

## **Town of Caroga 2019 - 2022 Invasive Species Report to the A.P.A. for East and West Caroga Lakes**

2022 was my first year as Director of our Invasive Species program following the unexpected death of the previous Director. Location of records detailing the specific quantities of Milfoil from areas of both lakes has not been successful other than 2022. The Maps from 2020 and 2021 are approximate bushels based on conversations with the divers. No estimate of 2019 bushel location was attempted.

I did submit our 2022 Annual report to the APA last year and have repeated some of that information in this report.

The Town of Caroga has been using Diver Assisted Suction Harvesting (DASH) for over 20 years for the removal of Eurasian Milfoil. The program has slowed the expansion of this Invasive Species but has made no advancement in decreasing its presence and several new locations were found in 2022. There is also no visible signs of reducing expenses without risking a major increase in its presence.

The harvesting season begins in early June when the water Temperature rises to a level that does not risk Hypothermia or hinder diver productivity. The season ends on the Friday following Labor Day.

d We averaged 6-8 divers per day, 3-4 in the morning 8-12 and 3-4 in the afternoon 1-5. A Diver is scheduled to have 4 – 45 minute dives, each followed by a 15 minute break.

The following is the documented data I could retrieve from town records for 2019-2022. The bushel totals by year are accurate but as stated above, the maps from 2020 and 2021 of bushels removed by location are estimates from conversations with the divers.

### **A. 2019**

Diver Hours – 2126	Operating Budget \$74,618	Bushels Harvested	4398
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### **B. 2020**

Diver Hours – 2376	Operating Budget \$74,954	Bushels Harvested	3112
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### **C. 2021**

Diver Hours – 2081	Operating Budget \$74,534	Bushels Harvested	2613
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### **D. 2022**

Diver Hours – 2957	Operating Budget \$ 96,328	Bushels Harvested	2153
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The variations in the year to year data are a result of several factors explained below.

- A. The large number of bushels harvested in 2019 was the result of several years of very heavy growth that allows for easy location and large quantities harvested with minimal time spent

- repositioning the harvester. As the Milfoil is thinned over subsequent years more time is spent locating patches and not being as dense, more moving is required to get from plant to plant.
- B. The variation of hours is primarily a result of environmental factors with electrical storms and wind impacting the process the most. Electrical storms will halt harvesting completely from several hours to a full day. These decrease the hours worked and Milfoil harvested. The wind can do the same or in some cases increase hours worked by spending time searching for Milfoil in wind protected areas, which reduces the time spent harvesting. In 2022 Milfoil was found in the Outlet channel which the divers tell me was the first time they had been there. The shallow water of the channel prevents the use of DASH, resulting in hand harvesting which is very time consuming and reduced yield caused by the water becoming cloudy from their movement.
- C. The large budget expense in 2022 was a major overhaul of the Harvester deck, railings and equipment, completed in the spring of 2022.

With no end in sight for its removal and several new areas found in 2022 we have applied for a grant to do a Pilot study in specific key areas, using Herbicides in conjunction with our DASH program. We have received Tentative approval for the grant and are waiting hopefully for final approval within the next week or 2.

Respectfully  
Walter Hogan  
Director Invasive Species Program  
Town of Caroga  
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