

## Water Chestnut on the Mystic River



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**Summary** The invasive plant Water Chestnut (*Trapa natans*.) covers more than 30 acres of the Mystic River and is spreading at an exponential rate. Portions of the Mystic River, from Alewife Brook to the Amelia Earhart Dam, are almost entirely blanketed now, resulting in impairment of navigation and a deleterious impact on native habitat. Without significant intervention and investment by the Massachusetts Department of Conservation and Recreation (MA-DCR), the plants will fill the river and basin.

**History** Water chestnut was introduced into New England in the mid- 1800's and has resided in a number of rivers and ponds over time including the Mystic River and Charles River. The Mystic River had almost no water chestnut throughout the 1900s due to the amount of saltwater that was in the river. Now that the Mystic River is an impounded freshwater river, the plants are using the excessive nutrients to grow and spread quickly. Between 2001 and 2012, water chestnut populations have increased from 1 to 30 acres.

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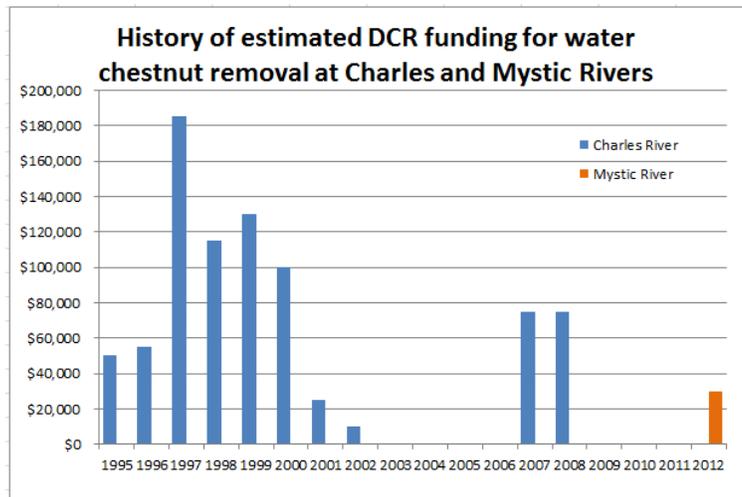
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**Intervention required** Water chestnut is an annual plant that grows from a seed in the sediments. After reaching the surface of the water in late May each year, the plant matures and produces approximately 10 seeds. These seeds will fall off of the plant in September and emerge as plants in the coming years. The removal of 30 acres of water chestnut requires the hiring of a contractor and use of a mechanical harvesting machine. Removal of 30 acres will cost an estimated \$80,000 - \$100,000 a year for multiple years for complete eradication. Each year that plants are not removed the costs increase as the plant spreads.

**History of water chestnut efforts in Mystic River** Since 2010, MyRWA and partner groups have applied \$200,000 toward removal of the water chestnut. In 2012, MA-DCR provided \$30,000 of that funding through a

Partnership grant program with the remaining funds coming from grants and private contributions. The 2012 Mystic water chestnut budget was \$50,000 and resulted in harvest of approximately 65% of the plants on the river. MyRWA has leveraged every possible local dollar and recruited volunteers to hand pull plants but the result is that additional resources are required to hold the line on the plant.



Between 1995- 2008, DCR spent in excess of \$800,000 to remove plants from the Charles River. The Mystic River has received a total of \$30,000.



For additional information, contact:

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