

Aquatic Invasive Species Management Report

Chateaugay Lake

2019 Final Report

Prepared By:

INVASIVE SOLUTIONS



DIVE COMPANY, LLC

Table of Contents

Preface	2
Introduction	2
Methodology.....	2
Harvest Data	3
Site Summaries	5
Boat Launch.....	5
Narrows south of Boat Launch.....	6
Lower Lake north of Narrows-	7
Indian Point	8
Conclusion.....	9

Preface

We would like to take the opportunity to say thank you to the Chateaugay Lake Foundation, the Town of Dannemora, and all those involved with the aquatic invasive species management efforts both on and off the lake. We understand there is a lot of work that goes on throughout the season that doesn't meet the public eye but is integral to the success of the management efforts.

Introduction

The 2019 season consisted of five weeks to continue the management efforts on Upper and Lower Chateaugay Lake. The first two harvest weeks were at the start of June to harvest high trafficked areas to include the public boat launch and the Narrows south of the boat launch, near the island just north of the sandbar. At the start of July there were two harvest weeks spent working the area on Lower Chateaugay Lake continuing with the management efforts started the year prior. The final week was spent working with both the Chateaugay Lake Foundation and the Town of Dannemora to harvest by Indian Point on Upper Chateaugay Lake.

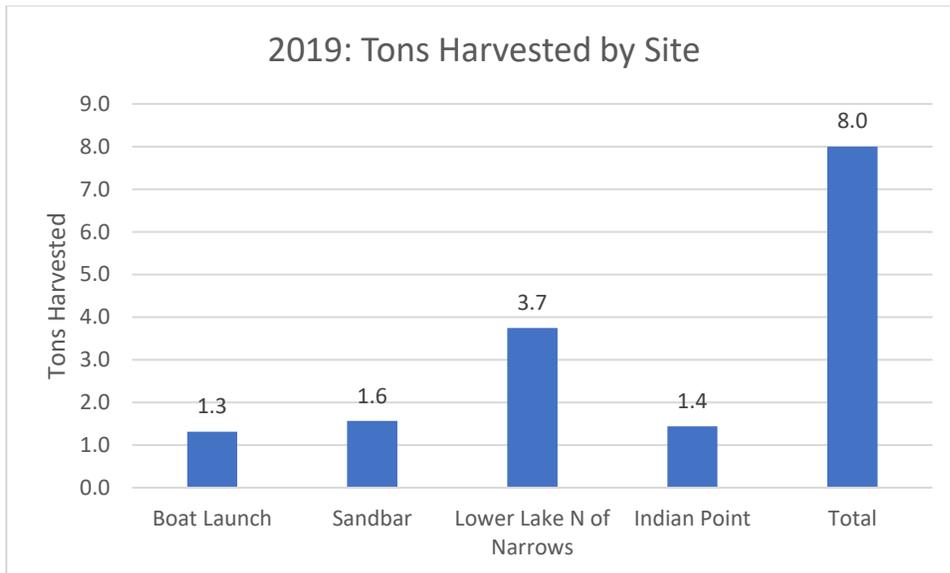
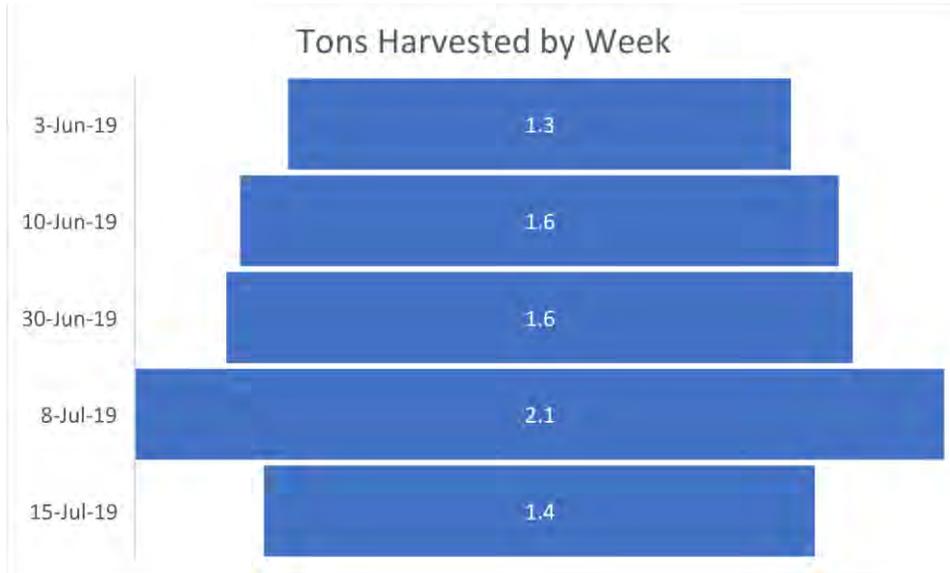
Methodology

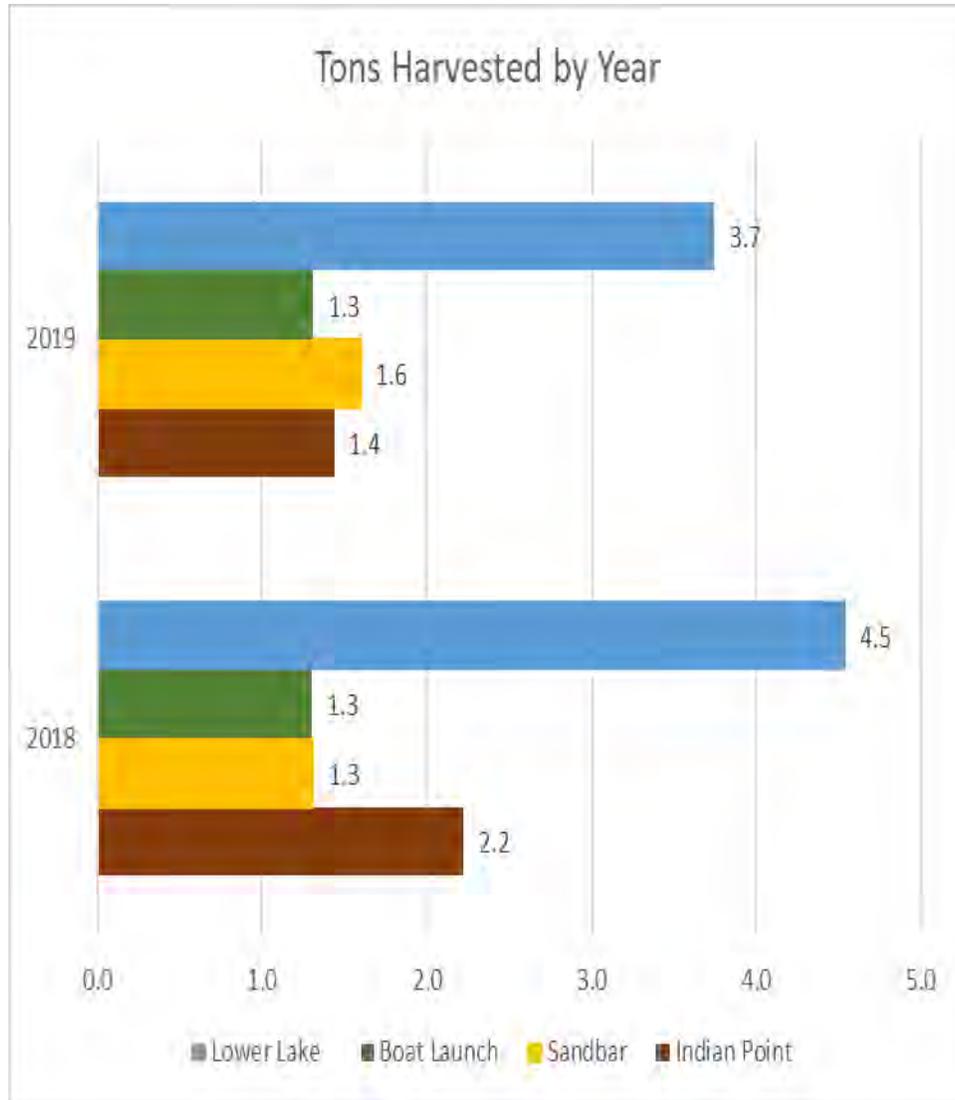
The successful harvesting of aquatic invasive species is an ever-evolving world which requires knowledge in many areas to include the bodies of water and their specific tendencies, especially in relation to their natural flow, seasonal changes, historical AIS data and patterns, and knowledge of AIS and their life cycles. Considering the many variables, we develop a foundation for a management plan to lay the groundwork for the harvest season, while still allowing for minor changes in harvesting methods to ensure the best harvesting practices are always being employed.

For the management of Upper and Lower Chateaugay Lake we work with the Foundation and lake manager to prioritize the needs of the lakes and work within any budgetary or time constraints. We then review historical site data to ensure we have the most efficient and up to date harvest plan for all sites selected for harvest.

Each week our Crew collects data, to include plant locations via GPS waypoints, general plant size and life cycle, bag count, and general data specific to the plant location which is used to create weekly reports of the work completed and plan for future harvests.

Harvest Data

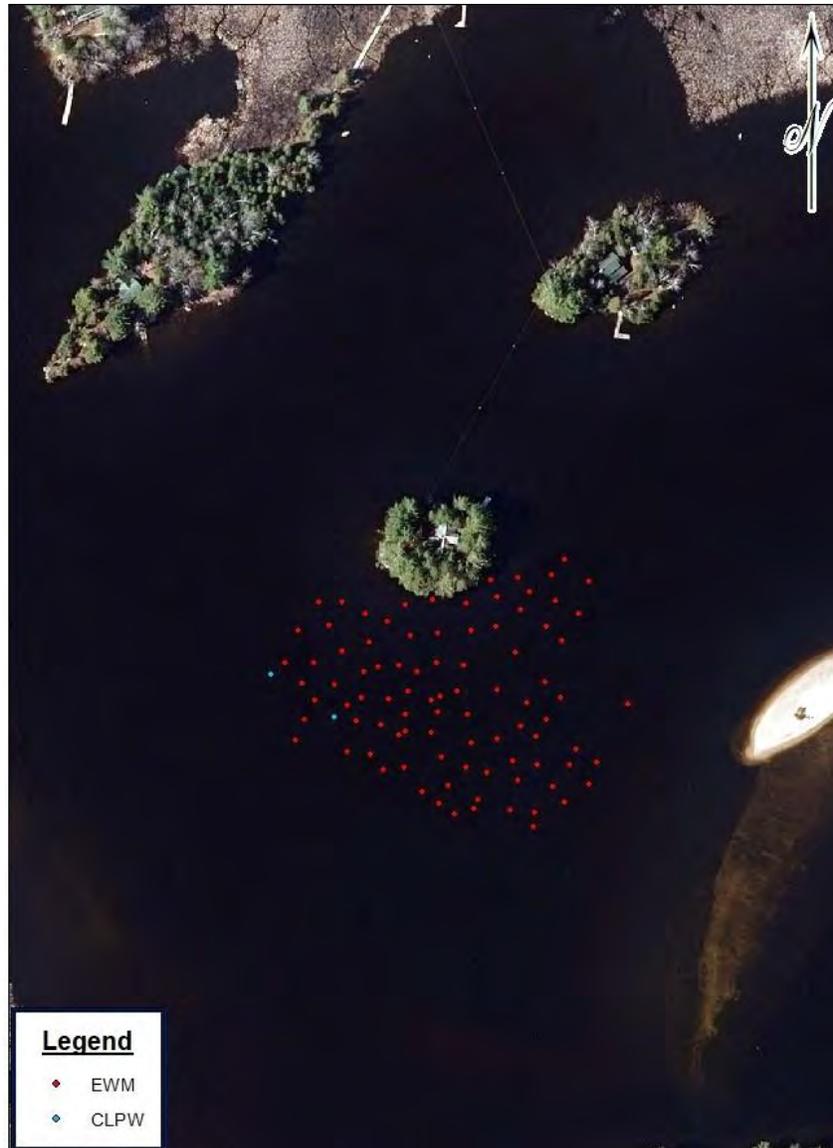




Site Summaries



Boat Launch- There was 1.3 tons harvested from this area this season. The area contains mostly Eurasian Watermilfoil (EWM) with the sporadic Curly-leaf Pondweed (CLPW) found within native plants of the site. Due to both the life cycle of CLPW and the high boat traffic seen within the site, the area is worked the first week to help reduce the possibility of aquatic invasive species (AIS) fragmentation.



Narrows south of Boat Launch- There was 1.6 tons harvested from this area this season. This area was worked in continuation of the harvesting which occurred along the north section of the island the previous year. Upon inspection of the area worked the previous year the crew found greatly reduced densities of AIS. The western boundary of the work site was generally dictated by the channel within the area which contained very limited AIS throughout.



Note: The "boat channel" and Channel Markers are for visual representation only and are not to be used for navigation.

Lower Lake north of Narrows- There was a total of 3.7 tons harvested from this area this year. This area was harvested in continuation of the harvesting which had begun the previous season. Harvesting occurred throughout site 1 and a "boat channel" was cleared/ maintained to enable boats to pass through the site with minimum disruption/ fragmentation of the EWM. Overall, the area showed signs of management with a healthy native plant population which contained some EWM regrowth which were leggy single stems with small root masses. As the Crew worked outside of the management area from the previous year, they reported large bushy multi-stems with well-established root masses.



Indian Point- There was a total of 1.4 tons of EWM harvested this season. The management approach this season was to harvest a larger area rather than perform very tight patterned swims which can be very time consuming. Crew began by working over the harvest area from the previous year which showed limited regrowth, followed by harvesting further south ending about halfway between the second and third EWM buoy. As the Crew worked past the previous year's harvest area, they reported much larger multi-stem EWM found within native plants. Overall, the area harvested this season was about twice the size of the previous season and only produced about half of its harvested weight.

Conclusion

The harvest weeks were scheduled early in the season to harvest AIS before it reaches its peak growth, keeping in mind the different life cycles of CLPW and EWM. The first two weeks are scheduled early to focus on high trafficked areas and those areas with CLPW, followed by later harvests to continue managing areas outlined by the lake manager. As the Crews worked previously harvested areas, they noted greatly reduced and smaller AIS with healthy native plant communities within the sites.

Post-harvest the sites showed no or very limited remaining AIS, however during an inspection of sites at the end of summer there was some regrowth within sites on Upper Chateaugay Lake. Early in the summer there were reports of low water levels followed by unusually high fragmentation along shorelines noted by shore owners. It is unknown, but plausible this may have contributed to regrowth found within the areas, combined with the length of the growing season remaining after the harvests. Areas which are located by other unmanaged AIS areas may benefit from either a later harvest enabling the crew to collect fragmentation found within the sites, or a quick follow-up weeks after the harvests to harvest any regrowth and collect fragmentation. Additionally, the reduced growing season available after visiting these sites later in the season should limit the ability of AIS fragmentation or seeds to establish themselves. Overall, the sites show good signs of management and a reduction in the tonnage harvested which should continue to come under better management with the continuation of harvests within the sites.

We would like to say thank you once more to the Chateaugay Lake Foundation for their help and hard work throughout the season and allowing us the opportunity to be a part of it all. We look forward to the continued success of the lake in the coming years, and as always, are excited for the opportunity to be in the water helping to make it happen.



This Page Intentionally Left Blank