

2007 Vermont Water Chestnut Management Program Summary

Vermont Department of Environmental Conservation December 2007

Confirmed Vermont Locations (21):

- **Big Marsh Slough**, Highgate
- **Lake Bomoseen**, Hubbardton *controlled*
- **Brookside Pond**, Orwell
- **Bullis Pond**, Franklin **NEW**
- **Lake Champlain**: 67 lake or associated tributary sites between Ferrisburg, Vermont and Benson, Vermont on both the New York and Vermont sides of the lake; Missisquoi Bay; Pike River. One **NEW** site found in Missisquoi Bay
- **Coggman Pond**, Benson
- **Cranberry Pool**, Highgate
- **Dead Creek**, Addison
- **Lake Paran**, Bennington

- **Lemon Fair River**, Middlebury
- **Lily Pond**, Poultney
- **Parsons Mill Pond**, Benson
- **Pelkeys Swamp**, Benson
- **Root Pond**, Benson *controlled*
- **Porter Lake**, Ferrisburg
- **small pond**, Bennington
- **small pond**, Benson
- **small pond**, Benson Landing
- **small pond**, North Bennington
- **North Springfield Reservoir**, Springfield
- **Richville Pond**, Orwell **NEW**

Partners: Lake Champlain Basin Program, Missisquoi National Wildlife Refuge, New York State Department of Environmental Conservation (NYSDEC), The Nature Conservancy (TNC), Otter Creek Audubon, USDA WHIP, U.S. Army Corps of Engineers (USACE), USF&W Service VT Office, and numerous volunteer groups and individuals



Bullis Pond, Franklin, Vermont, confirmed with water chestnut in 2007 (VTDEC)



Trapa natans L. (VTDEC)

Cost: \$497,046 (\$456,650 in 2006)

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|------------------------------------|------------------|
| ▪ Mechanical Harvesting | \$277,704 |
| ▪ Handpulling | \$125,000 |
| ▪ Composting | \$4,342 |
| ▪ TNC grant | \$13,000 |
| ▪ VTDEC field supervisor (2007-08) | \$64,000 |
| ▪ VTDEC administration | approx. \$13,000 |

Funding Sources:

- | | |
|------------------------|-----------|
| ▪ LCBP | \$69,000 |
| ▪ USACE | \$248,654 |
| ▪ USDA WHIP | \$2,550 |
| ▪ USF&W ANS Basin Plan | \$1,500 |
| ▪ VTDEC | \$175,342 |

(over)

Elements Summary:

Mechanical Harvesting¹

- Contracted to Aquatic Control Technology, Inc.
- Began July 9 and continued until August 21 for a total of 816.5 mechanical harvesting hours (881 hours in 2006) at 7 Lake Champlain sites; 3 harvesting sites also hand pulled.
- Approximately 5,908 cubic yards of water chestnut removed
- Approximately 99% of harvested spoils (5,852 cubic yards) composted at 2 sites in Benson, VT (via contract to Champlain Valley Composting Co.)
- NYSDEC conducted a mechanical harvesting program independent of the VTDEC contracted effort. The NYSDEC effort was managed by the town of Dresden; harvesting occurred in Dresden, NY and West Haven, VT (at a cost of \$56,000).



Finished rows of water chestnut compost, Benson, Vermont (VTDEC)

Handpulling¹

- Contracted to Lakeside Sports Inc. with additional efforts provided by VTDEC, TNC, U.S. Army Corps of Engineers, Missisquoi National Wildlife Refuge and private citizens
- Contracted handpulling began June 25 and continued until August 21 for a total of 3,515.5 hours (2,903 hours in 2006); and other groups total hours over 1,500 hours.
- 63 Lake Champlain sites spread over a distance of 80 miles of Vermont and 46.5 miles of New York shorelines
- All 20 non-Lake Champlain waters were surveyed; handpulling occurred if needed

Surveying

- 16 days, includes surveys of Lake Champlain and other waters

Education

- Distribution of water chestnut identification and search techniques materials
- Maintenance of user awareness signs posted at public access areas
- Water Chestnut Workgroup active; represented by the Lake Champlain Basin Program, The Nature Conservancy, NYS Canal Corporation, NYSDEC, Lake Champlain Sea Grant, Missisquoi National Wildlife Refuge, Quebec Ministry of the Environment, VTDEC

New Infestations:

- Richville Pond, Orwell: hand pulling efforts initiated and 23 rosettes removed
- Bullis Pond, Franklin: hand pulling efforts initiated with an estimated 55,560 rosettes removed
- Missisquoi Bay, outside mouth of Big Marsh Slough, Highgate: handpulling efforts initiated and 5 rosettes removed

2007 Successes:

- Headway continued in the Lake Champlain north to south management effort: mechanical harvesting efforts advanced four miles south of Benson Landing for the first time in 27 years. Of 67 Lake Champlain sites targeted for management in 2007, 17 had no water chestnut.
- 99% of mechanically harvested spoils composted in 2007 and 2006, up from only 19% in 2004.
- Rapid response efforts were initiated on all three new infestation sites confirmed in 2007.

¹ Of the contracted mechanical harvesting effort, 68% was spent on the Vermont Lake Champlain shoreline and 32% on the New York shoreline. Of the contracted handpulling effort, 32% was spent on the Vermont side of the lake and 68% on the New York shoreline.