

September 25, 2019

To: Shannon Harris & The Town of Esopus Town Board
Cc: Mike Cafaldo, Daniel Vetter, Water Front Advisor Board

Subject: 2019 Water Chestnut Harvesting Summary Report

In 2019 the team of volunteers and the Water Front Advisory Board continued our efforts to reduce the impact of the water chestnuts that had been overtaking our town beaches and water fronts in the Town of Esopus. Our strategy included:

- a) Maintaining and expanding the area cleared of chestnuts by the Freer Town Beach waterfront
- b) Expanding the cleared area by Lighthouse Park, to provide summer long kayak paths.
- c) Maintaining and expanding the Scenic Hudson Water Trail access for kayaks
- d) Opening an area closer to the Scenic Hudson Pavillion to support Clearwater's Tideline Program, a hands-on children's educational program where they fish the river with a seine net.

Given that 1 acre of plants creates enough seeds for 100 acres the following year¹, we made great progress on our goal to reduce the number of seed bearing plants while at the same time improving the access for town residents. To the North by Freer Town Beach, we have made amazing progress expanding the area of clear open water and reducing the number of plants that can continue to produce seeds. We estimate that there were about 59 acres of weed invaded water when we started cutting in 2009. We roughly estimate that we only have about 7-10 acres remaining to cut in the Northern region next year. In 2019 there was also extensive light scattered growth across the 59 acres that required maintenance. We essentially managed to eliminate all of that new light growth, as well as completely cleaning up the area by Hidden Harbor and Freer Town Beach.

We completed 162 machine hours of cutting, with a conservative estimate of 375 volunteer hours between actual cutting, training, machine maintenance and other logistics. If we consider the volunteer labor at a rate of \$22/hour this is a savings to the town of \$8250. There were a total of 41 different volunteers. We cut a total of 59 times. The first cutting took place on June 11 and was completed on August 16th. After this date the weeds were essentially going to seed, so cutting would not have been productive. We had excellent community participation from the Bruderhof as well as help from Hidden Harbor, Scenic Hudson, DEC and Marist College students. The summary of this year's cutting statistics verses previous years are illustrated in the table below.

	Machine Hours	# Cutting Times	# Individual Volunteers	# Loads	First Day Cut	Last Day Cut
2019	162(N127, S35)	59	41	121(N103, S18)	6/11/19	8/16/19
2018	134(N56, S78)	44	34	122(N41, S81)	6/15/18	8/8/18
2017	116(N65, S51)	36	29	178(N65,S113)	6/27/17	8/18/17
2016	178 (N87, S91)	50	29	182 (N64, S118)	6/16/16	8/9/16
2015	128 (N58, S70)	39	30	153 (N53, S100)	6/13/15	8/26/15
2014	131 (N81, S50)	31	26 (S15,N19)	207 (N97, S110)	6/17/14	8/10/14
2013	95	32	24	94	6/6/13	8/4/13
2012	119		26		6/1/12	8/18/12
2011	150		23		6/14/11	8/11/11

¹ http://www.in.gov/dnr/files/WATER_CHESTNUT.pdf

The Freer town beach was once again virtually weed free for the summer, with many residents enjoying the launch for kayaking, windsurfing, paddle boards and small sailboats. Many residents were able to use the kayak paths by Lighthouse Park and to more easily fish from the landing on River Road.

The highway and recreation departments have been very responsive and collaborative on their support of the program, assisting with fueling, launching the boat and required maintenance.

There was a request from Saugerties to borrow the boat to cut the Saugerties Village Beach. We suggested that they evaluate a vendor that provides this service since it would be a better fit for their needs. As we evaluated the request, we considered the following:

- We have a very small cutting window to cover the town of Esopus (essentially from mid-June until mid-August). This combined with the need to cut when the tide is high limits the available time slots when we can effectively cut. We essentially need every slot we can get to cover the massive task we are faced with.
- The area they want to cut is in the Esopus Creek above the dam. We are worried that this would present significant challenges for launching as well as concerns for submerged rocks that could damage the hull.
- Chester is not a simple machine and there are many opportunities for the boat to be damaged with expensive repairs with less experienced operators.
- Saugerties had both milfoil and water chestnuts. Milfoil should be managed with a different type of machine which removes the plants at the roots.

Looking forward to next year, it is our goal to further expand our Southern cutting to open wider areas by Lighthouse Park, the fishing wall and by Scenic Hudson's park to further support the Clearwater's Tideline Program. We estimate that there are about 150 acres of weeds to the South. Roughly speaking we have probably managed to cut about 10 or 15 acres. We have also had a request from Barbara Ralston to cut near the Esopus Meadows Lighthouse, as their ability to hold tours is now impacted by new weed growth.

We appreciate the support of the town on this effort. Our waterfront is a defining and differentiating feature of our community. We feel proud that we are able to enhance the town's ability to use this wonderful recreational resource. That this was accomplished through the efforts of volunteers in the community is certainly an amazing accomplishment.

Carol Carson Tomassetti

Waterfront Advisory Board

Town Of Esopus Freer Town Beach Location Pictures from the 1993 and 2019



Photo August 1993,
denser than 1991.
It got even denser and
the area that was hand
pulled had grown in
when cutting started in
2009.



View 2019
From the South
Looking North.
Total area about
59 acres.



Small remaining
area to the North
to be cut.
Estimate around
7-10 acres.

Town Of Esopus Southern Location



View from Lighthouse Park After Cutting 2019



Panoramic of Fishing Wall Area along River Road after cutting 2019.



View from Scenic Hudson Park Prior to Cutting 2019. Area used for Clearwater's Children's Tideline Program.



View from Scenic Hudson Park after cutting to provide access for Tideline Program.

"Without the Chester cutting at Esopus Meadows, it would be almost impossible to run our programs during the summer. We run public programs that bring new people to our town, as well as summer camps and youth groups from the local area. During every program, the subject of water chestnuts comes up and we have a unique opportunity to talk about how the Town is a steward of the river." Eli Schloss