



October 15, 2010

Mike White, Executive Director  
Lake George Park Commission  
PO Box  
Lake George, NY 12845

Mr. Dan Spada  
Mr. Ed Snizek  
Adirondack Park Agency  
PO Box 99  
Ray Brook, NY 12977

**RE: FUND for Lake George report on EWM hand harvesting in Lake George summer 2010; APA Permit 2009-179.**

Dears Sirs,

### **Introduction**

The FUND for Lake George completed a hand-harvesting project to manage and control Eurasian watermilfoil (EWM) on Lake George this past summer (APA Permit 2009-179). This was a supplemental project to the overall program managed by the NYS Lake George Park Commission under a separate and longstanding permit (96-355R2) from the Adirondack Park Agency (APA).

The FUND project in 2010 follows successful work completed in 2009. In 2010, the focus was on two principal objectives: 1) Continued treatment of dense beds; 2) clearing large geographic areas. The FUND for Lake George contracted with Aquatic Invasive Management (AIM) for this work. AIM deployed a crew of eight divers and two support staff.

We are pleased to report that the program met its objectives for 2010. Here are the highlights:

1. AIM estimates that well over 250,000 EWM plants were removed from Lake George in 2010. This follows a similar amount removed in 2009. This year, AIM encountered small, immature plants in areas where extensive treatment occurred in 2009. AIM also covered larger geographic areas on the lake where they were able to clear scattered plants and small beds. Parts of these areas had received previous treatment by Lycott.

2. Sixty two LGPC/Lycott sites were treated: 1, 2, 3, 4, 5, 7, 8, 9, 10, 14A-B, 15, 18, 19S-N, 20A-C, 21, 22, 24A-B, 30, 31, 32, 35, 41A-B, 42, 43, 44, 46, 48A-D, 53, 62, 66, 71A-B, 75, 77, 78, 79, 80, 85, 86, 87, 88, 89, 90, 95, 96, 98, 99, 111, 115, 116, 138, 140, 142, 144, 147, 158, 162, 164, 165A-B, 167, 168, 172, 173A. Maps are currently being prepared that shows in detail the sites treated. This will be provided.
3. Two new sites were found. These sites are a long narrow band north of Montcalm Point on the west side of Tongue Mountain in Northwest Bay extending almost to Fan Point and a dense site along the west shore of Sawmill Bay (Lat 43.5799/Long -73.6439).
4. Chronic dense sites in Huddle Bay and Lake George Village Bay were treated in 2009 and 2010. Huddle Bay still requires treatment for scattered plants in 2011, but is no longer a dense site. Lake George Village Bay sites at Sheriff's Dock and Shepards Park remain dense beds, but over 140,000 plants (est.) were removed. Dense beds in Dunhams Bay and Harris Bay were also treated.
5. Large geographic areas were cleared: Dunham's Bay, West Brook to East Shore/Crosbyside, Huddle Bay/Bolton Bay, Northwest Bay, Paradise Bay/Hazel Islands to North Black Mountain Point, Hague Brook to Cape Cod Village, and Gull Bay.

The FUND believes that even greater areas can be covered in the future by using multiple smaller crews of either 2 divers/1 top water or 4 diver/1 top water. Most of the areas covered used 8 divers/2 top water staff, which while highly effective for dense sites, is not necessary for treating scattered plants/small beds over large geographic areas.

6. Parts of Basin Bay, Harris Bay, and Sawmill Bay were treated.
7. In 2009, many of the plants that were removed from the lake were large, multi-stemmed mature plants. This is largely because areas where AIM focused – Huddle Bay and the various sites in the Village Bay – had not received active management as they had previously been deemed too big to treat. On a number of occasions in 2009, AIM performed plant counts per bag and produced an average of 117. (AIM counts plant by the root ball removed and not by the number of stems removed.) In 2010, AIM returned to these dense beds, but largely found beds of small, immature plants, and worked in other areas where the LGPC's contractor Lycott had also work. The result is that when plant counts were performed this year, AIM had an average of 187 plants per full bag. In 2010, AIM removed 1,461 bags of EWM, estimated to be 273,207 plants and 36,525 pounds, over 18 tons.

### **Recommendation for EWM Management Program in 2011**

After two seasons of focusing our work on dense sites and examining the feasibility of treating large geographic areas, such as specific bays, the FUND believes that the EWM management effort on Lake George should transition from the point-by-point focus developed by the LGPC and its contractor to a geographic-area-based approach where a specific area is treated in its

entirety and all EWM, whether in dense or small beds or scattered plants, are removed. In this way, the locations of known beds can be incorporated into designated geographic areas. The FUND believes that the work of the LGPC and Lycott over the past 10 years, combined with the recent focus by the FUND and AIM, has reduced the level of EWM in the lake to where it can be managed as part of an annual survey to ensure that scattered plants are harvested and that no beds are allowed to form.

EWM will need to be managed in Lake George annually for the foreseeable future. By transitioning to an annual survey and treatment of the entire lake (littoral zone) that removes EWM plants, we can also survey for other invasive species as part of an early detection program, as well as continue to reduce the numbers of EWM in the lake.

The FUND sees 2011 as a year where the LGPC contractor could focus primarily on removal of barrier in the lake as well as focusing on treating specific geographic areas. The FUND will work to put together a program that deploys a small 6-member crew conducting survey work over specific geographic areas in June-July, to be followed by a late season focus in August and September with large crews on dense sites, such as the Village, Dunhams and Harris Bay, among others. If dense sites are found that require larger crews early in the season, we could either partner with Lycott on these sites or GPS the locations and treat them with a larger crew.

A geographic-based approach also has a benefit of enabling a formal survey of aquatic plant populations in specific locations to measure change over time of plant populations and assemblages as EWM is removed.

This transition will require advanced planning.

### **Specific Individual Sites Treated**

Please see information below about the individual sites treated in Lake George.

#### 7. Shepards Park

This site was managed in combination with site 21 (Sheriff's Dock Area). AIM spent six days working in these dense beds. Other areas were included from the Shepards Park wharf through the west side of the Steamboat Company wharf. All told over 765 bags/over 140,000 EWM plants (est.) were removed from this area. Most were immature, single stem young plants that regrew after 150,000 (est.) mature, multi-stem EWM plants were removed in 2009. This area had been the biggest, densest site on the lake. This area remains a dense site.

Continued intensive treatment is necessary in 2011 as EWM will continue to regrow throughout the area. This area remains rich in fragments due to high boat traffic. If efforts are sustained over the next 2-3 years, we believe that EWM will be effectively reduced in this area.

#### 19S-N. Dunham's Bay

19S was found to be a dense site. AIM removed 164 bags from site 19S, estimated at 4,100 pounds/over 30,000 plants (est.).

AIM swam and cleared Site 19N and the remainder of Dunham's Bay. They removed over 1,000 plants and fragments. The boat traffic from the three marinas in the bay create many fragments.

This area requires treatment again in 2011 to remove scattered plants and ensure that EWM does not re-colonize into beds.

#### 20A-C. Huddle Bay

This site had been one of the biggest dense sites on the lake. AIM treated this site twice. In August, 76 bags/over 14,000 plants (est.) were removed. These were largely single stem, immature plants. Several hundred scattered plants were removed in September. This follows work in 2009 where over 100,000 plants were removed.

Continued intensive treatment is necessary in 2011 as EWM will continue to regrow throughout the area. This area remains rich in fragments due to high boat traffic. If efforts are sustained over the next 2-3 years, we believe that EWM will be effectively reduced in this area.

#### 21. Sheriffs Dock

This site was managed in combination with site 7 (Shepards Park). AIM spent six days working in these dense beds. Other areas were included from the Shepards Park wharf through the west side of the Steamboat Company wharf. All told over 765 bags/over 140,000 EWM plants (est.) were removed from this area. Most were immature, single stem young plants that re-grew after over 150,000 mature, multi-stem EWM plants (est.) were removed in 2009. This area had been the biggest, densest site on the lake. This area remains a dense site.

Continued intensive treatment is necessary in 2011 as EWM will continue to regrow throughout the area. This area remains rich in fragments due to high boat traffic. If efforts are sustained over the next 2-3 years, we believe that EWM will be effectively reduced in this area.

#### 165A. Basin Bay

This site runs along the Basin shoals at the entrance to the bay. It was treated in 2009 when a considerable amount of EWM was removed. In 2010, nine bags, over 1,500 plants were removed along the shoal, mostly all new immature plants.

This area requires treatment again in 2011 to remove scattered plants and ensure that EWM does not re-colonize into beds.

#### 85. Dunham's Bay Inlet

This site received treatment with removal of scattered plants. AIM cleared 7 bags/over 1,000 plants. EWM remains in scattered and moderate throughout the channel near where boats are docked.

This area requires treatment again in 2011 and should be part of treating the entirety of Dunham's Bay.

#### 96. Harris Bay

This site has grown into a dense bed. AIM removed 215 bags, over 20,000 plants. This should be classified as a dense site. Scattered EWM and other small beds were observed in other parts of Harris Bay.

This site needs intensive management again in 2011 and the entire bay should be surveyed to remove scattered plants and other beds.

### **Geographic Areas/Clustered Groups of Sites Treated**

Please see information below about the geographic areas and clusters of groups of sites treated in Lake George in 2010.

#### Lake George Village Area to Tea Island

Sites 62 (Marine Village), 158 (South English Brook), 31 (English Brook), 90 (South Tea Island Culvert), 30 (North Tea Island Bay), and 148A-B (West of Tea Island) were all treated to remove scattered plants and small beds. A total of 11 bags, over 1,000 EWM plants were removed from this area. These sites were treated by AIM and Lycott in 2009.

These sites and surrounding areas should be treated in 2011 as part of a survey of from Marine Village to Tea Island that removes all scattered/beds of EWM plants and checks for other invasives.

#### West Brook to Crosbyside

Sites: 8 (West Brook Delta), 9 (Million Dollar Beach), 10 (East Brook Delta), 87-89 (Crosbyside), 32 (Crosbyside Culvert), and 86 (East Shore) were all treated to remove scattered plants and small beds, as was the surrounding area. A total of 8 bags, over 1,500 EWM plants were removed from this area. Some of these sites were treated by Lycott in 2009.

These sites and surrounding areas should be treated in 2011 as part of a survey of from West Brook to 34 (Bay Between Plum Point and Woods Point) that removes all scattered/beds of EWM plants and checks for other invasives.

#### Northwest Bay East Side

Montcalm Point to 35 (NW Bay South of Fan Point), 138 (Bay NE of Fan Point), 53 (Clay Bay), 24A-B (Bay Between Fan and Bear Point), 78 (Bay North of West Tongue Mountain), 79 (Shore South of Bear Point), 80 (Bay South of Bear Point) were all treated to remove scattered plants and small beds, as was the surrounding area. A total of 23 bags, over 4,000 EWM plants were removed from this area.

A new site was identified south of 35. This site was cleared.

This geographic treatment to survey the area and remove all scattered/beds of EWM, and other invasives, should be replicated in 2011.

#### Northwest Bay West Side (Northwest Bay Brook delta to new site in Sawmill Bay)

Sites 1 (Northwest Bay Brook), 95 (NW Bay Head of Bay), 111 (NWB NE of Walker Point), 77 (Walker Point), 22 (Shadow Bay), and a new site (south Sawmill Bay) were all treated to remove scattered plants, some eight bags, over 1,000 plants. A new site was found on the west shore in north Sawmill Bay where 55 bags (over 10,000 plants) of EWM were removed.

This geographic treatment to survey the area and remove all scattered/beds of EWM, and other invasives, should be replicated in 2011.

#### Sawmill Bay

Sites 75 (Bell Point), 15 (Outflow of Finkle Brook), and 66 (North Sawmill Bay) were treated and 5 bags, over 750 plants, of EWM were removed.

Treatment of this area should be replicated in 2011 and expanded to include the southern parts of Sawmill Bay, the west shore of Green Island, and Crown Island.

#### Paradise Bay to Black Mountain Point

Sites 41A-B (Paradise Bay), 140 (SE of Three Sirens Island), 142 (S. of Fox Island), 162 (North Hazel Island) and areas north. Seven bags, over 1,000 plants, were removed from this area. A large area was treated from Paradise Bay, all around Hazel Island, north towards North Black Mountain Point.

This area is clear, but should be treated in 2011 as part of a plan to treat geographic areas north and south of these sites.

#### Gull Bay

Site 48A-D (Gull Bay) and Site 147 (Gull Island) were treated and cleared. 24 bags (over 4,000 plants) were removed.

This area is clear, but should be treated again in 2011, but include areas south to Clarks Hollow Bay.

#### Hague Shoreline

Sites 18 (Hague Boat Launch), 71A-B (Hague Brook), 98 (South Jenkins Brook), 99 (Holman Hill Creek), 115 (Cape Cod Village), 116 (Holman Hill Creek-North), and 144 (North Jenkins Island) were all treated and 41 bags, over 7,000 plants, were cleared from the Hague shoreline areas. This work included areas from Hague Brook/Boat Launch Area to the south edge of the Waltonian Islands in the north to Cape Cod Village in the south.

This area was cleared, but needs treatment in 2011 to remove scattered plants and small beds that will likely regrow. The goal should be to clear everything from Starks Point to Friends Point.

#### North Huddle Bay/West Side Green Island

Sites 2 (Bolton Bay at Conger's Point), 3 (Bolton Bay SW of Conger's Point), 4 (Huddle Bay NW of Sweetbriar Island), 42 (Bolton Bay), 43 (Bolton Bay), 44 (Bolton Bay NE of Bridge), 46

(Leontine Island), 5 (Sawmill Bay West Shore of Green Island), 164 (North Leontine Shoal), 167 (Clay Island SW), 168 (SW Green Island) and 173A (Bolton Bay 2) were all treated and 26 bags were removed, over 4,000 plants, scattered and in small beds. These areas were all treated in 2009.

This area was cleared, but needs treatment in 2011 to remove scattered plants and small beds that will likely regrow. The goal should be to clear everything from Basin Bay through Green Island Bridge.

#### Disposal

Harvested EWM was disposed of by the Town of Bolton DPW, Village of Lake George DPW and the Town of Hague DPW. The plants were dumped onto the compost piles at the transfer stations/sandpits in each community. The FUND for Lake George is very grateful to these communities for their assistance.

#### Conclusion

The FUND is pleased by the results of this 6-week project. We estimate that well over 250,000 plants were removed. Significant progress was made on dense sites. Significant progress was made on clearing large geographic areas.

The FUND is currently examining funding options to continue, if not expand EWM control efforts in 2011. We believe that great progress has been made to significantly reduce the amount of EWM in Lake George. We believe that a transition to a management program that focuses on clearing specific geographic areas, removes barrier from the lake, and vigorously treats remaining dense sites will be beneficial.

On behalf of the Board of Trustees of the FUND for Lake George, please let me express our gratitude to the Lake George Park Commission for the opportunity to coordinate this supplemental project with the Commission's overall EWM management program.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Bauer". The signature is fluid and cursive, with the first name "Peter" and last name "Bauer" clearly distinguishable.

Peter Bauer  
Executive Director