed:	7/11/2011
Date Results Sent:	7/11/2011	Storage Conditions	Analyzed Immediately

SePRO Research & Technology Campus

Chain of Custody F8F47F90-7

Customer Company		Customer Contact	
Company Name:	Aquatic Control Technology, Inc.	Contact Person:	Gerald N
Address:	11 John Road	E-mail Address:	gnsmith@aquaticcontroltech.com
City:	Sutton	Phone:	
State:	MA 01590-2509	Fax:	

Payment Information

Payment Type:	Invoice	Card Number/Expiration Num:	

Waterbody Information

Waterbody:	Fosters Pond	Waterbody Size (acres):	120.00
Depth Average:	0.00		
Target Plants	Fanwort,		

Sample Information

Sample Site ID	Date Treated	Date Sample Collected	Sample Location	Products	Acres Treated	Rate	Active	Result
1	06/24/2011	07/26/2011	Mill Reservoir	Sonar A.S., Sonar One	120	20	Fluridone	**2.1 ppb**
2	06/24/2011	07/26/2011	NE wetland	Sonar A.S., Sonar One	120	20	Fluridone	**10.9 ppb**
3	06/24/2011	07/26/2011	Main Pond East	Sonar A.S., Sonar One	120	20	Fluridone	**5.3 ppb**
4	06/24/2011	07/26/2011	Main Pond West	Sonar A.S., Sonar One	120	20	Fluridone	**5.7 ppb**
5	06/24/2011	07/26/2011	channel	Sonar A.S., Sonar One	120	20	Fluridone	**6.7 ppb**
6	06/24/2011	07/26/2011	outlet cove	Sonar A.S., Sonar One	120	20	Fluridone	**10.4 ppb**

Laboratory Information

Date Received:	8/4/2011	Date Analysis Performed:	8/5/2011
Date Results Sent:	8/5/2011	Storage Conditions	Analyzed Immediately