



# Lake George Milfoil Project Annual Report

# 2023

Prepared by:  
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Diving Services, INC.



# 2023 Lake George Annual Report

Prepared by Christopher Sheldon

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By Chris Mancuso

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## Reporting to:



**Lake George  
Park Commission**

The Lake George Park Commission (LGPC)  
75 Fort George Rd, Lake George, NY 12845  
[www.lgpc.state.ny.us](http://www.lgpc.state.ny.us)



**LAKE GEORGE ASSOCIATION**  
*Protecting Our Water. Educating for the Future*  
- SINCE 1885 -

The Lake George Association (LGA)  
2199A State Route 9, Lake George, NY 12845  
[www.lakegeorgeassociation.org](http://www.lakegeorgeassociation.org)



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## Introduction

Lake George is a 32-mile-long lake situated in Northern New York State. It is about 2 miles wide at its widest point, 196 feet deep at its deepest, and holds approximately 550 billion gallons of water.<sup>1</sup> It is considered a fairly ‘young’ lake, having been formed as glaciers receded and filled the sunken basin approximately 10,000 to 12,000 years ago. The relatively younger age of the lake tends to mean that it will have higher ratings for water clarity, lower levels of vascular plant growth, and higher levels of dissolved oxygen, as is true in Lake George. These features, along with lake’s prominently rocky or sandy shoreline, result in a naturally lower phosphorus enrichment and low algal growth combine to classify Lake George as an oligotrophic lake. This classification means the waters of Lake George are suitable as an unfiltered drinking water source and is rated by the state of New York as a Class AA Special drinking water source.<sup>2</sup>



Figure : Photo copyright Shutterstock.com, used with permission.

Bordering 9 municipalities and crossing through 2 counties, the waters of Lake George also support thousands of businesses and residents who call the surrounding areas home. 12 communities in three counties depend on the Lake George watershed. The natural quality of the water also makes it an ideal inhabitant for many species of plants and animals both in its waters and in the surrounding lake shore watershed.<sup>3</sup> Thirty-six fish species have been cataloged in Lake George, from the American Eel to the Yellow Perch. Invertebrates, native mollusks, crustaceans, and a rich variety of microorganisms populate the waters and wetlands of the lake.



Figure : Photo copyright Shutterstock.com, used with permission.

Native plants number in the thousands, many of which are integral to the wellness of the lake chemistry and ecosystem. Birds large and small utilize Lake George along migratory routes, and many species call it home more permanently. Several species of turtle, salamander, frog, toads, and snakes live within the watershed and mammals, from White-tailed Deer to American

<sup>1</sup> “Lake George Facts: Separating Fact from Fiction about the ‘Queen of American Lakes.’” *Lake George Association*, 24 Mar. 2021, <https://www.lakegeorgeassociation.org/about-us/lake-george-faq/#Facts>.

<sup>2</sup> “Lake George Water Quality.” *Lake George Association*, 5 July 2018, <https://www.lakegeorgeassociation.org/educate/science/lake-george-water-quality/>.

<sup>3</sup> Ibid

Bobcat, feed and drink along its shores. In 1961, New York State passed Article 43 of the New York State Consolidated Laws Environmental Conservation, which established the "Lake George Park" and thereby designated, "The lake and its land drainage basin as an area so distinctive in natural qualities and scenic beauty that it is deserving of special protection."<sup>4</sup>

Lake George, heralded as one of the cleanest lakes in the US, and nicknamed the 'Queen of American Lakes', is also a critical part of the financial wellness of its area, as it hosts thousands of seasonal residents and visitors every year. Several recreational sports, in every season, depend on the lake for transit and enjoyment. Its active boating community consists of everything from kayaks, sailboats, and fishing boats to jet skis, historic paddle boats, steam ship cruisers, and search and rescue boats. The lake's natural beauty effortlessly draws thousands for fishing, SCUBA diving, parasailing, and swimming. Additionally, several scientific research projects, sites, and stations, including the Darrin Freshwater Institute and the Lake George Association Floating Classroom, learn and work within the ecosystem that is Lake George.

With so many ecosystems, economies, and residents relying on the health of the lake, it is absolutely critical to identify, reduce, and manage those things which threaten Lake George. One significant threat facing the lake ecologically, economically today is the invasive is Eurasian Watermilfoil.

## Eurasian Watermilfoil

Eurasian Watermilfoil, (*Myriophyllum spicatum* L.) is a non-native aquatic plant. Discovered in 1986 in the lake, this invasive species threatens the ecology and economy of communities depending on Lake George. Its rapid growth robs the aqua soil of the nutrients many native plants and animals rely on and helps to form a large, lush canopy which blocks light from reaching other plants and organisms. Large mats of fragmented plants congest water passageways for humans and animals alike, and dense beds growing below can take over quickly, displacing native plants essential for many species of fish and other animals. Large stands of older plants also reduce the dissolved oxygen in the water as they die and decay, threatening water quality as a



<sup>4</sup> "About the Lake George Park Commission." *Lake George Park Commission*, <https://lgpc.ny.gov/about>.



Figure : Photo of Eurasian Water Milfoil on the weed separator table. (Photo by Wesley Sheldon. Copyright 2023, All rights reserved.)

whole. Its presence can reduce property values in lakefront communities and discourage participation in water sports and activities.

Eurasian Watermilfoil is a perennial aquatic herb which naturally occurs in Eurasia and Northern Africa. It generally lives in 10 to 15 feet of water but has been found in clear lakes like Lake George in depths closer to 20 feet. Plants normally grow between 6 and 10 feet but can grow bigger given the right circumstances.

Eurasian Watermilfoil outcompetes many native species due to various biological and chemical characteristics and is able to withstand a wide variety of water pH, from brackish waters in southern intercoastal areas to the cold fresh waters of northern lakes and rivers. It is

also able to overwinter in freezing temperatures of the north as well as survive shallow overheated areas within the tropical regions of Florida.

Another significant competitive advantage is its ability to reproduce in three ways: seeds production, rhizomes, and fragmentation.<sup>5</sup> Seeds, (formed through the sexual reproduction of the plant through pollination), are produced from small reddish-brown to pinkish-white flowers which grow out of the water on a long, emerged, flower spike. At the end of the growing season, seeds enter the water in what is called the ‘seed rain’. The seeds which are returned to the benthic layer, (or lake bottom), are then able to stay dormant for nearly 5 years. Even when dried, the seeds can remain viable for almost 36 weeks until the right conditions arise for germination.<sup>6</sup> Seeds can also be dispersed through the digestive systems of several animals, including waterfowl and fish. (NOTE: This is one reason it is extremely important not to relocate caught fish into or from Lake George.)

Rhizomes, (a form of vegetative reproduction), are lateral roots which develop from the axillary bud on the mother Eurasian Watermilfoil plant. Rhizomes are capable of sending up new shoots which develop into new plants. This is one reason why it is not enough to simply remove the stems of the plant; if the root ball of the Eurasian Watermilfoil plant is not removed, it will regenerate stems and continue to thrive.

The third process is an asexual process called fragmentation. Eurasian Watermilfoil will naturally ‘auto fragment’ as part of its life cycle. Auto fragmentation begins when small root hairs develop along the stem of branched stems near the surface of the water. These small, branched stems break free from the plant and enter the water column where they are dispersed in several ways: currents, wind, waterfowl, water flow between connected water bodies, and

<sup>5</sup> Buchan, Lucy A., and Dianna K. Padilla. “Predicting the Likelihood of Eurasian Watermilfoil Presence in Lakes, a Macrophyte Monitoring Tool.” *Ecological Applications*, vol. 10, no. 5, 2000, pp. 1442–1455., [https://doi.org/10.1890/1051-0761\(2000\)010\[1442:ptloew\]2.0.co;2](https://doi.org/10.1890/1051-0761(2000)010[1442:ptloew]2.0.co;2).

<sup>6</sup> Standifer, Nathan E., and J. D. Madsen. “The Effect of Drying Period on the Germination of Eurasian Watermilfoil Seeds.” *Journal of Aquatic Plant Management*, vol. 35, 1997, pp. 35–36., <https://doi.org/http://www.apms.org/japm/vol35/v35p35.pdf>.

human-related activities.<sup>7</sup> Once dispersed, these fragments can settle and begin rooting. While this plant is separate from its mother plant, it remains an identical genetic copy of the original plant.

Eurasian Watermilfoil can also spread through fragmentation of the plant caused prematurely by natural phenomenon, such as large storm events or animal behavior such as beaver activity and migratory birds. *However, the biggest source of premature fragmentation and dispersal is human activity.* Efforts to cut tops of plants, pull plants without pulling as much of the complete root structure as is possible, and raking the plant may be well meaning but add to the proliferation of the plant.

Additionally, because all human activities on the lake require transit through the littoral zone, (the primary habitat for Eurasian Watermilfoil), the best long-term control solution is an integrated strategy of prevention, identification, and complete removal of the plant.

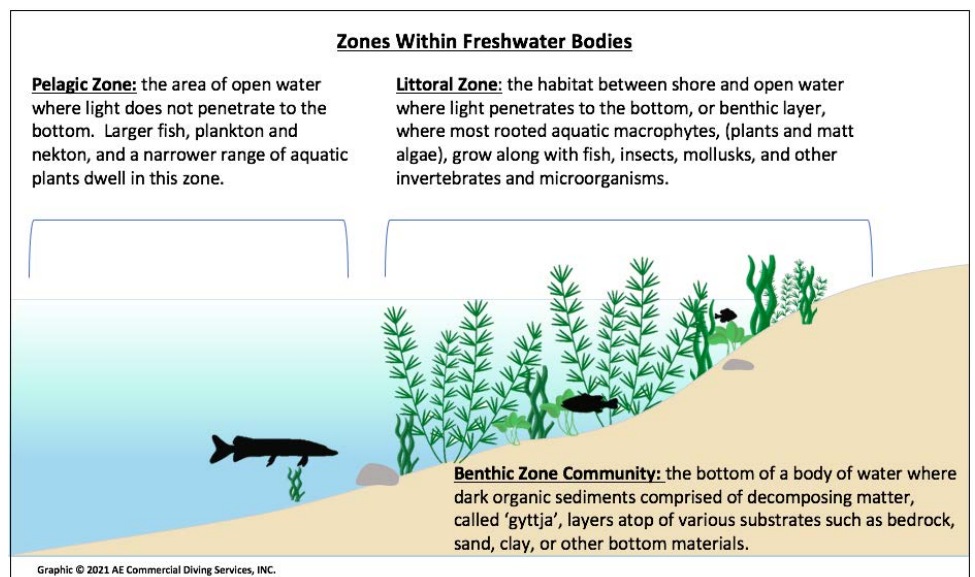
## 2023 Milfoil Management Program

Though it is unclear how Eurasian Watermilfoil was originally introduced to Lake George, efforts to identify, manage, and reduce Eurasian Watermilfoil are vital. Directed by the Lake George Park Commission, in cooperation with the Lake George Association, the Milfoil Management project effort has resulted in 4,022 totes of Eurasian Water Milfoil being removed from the lake this season.

Each tote averages 20 gallons and 35lbs. AE Commercial Diving Service, INC (AECDS) has proudly served as the contractor responsible for removing the invasive plant since 2018. In 2023, nearly 50.63 tons of Eurasian Watermilfoil (EWM) was removed from 29 sites by AE Commercial Diving Services as directed by the Lake George Park Commission. Crew from AE



Figure : Crews led by Wesley Sheldon and Bennett Sheldon head out on a foggy Lake George. (Photo by Wesley Sheldon. Copyright 2023. All rights reserved.)



<sup>7</sup> Buchan, Lucy A., and Dianna K. Padilla. "Predicting the Likelihood of Eurasian Watermilfoil Presence in Lakes, a Macrophyte Monitoring Tool." *Ecological Applications*, vol. 10, no. 5, 2000, pp. 1442–1455., [https://doi.org/10.1890/1051-0761\(2000\)010\[1442:ptloew\]2.0.co;2](https://doi.org/10.1890/1051-0761(2000)010[1442:ptloew]2.0.co;2).



Commercial Diving Services, INC (AECDS) applied a combination of techniques for removal, including Diver Assisted Suction Harvesting (DASH), and hand harvesting.

### Applied Removal Techniques

Diver Assisted Suction Harvesting, (hereby referred to as DASH), is the process by which SCUBA divers guide a suction hose to the area of the targeted species within a body of water and, after carefully removing the roots from the substrate, deliver the stems and root ball to the suction hose. The entire plant then travels up the length of the hose to boat on the surface where it is deposited on a table and sorted by a boat tender for disposal. DASH is an effective method to reduce and control large beds of Eurasian Milfoil to prevent it from spreading through fragmentation or seeding. AE Commercial Diving Services has developed a patent pending sorting system that allows the nutrient rich substrate to return to the bottom where it is needed to support regrowth and health of the native species. This system also delivers the material back to the bottom in such a way as to reduce large plumes of sediment from disturbing the water column.



Figure : Transport trailer loaded with Eurasian Watermilfoil plants to be taken to a disposal sites. ( Picture by Wesley Sheldon. Copyright 2023. All rights reserved.)



Figure : An AECDS DASH Diver begins to harvest a Eurasian Watermilfoil plant from the top down in order to reduce fragmentation and capture any parts which are already fragmented but trapped in the foliage of the plant.. Photo by Wesley Sheldon, Copyright 2023.

have experience as certified scientific divers, recreational divers, commercial divers, or working divers. The diversity of our divers' education and experience has never failed to contribute positively to the overall crew success. The team was headed by AECDS Site Supervisors Bennett Sheldon and Wesley Sheldon, who have a combined total of 38 years working in the diving industry.

Hand Harvesting is a technique usually applied to an area where the targeted species is growing sporadically. Instead of utilizing a suction hose, the SCUBA diver instead removes the target species and places it in a mesh bag carried by the diver. Once the area is cleared or the bag is full, the diver returns to the surface and hands the bag to the boat tender for sorting and disposal.

### 2023 Crew

In 2023, three DASH units and a supervisor boat were staffed and present, for a total of 11 employees. All our divers are certified and



## Disposal Efforts

Disposing of 50.63 tons of Eurasian Watermilfoil was a significant part of making sure the project was a success. Roger Smith, Lake George Park Commission Conservation Operations Supervisor, coordinated the disposal and dumping of strategically placed trailers sites. This sometimes required his attention several times per week. Working mostly with local transfer stations or farms to receive the biomass, Roger also coordinated with local highway departments throughout the watershed to assist.

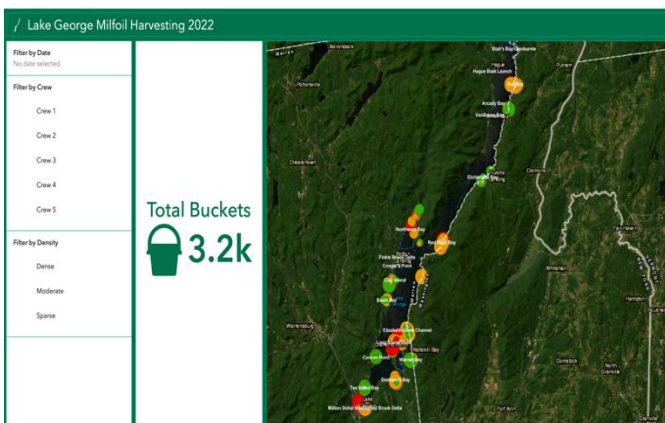
## Bottom Barrier Removal

No bottom barriers removal work was conducted during the 2023 season.

## 2023 Data Collection Collaboration

Over the summer of 2023 AE Commercial Diving Services staff used a real-time GPS-enabled data collection method for the milfoil harvesters working on Lake George. This method was developed in 2021 by staff from the Warren County Planning Department, (Ethan Gaddy, Assistant County Planner, Sara Frankenfeld, GIS Administrator and Amanda Beck, Junior Planner),

This method, using ESRI's Survey123 and ArcGIS Online software, proved successful on several fronts. First, it streamlined and simplified the data reporting procedures for the harvest contractors. Next, it allowed stakeholders to view data collection progress in real-time. Finally, it resulted in much more accurate and comprehensive milfoil location, density, and volume data.



Handheld devices were provided by the Planning Department for each harvesting vessel to record data daily. Sara Frankenfeld and Amanda Beck completed the data analysis using the survey platform and helped to curate the data into maps, charts, and data summaries. The improved data, which is stored in the County's Geographic Information System, will allow stakeholders to quantify progress with milfoil eradication over time and ensure that funds are being used effectively. An online dashboard provides real-time access to the field data.

## **2023 Funding for Removal Efforts**

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The total amount spent on removal of Eurasian Watermilfoil was higher in 2023. A total of \$444,718.75 was spent by the project partner organizations for removal of Eurasian Watermilfoil. There were two distinct funding sources in 2023:

**Lake George Park Commission: \$304,718.75**

**Lake George Association: \$140,000.00**

**2023 Funding TOTAL: \$444,718.75**

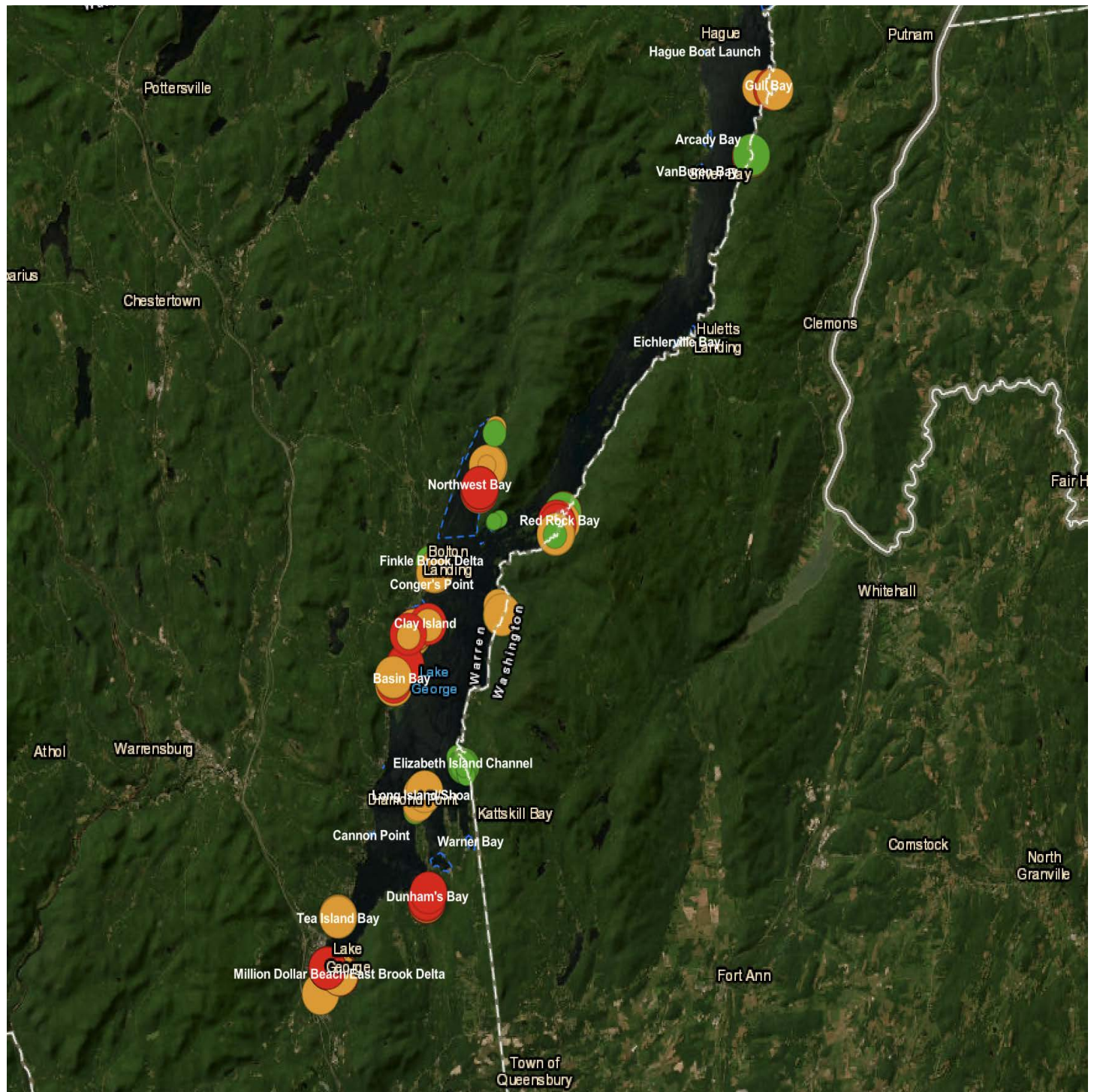


## Sites Worked Map

**Red** = Dense growth

**Orange** = Moderate growth

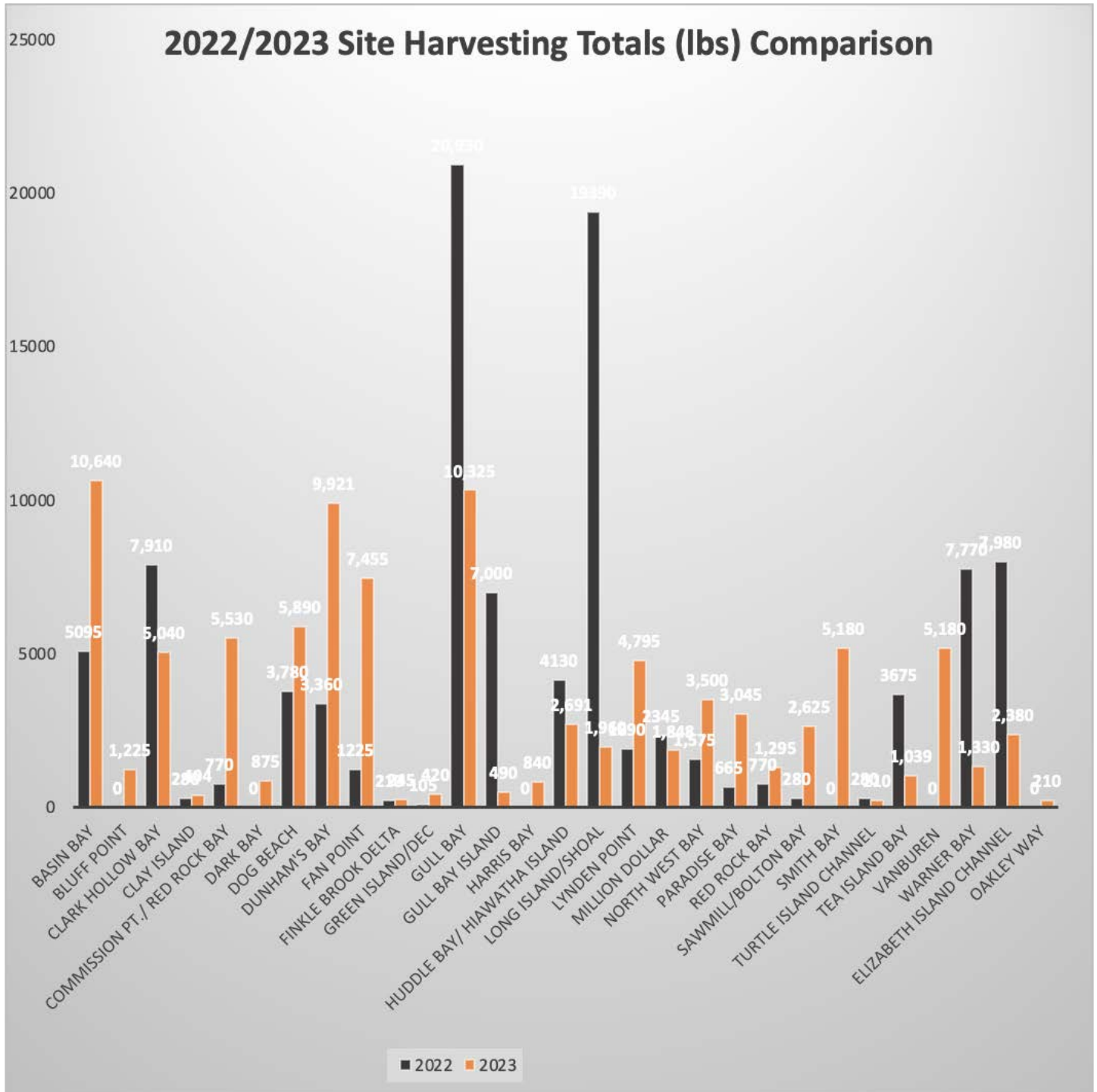
**Green** = Sparse growth



# Data Analysis

Total Sites Worked: 29 sites

Total Weight Removed: 101,270 lbs or 50.63 tons



## PART II: Harvesting Site Totals Annual Comparison

(10 Hours = 1 Day)

#	Site Name	2023 # of Crew Days	2023 Pounds	Percentage of site harvested in 2023	2022 # of crew days	2022 pounds	2021 # of crew days	2021 pounds
1	Dunhams Bay	26	16,563	100%	7	3,360	3	105
2	Dog Beach	15	5,890	100%	7	3,780	5	1,960
3	Huddle Bay/Hiawatha Island	15	2,691	100%	11	4,130	17	4,235
4	Basin Bay	13	10,640	100%	2	595	3	892.5
5	Gull Bay	10	10,325	100%	18	20,930	20	13,195
6	Elizabeth Island Channel	9	2,380	100%	18	7,980	-	-
7	Fan Point	9	7,455	100%	-	-	2	490
8	MDB/East Brook Delta	8	1,848	100%	2	2,345	4	262.5
9	Northwest Bay	8	3,500	100%	5	1,575	17	8,225
10	Commission Point	7	5,530	100%	3	770	2	105
11	Long Island Shoal	6	1,960	100%	19	19,390	8	4,095
12	Sawmill Bay/Bolton Bay	6	2,625	100%	2	280	11	2,800
13	Clark Hollow Bay	5	5,040	100%	6	7,910	4	4,305
14	Van Buren Bay	5	5,180	100%	-	-	5	1,750
15	Clay Island	5	404	100%	3	280	9	910
16	Green Island /DEC	5	420	100%	1	105	1	70
17	Tea Island Bay	4	1,039	100%	4	3,675	-	-
18	Red Rock Bay	4	1,295	100%	4	770	4	6,860
19	Paradise Bay	3	3,045	100%	2	665	2	3,115
20	Lynden Point	3	2,835	100%	3	1,890	3	2,240
21	Dark Bay	2.5	875	50%	-	-	-	-
22	Smith Bay	2	5,180	100%	-	-	-	-
23	Bluff Head	2	1,225	50%	-	-	-	-
24	Warner Bay	2	1,330	60%	13	7,770	12	8,015



25	Harris Bay	1	840	10%	-	-	26	24,465
26	Finkle Brook Delta	1	245	100%	3	210	4	420
27	Oakley Way	1	210	100%	-	-	3	420
28	Turtle Island Channel	1	210	100%	2	280	3	385
29	Gull Bay Island	1	490	100%	8	7,000	-	-
	TOTAL:	179.5	101,270 lbs		177	128,442.50 lbs	161	135,502.50 lbs



## PART III: Individual Site Summaries

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### 1. Basin Bay:



**Days Allotted in 2023:** 13

**Total Pounds Harvested:** 10,640

#### **Summary:**

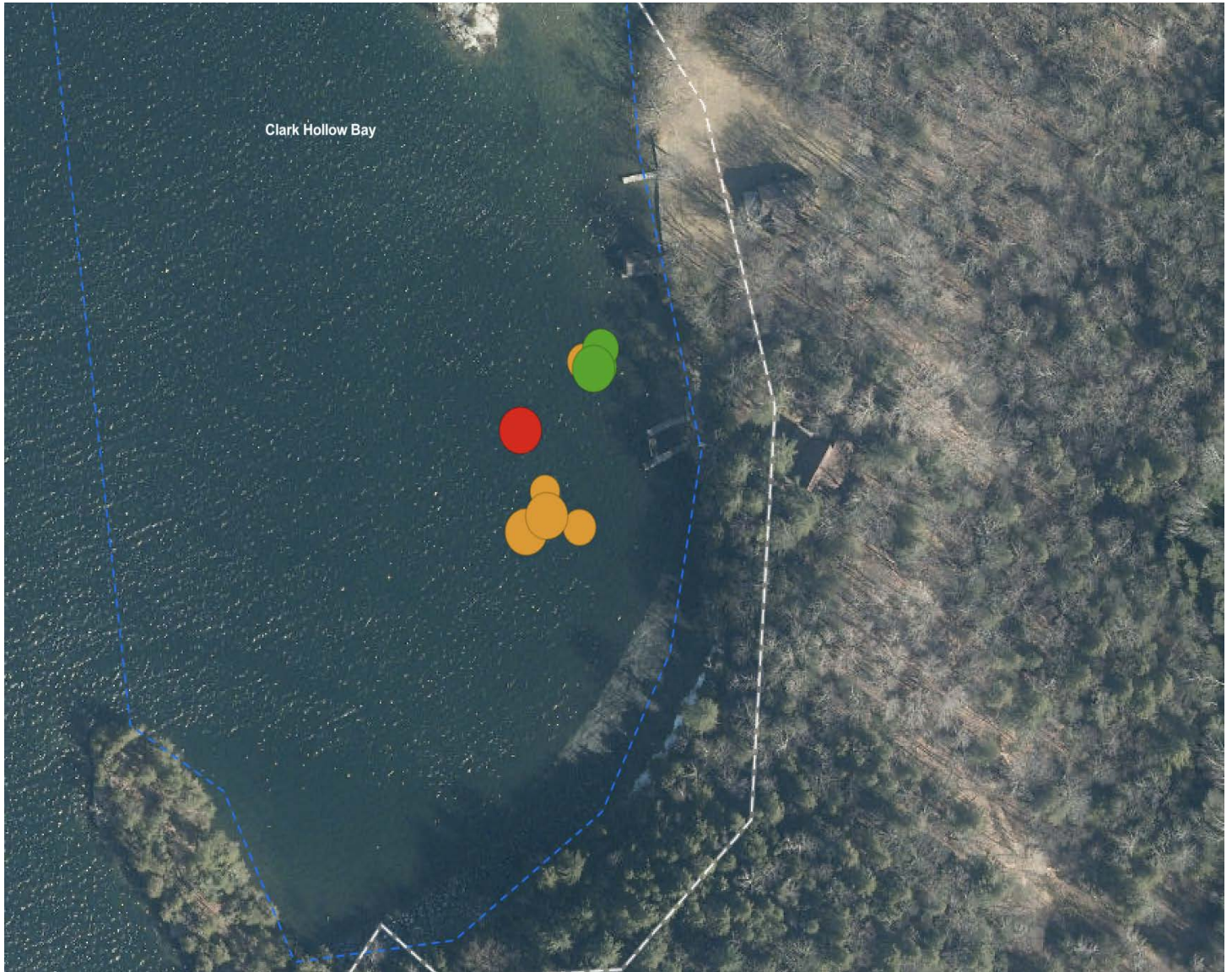
Basin Bay is a site that has shown improvement year to year, but new beds were identified and harvested in 2023 in the northeast portion of the bay, shown in red. The sites worked in 2020, 2021, and 2022 have little to no regrowth. Overall Basin Bay is in good shape. Originally the majority of the time spent harvesting was on the shoal located in the mouth of the bay. The shoal has many hundreds or thousands of milfoil plants, but we haven't harvested it because it is so rocky. Eurasian Water Milfoil migrated to new areas this season along the shoreline of the bay. These plants most likely floated in as fragments from other locations around the lake.



**Recommendations:**

Overall the bay looks good now. The shape and location of the bay on the lake make it difficult for fragmentation from other locations to settle in the basin. The bay should be monitored year to year for potential growth. The new sites in the north of the bay will be managed early in 2024 to keep populations very low.

**2. Clark Hollow Bay:**



**Days Allotted in 2023:** 5

**Total Pounds Harvested:** 5,040

**Summary:**

This is the fourth season of A.E. harvesting this site in Clark Hollow Bay, and it is showing slow but steady progress. This site has been fully harvested for four years. We saw about a 50% reduction in overall material removed from year 2020 to 2021 but had an increase in milfoil growth in 2022 over year 2021. As the maps show, the same areas were worked this season with an overall reduction in the amount of material removed from last year. The bay seems to be





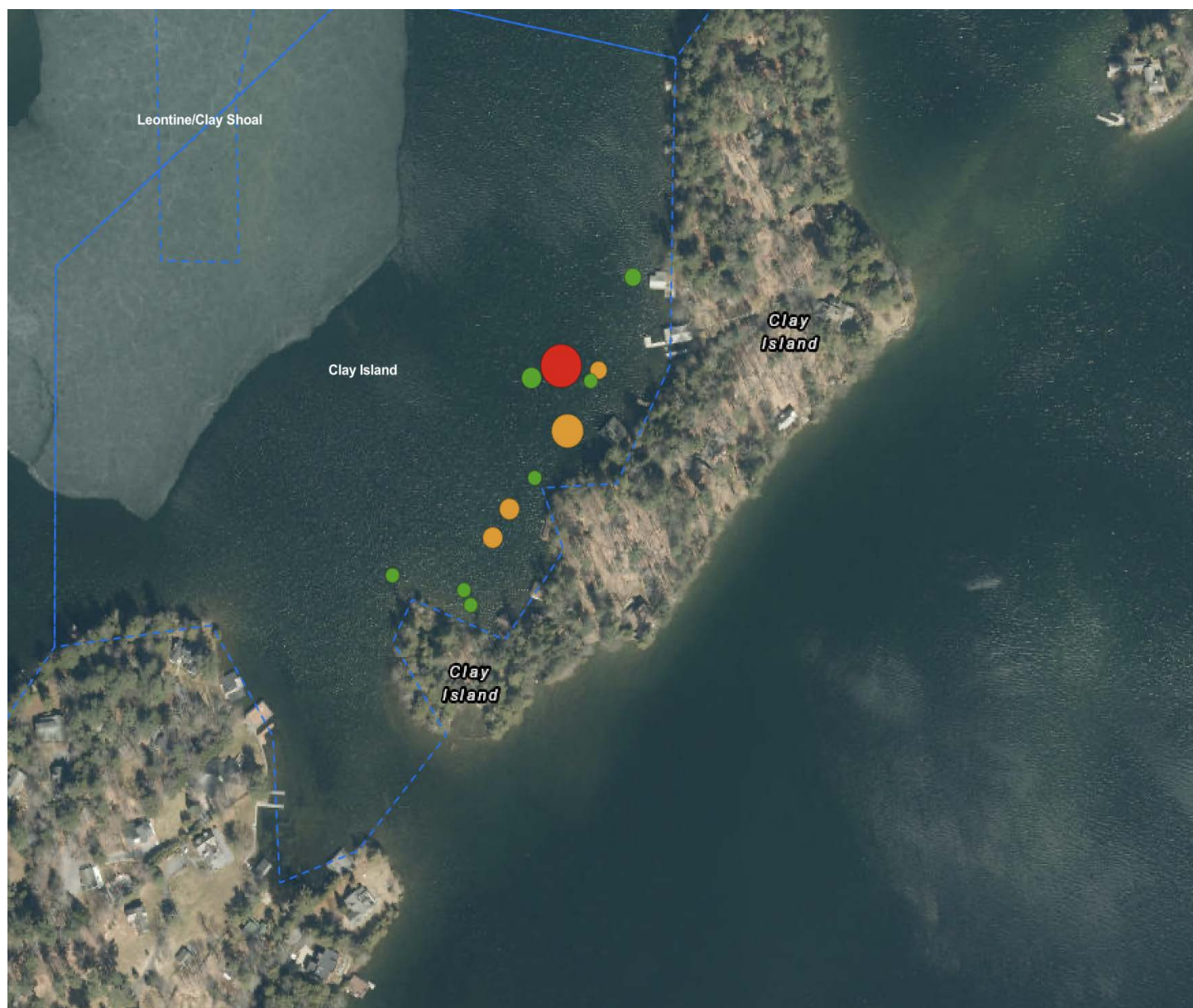
trending in the right direction again, although this bay has been managed for many years and continues to show rebound in milfoil growth following harvest. The bottom composition in some areas is sandy which makes it difficult to remove the entire root structure of the plants which would account for the regrowth.

**Recommendations:**

We recommend that Clark Hollow Bay be closely monitored for regrowth each season. We do anticipate an overall reduction in material removed next season.



### 3. Clay Island:



**Days Allotted in 2023:** 5

**Total Pounds Harvested:** 404

#### **Summary:**

We have been harvesting at Clay Island for five seasons, removing milfoil from the entire site each year. The area was responding well to our DASH efforts, but this season saw an increase of material removed. We believe this increase could be caused by an abundance of native growth that EWM has integrated with. The 2023 season has seen an abundance of precipitation. The extra precipitation adds nutrients to the lake via runoff and we have seen an explosion of native/invasive growth. Many other lakes AECDS services saw the same increase in plant growth this season. The DASH crews found sporadic to moderate plant growth at the site with the largest concentration near the sunken coal barge located just off the island in about twelve feet of water. The bottom composition adds to the difficulty at this location. Clay based sediments

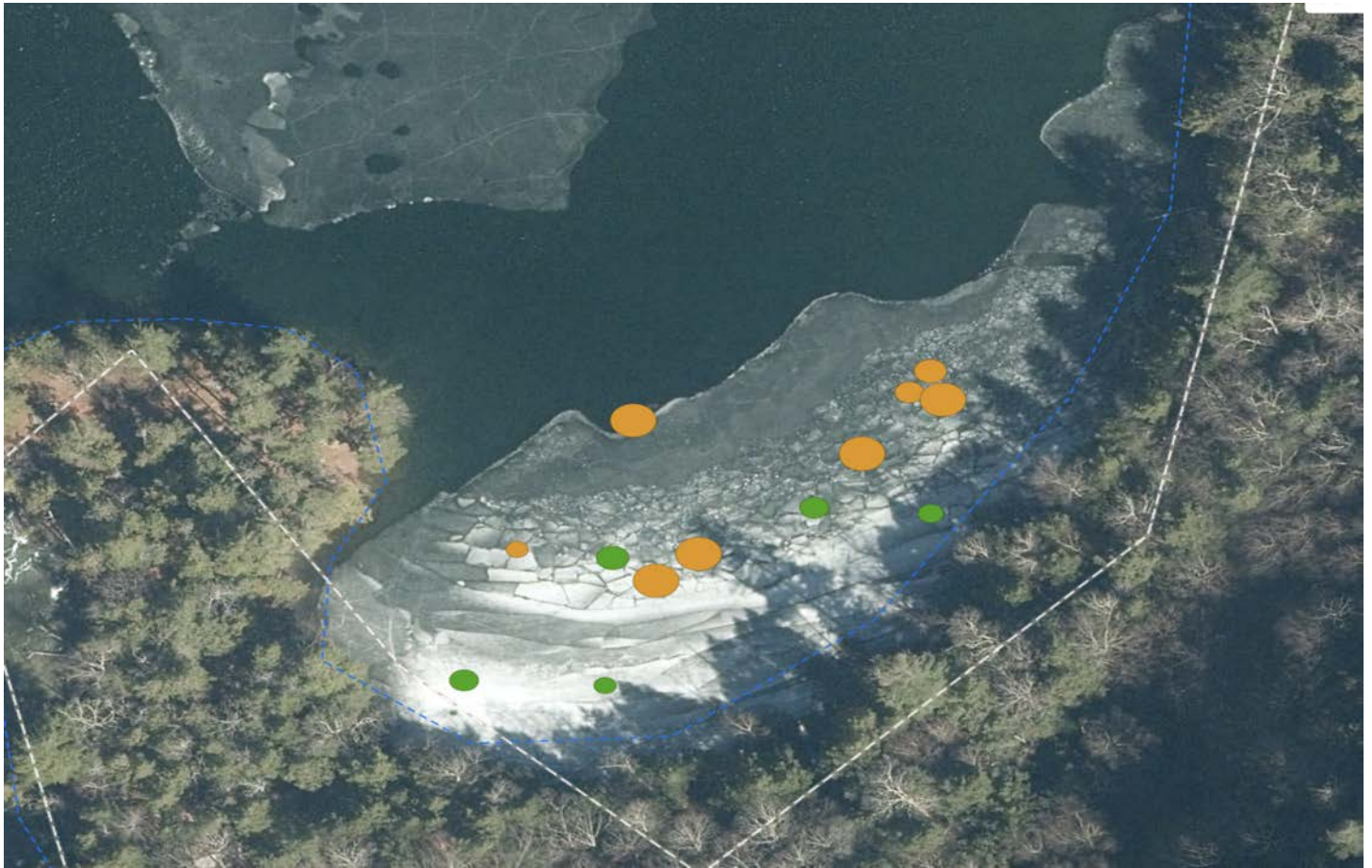


remain suspended in the water column longer than other sediments leading to poor visibility and limited production.

**Recommendations:**

We feel that this site needs continued attention to ensure success.

**4. Commission Point:**



**Days Allotted in 2023: 7**

**Total Pounds Harvested: 5,530**

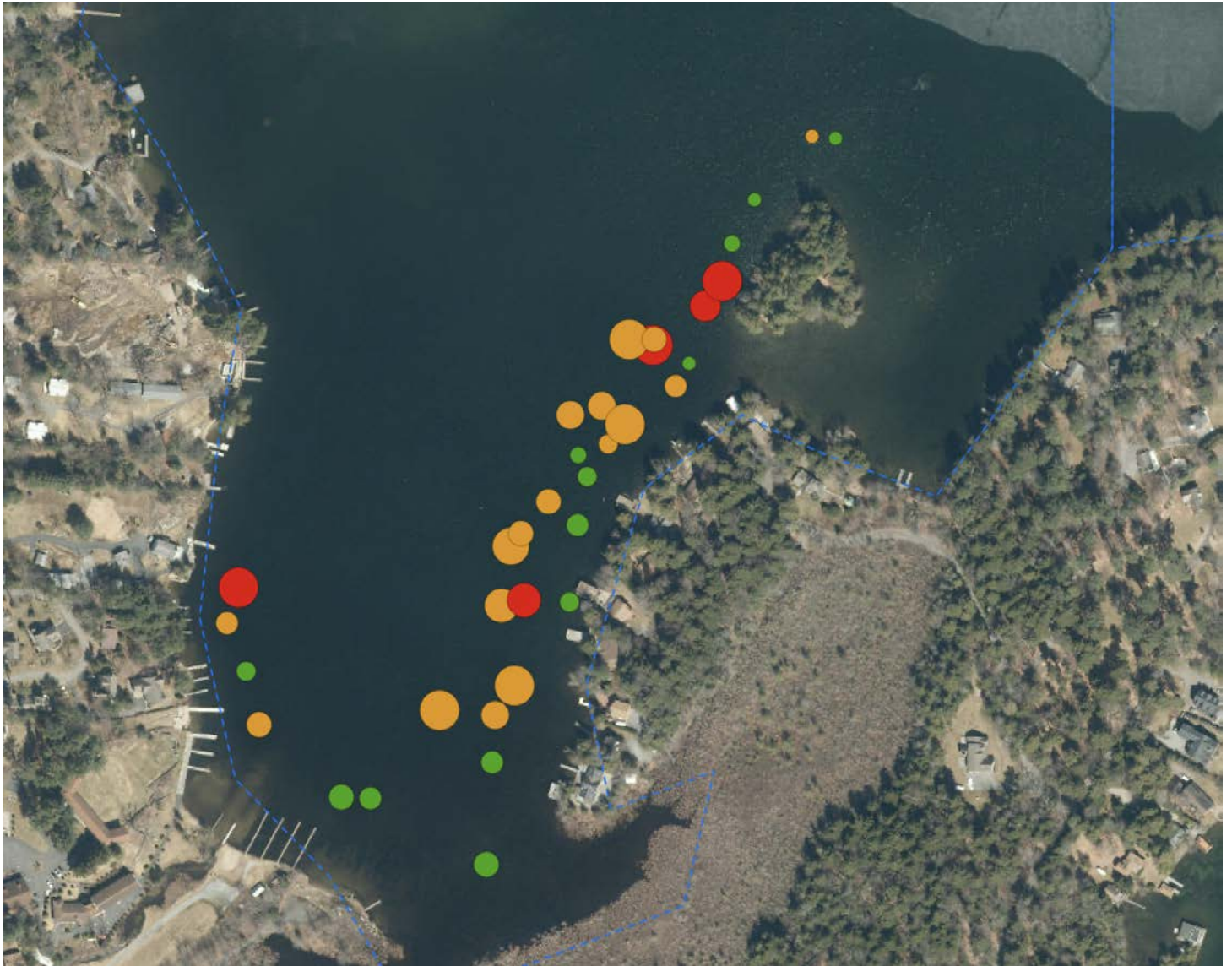
**Summary:**

In general, this bay was showing dramatic improvement over the last three seasons, with full harvest of the site each year. While the bay has been trending in the right direction, 2023 saw a slight increase in material removed. The increase in material came from a large patch located in deeper water that was not discovered until this season. Even with added material from this recently discovered patch the total material removed in 2023 is still less than 50% of the 2020 season.

**Recommendations:**

This site should be monitored for regrowth each season. The area is responding well to treatment and feel that it is in a manageable situation.

## 5. Huddle Bay:



**Days Allotted in 2023: 15**

**Total Pounds Harvested: 2,691**

### **Summary:**

The divers found small isolated regrowth throughout the entire bay, which also has heavy native plant coverage. Some of the isolated patches were denser than others. The EWM grows very quickly and tends to hit the surface in early summer. Huddle Bay also appears to be more turbid than other bays. This could be, in part, due to the wetlands ringing the bay slowly leaching organic material into the water column during heavy rain events. This could create a nutrient rich area for plant growth as well as low visibility conditions for diving operations. The heavy boat traffic in the bay also makes it ideal for fragmentation and dispersal. The site showed a significant increase in the amount of material removed over 2022.. This unintended native plant by-catch may be one reason material removed increased this season.

### **Recommendations:**

This bay has a soft, muddy bottom composition that makes the removal process easy. But this same bottom composition also makes new plant growth a real possibility, and difficulty in



removing the whole root mass of the milfoil plants. These factors add to the poor visibility and make dive operations more difficult. Locating EWM in such a large bay with low visibility takes time and plants are missed. Therefore, the site should be harvested early each season and if possible double check later in the season.

## **6. Dog Beach:**



**Days Allotted in 2023:15**

**Total Pounds Harvested: 5,890**

### **Summary:**

Dog beach has improved since 2020, following many years of harvest by A.E. and the Commission's previous milfoil contractor. This site has been prone to strong regrowth, as evidenced by a decade of focused harvesting efforts. A.E. did see an increase in material removed this season. Moving forward it is important to note that there is a large bed of EWM located beneath the Lake George SteamBoat Company. This patch is very dense and consists of fully matured plants. The patch creates an enormous amount of fragmentation due to the daily operations of the steam boats. Continued work will be needed at the Dog Beach site to ensure

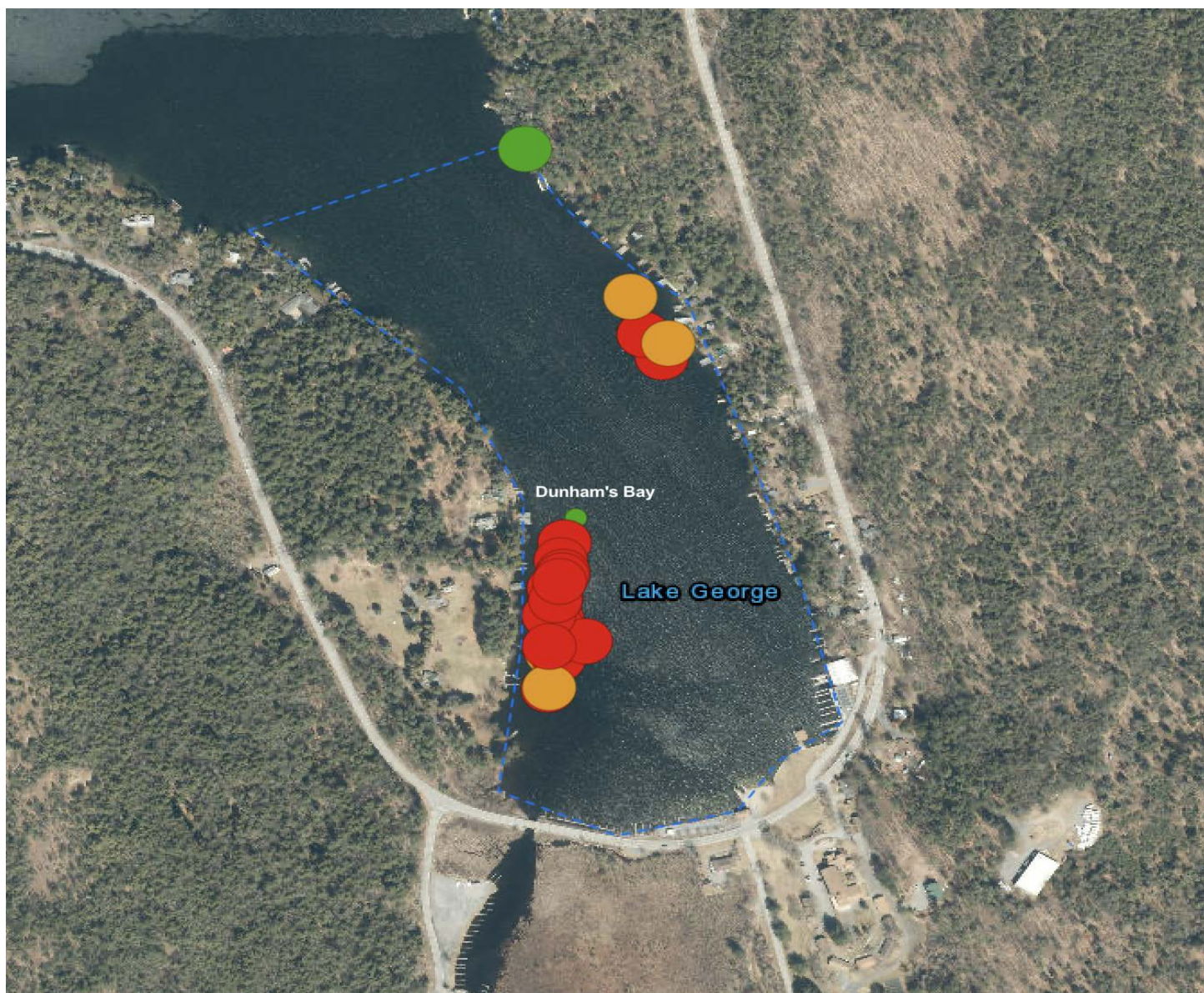
this large dense patch does not continue to spread further down the shoreline. The material removed this season consisted of sporadic large multi-stemmed plants in an area smaller than last season. There is also a large native plant population throughout the area.

**Recommendations:**

We recommend that this site be monitored for regrowth as it is a high traffic area for both boating and other human activities and plant fragmentation could lead to an escalation, which could set this site back quickly. We believe that it is important to try and eliminate the large dense bed of EWM around the Lake George SteamBoat Company. This affects other sites in the area and will obviously need to be done when the boats are not in operation.



## 7. Dunhams Bay:



**Days Allotted in 2023: 26**

**Total Pounds Harvested: 9,921**

### **Summary:**

Dunhams Bay has been managed for Eurasian watermilfoil for several decades through both bottom mats and hand/suction harvesting. Harvesting efforts remove milfoil each year, but it tends to rebound fairly quickly as evidenced by harvesting the same locations for several years. Unfortunately, Dunhams Bay seems to have taken a step backwards this season, again. As discussed previously, we feel that the significant amount of rain this season was a factor in the overall increase in native and invasive plants. This could also add to the amount of plant fragmentation in the lake that can spread to bays like Dunhams. Dunhams Bay is oriented in such a way that it seems to collect fragmentation from other parts of the lake. The site is also difficult from a dive operations perspective. The bay is very deep, broad, tends to be a fairly windy location to work, and the site requires a large amount of surveying to identify locations to harvest. The western shoreline also continues to be an issue. The EWM tends to settle in the



wetland inlet current as it enters the bay. The inlet could be a reason for the ongoing harvesting along the shoreline. The inlet should be surveyed to ensure that there isn't significant EWM growth upstream in the wetland.

**Recommendations:**

We would recommend a survey of the site and the wetland and continued harvesting of this site.

**8. Elizabeth Island Channel:**



**Days Allotted in 2023: 9**

**Total Pounds Harvested: 2,485**

**Summary:**

Elizabeth Island Channel showed a significant increase in EWM from when it was worked in 2019 to when it was worked again in 2022. We returned to the channel in 2023 and found mostly



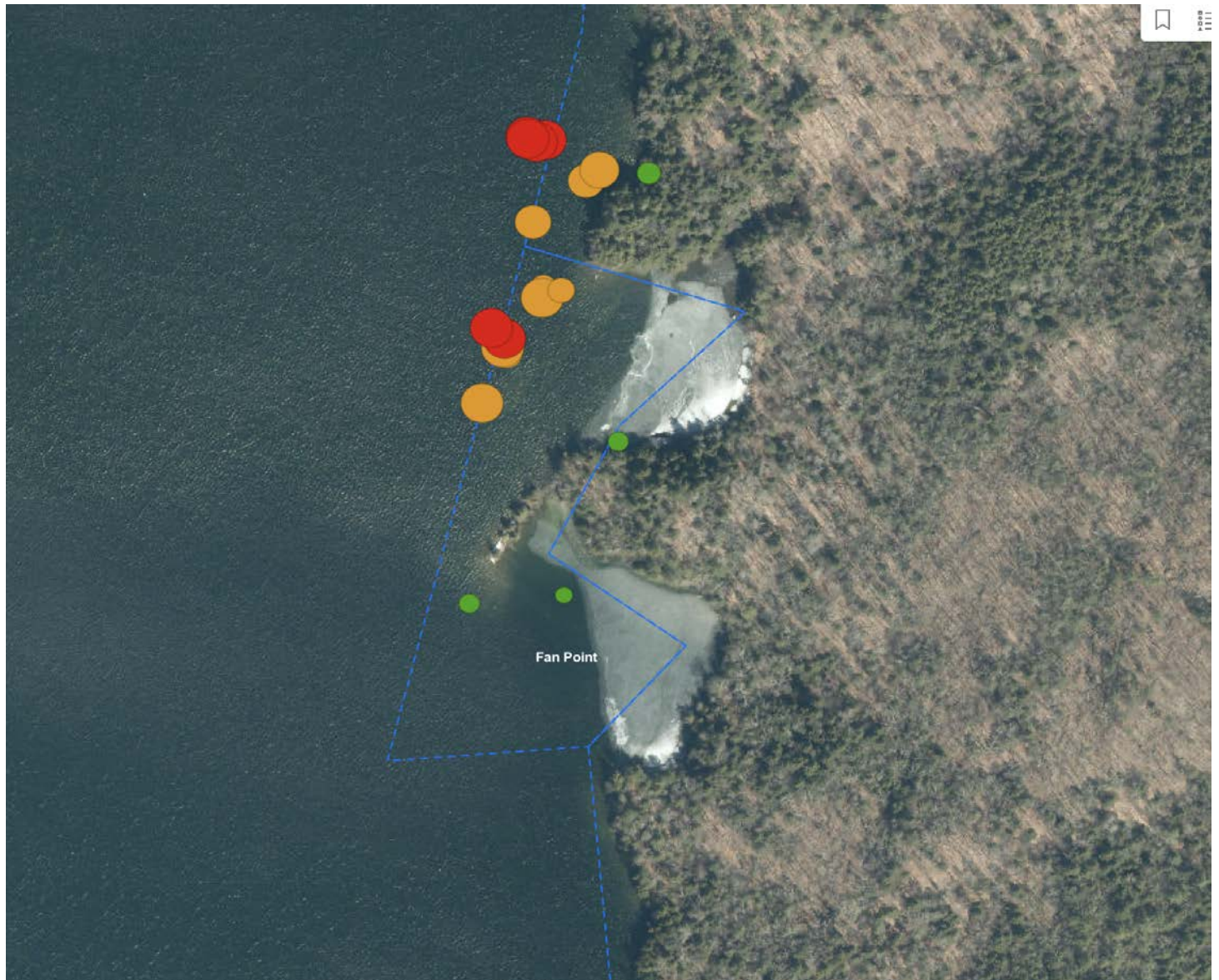


sporadic plant growth down shoreline with an about an 70% reduction in the amount of EWM removed.

**Recommendations:**

We believe this site helps seed Oakley Way through fragmentation. We recommend that this site be tackled as early in the season as possible to help avoid this scenario and to keep it trending in the right direction.

**9. Fan Point:**



**Days Allotted in 2023: 9**

**Total Pounds Harvested: 7,280**

**Summary:**

This site showed an increase in the amount of EWM removed over previous seasons. An area of moderate to dense growth was found north of the point in an area not worked since 2020, in the rocky shoal area which is difficult to harvest due to roots being embedded in the rocks. The area south of the point showed an improvement over previous years with the majority of



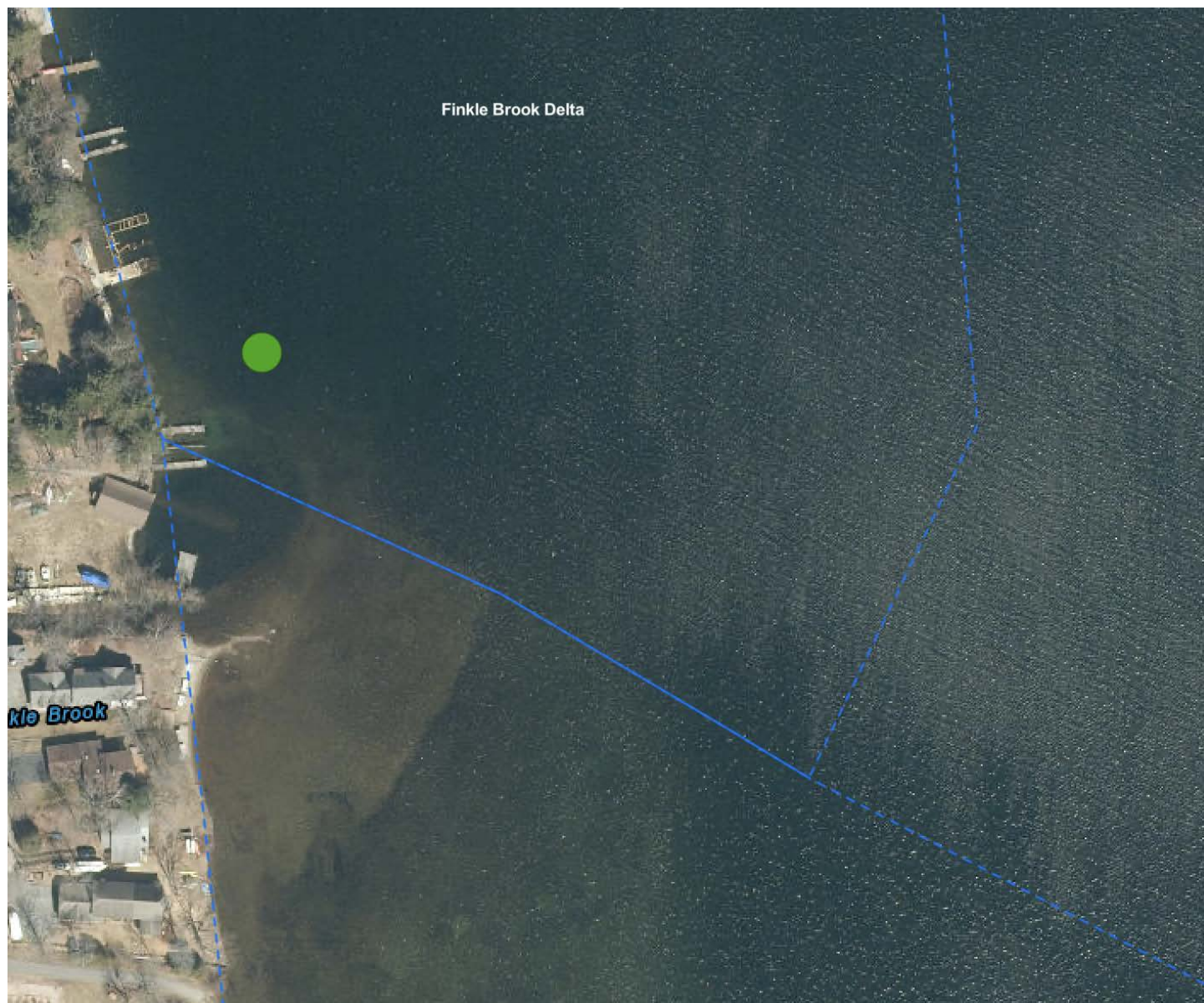
material removed being north of the point. This site is one of many in Northwest Bay that require continued attention. Most of the Northwest Bay is uninhabited with a rocky and woody shoreline. Time spent here is usually just an attempt to clear out a large infestation and because of this there will always be areas that aren't harvested. Every year we make a little more progress and it does seem to be working. The site does respond well to treatment but it will need to be monitored.

**Recommendations:**

We do not anticipate much regrowth at this site. The bottom composition in most of the site makes it easy, quick, and efficient to work. An annual survey and regrowth removal of the site is recommended so that forward progress can be maintained.



## 10. Finkle Brook Delta:



**Days Allotted in 2023: 1**

**Total Pounds Harvested: 245**

### **Summary:**

Finkle Brook Delta continues to show solid results and minimal regrowth, with very little milfoil remaining in this once very dense milfoil infestation. There was just a 35 pound increase in the number of pounds of Eurasian Water Milfoil removed this season, but the actual number of plants is down by more than 90% of its original state several years ago.

### **Recommendations:**

The heavy boat traffic in this area should make it a priority for an early season survey. This will allow us to find and remove any regrowth before it becomes a problem.



## 11. Green Island/DEC:



**Days Allotted in 2023: 5**

**Total Pounds Harvested: 420**

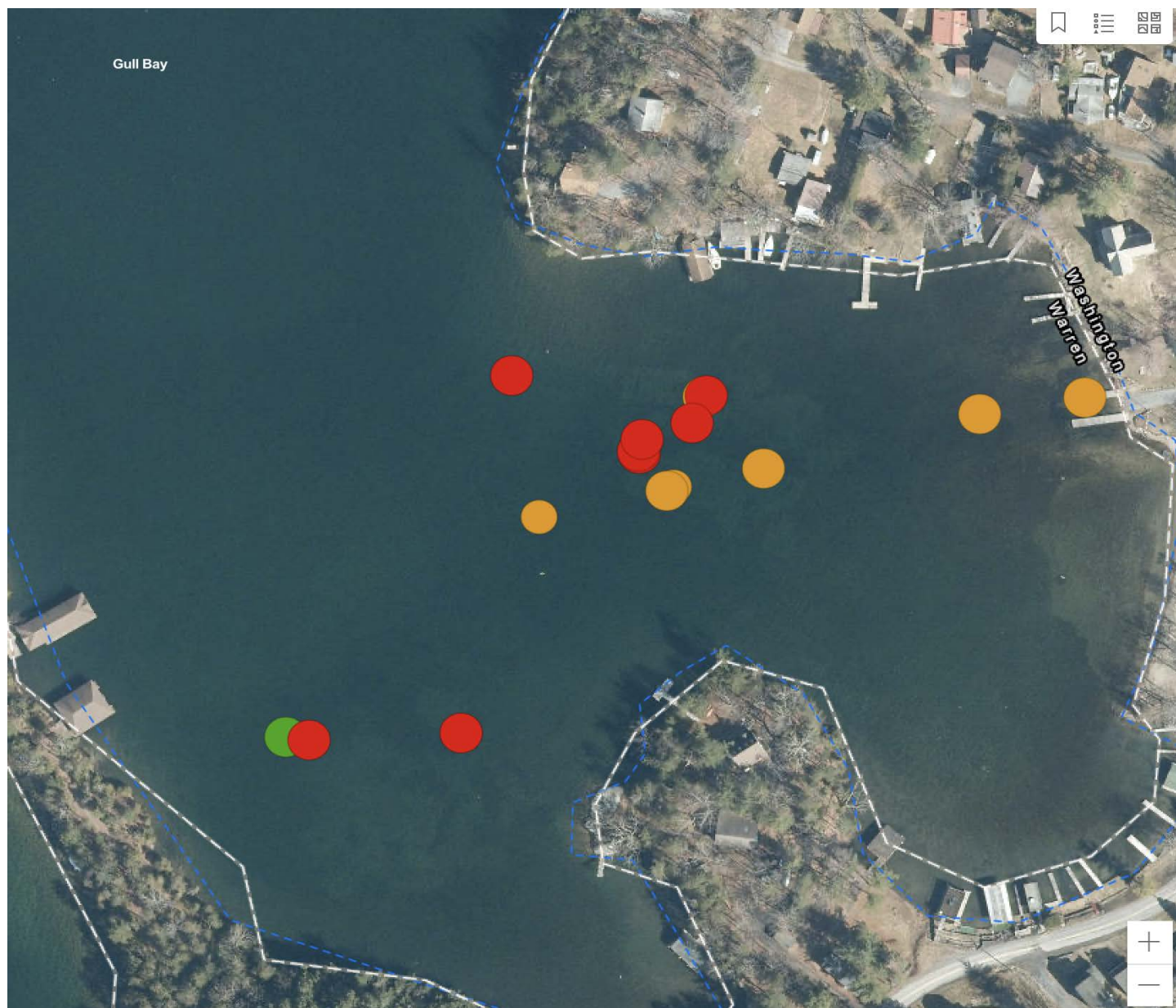
### **Summary:**

The Green Island/DEC site continues to experience minimal regrowth again this season with just a slight increase in the amount of EWM removed over last season.

### **Recommendations:**

We recommend an early season survey of this site due to the heavy boat traffic in the area. We anticipate the downward trend to continue.

## 12. Gull Bay:



**Days Allotted in 2023: 10**

**Total Pounds Harvested: 10,325**

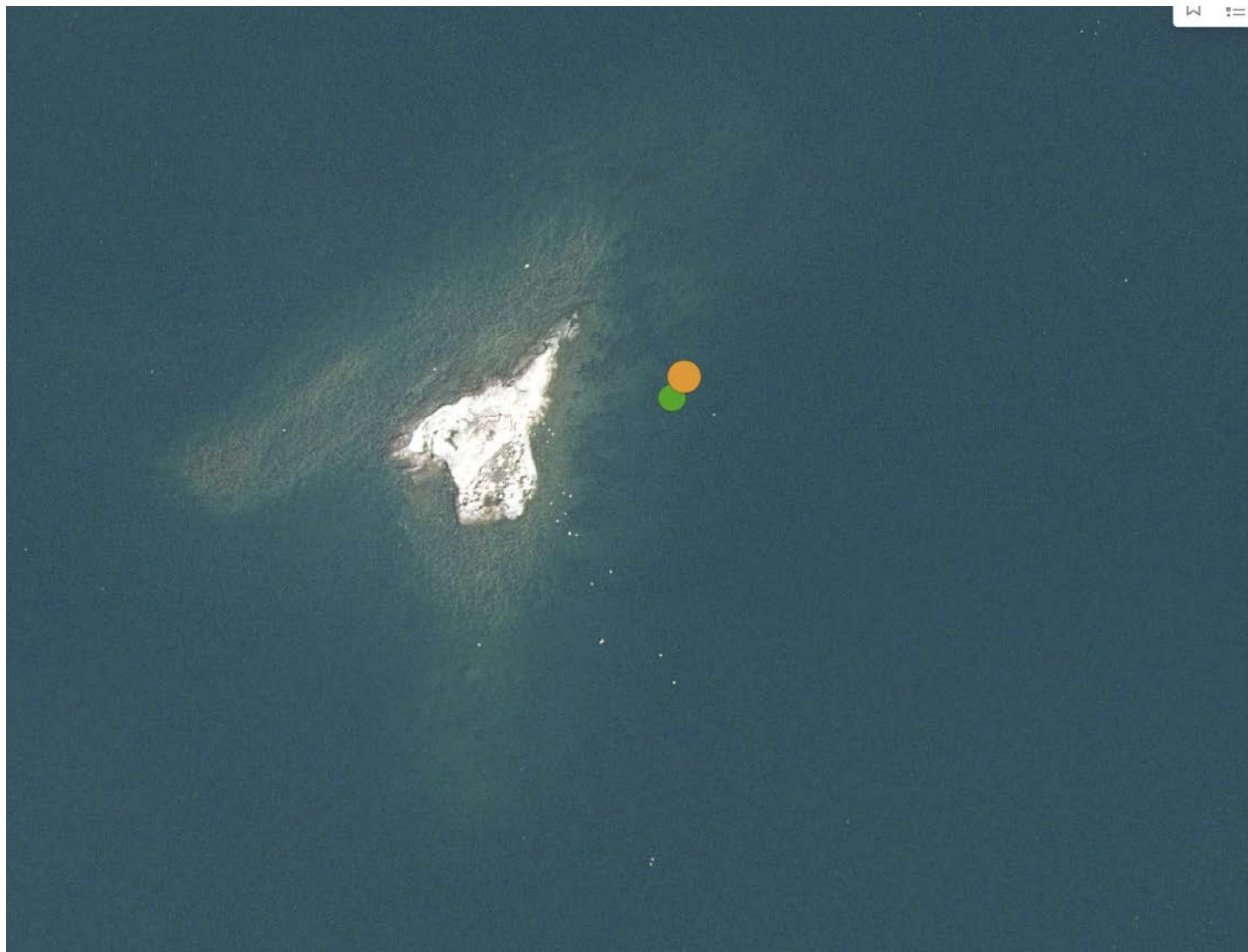
### **Summary:**

This was the fifth season that DASH was performed at this site and the second year after the removal of the bottom barriers. We had been seeing a slow but consistent downward trend in the amount of material removed each season until this season. This season we saw about a 50% reduction in the amount of EWM removed at this site. We believe that this is a direct result of harvesting around Gull Bay Island in 2022. We feel that Gull Bay Island was seeding the bay with fragments and slowing progress. This scenario is played out in a number of other locations around the lake. This site has seen strong regrowth over the past decade, as evidenced by the milfoil volumes removed each year following full harvest.

### **Recommendations:**

With the removal of the dense Gull Bay Island bed Gull Bay itself is trending in a positive direction. As always, an early season survey of the site is recommended to determine the level of effort needed next year.

### **13. Gull Bay Island:**



**Days Allotted in 2023: 1**

**Total Pounds Harvested: 490**

### **Summary:**

This was the second season of DASH work at Gull Bay Island. Last season we found large beds of very tall, dense, multiple stemmed plants around the entire island. This season we only found sporadic growth with a dramatic reduction in the amount removed.

### **Recommendations:**

It is our recommendation that this site be closely monitored. It's important that this site be maintained because of its proximity to Gull Bay.



## 14. Long Island Shoal:



**Days Allotted in 2023: 6**

**Total Pounds Harvested: 1,960**

### **Summary:**

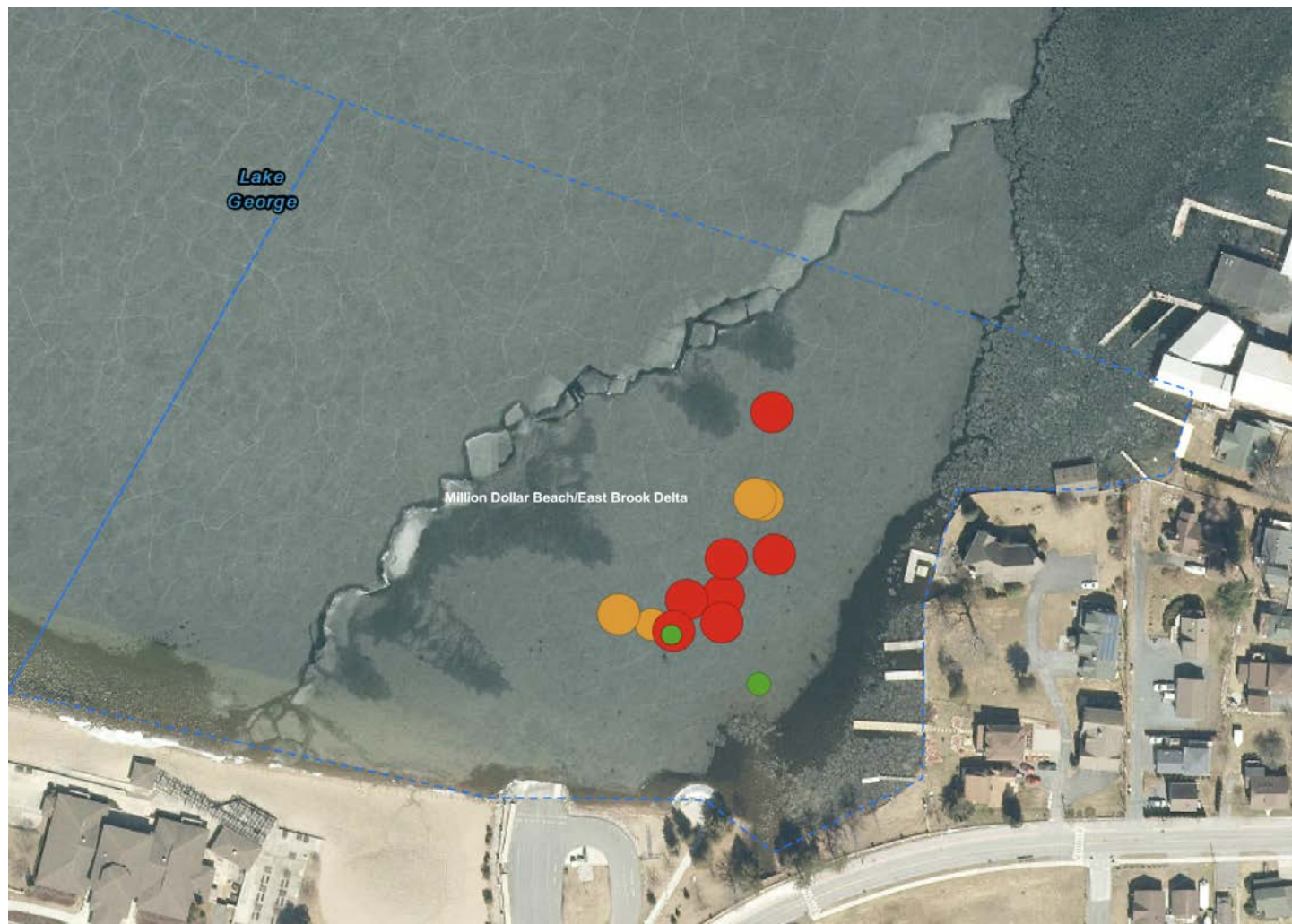
Long Island continues to be a work in progress but this season we saw a significant reduction in the level of effort needed and the amount of EWM removed. Regrowth is inevitable because of the rocky nature of the bottom composition but real progress is being made. We feel that Long Island Shoal also seeds the surrounding bays with EWM fragments. This overall result of the work at the shoal should reduce the amount of growth elsewhere.

### **Recommendations:**

We recommend an early DASH effort and an annual survey of this site. The rocky nature of the bottom and the heavy boat traffic make this site difficult to work. Maintaining safe DASH operations is only possible early or late in the season due to the boat traffic.



## 15. Million Dollar Beach/East Brook:



Days Allotted in 2023: 8

Total Pounds Harvested: 1,848

### Summary:

The Million Dollar Beach/East Brook Delta site has been worked with DASH for the last five seasons. The original DASH location northeast of Million Dollar Beach still looks good and minimal effort was needed to maintain it this season. Most of the material removed, and time spent this season was closer to the east shore and just north of the boat launch. About twice as much was removed this season as compared to last in about the same location as last season. There is also a large amount of dense native plant growth at the site. It is very difficult to remove sporadic EWM from dense native plant growth without also removing a significant amount of native plants. This could be one reason for the increase in the amount of material removed due to unintended native by-catch.

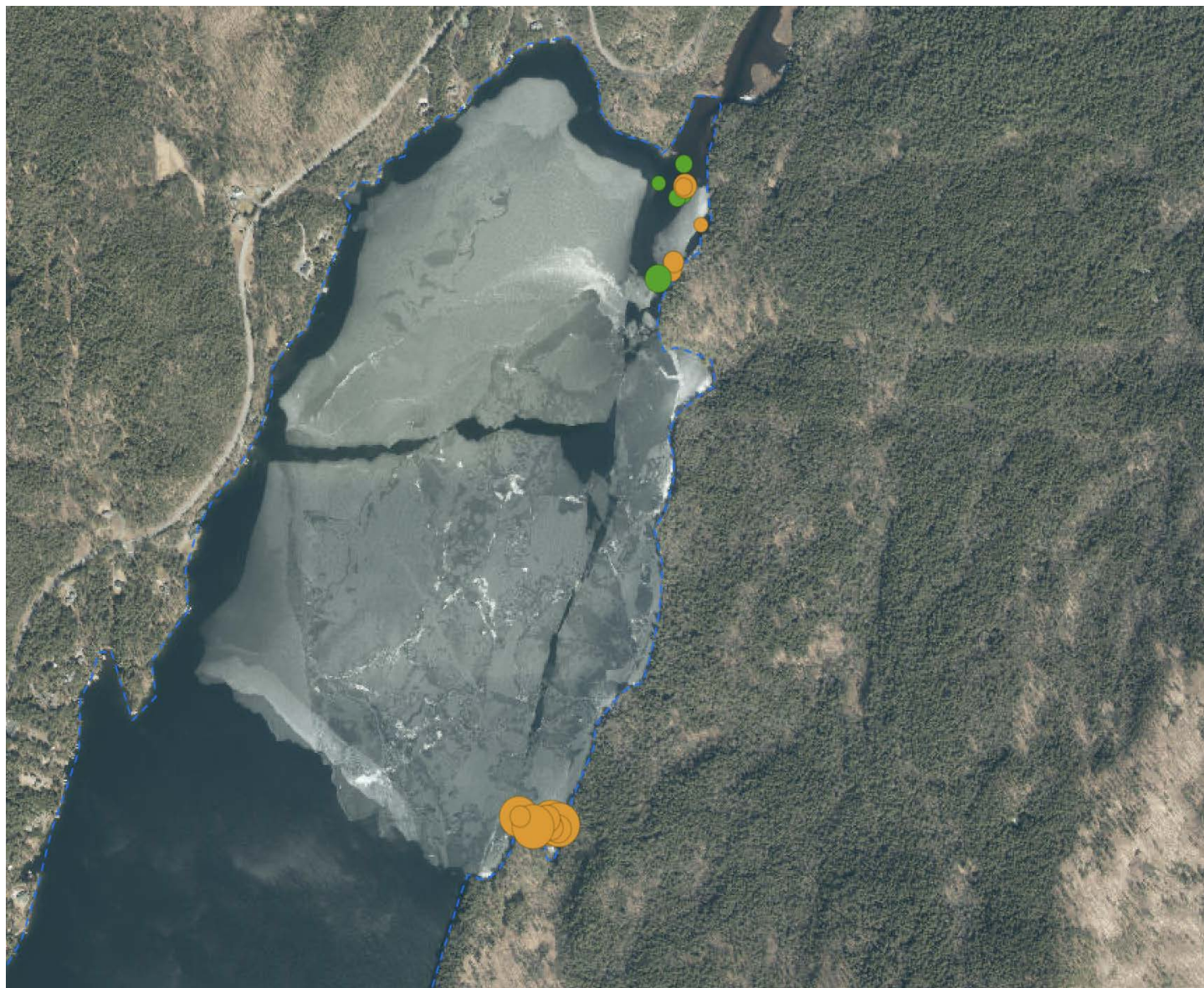
### Recommendations:

This site should be surveyed early every season to determine the level of effort needed. The boat launch and the amount of boat traffic at this site make it easy for boats to pick up fragments and transport them to other locations in the lake making this site a priority.





## 16. Northwest Bay:



**Days Allotted in 2023: 8**

**Total Pounds Harvested: 3,500**

### **Summary:**

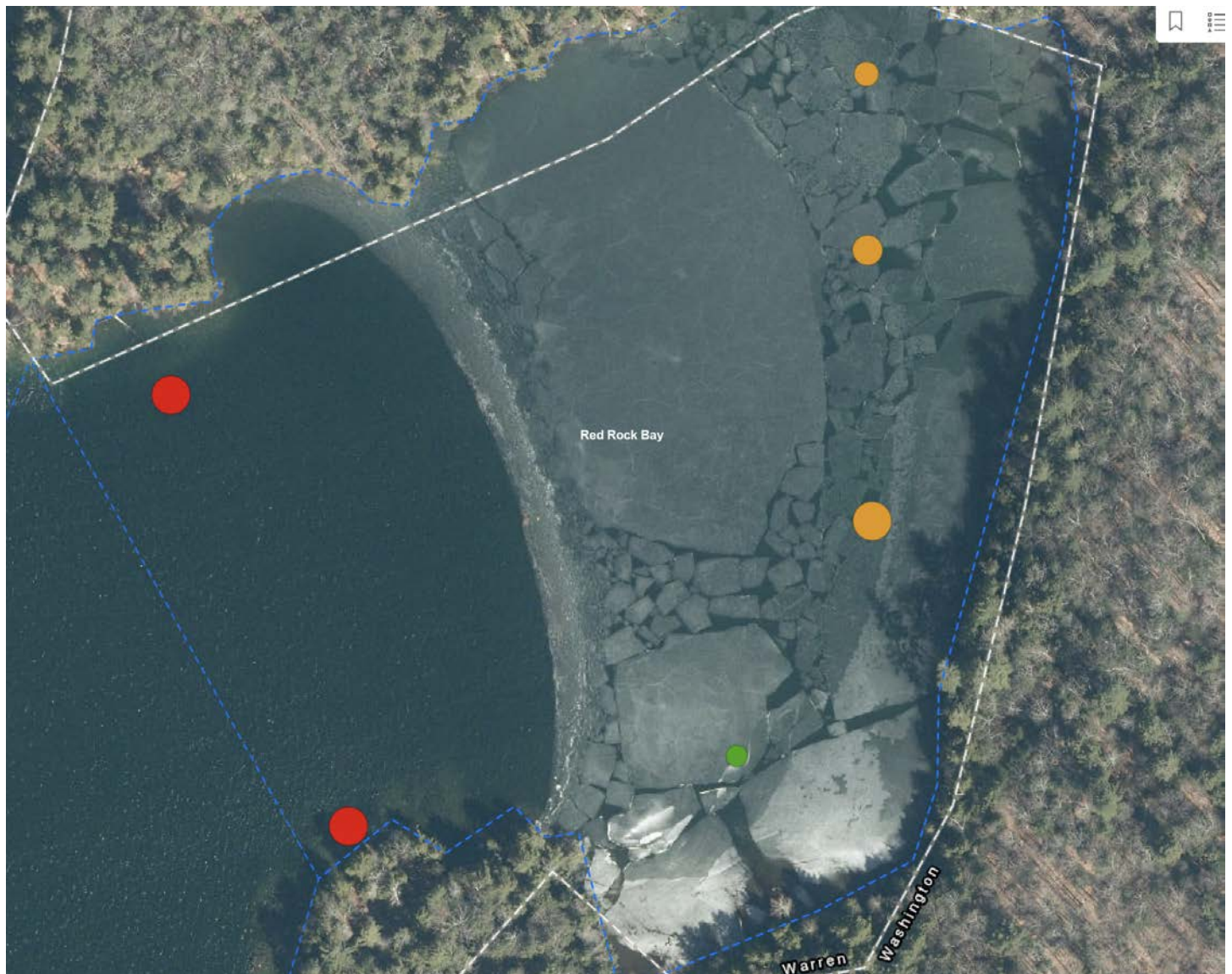
Two sites have been harvested in Northwest Bay over the last five seasons, following up on several years of effort prior, going back into the 1980's. The numbers went down in 2022 but have gone back up a bit for 2023. A new location in the NW Bay was found last season but time and budget didn't allow us to complete the area. That area was completed this season which is why the numbers were higher. The previously harvested areas showed little regrowth and were cleaned up quickly.

### **Recommendations:**

We recommend an early season survey to assess the regrowth in this bay and its harvesting needs. Continued effort in the new location is needed to maintain what has been done and continue the positive trend.



## 17. Red Rock Bay:



Days Allotted in 2023: 4

Total Pounds Harvested: 1,295

### **Summary:**

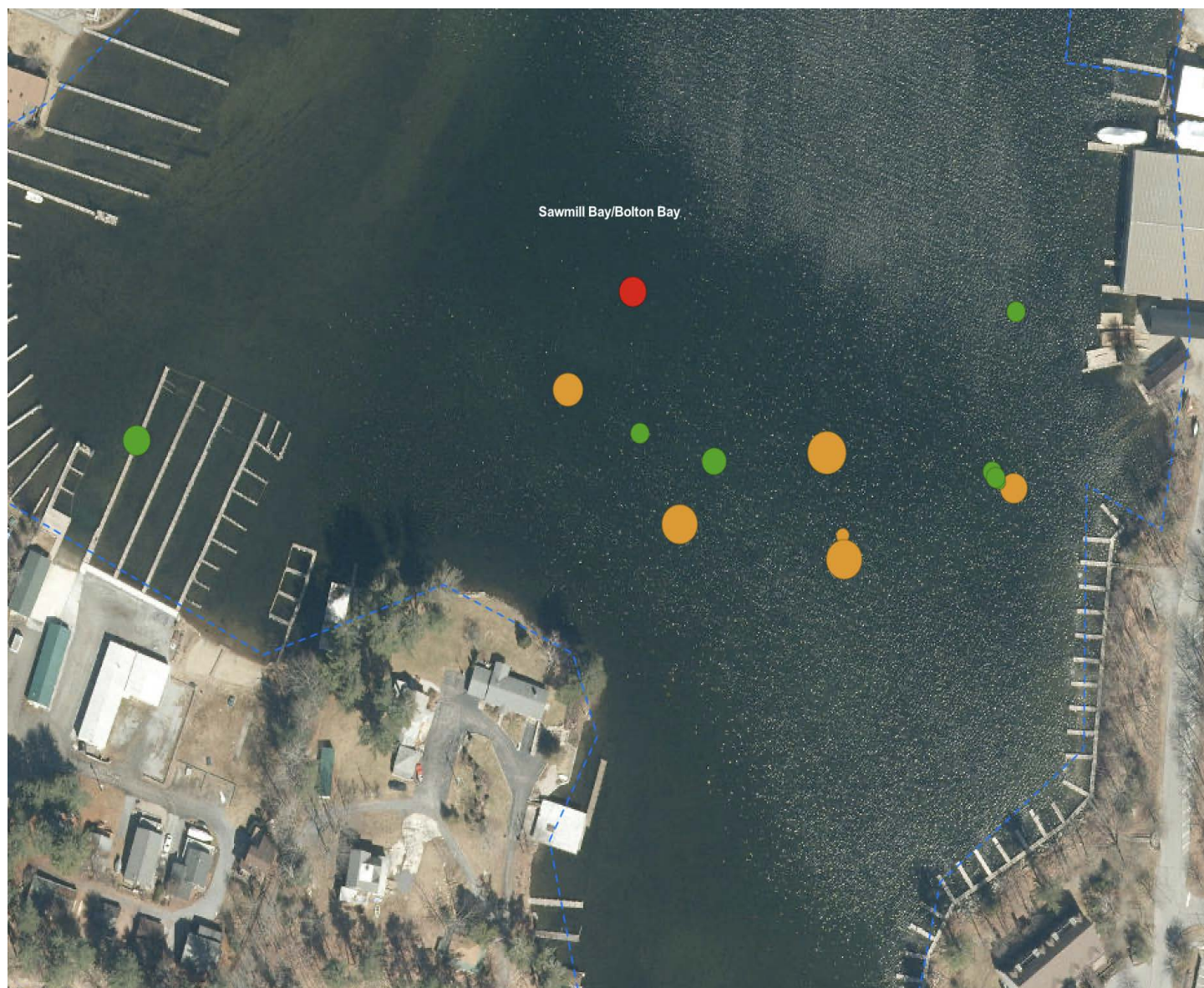
This was the third year of harvesting in Red Rock Bay, in different locations. The site has responded well to treatment, and we are still seeing a significant reduction in the amount of material removed compared to the 2021 season. We believe the bay is in good shape and is moving in the right direction.

### **Recommendations:**

The bay should be checked for regrowth early in the season to ensure continued success.



## 18. Sawmill Bay/Bolton Bay:



Days Allotted in 2023: 6

Total Pounds Harvested: 2,625

### Summary:

Since 2020 this site has shown a drastic reduction in EWM. Because of this very little time was needed in the area in 2023. The area is large, so a couple of days were needed to ensure the entire site was searched but the site remains in good shape. This is a site that has a lesser volume of native plants, allowing for cleaner removal of the invasive milfoil, creating longer-lasting results from harvesting.

### Recommendations:

A quick survey of the area each year will help determine the level of effort needed to maintain our momentum in this area.



## **19. Tea Island Bay:**



**Days Allotted in 2023:** 4

**Total Pounds Harvested:** 1,039

### **Summary:**

The Tea Island Bay continues to be a work in progress and fewer sites in the bay were located in 2023. They consisted of small, moderately dense, beds of Eurasian Watermilfoil in the center of the bay and were easily cleaned up. As in years past, these beds were found around barren lake bottom where the bottom barriers were removed in 2020. These areas are slowly filling in with native plant growth, but some Eurasian Watermilfoil remains. This area is challenging to work because of the depth of the water, boating activity, and the abundance of native plant life. The total removed from this site includes a considerable amount of unintended native by-catch.

### **Recommendations:**

This area should be checked again in 2024. However, we feel it should be done early in the season if possible to avoid the boat traffic and reduce fragmentation.

## 20. Lynden Point:



**Days Allotted in 2023:** 3

**Total Pounds Harvested:** 4,795

### **Summary:**

The Lynden Point site continues to be a work in progress and the numbers year to year are relatively consistent. A few, small, moderately dense, beds of Eurasian seem to show up in basically the same location every year. These beds were found in 2021 and continue to linger. Eurasian Water Milfoil fragments are often noticed floating in the bay suggesting that the bay might be collecting fragments from other sites or there is an undiscovered bed of EWM near the bay.

### **Recommendations:**

This area should be checked again in 2023. However, we feel it should be done early in the season if possible to avoid the boat traffic and reduce fragmentation.

## 21. Oakley Way:



**Days Allotted in 2023:** 1

**Total Pounds Harvested:** 210

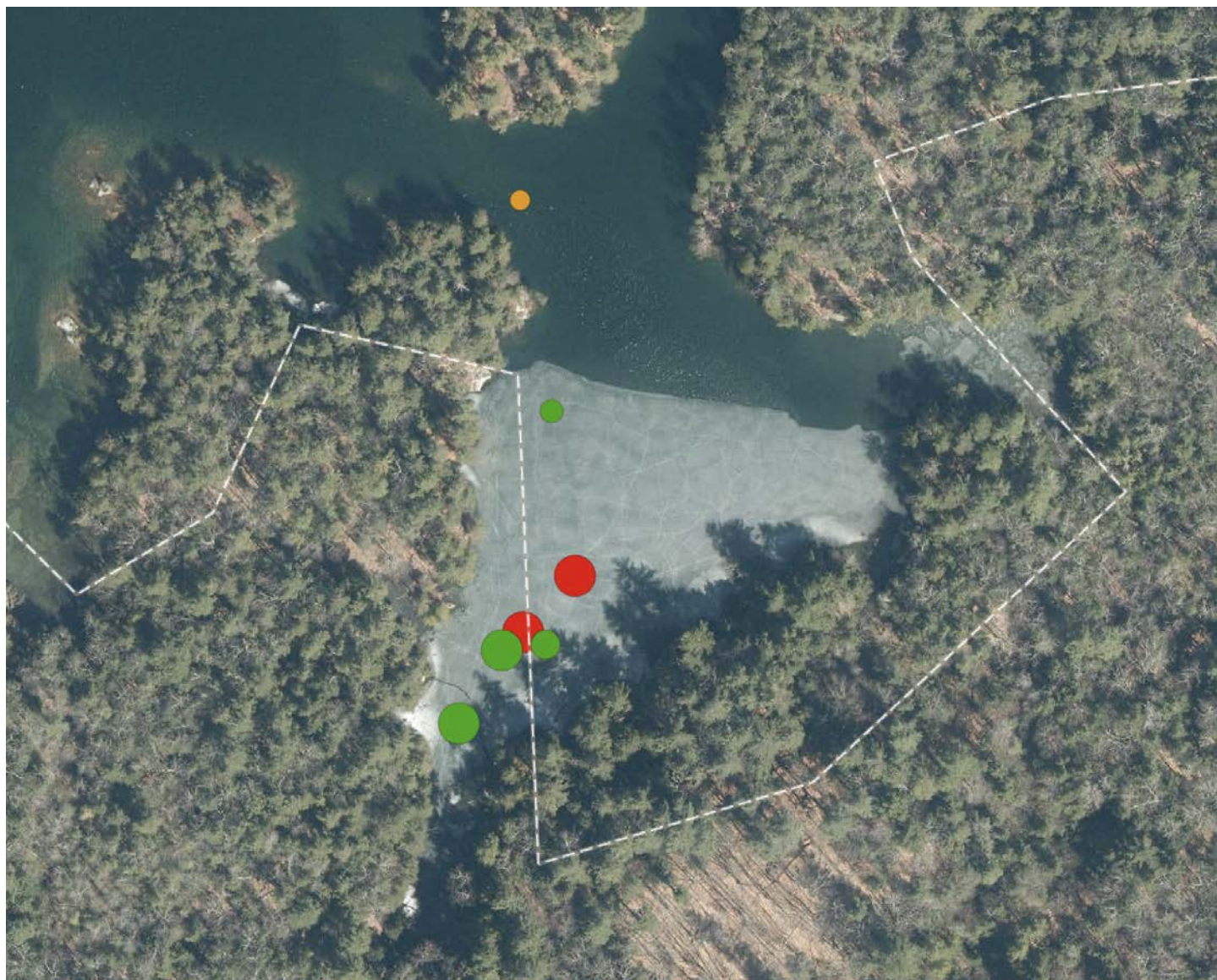
### **Summary:**

The Oakley Way site was not worked in 2022. The site has not had a large EWM problem and continues trending that way.

### **Recommendations:**

This area should be checked again in 2024. We feel that this site has entered a maintenance stage.

## 22. Paradise Bay:



**Days Allotted in 2023:** 3

**Total Pounds Harvested:** 3,045

### **Summary:**

This is the fourth year of harvesting in Paradise Bay, clearing the bay of known milfoil each year. The first bed of EWM found in the bay was located deep in the bay. Last season that bed seemed to move north by was much smaller and less dense. This season the regrowth was located in the same area but was larger and had a few lighter density beds around it in the immediate area. The site was quickly cleaned up. We anticipate a reduction next year in the amount removed.

### **Recommendations:**

We recommend an early season survey to determine the level of effort needed to maintain the site and get it back into a downward trend.



### 23. Turtle Island Channel:



Days Allotted in 2023: 2

Total Pounds Harvested: 210

#### Summary:

The Turtle Island Channel site is again showing a decrease in EWM harvested in 2023. The site had considerable EWM in 2020 (3000 LBS) but is responding well to treatment. Eurasian Water Milfoil tends to be a moving target and this season was no different. The EWM was quickly located and easily removed. This site has responded well to harvesting, with low volume of native plants in the area.

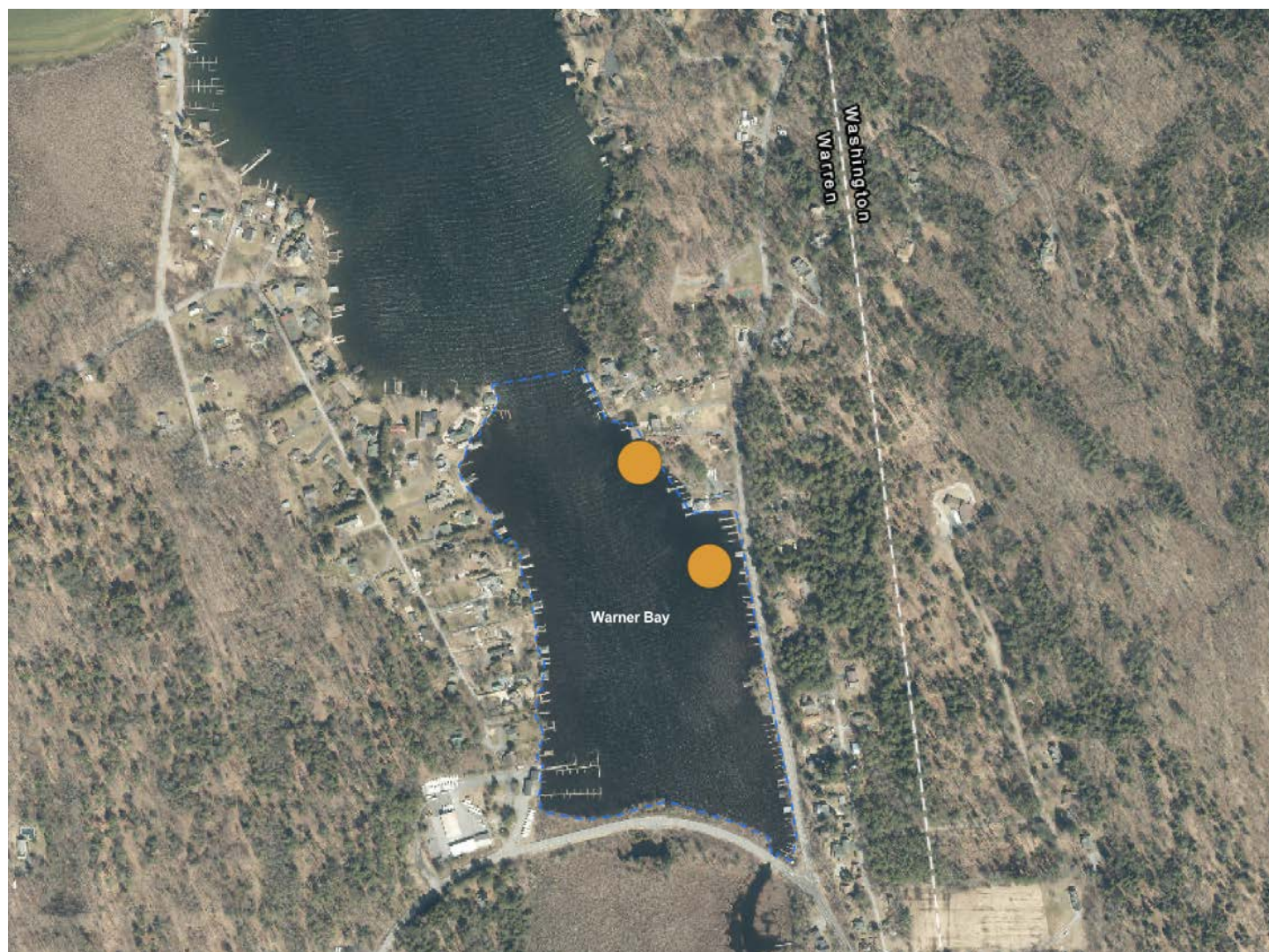
#### Recommendations:

This area should be checked again in 2024 but we feel it has entered a maintenance stage.





## 24. Warner Bay:



**Days Allotted in 2023:** 2

**Total Pounds Harvested:** 1,330

### **Summary:**

Warner Bay was worked extensively in 2022 and the site is again showing a decrease in EWM harvested in 2023, following almost a decade of concerted harvesting effort by AE and the previous milfoil contractor. Eurasian Water Milfoil tends to be a moving target and this season was no different. The EWM was quickly located and easily removed. However, this bay is heavily vegetated with native plants, and milfoil has shown a historic tendency to rebound in this bay due to the plant volume and warmer waters. The goal of this site is to keep the milfoil populations in check so the bay does not once again get completely taken over with this invasive.

### **Recommendations:**

Not much time was spent in Warner Bay in 2023. Based on previous years this area should be surveyed again in 2024.



## 25. Harris Bay:



**Days Allotted in 2023:** 1

**Total Pounds Harvested:** 840

### **Summary:**

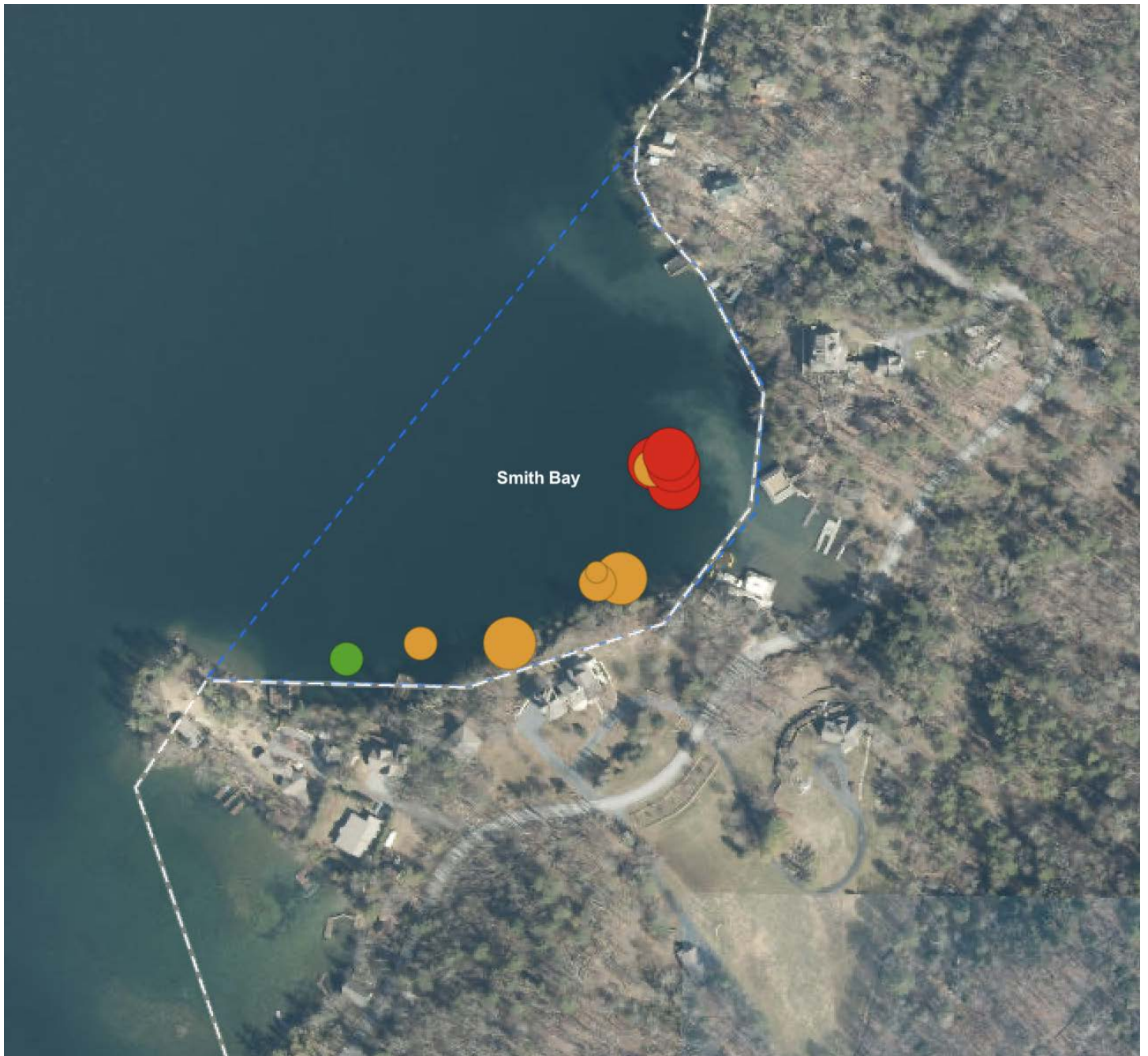
Only one day was spent in Harris Bay this season. It was worked near the end of the season and only one site in the bay was worked. The site was relatively dense and 24 buckets were removed. Harris Bay has historically been one of the largest and most difficult sites to deal with in Lake George, having been managed for decades.

### **Recommendations:**

Not much time was spent here in 2023 so this area should be surveyed again in 2024. Previous years have shown substantial EWM growth and regrowth following concerted harvesting efforts.



**26. Smith Bay:**



**Days Allotted in 2023: 2**

**Total Pounds Harvested: 5,180**

**Summary:**

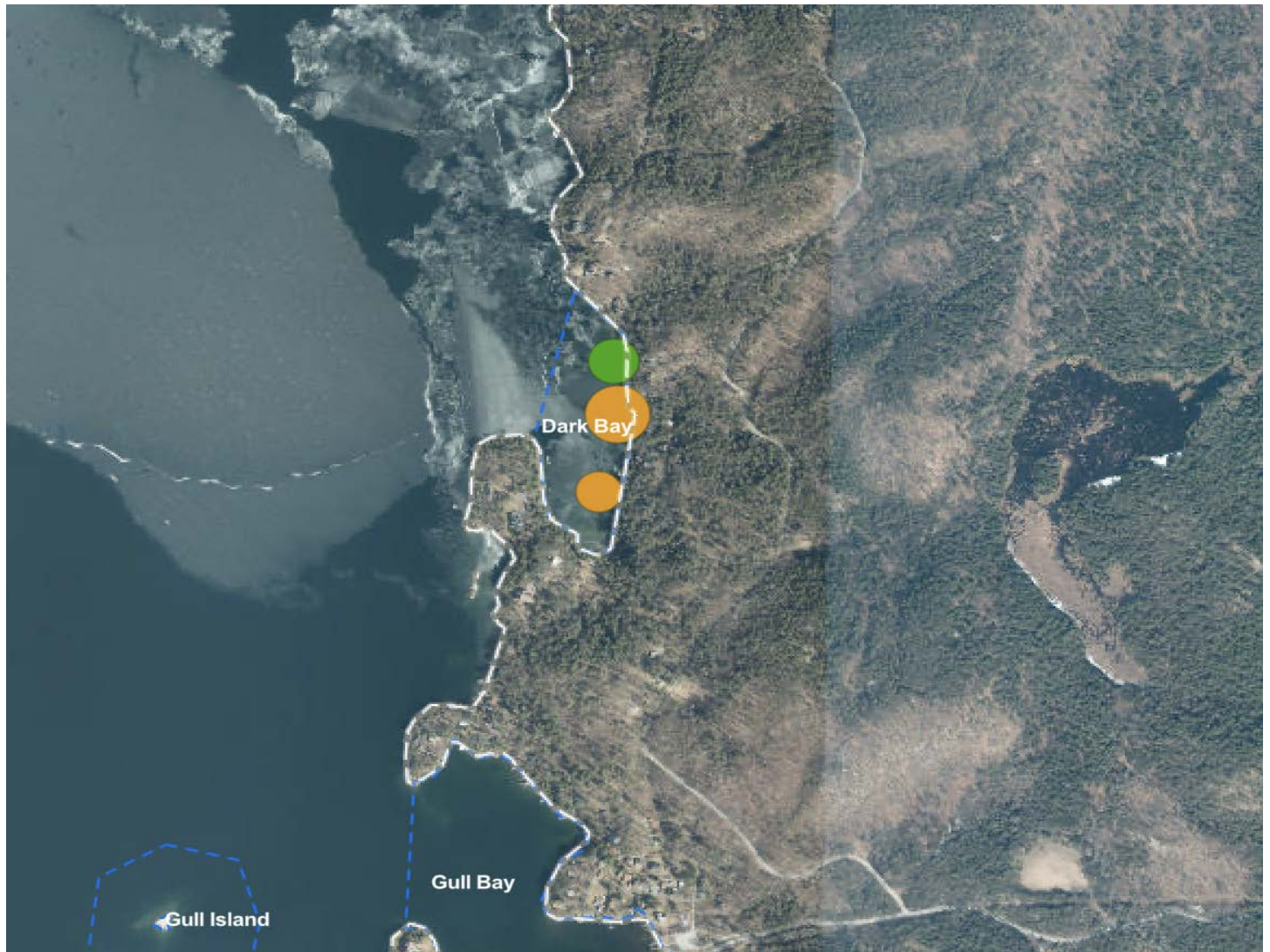
This was the first season operations were conducted in Smith Bay. The area harvested consisted of two large, dense patches in the center of the bay. The growth was relatively isolated and easily removed.

**Recommendations:**

Next season the site will need to be revisited to ensure the growth does not return.



## 27. Dark Bay:



Days Allotted in 2023: 2.5

Total Pounds Harvested: 875

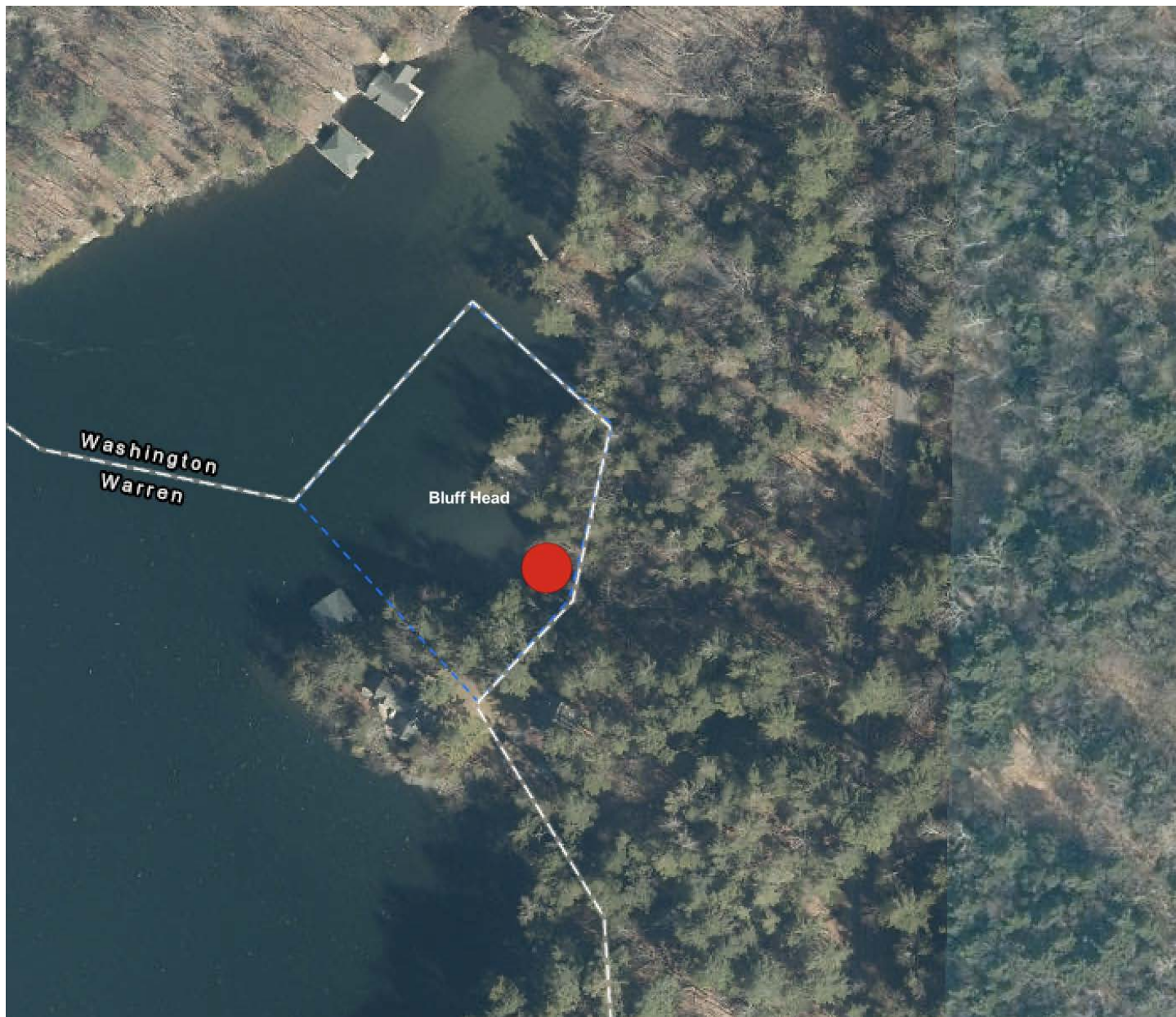
### Summary:

This was the first season of DASH operations in Dark Bay. Most of the growth in the bay was moderate and located along the shoreline. The bay drops off fairly quickly making a small area for vegetation to grow.

### Recommendations:

The bay remains unfinished and will require more attention next season.

## 28. Bluff Head:



Days Allotted in 2023: 2

Total Pounds Harvested: 1,225

### Summary:

This is another site to see DASH operations for the first time. Most of the growth is located in the southernmost part of the bay. The growth was fairly dense and operations were cut short due to time constraints, and the area is unfinished. The site will be fully harvested in 2024.

### Recommendations:

The area is near completion and should be revisited next season.



## 29. VanBuren Bay:



**Days Allotted in 2023:** 5

**Total Pounds Harvested:** 1,480

### **Summary:**

VanBuren Bay saw a significant increase in the material removed this season from previous years. This site was not worked in 2022, but was fully harvested in years 2020 and 2021. The shape of the bay and the location of the EWM suggest that the bay catches fragmentation from growth further north. This site has always been relatively clear in the past and we believe that this year's increase is weather related.

### **Recommendations:**

The site was completed but will need to be surveyed to ensure continued success.

***(END OF REPORT)***

