

STATE OF NEW YORK

LAKE GEORGE PARK COMMISSION

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Eurasian Watermilfoil Management
2003 Activity Report

January 2004

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**Lake George Park Commission
Eurasian Watermilfoil Management
2003 Activity Report**

Message from the Chair.

We are pleased to report continued progress in the management of Eurasian watermilfoil in Lake George in this, our 10th consecutive year, as project sponsor. It is our desire for the Lake George Park Commission to provide effective leadership for the critically important work of eradicating Eurasian watermilfoil and preserving the lake's native plant community. Successful milfoil management protects the lake as a source of water supply, for recreation and for tourist businesses which depend on its pristine qualities.

We want to acknowledge and thank Governor George E. Pataki for his continuing support of these efforts. The Governor's community project grant to the Commission has helped sustain the program for several years including in 2003.

We also want to acknowledge our long-time partners, The FUND for Lake George, Inc., the Darrin Freshwater Institute, the Lake George Association, the Lake George Watershed Conference, and the municipalities along the lake who, together with the Counties of Warren, Washington and Essex have been active supporters of efforts to control milfoil for many years. We also want to acknowledge the people of Lycott Environmental, Inc., Lee Lyman, President and Rich King, project site supervisor. Lycott has been the Commission's contractor for services since 2002. Thanks to one and all for your continuing interest and cooperation.

Bruce E. Young

Introduction.

Virtually since the first discovery of Eurasian watermilfoil in Lake George during 1986, the Commission has been involved in efforts to combat this unwelcomed invader. In 1986, the Commission launched the first bottom barrier and volunteer hand-harvesting effort to address the three beds of milfoil that had been identified over the winter of 1985-86. By 1987, the Commission had accepted the role of applicant and project sponsor for the Sonar® Demonstration Project, a role the Commission again completed in 2001-03.

In 1994, the Commission agreed to shoulder the administrative and financial responsibilities for a program of physical management that had run through its funding and was in desperate need of a sponsor. Since then, the Commission has endeavored to help the community develop a sustained program first to contain milfoil's rapid expansion and then to eliminate large dense beds that were established before the plant's presence in Lake George was discovered. The Commission believes that these actions obviate inestimable future expense that would otherwise occur if milfoil is allowed to grow unchecked. The 2003 results reflect this strong annual reoccurring commitment.

Regardless of the method of control, Eurasian watermilfoil management will continue to be an annual maintenance activity, at least for the foreseeable future. It is essential that the program continue to monitor the lake's shallow waters, investigate citizen referrals and annually revisit previously identified sites.

Hand harvesting a small number of plants has proven to be an extremely cost-effective means to prevent the expansion of colonies into unmanageable beds. In 2003 115 of the 146 sites were cleared or remain cleared of milfoil. This 79% cleared percentage is an increase from 59% cleared sites in 1997. The number of bed areas of milfoil has been reduced from a high of 34 in 1999 to 22 in 2003 as well.

The Commission budgeted \$77,000 for current year contractual expenses, supplies and equipment. As of December 19, 2003, the Commission had reported \$118,251.79 in current year and prior year expenses for the period. This does not include overhead of staff expenses for permitting, contract administrative, and administration which are projected at .75 of current year expenses or \$88,500. Total project expenditures are estimated at \$206,751 through December 19, 2003.

The Commission obtains the necessary permits from the Adirondack Park Agency; develops and administers the complicated contracts; inspects the labor provided against performance standards; evaluates the work; maintains and transports the equipment; keeps the records; and interacts with the public and the program contacts.

The data presented in the following section is compiled from the previous annual reports which for many years was collected by the Darrin Freshwater Institute and since 2002 has been collected by Lycott Environmental, Inc.

Summary of Results

At the conclusion of the 2003 management effort, a total of 146 Eurasian watermilfoil sites are identified, two more than were documented in 2002. In the southern basin, there are high concentrations of milfoil sites near human population centers and boat-use areas including, but not limited to Lake George Village, Bolton Landing, Harris Bay and Dunham's Bay. In the north basin, clusters of Eurasian watermilfoil sites are also found in areas of high use near Hulett's Landing, Putnam, Hague, and throughout the bay at the outlet.

A total of 134 sites have been managed for Eurasian watermilfoil in one or more years since the start of management efforts. Of these, 64 were cleared of Eurasian watermilfoil in 2003. An additional 51 sites were found clear of Eurasian watermilfoil in 2003. At two sites, milfoil abundance was reduced, but density of milfoil growth precluded complete removal at these sites. In 2003, a total of 16,371 plants and 47, 30-gallon barrels of milfoil were removed by hand and suction harvesting, respectively. Additionally, 19 panels (9500 ft) of Palco® pond liner were relocated. To date, twelve sites remain in Lake George which have received no management effort.

Management activities in Lake George have had a positive effect on the control of many milfoil sites as evidenced by the fact that the yearly rate at which sites are cleared of milfoil vastly outpaces the rate at which new sites are being discovered while overall the number of newly cleared sites by year has remained fairly constant (i.e., on average, more sites are being cleared for the first time each year than are being established by new dispersal/colonization events, while year to year progress remains fairly constant). To date, 22 sites remain with dense milfoil beds and an additional 6 sites have moderately dense growth which have yet to be adequately managed.

**EURASIAN WATERMILFOIL MANAGEMENT IN LAKE GEORGE
2003 PROGRAM REVIEW**

Table 1. Lake George 2003 Eurasian Watermilfoil Sites sorted by site code number. Tntc= too numerous to count. Numbers in parentheses are either 30-gallon barrels of watermilfoil suction harvested or panels of Palco® removed (-) or installed (+).

Site	Site Name	Date	2003 Density	2003 Number of Plants	2003 Action
1	NWB-Head of Bay	30-Jun-03	bed	tntc	observed
2	Conger's Pt.	7-Jul-03	scattered	34	cleared
3	SW Conger's Pt	7-Jul-03	none	0	none
4	NW Sweetbriar Is	8-Jul-03	scattered	tntc	observed
5	W. Green Is.	7-Jul-03	moderate	tntc	observed
6	Sunset Bay	3-Jul-03	bed	tntc	observed
7	Shepard's Park	15-Aug-03	moderate	(47)	reduced
8	West Brook	9-Jul-03	bed	tntc	observed
9	Million Dollar Beach	9-Jul-03	none	0	none
10	East Brook	9-Jul-03	none	0	none
11	S. End of Warner Bay	14-Jul-03	scattered	40	cleared
12	LG Outlet	15-Jul-03	moderate	tntc	observed
13	NE Mossy Pt.	15-Jul-03	moderate	tntc	observed
14	SE Happy Family Is.	14-Jul-03	scattered	68	cleared
15	Finkle Brook	7-Jul-03	none	0	none
16	Middleworth Bay	8-Jul-03	bed	tntc	observed
17	E. end Echo Bay	10-Jul-03	moderate	tntc	observed
18	Hague Boat Launch	28-Jul-03	scattered	167	cleared
19	Dunham's Bay	10-Jul-03	bed	tntc	observed
20	Huddle Bay	8-Jul-03	bed	tntc	observed
21	Sheriff's Dock	9-Jul-03	bed	tntc	observed
22	Shadow Bay	30-Jun-03	scattered	6	cleared
23	Lake George YC	21-Aug-03	scattered	199	cleared
24	NWB-W. Tongue Mtn	30-Jun-03	bed	tntc	observed
25	Basin Bay	8-Jul-03	none	0	none
26	SW Cannon Pt.	8-Jul-03	bed	tntc	observed
27	NW Cooper Pt.	21-Aug-03	scattered 1	34	cleared
28	S. Hearthstone	9-Jul-03	none	0	none
29	Bay. NE Tea Is.	9-Jul-03	none	0	none
30	N. Tea Is Bay	9-Jul-03	bed	tntc	observed
31	English Brook	9-Jul-03	none	0	none
32	Crosbyside	9-Jul-03	none	0	none
33	S. Plum Pt.	9-Jul-03	scattered	5	cleared
34	B. Plum Pt & Woods Pt.	9-Jul-03	none	0	none
35	Bay S of Fan Pt.	1-Jul-03	scattered	2	cleared
36	E. Of Dark Bay	1 0-Jul-03	scattered	223	cleared
37	S. Warner Bay	14-Jul-03	moderate	tntc	observed
38	S. Warner Bay-B	14-Jul-03	moderate	tntc	observed

Site	Site Name	Date	2003 Density	2003 Number of Plants	2003 Action
39	S. Katskill Bay	10-Jul-03	scattered	22	cleared
40	S. of Red Rock Bay	1-Jul-03	none	0	none
41	Paradise Bay	1-Jul-03	bed	tntc	observed
42	Bolton Bay T55	7-Jul-03	none	0	none
43	Bolton Bay T54	7-Jul-03	none	0	none
44	Bolton Bay NE Bridge	7-Jul-03	none	0	none
45	Tiroga/Black Pt.	15-Jul-03	scattered	tntc	observed
46	Leotine/Clay	21-Aug-03	moderate	3253,(-14.5)	cleared
47	Smith Bay	16-Jul-03	scattered	2	cleared
48	Gull Bay	16-Jul-03	bed	tntc	observed
49	S. Burnt Point	16-Jul-03	none	0	none
50	Clark Hollow	16-Jul-03	scattered	250, (+1)	managed
51	Eichlerville Bay	3-Jul-03	bed	tntc	observed
52	Roger's Rock Beach	15-Jul-03	none	0	none
53	West Tongue Mtn.	1-Jul-03	scattered	1	cleared
54	Cooks Bay @ HL	3-Jul-03	none	0	none
55	Indian Bay	3-Jul-03	none	0	none
56	S. Sawmill Bay	7-Jul-03	bed	tntc	observed
57	S. Green Is.	7-Jul-03	scattered	1	cleared
58	Silver Bay	16-Jul-03	scattered	71	cleared
59	Hondah Cottages	7-Jul-03	scattered	1	cleared
60	Camp Andrew Bay	7-Aug-03	scattered	65,(-5)	cleared
61	Harbor Is- Moonlight B.	2-Jul-03	bed	tntc	observed
62	Marine Village	9-Jul-03	none	0	none
63	S. Agnes Is.	2-Jul-03	scattered	3	cleared
64	3 Brothers Is.	8-Jul-03	scattered	27	cleared
65	W. of 3 Brothers Is.	8-Jul-03	none	0	none
66	N.Sawmill Bay	7-Jul-03	bed	tntc	observed
67	Bluff Head Creek	2-Jul-03	none	0	none
68	Rock- Dunbar Is.	3-Jul-03	scattered	1	cleared
69	Kitchal Bay	3-Jul-03	none	0	none
70	S. Trib. W Halfway Is.	2-Jul-03	none	0	none
71	Hague Brook	15-Jul-03	bed	tntc	observed
72	South Cook's Bay	15-Jul-03	scattered	3	cleared
73	Dark Bay Trib	16-Jul-03	scattered	35	cleared
74	Point N. of Agnes Is.	2-Jul-03	scattered	59	cleared
75	Bell Pt.	14-Jul-03	scattered	392	cleared
76	S. Shelving Rock Pt.	1-Jul-03	scattered	34	cleared
77	Walker Point	30-Jun-03	none	0	none
78	N of W. Tongue Mtn	30-Jun-03	scattered	67	cleared
79	Shore S. of Bear Pt.	30-Jun-03	scattered	1	cleared
80	Bay S of Bear Pt.	30-Jun-03	scattered	4	cleared
81	Butternut Brook	4-Jul-03	none	0	none
82	Barber Bay	3-Jul-03	scattered	2	cleared
83	Van Warmer Bay	10-Jul-03	none	0	none
84	Harris Bay Inlet	14-Jul-03	none	0	none
85	Dunham's Bay Inlet	10-Jul-03	scattered	91	cleared

Site	Site Name	Date	2003 Density	2003 Number of Plants	2003 Action
86	East Shore	9-Jul-03	none	0	none
87	Crosbyside	9-Jul-03	none	0	none
88	Crosbyside	9-Jul-03	scattered	1	cleared
89	Crosbyside	9-Jul-03	none	0	none
90	S. Tea Is. Culvert	9-Jul-03	scattered	2	cleared
91	Harris Bay E. Side	14-Jul-03	bed	tntc	observed
92	E. of Hens & Chicks Is	4-Jul-03	none	0	none
93	E. of Refuge Is	4-Jul-03	scattered	1	cleared
94	NW 3 Sirens Is.	2-Jul-03	none	0	none
95	NWB-Head of Bay	30-Jun-03	scattered	1	cleared
96	Harris Bay- Midbay	14-Jul-03	bed	tntc	observed
97	W. side Clay Is.	8-Jul-03	scattered	28	cleared
98	S. Jenkin's Brook	20-Aug-03	bed	(+23)	BB
99	Holman Hill Creek	15-Jul-03	scattered	1	cleared
100	Temple Island	15-Jul-03	none	0	none
101	Brook N. Green Pt.	2-Jul-03	none	0	none
102	S. 5-Mile Mtn. Brook	2-Jul-03	none	0	none
103	N. N. Meadow Pt.	2-Jul-03	scattered	1	cleared
104	Assembly Pt. West	9-Jul-03	scattered	14	cleared
105	Assembly Pt. NW	9-Jul-03	none	0	none
106	Assembly Pt.	14-Jul-03	none	0	none
107	Elizabeth Is.	10-Jul-03	scattered	28	cleared
108	Harris Bay Culvert	14-Jul-03	bed	tntc	observed
109	SW Happy Family Is.	14-Jul-03	scattered	86	cleared
110	Diamond Pt.	8-Jul-03	none	0	none
111	NWB-NE Walker Pt.	30-Jun-03	scattered	1	cleared
112	Whale Rock	20-Aug-03	moderate	881	managed
113	Diamond Is.	8-Jul-03	scattered	35	cleared
114	Mooring Post Marina	14-Jul-03	scattered	2	cleared
115	Cape Cod Village	15-Jul-03	scattered	1	cleared
116	Holman Hill Creek N.	15-Jul-03	none	0	none
117	Glenbernie Blairs Bay	16-Jul-03	bed	tntc	observed
118	Blairs Bay- North	16-Jul-03	scattered	36	cleared
119	E. Side Harris Bay YC	14-Jul-03	scattered	5	cleared
120	North Warner Bay	10-Jul-03	scattered	83	cleared
121	East Shore	9-Jul-03	none	0	none
122	Still Bay	8-Jul-03	scattered	1	cleared
123	West Flirtation Is.	15-Jul-03	scattered	308	cleared
124	N. Shelving Rock Pt.	1-Jul-03	none	0	none
125	E. of Sagamore Is.	3-Jul-03	none	0	none
126	NW Dollar Island	1-Jul-03	none	0	none
127	SW French Pt.	1-Jul-03	none	0	none
128	N. of Commission Pt.	1-Jul-03	scattered	88	cleared
129	Camp Sagamore	16-Jul-03	scattered	6	cleared
130	N. 5-Mile Mtn Brook	2-Jul-03	none	0	none
131	N. Steere Is.	2-Jul-03	scattered	5	cleared
132	Lamb Shanty Bay	16-Jul-03	none	0	none

Site	Site Name	Date	2003 Density	2003 Number of Plants	2003 Action
133	Roger's Rock Club	15-Jul-03	scattered	12	cleared
134	St. Sacramento Is.	3-Jul-03	scattered	1	cleared
135	NE Van Warmer Bay	10-Jul-03	none	0	none
136	Assembly Pt. Pocket B.	9-Jul-03	none	0	none
137	West Dollar Island	1-Jul-03	scattered	19	cleared
138	Bay NE. of Fan Pt.	11-Jul-03	moderate	3889	cleared
139	NE Little Harbor Island	1-Jul-03	scattered	39	cleared
140	NW of 3 Sirens Is.	1-Jul-03	scattered	12	cleared
141	Camp Andrew Bay-W	4-Jul-03	moderate	684,(-4)	cleared
142	S. of Fox Island	1-Jul-03	scattered	48	cleared
143	S. Bluff Head Creek	2-Jul-03	moderate	232	cleared
144	N. Jenkin's Brook	15-Jul-03	scattered	146	managed
145	Juniper Island	28-Jul-03	moderate	2832	cleared
146	Blairs Bay-South	23-Jul-03	moderate	2688	cleared

Table 2. Comparison of years 2002 and 2003 site status and raw total hand harvest counts (not standardized for person*hours). Numbers in parentheses are either suction harvest (SH) totals in 30-gallon barrels or number of Palco® pond liner panels (BB) removed/installed (see text for site details). Codes are same as in Table 1.

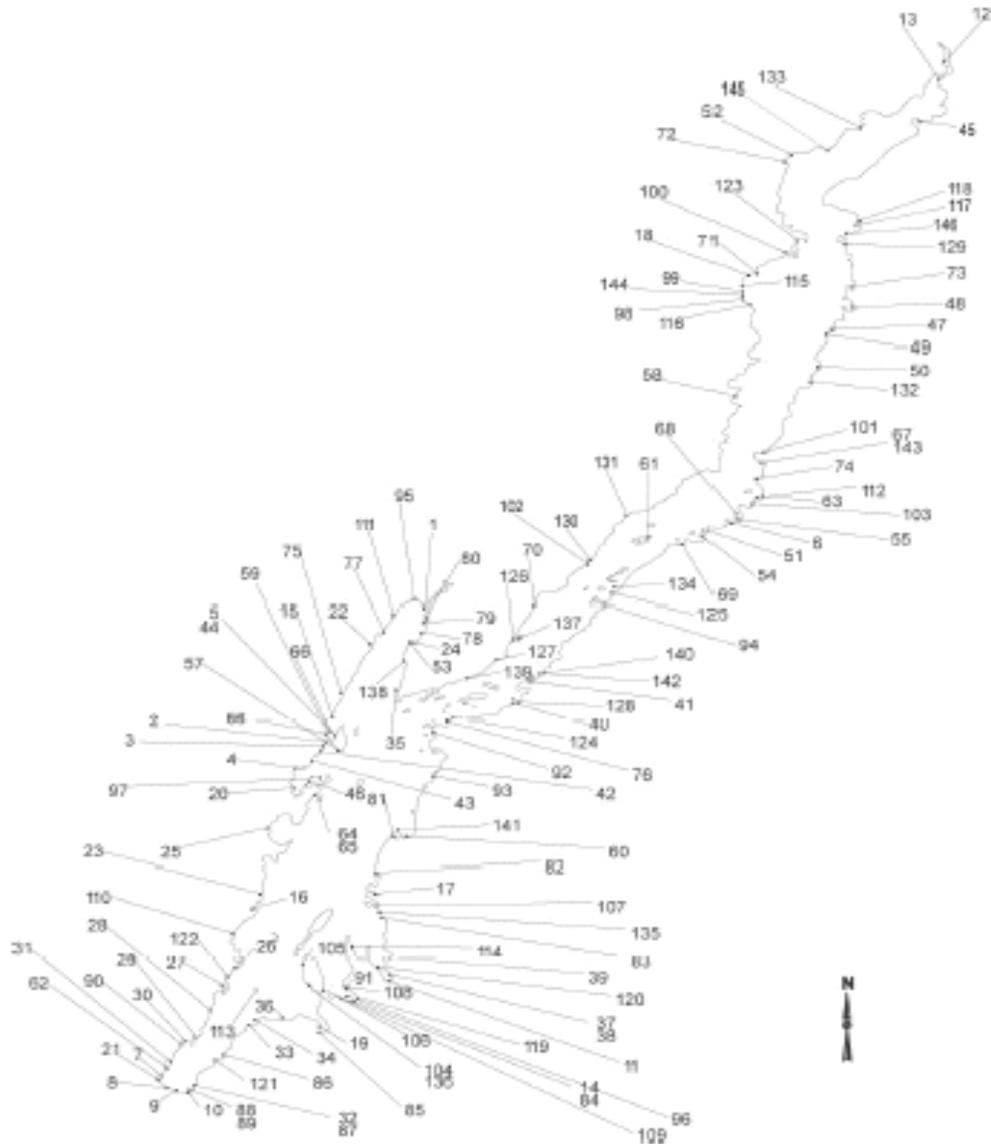
Site	Site Name	2003 Density	2002 Density	2003 No. of Plants	2002 No. of Plants	2003 Action	2002 Action
1	NWB, Brook Inflow	bed	bed	tntc	60	observed	reduced
2	Conger's Point	scattered	scattered	34	138	cleared	cleared
3	SW Conger's Point	none	none	0	0	none	none
4	NW Sweetbriar Island	scattered	scattered	tntc	13	observed	reduced
5	W. Green Island	moderate	moderate	tntc	tntc	observed	observed
6	Sunset Bay	bed	bed	tntc	tntc	observed	observed
7	Shepard's Park	moderate	bed	(47)	(46),(-4)	SH	SH, BB
8	West Brook Delta	bed	bed	tntc	tntc	observed	observed
9	Million \$ Beach	none	none	0	0	none	none
10	East Brook	none	none	0	(-20)	none	BB
11	S. end Warner Bay	scattered	scattered	40	27	cleared	cleared
12	L.G. Outlet	moderate	moderate	tntc	tntc	observed	observed
13	NE Mossy Bay	moderate	moderate	tntc	tntc	observed	observed
14	SE Happy Family	scattered	none	68	0	cleared	none
15	Finkel Brook-FWI	none	scattered	0	6	none	cleared
16	Middleworth Bay	bed	bed	tntc	9	none	reduced
17	E. end of Echo Bay	moderate	moderate	tntc	2004	observed	cleared
18	Hague Boat Launch	scattered	scattered	167	12	cleared	cleared
19	Dunham Bay	bed	bed	tntc	tntc	none	observed
20	Huddle Bay	bed	bed	tntc	tntc	observed	observed
21	Sheriff's Dock	bed	bed	tntc	tntc	observed	observed
22	Shadow Bay	scattered	none	6	0	cleared	none
23	LG Yacht Club	scattered	scattered	199	89	cleared	cleared
24	NWB, W. Tongue Mtn.	bed	bed	tntc	tntc	observed	observed
25	Basin Bay	none	none	0	0	none	none
26	SW Cannon Pt.	bed	bed	tntc	tntc	observed	observed
27	NW Cooper Pt.	scattered	scattered	134	386	cleared	cleared
28	S. Hearthstone	none	none	0	0	none	none
29	B. NE Tea Island	none	none	0	0	none	none
30	N. Tea Island Bay	bed	bed	tntc	tntc	observed	observed
31	English Brook	none	scattered	0	5	none	cleared
32	Crosbyside T 37a	none	none	0	0	none	none
33	S. Plum Pt.	scattered	none	5	0	cleared	none
34	B.@ Plum & Woods Point	none	scattered	0	2	none	cleared
35	Bay South of Fan Point	scattered	none	2	0	cleared	none
36	B. E of Dark Bay	scattered	scattered	223	117	cleared	cleared
37	S. Warner Bay	moderate	scattered	tntc	40	observed	cleared
38	S. Warner Bay-B	moderate	scattered	tntc	82	observed	cleared
39	S. Katskill Bay	scattered	scattered	22	36	cleared	cleared
40	Bay S of Red Rock Bay	none	scattered	0	4	none	cleared
41	Paradise Bay	bed	bed	tntc	tntc	observed	observed

Site	Site Name	2003 Density	2002 Density	2003 No. of Plants	2002 No. of Plants	2003 Action	2002 Action
42	Bolton Bay T-55	none	none	0	0	none	none
43	Bolton Bay T-54a	none	none	0	0	none	none
44	Bolton B. NE of Bridge	none	scattered	0	8	none	cleared
45	Tiroga/Black Pt.	scattered	scattered	tntc	tntc	observed	observed
46	Leotine/Clay	moderate	moderate	3253,(-10)	1020	cleared	reduced
47	Smith Bay	scattered	scattered	2	29	cleared	cleared
48	Gull Bay	bed	bed	tntc	tntc	observed	observed
49	S. Burnt Point	none	none	0	0	none	none
50	Clark Hollow	scattered	bed	250, (+1)	17,(+9)	BB	BB
51	Eichlerville Bay	bed	bed	tntc	tntc	observed	observed
52	Roger's Rock Beach	none	none	0	0	none	none
53	West Tongue Mtn.	scattered	scattered	1	7	cleared	cleared
54	Cook's Bay @ HL	none	none	0	0	none	none
55	Indian Bay	none	scattered	0	7	none	cleared
56	S. Sawmill Bay	bed	bed	tntc	tntc	observed	observed
57	S. Green Is.	scattered	none	1	0	cleared	none
58	Silver Bay	scattered	scattered	71	181	cleared	cleared
59	Hondah Cottages	scattered	scattered	1	3	cleared	cleared
60	Camp Andrew Bay	scattered	scattered	65,(-5)	137	cleared	managed
61	Harbor Island- Moonli	bed	bed	tntc	tntc	observed	observed
62	Marine Village/ T-40	none	scattered	0	1	none	cleared
63	S. Agnes Island	scattered	scattered	3	7	cleared	cleared
64	3 Brother's Island	scattered	scattered	27	36	cleared	cleared
65	W. 3 Brother's Island	none	none	0	0	none	none
66	N. Sawmill Bay	bed	bed	tntc	tntc	observed	observed
67	Bluff Head Creek/ T8	none	scattered	0	4	none	cleared
68	Rock Dunbar Island	scattered	scattered	1	13	cleared	cleared
69	Kichal Bay-Hulett's	none	none	0	0	none	none
70	S. Trib. Halfway Is.	none	none	0	0	none	none
71	Hague Brook T86	bed	bed	tntc	tntc	observed	observed
72	S. Cook's Bay	scattered	scattered	3	12	cleared	cleared
73	Trib Dark Bay- T91A	scattered	scattered	35	189	cleared	cleared
74	Pt. N. of Agnes Pt.	scattered	moderate	59	523	cleared	cleared
75	Bell Point	scattered	scattered	392	776	cleared	cleared
76	S. Shelving Rock Pt.	scattered	scattered	34	13	cleared	cleared
77	Walker Pt.	none	scattered	0	1	none	cleared
78	Bay N of W Tongue M	scattered	scattered	67	288	cleared	cleared
79	Shore S of Bear Pt.	scattered	scattered	1	16	cleared	cleared
80	Bay S of Bear Pt.	scattered	scattered	4	29	cleared	cleared
81	Butternut Brook	none	none	0	0	none	none
82	Barber Bay	scattered	scattered	2	10	cleared	cleared
83	Van Warmer Bay	none	none	0	0	none	none
84	Harris Bay Inlet	none	scattered	0	5	none	cleared
85	Dunham Bay Inlet	scattered	scattered	91	29	cleared	cleared
86	E. Shore/ T36e	none	none	0	0	none	none
87	Crosbyside T 37d	none	none	0	0	none	none
88	Crosbyside T37b	scattered	none	1	0	cleared	none

Site	Site Name	2003 Density	2002 Density	2003 No. of Plants	2002 No. of Plants	2003 Action	2002 Action
89	Crosbyside Culvert	none	scattered	0	2	none	cleared
90	S. Tea Island Culvert	scattered	none	2	0	cleared	none
91	Harris Bay E. Side	bed	bed	tntc	tntc	observed	observed
92	Bay E of Hens & Chic	none	scattered	0	5	none	cleared
93	E. of Refuge Island	scattered	scattered	1	1	cleared	cleared
94	NW 3 Siren's Island	none	scattered	0	2	none	cleared
95	NWB, Head of Bay	scattered	none	1	0	cleared	none
96	Harris Bay- Mid Bay	bed	bed	tntc	tntc	observed	observed
97	West Side Clay Island	scattered	scattered	28	1	cleared	cleared
98	S. Jenkin's Brook	bed	bed	(+23)	15	BB	reduced
99	Holman Hill Creek	scattered	none	1	0	cleared	none
100	Temple Island	none	scattered	0	16	none	cleared
101	Brook N. of Green Pt.	none	scattered	0	2	none	cleared
102	S. Trib 5-mile Mtn.Brk	none	scattered	0	111	none	cleared
103	N. N. Meadow Brook	scattered	scattered	1	5	cleared	cleared
104	Assembly Pt.	scattered	none	14	0	cleared	none
105	Assembly Pt. NW	none	none	0	0	none	none
106	Assembly SE Bay	none	none	0	0	none	none
107	Elizabeth Island (E of)	scattered	scattered	28	246	cleared	cleared
108	Harris Bay Culvert	bed	bed	tntc	tntc	observed	observed
109	SW Happy Fam. Is.	scattered	scattered	86	15	cleared	cleared
110	Diamond Pt.	none	none	0	0	none	none
111	NWB, NE of Walker	scattered	none	1	0	cleared	none
112	Whale Rock- E. Agnes	moderate	moderate	881	tntc	managed	observed
113	Diamond Island	scattered	scattered	35	97	cleared	cleared
114	Sandy Bay Mooring Po	scattered	none	2	0	cleared	none
115	Cape Cod Village Bay	scattered	scattered	1	9	cleared	cleared
116	Holman Hill Creek- N	none	scattered	0	18	none	cleared
117	Glenbernie- Blair's Bay	bed	bed	tntc	tntc	observed	observed
118	Blair's Bay-N	scattered	scattered	36	9	cleared	cleared
119	E. side HBYC	scattered	scattered	5	3	cleared	cleared
120	N. Warner B. Culvert	scattered	scattered	83	46	cleared	cleared
121	E Shore/ T-36d	none	none	0	0	none	none
122	Still Bay	scattered	scattered	1	13	cleared	cleared
123	W. Flirtation Island	scattered	scattered	308	114	cleared	cleared
124	N. Shelving Rock Pt.	none	none	0	0	none	none
125	E. of Sagamore Island	none	none	0	0	none	none
126	NW Dollar Island	none	none	0	0	none	none
127	SW French Point	none	none	0	0	none	none
128	Bay N of Commission Pt/	scattered	scattered	88	161	cleared	cleared
129	Camp Sagamore	scattered	scattered	6	337	cleared	cleared
130	N. Trib 5-mile Mtn. B	none	none	0	0	none	none
131	N. Steere Island	scattered	scattered	5	68	cleared	cleared
132	Lamb Shanty Bay	none	none	0	0	none	none
133	Roger's Rock Club	scattered	scattered	12	57	cleared	cleared
134	St. Sacramento	scattered	scattered	1	1	cleared	cleared
135	NE Van Warmer Bay	none	none	0	0	none	none

Site	Site Name	2003 Density	2002 Density	2003 No. of Plants	2002 No. of Plants	2003 Action	2002 Action
136	Assembly Pt. Pocket B	none	none	0	0	none	none
137	W. Dollar Island	scattered	moderate	19	467	cleared	cleared
138	Bay NE of Fan Point	moderate	scattered	3889	22	cleared	cleared
139	NE Little Harbor Island	scattered	scattered	39	190	cleared	cleared
140	SE of 3 Sirens Island	scattered	scattered	12	63	cleared	cleared
141	Camp Andrew Bay West	moderate	moderate	684,(-4)	522,(+4)	cleared	HH, BB
142	S. Fox Island	moderate	bed	48	2221	cleared	cleared
143	S. Bluff Head Creek	scattered	moderate	232	375	cleared	cleared
144	N. Jenkins Brook	scattered	bed	146	(+6)	managed	BB
145	Juniper Island	moderate	N/A	2832	N/A	cleared	N/A
146	Blair's Bay-S	moderate	N/A	2688	N/A	cleared	N/A
Year Totals				16,371	11,605		

Figure 1. Map of all known Eurasian watermilfoil sites in Lake George at the conclusion of 2003 effort. See Table 1 for site name and status. See text for site description.



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A total of 134 sites have been managed for milfoil in one or more years since the start of aquatic plant management efforts. Of these, 64 were cleared of milfoil in 2003. Cleared, as used in this context, indicates removal of all visible milfoil plants, including roots. An additional 51 sites were found clear of milfoil plants.

Thirty-one sites require a more intensive management strategy than hand harvesting alone (e.g. suction harvesting, benthic barrier, dredging or herbicides). Of these, 12 sites currently have stands of milfoil toward which no management activity has been directed.

Table 3. Number of reported milfoil sites and their status at the conclusion of each survey year. Data for years 1985-2001 are from Eichler & Boylen 2001. Data from 2002-2003 are from Lycott Environmental, Inc.

Year	Total # of Milfoil Sites	Density of Milfoil Growth			Status	
		Bed	Moderate	Scattered	New ¹	Cleared ²
1985	3	3	0	0	3	0
1986	22	9	0	13	19	0
1987	43	8	0	29	21	6
1988	55	8	0	35	12	12
1989	66	12	6	23	11	25
1990	76	13	8	19	10	36
1991	91	11	7	27	15	46
1992	97	16	4	40	6	37
1993	106	21	13	10	9	62
1994	N/A	N/A	N/A	N/A	N/A	N/A
1995	111	26	13	5	1	67
1996	118	25	11	9	7	73
1997	123	28	11	13	5	72
1998	127	31	7	6	4	83
1999	134	34	7	4	7	91
2000	136	28	8	3	2	94
2001	141	24	11	4	5	103
2002	144	23	7	4	3	110
2003	146	22	6	3	2	115

¹ First year in which Eurasian watermilfoil was observed at a particular site.

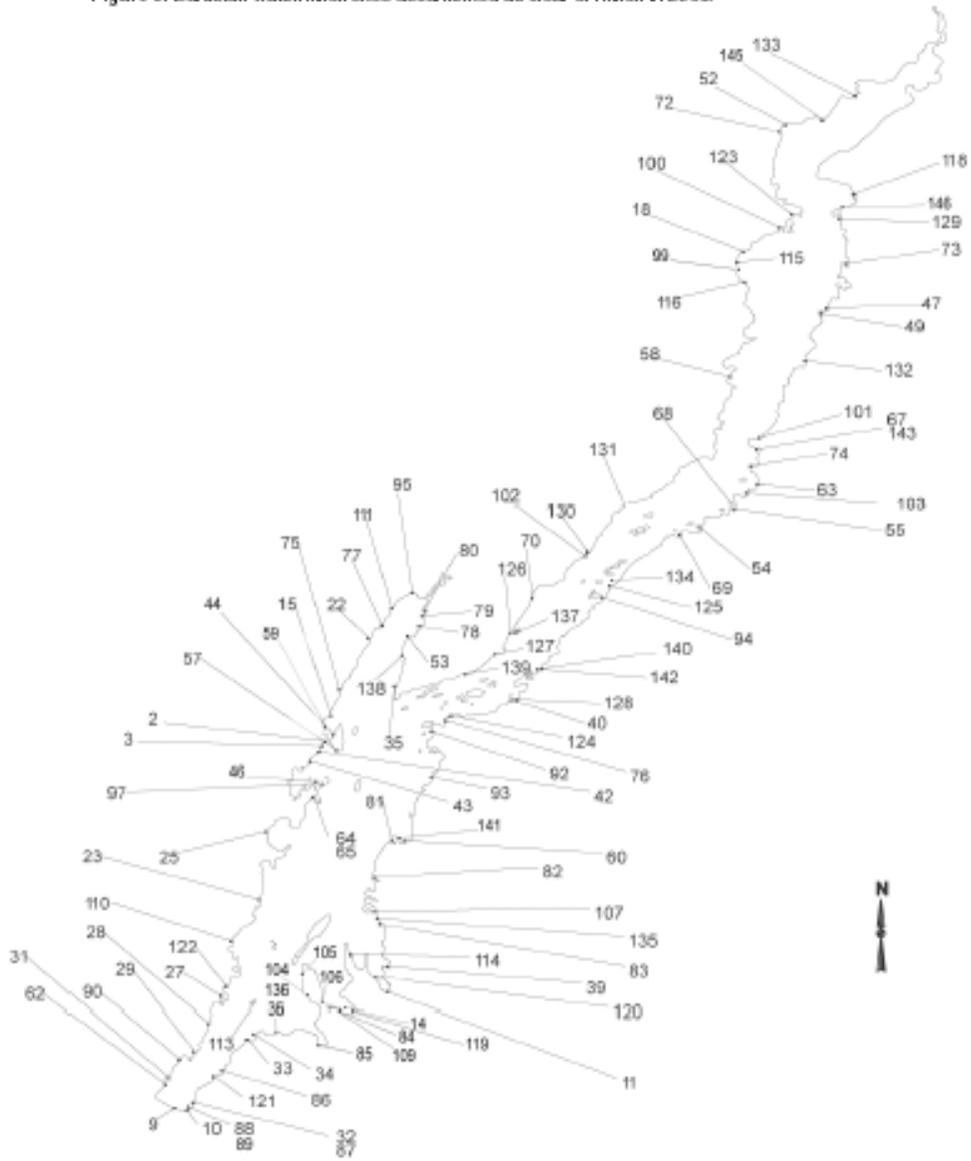
² Indicates all visible Eurasian watermilfoil removed by management activities.

Hand Harvesting

In 2003, a total of 16,371 milfoil plants were removed by hand harvesting from 65 locations. In 2002, 11,605 plants were hand harvested from 76 sites. In 2001, 5074 plants were removed from 50 sites by hand harvesting. In 2000, a total of 4065 milfoil plants were removed by hand harvesting at 46 locations. These compare with the 1999, 1998 and 1997, programs where 5733, 4803, and 5938 milfoil plants were removed from 65, 55, and 53 sites respectively. Coupled with the sites cleared of milfoil in past harvesting efforts, 115 sites or 79% of the recorded milfoil sites were free of milfoil at the conclusion of the 2003 effort (Table 3). A total of 14,227 plants were removed from just six sites. The remaining 112 sites (109 of which were cleared in 2003) which were managed by hand harvesting accounted for the difference of 2102. Of these, 51 sites had no milfoil plants in 2003.

In 2003, hand harvesting required a total of 546 person•hours at sites where hand harvesting was appropriate (118 sites) for an average of 4.6 person•hours per site. This total includes time spent at sites where no milfoil was found. Effort was divided between travel, equipment set-up, and harvesting. The percent of effort allocated to each of these tasks is presented in Figures 2a-f. Survey and hand harvesting required a total of 491 person•hours in 2002 at 115 sites and 352 person•hours in 2001 at sites where hand harvesting was appropriate (105 sites). Of this amount of effort, a total of 191 person•hours were spent at the 47 sites where hand harvesting was necessary to remove Eurasian watermilfoil, for an average of 4.1 person•hours per site. In 2000, a total of 211 person•hours were spent at the 47 sites where hand harvesting was necessary to remove Eurasian watermilfoil, for an average of 4.4 person•hours per site. These compare to 1999 where 62 hand harvest sites required a total of 193 person•hours for an average of 3.1 person•hours per site.

Figure 3. Eurasian watermilfoil sites documented as clear of milfoil in 2003.



Benthic Barrier

Sites managed with benthic barrier during past programs were inspected and maintenance was performed where needed. Milfoil fragments present on the surface of the barrier were also removed. The following 12 locations currently have benthic barrier in place in Lake George:

Dunham's Bay	West Brook	South Jenkins Brook
Sheriffs Dock	Shepard's Park	North Sawmill Bay
East Brook	Sunset Bay	South Sawmill Bay
Clark Hollow	Whale Rock, Agnes Island	North Jenkins Brook

Clark Hollow (M-50) expanded rapidly between the 1999 and 2000 survey. Given the size of the bed and firm bottom substrate, benthic barrier was selected as the best management option. A total of 12.5 panels (4,375 ft²) were installed here in 2001. In 2002 an additional 9 (3,150 ft²) panels were installed to complete the benthic barrier phase of management for this site. In 2003, a single panel which was left in 2002 was unrolled and positioned on the one remaining 'bed' of milfoil. However, this site will require some hand harvesting and barrier maintenance in 2004.

Leotie Island (M-46) was cleared of all milfoil by hand harvesting and was cleared of all benthic barrier in 2003. This site is now designated as cleared. Continued surveys are suggested to insure this site remains a 'controlled' sites (i.e., manageable by hand harvesting if necessary).

Camp Andrew Bay (M-60) was cleared of 65 plants by hand harvesting and all panels were removed in 2003 to clear this site for the first time. Annual inspections should be conducted to insure this site remains free of milfoil.

Camp Andrew Bay West (M-141) was cleared of 684 plants by hand harvesting and all panels were removed to clear this site for the first time. Annual inspections should be conducted to insure this site remains free of milfoil. Routine benthic barrier inspections were conducted at all locations noted above. Panels were inspected, cleaned and repaired as needed. Routine maintenance included repositioning of panels to close gaps, venting of trapped gases, as well as moving and installing additional weight bars and stakes as necessary.

All barrier panels, stakes and weight bars installed were removed from the three sites listed above.

Additionally, ca. 100 weight bars were recovered from East Brook (M-10). Approximately 20 panels remain at the East Brook site to date, many of which are partially or entirely buried by the growing sand delta at the mouth of the brook. Extensive effort will be required in order to reclaim remaining panels from this site. However, retrieval of most or all of these panels is possible although likely not feasible due to sediment accumulation on top of the remaining panels in the East Brook delta.

A total of 228 person•hours were required for removal and installation of benthic barrier in 2003 including on-lake travel and set up. Twenty-three panels (8050 ft²) were removed and 24 (8,400 ft²) were installed in 2003 including the one panel left in 2002 folded at site M-50. In the 2002 report (King & Lyman), individual panel size was incorrectly reported at 10' x 50'. In fact panels are 7' x 50'. So while nearly 12,000 ft² were reportedly removed and 10,000 ft² installed in 2002, only 8,400 ft² were actually removed and 6,650 ft² were installed with 126 person•hours of effort. This in part explains the discrepancy between person•hours and coverage between 2002 and 2003.

Travel time was greatly increased in 2003 because site M-98 is in the northern section of the lake (ca. 1 mile south of Hague boat launch) and the 'borrow' sites ranged from Lake George Village to Bolton Landing.

Site M-98 was chosen in part because the majority of the barrier panels in Lake George are in the southern basin. Thus, while a relatively large effort was concentrated on a single site in 2003, barrier panels are now readily available for management of other bed sites in the northern basin.

Suction Harvesting

The suction harvester was used at one location in 2003 – Shepard's Park (M-7). A total of 198 person hours were spent here, with time evenly divided between travel, set up and harvesting. The majority of one day (ca. 25 person hours) was lost due to equipment failure and demonstration of harvester operation to Saranac Lake Association per LGPC request. A total of 47 barrels of milfoil were removed from this site. A barrel consists of a 30-gallon garbage can packed tightly with milfoil.

Several sites remain with milfoil populations of densities suitable for suction harvesting either as a primary management tool or in conjunction with other management practices as deemed by Eichler & Boylen (2001) and/or the present report These include:

Hague Brook T86 Shepard's Park West Brook Delta

A survey of the section of M-7 where suction harvesting was conducted in 2002 strongly suggests this is an effective milfoil-removal technique. The areas harvested in 2002 remained virtually clear of milfoil while some native plants were returning (e.g., *Valisneria americana*). However, the benefits of suction harvesting are somewhat offset by the set-up time required before actual harvesting can begin. Further, because it is not safe to leave the equipment set up and moored overnight it must be broken down each evening. Thus, in each 10-hour day of suction harvesting only ca. 6 can be spent harvesting. This time is further reduced by breaks the divers must take and to allow re-suspended sediment to settle out inside the boom which is placed around the collection bin. In total, roughly 30- 35% of time allotted to suction

harvesting is actively removing plants. Still, suction harvesting currently remains the only viable physical management technique for a few sites in Lake George. However, once sites are beyond a reasonable size for hand harvesting or benthic barrier placement, they quickly become a size no longer feasible for suction harvesting if not addressed within a few years.

Unmanaged Sites

The following sites are those at which no management activities have been conducted. These locations include (see also Figure 6):

NWB Brook Inflow	West Green Isl.	SW Cannon Point	LG Outlet
Mossy Point	Dunham Bay N.	Tea Island Bay	Moonlight Harbor
Paradise Bay	Tiroga Pt. Channel	S. Sawmill Bay	N. Sawmill Bay
Gull Bay	Hague Brook	S. Warner Bay	S. Warner Bay-B.
Glenbernie-Blairs Bay			

General Conclusions

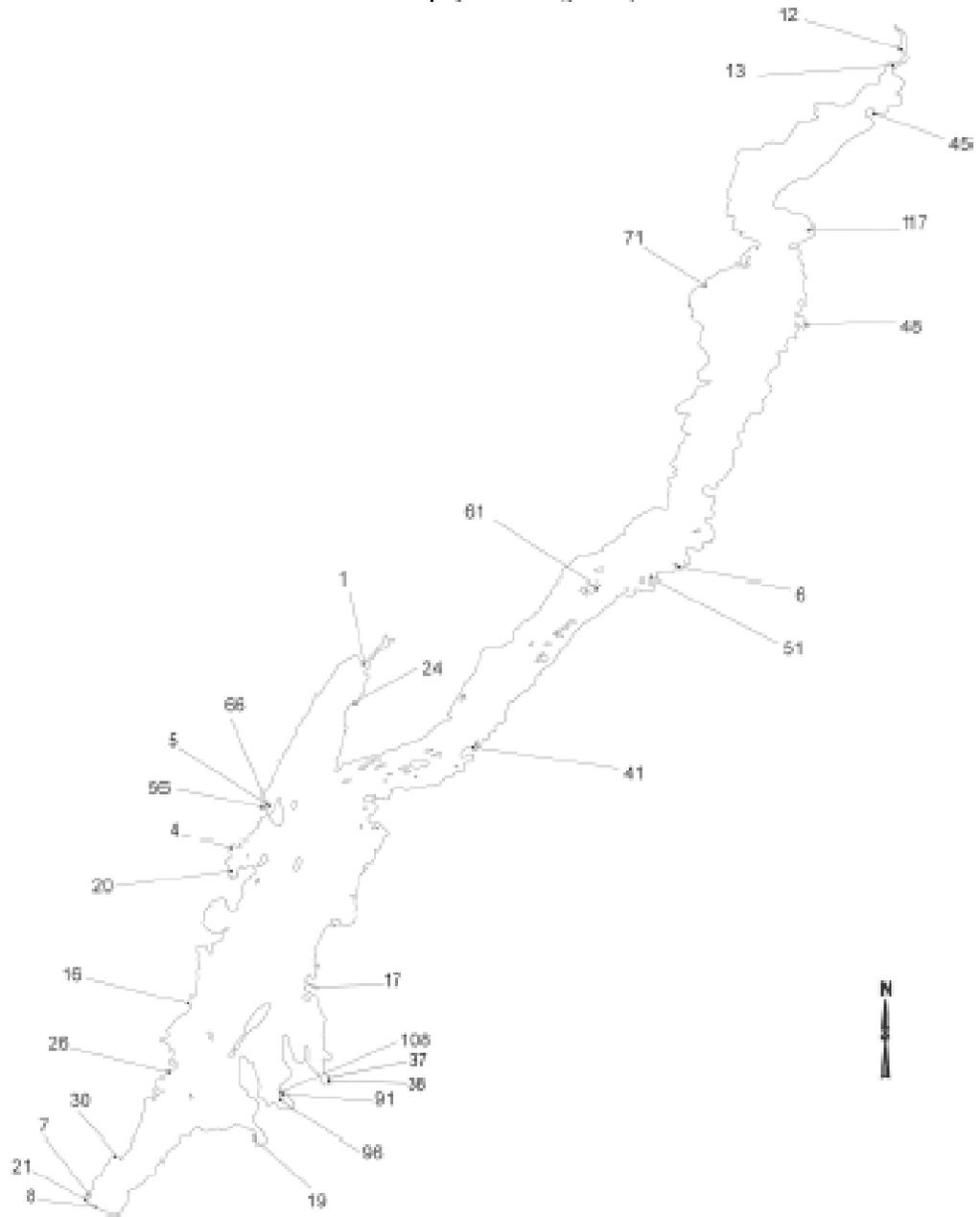
Eichler & Boylen (2001) suggests that hand harvesting is an effective control method for new, scattered sites. The findings reported by Lycott continue to support this conclusion and further show that hand harvesting can also be used at sites with moderate growth (see also Eichler et. al. 1991). This is an advantage over suction harvesting due to the amount of set-up and travel time required for the latter. Similarly, this is preferred to benthic barrier placement due to set-up and travel time as well as the cost of panels and the duration of time required for complete management of the site. Each technique would require follow-up surveys and/or hand harvesting to ensure the site remained clear. Hand harvesting does, however, have it's limitations (e.g., Boylen et. al. 1996).

Benthic barrier (Eichler et al., 1995) and suction harvesting (Eichler et al., 1993) techniques are also valuable tools for milfoil management in Lake George, particularly for sites where hand harvesting is not a viable option. As with Eichler & Boylen (2001), sites managed by these techniques in 2002-03 are referred to as *managed* rather than *cleared* because removal of all visible milfoil plants by these techniques alone is not practical.

Each year more sites are both being cleared and are found clear of milfoil while the number of new sites discovered has declined (Table 2). From this prospective progress is indeed being made toward the management of milfoil in Lake George. An attainable goal for the majority of known sites in Lake George is to clear them of milfoil by using one or more physical techniques with continued management via annual surveys and hand harvesting. New introductions and the 'seeding' of sites from existing beds within Lake George necessitates annual inspections of most, if not all, documented milfoil sites.

Reasonable progress is also being made toward the management of very large 'bed' sites. Specifically, site M-7 has been greatly reduced of milfoil growth and has been moved from the 'bed' designation to 'moderate.' With the current level of effort, progress toward the control (i.e., milfoil growth reduced to moderate or scattered densities) of bed sites will be at best one-two sites per year. Current effort levels do allow effective control (i.e., clearing by hand harvesting) of some moderate and all scattered sites. Hand harvesting is keeping pace with newly established sites. This effort has been able to clear moderate sites by hand harvesting and thus increase the total number of cleared sites each of the last two years as well as clear new sites as they are discovered (e.g., M-145 and M-146).

Figure 6. Eurasian watermilfoil sites requiring future management effort (includes some 'scattered' sites which are not suitable for physical management).



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Appendix A

Descriptions of Eurasian watermilfoil sites

Criteria used for site designations follow Eichler & Boylen (2001). Briefly, sites are designated as 'beds' when >50 percent of the total macrophyte community cover was milfoil, 'moderate' when milfoil was <50 but >10 percent cover, and 'scattered' when <10 percent of total macrophyte community was milfoil as determined by visual survey estimates.

The following site descriptions are taken largely from Eichler & Boylen (2001) and should be considered a continued site history. The most recent information will be found at the end of the description for each site.

Northwest Bay (M-1). The number of Eurasian watermilfoil plants has increased at this site since its discovery in 1986, and the bed has also increased in size to cover a substantial portion of the littoral zone. This site has fine, organic-rich bottom sediments, due to wetland runoff from Northwest Bay Brook and wetland. Slope is moderately flat, except adjacent to the navigation channel into the wetland. The once diverse native aquatic flora has become severely impacted by the development of the dense bed of Eurasian watermilfoil. Sixty plants were removed by hand harvesting in 2002, none were removed in 2003. There remains a large bed of milfoil at this site. This site is designated as a control location in the Supplemental Environmental Impact Statement.

Bolton Bay at Conger's Point (M-2). In the past, this site included a small area with moderately dense growth of milfoil plants, a nearby small dense bed, and an extensive area of low-density milfoil growth throughout this small bay. Benthic barrier material was installed over the dense bed growth at this site during 1990. This barrier was removed and relocated elsewhere in 1997. Areas of moderate and low-density milfoil growth were also harvested in 1997. When visited in 1998, only 55 plants of Eurasian watermilfoil were found and removed via hand harvesting. In 1999, hand harvesting accounted for 39 plants, indicating that continued hand harvesting is able to keep pace with milfoil growth. In 2000 and 2001, the number of milfoil plants hand-harvested continued its decline with a total of 18 and 2 plants removed, respectively. In 2002, the number of plants hand-harvested increased to 138 but declined again in 2003 with just 34 plants removed. The bottom is silt and sand with a moderately flat slope. Heavy boat traffic occurs in the adjacent open water.

Bolton Bay SW of Conger's Point (M-3). Moderately dense stands of milfoil were found among the docks of a marina, with adjacent areas of low-density plant growth. This area has heavy boat traffic both among the docks and in the adjacent open water area. Approximately 50 meters of shoreline was affected. This site was suction harvested in 1991, however some areas of milfoil growth remained. Heavy boat traffic limits diver access to this site. No management occurred here in 2000. No milfoil growth was observed at this site in 2001, 2002 or 2003.

Huddle Bay NW of Sweetbriar Is (M-4). A few scattered plants were found around the docks of a marina (low density) and commercial establishments (low to moderate density). The bottom is silty, and the slope is shallow. Curly-leaf Pondweed (*Potamogeton crispus*) was also observed here. Boat traffic is

heavy among the docks and in this small embayment. Approximately 100 m of shoreline was affected. The moderate density areas were suction harvested and the scattered plants were handharvested in 1991. No management occurred here in 2000 or 2001. An attempt was made to hand-harvest here in 2002 and a total of 13 plants were removed. This area is deemed too dangerous to have divers in the water unless management activities can be conducted outside of high traffic times. This was not possible in 2002 due to time constraints and the fact that management activities occurred between 1 July and 9 August. Likewise, in 2003 scattered plants were seen among the boats at Chic's Marina but could not be taken. Scattered milfoil plants remain at the conclusion of the 2003 season.

Sawmill Bay W shore of Green Is (M-5). Moderate density milfoil growth was found near a boat ramp for NYSDEC, and around a marine railway at an adjacent private facility. The bottom is composed of mixed silt and rubble, with numerous bottom obstructions. Boat traffic in the adjacent waterway and among the docks is heavy. The milfoil population at this site was managed via suction harvesting in the fall of 1990; however the bottom obstructions severely hampered this operation. Surveys in 2000, 2001, 2002 and 2003 noted that milfoil populations had become re-established into moderately dense growth around the docks. This population is most likely enhanced with fragments from the large bed nearby in Sawmill Bay.

Sunset Bay (M-6). The moderate density area surrounding the small bed of milfoil reported in 1989 has increased in density and merged with the small milfoil bed. A majority of this area was covered with benthic barrier in 1992 and 1993. The remainder of this small bay contains scattered plants. A small patch of scattered plants to the north of the principal milfoil area has increased to moderate density. The slope is gradual, with a silty bottom. Eurasian watermilfoil was found from 1 to 4 meters water depth with very dense milfoil growth in 2 to 3 meters depth. Substantial accumulations of silt on top of benthic barrier were observed annually from 1998 through 2003. Eurasian watermilfoil continues to spread southward along the shore, mixed with a native pondweed, *Potamogeton amplifolius*.

Shepard's Park (M-7). Substantial beds of Eurasian watermilfoil have become established to the north of the dock and along the shoreline outside the swim buoys. The milfoil beds increased in size from 1989 until 1992, and a large population of Curly-leaf Pondweed was also observed. The three beds were controlled using benthic barrier and suction harvesting in 1992. Much of the remaining area had either low-density scattered plants, or small clumps of moderate to dense growths, too small to be considered a bed. Hand harvesting removed a number of scattered plants. Sand imported for the public swimming beach was the predominant bottom sediment, but some areas of exposed silt were found at deeper depths. This site is a heavily used public beach. Additional panels(3500 ft) of benthic barrier were installed in 1996 to cover the majority of the remaining dense bed areas. In 1998, 3 moderate to large beds were observed off the northern section of the beach area, with many scattered plants along the perimeters of the beds. Future management efforts at this site are required. By 2000, the milfoil beds in this area had spread to such extent that milfoil was visible from the northern end of the beach area southward along the shore, joining with the Sheriff's Dock site (M-21) and spreading to the far side of the town docks, a condition which persisted in 2001. In 2002, 46 barrels of milfoil were suction harvested from this site. In addition, four panels of Palco® were removed from within and near the swim area in anticipation of a proposed

dredging project in and around the old pier. In 2002, milfoil was cleared starting in the northern section of the site near the swim buoys south to within 20' of the northern tip of the McDonald Pier. Suction harvesting was continued in 2003 with the removal of 47, 30-gallon barrels of milfoil.

West Brook Delta (M-8). Dense and moderately dense areas of milfoil growth extended in a semicircle from the outlet of West Brook to the western end of the cement seawall, with some low density scattered plants. Numerous Curly-leaf Pondweed plants were also found. This is a heavy use area, which is highly disturbed due to sediment deposition. Eurasian watermilfoil was found in a band from 2 to 4 meters depth, on the delta formed where West Brook enters Lake George. In 1992 and 1993 benthic barrier was installed in this area; however groundwater and surface water flow negatively affected the stability of the benthic barrier. Barrier material was also frequently damaged as a result of boat anchors. Slope is moderately steep, with sediment grading from sand in the shallows to deep organic silt beyond 5 meters. Native plant growth was also extensive. In 2001, 2002 and 2003 Eurasian watermilfoil was also observed in scattered patches around a shallow water danger buoy adjacent to the established bed. Management activities are problematic here due to high boat traffic and proximity to Steel Pier.

Million Dollar Beach (M-9). This site had a string of scattered plants between East and West Brook deltas. The plants were located on the deep edge of a public swimming beach with the majority of plants located nearer to West Brook. Sediments grade from sand on the beach, to rock and silt on the steep slope beyond the beach. The slope at this site restricts the potential growth of Eurasian watermilfoil. Hand harvesting has been conducted on a regular basis at this site with 198 plants removed to clear the site in 1996. The management here appears to have been effective, as less than 10 plants have been removed from this site in each of the last four survey years. A single milfoil plant was located and removed in 2001. No plants were found in 2002 or 2003.

East Brook Delta (M-10). There was a moderately large dense bed, which was covered with benthic barrier material in 1992-3. An area of moderate to low density scattered plants surrounded the bottom barrier material, requiring further effort to control. Barrier material was also frequently damaged as a result of boats anchoring in this area. As with West Brook Delta, the Eurasian watermilfoil was found in a band from 2 to 4 meters of depth, on the delta formed by the drainage of East Brook into Lake George. Curly-leaf Pondweed was also found at this site. Sediments grade from sand in the shallow areas, to thick organic silts in deeper areas. Native plant growth was also extensive. The site is adjacent to Million Dollar public swimming beach. In 1996, slits were cut in the mat to vent gases and the general condition of the mat was good. Several panels of benthic barrier were relocated at this site and hand harvesting conducted to complete management. Frequent maintenance visits (annual) to this location are recommended.

Hand harvesting of Eurasian watermilfoil plants and routine maintenance of the benthic barrier here appears to keep the site under control. Hand harvesting removed 189 plants here in 1997, 67 plants in 1998, 117 in 1999 and 20 in 2000. No milfoil plants were found at this location in 2001, 2002 or 2003. Twenty panels of Palco® were removed from this site in 2002. Approximately 100 pieces of rebar (weights for Palco®) were recovered and relocated to M98 in 2003.

Warner Bay, South End (M-11). The entire southern, inner bay has had very low density

scattered milfoil growth. This site description is also applicable to M-37. The slope in this area is flat and the bottom is highly organic silt. Water transparency in the bay tends to be less than average for Lake George. This site also supports Northern Milfoil, *M. sibiricum* (formerly taxonomically classified as *M. exalbescens*), so care should be taken in identifying the extent of Eurasian watermilfoil. Warner Bay is an area of intense boating activity, but does have a restrictive speed limit. This area was cleared of milfoil in 1991 through a combination of hand and suction harvesting. Scattered milfoil plants were harvested in 1993, and 1995 through 2001. Scattered milfoil growth will require continued maintenance. In 2002, twenty-seven plants were hand-harvested to clear the site (a total of 67 for 2002 including 40 from site M-37). In 2003, 40 plants were removed to clear the site.

Lake George Outlet (M-12). Several beds were identified within the outlet area in 1998, and remain largely unchanged through the 2003 survey. The survey also indicated an overall low-density of scattered plants throughout the outlet region, between the natural dam (end of lake) and the end of navigation. The highest concentration of milfoil growth is found along the east shore. Since *M. sibiricum* is also found at this site, special care is indicated in evaluating the extent of Eurasian watermilfoil. Water clarity is very poor making survey work difficult. Given the shallow, silty nature of the outlet area, it is an ideal location for the spread of Eurasian watermilfoil. No management activities have occurred here due to site conditions.

Mossy Point Boat Launch (M-13). The NYSDEC boat launch facility had dense beds around the southern docks, with moderate density areas in the launch ramp. Eurasian watermilfoil plants were also scattered at the fringes and into an adjacent wetland. The bottom becomes very rocky out from the boat launch facility, restricting the expansion of the milfoil population. The slope in this area was slight, and the bottom very silty around the dock facility and wetland. Water clarity here tends to be lower than average for Lake George. This site has heavy boat traffic due to the boat launch facility and proximity to the navigable channel to the outlet region. Benthic barrier material was installed over the milfoil bed areas at this site in 1990. Barrier removal and hand harvesting was done in the year following the barrier installation. Scattered plants were found in follow up surveys in 1996 with high-density growth on the fringes of the adjacent wetland. A small bed was observed in front of the pump-out station in 1998, and a larger bed near the mouth of the marsh, to the southeastern end of the boat launch area. Low densities of scattered plants were found within the launch area as well. Surveys in 1999-2003 did not reveal any new locations of milfoil in this area, or any notable change in size of the existing populations. Water clarity was particularly poor in 2003 reducing visibility to <1' at time of survey.

Harris Bay - Happy Family Islands (M-14). A small bed in mid-channel and numerous scattered plants in the marina were originally observed in 1988. *Myriophyllum alterniflorum*, currently considered a rare plant in New York State, was also found at this location. Slope is shallow, and bottom sediments are silty. A moderate amount of boat traffic occurs in this area as a result of the adjacent marina, but boat speed is restricted. Benthic barrier material was installed over the small bed in 1990, and a portion removed in 1993. The remainder of the benthic barrier was removed in 1997. Hand harvesting in 1997 removed 32 plants scattered over the area. No milfoil plants have been found here since 1997. In 2003 a small, isolated patch of 68 plants was removed to clear the site.

Sawmill Bay - Outflow of Finkel Brook (M-15). This was one area of moderately dense scattered plants of limited aerial extent. The slope is flat, with sediments grading from sand in the shallows to silt in deeper water. The plants were growing on the edge of the delta formed by the inflow of Finkle Brook to Lake George. All of the Eurasian watermilfoil at this site was removed as part of hand harvesting operations from 1989 to the present. No plants were found in 2003.

Middleworth Bay (M-16). Low to moderate density scattered Eurasian watermilfoil was found in both arms of this bay, in association with an unusually dense growth of native plants. The southern arm of this bay had the largest amount of milfoil. Bottom slope is flat, with a silt bottom. Curly-leaf Pondweed was observed in the north arm of the bay. The south arm of the bay was cleared of milfoil in 1991 through hand and suction harvesting. Surveys in 1995 found a large number of scattered milfoil plants in the south arm of the bay around the docks of a marina, requiring future management. In 1996, this scattered population had grown to bed density. By 1998, the milfoil in the southern arm had become a moderately sized, oval-shaped bed along the southeast shoreline, extending throughout the small marina on this side of the bay. No management occurred at this location in 2001. In 2002, a small number of plants were hand-harvested before a decision was made to use an alternate management technique (i.e., benthic barrier). This site was passed over in 2003 due to time constraints (M98 comprised the entire benthic-barrier effort in 2003), but should be managed by benthic barrier in 2004.

Echo Bay - East End (M-17). Scattered Eurasian watermilfoil was observed at this location in the 1991 survey, after not being found in 1989. The majority of plants were found at the eastern end of the bay around and adjacent to a marina. This area is unusually silty, and supports large growths of benthic filamentous algae. Some low density scattered plants were found in shallow water, in the interior portion of the bay in 1988. Plants were removed by hand harvesting in 1991, 1993, and 1995 to present, with a substantial number of plants being removed each year. *Potamogeton crispus* is also found here among the extremely diverse flora. In 2001 this site was noted as having potential for dense aquatic plant growth (Eichler & Boylen 2001). In 2002 a total of 2004 plants were hand-harvested in three days of effort. Extensive milfoil growth remains at the conclusion of 2002 season. A proposed dredging operation (by residents) for 2002 or 2003 could aid in milfoil control at this site. This site was not managed in 2003 and extensive milfoil remains.

Hague Boat Launch (M-18). The area of Eurasian watermilfoil growth is restricted to the boat slip for the boat launch, where the bottom is silty. Low-to-moderate density scattered Eurasian watermilfoil and Curly-leaf Pondweed were observed. The boat launch also supports a dense, near-nuisance growth of native plants and filamentous algae. This site may be considered suitable for suction harvesting given proper safety controls for the boat launch area. No management occurred at this site through 2001, due to the intensity of boat traffic. In 2002, 12 plants were hand-harvested to clear the site. Earlier in 2002 a dredging operation substantially reduced the milfoil density here. In 2003, 167 plants were removed to clear the site. Annual monitoring is suggested for this site.

Dunham's Bay (M-19). The inner bay has had Eurasian watermilfoil growth to 4 meters of depth. Scattered plants of low to moderate density occurred from the former bed site towards the wetland, and in shallow water throughout the inner bay. This is one location in which the LGPC installed benthic barrier in 1986 over a dense bed of milfoil. The slope is uniformly gentle, with a bottom of

predominantly silty material. Water clarity is reduced by the wetland drainage. Boat traffic is moderately heavy at this site. A moderate sized bed has developed adjacent to the matted area on the eastern side, just inside the reduced speed zone. Scattered growth of Eurasian watermilfoil to the northwest of the bridge has been removed annually via hand harvesting. Moderate density growth of milfoil is found to the west of the barrier material, with sediment buildup on the barrier supporting a number of milfoil plants as well.

Huddle Bay (M-20). Currently the largest milfoil beds in Lake George, the two beds in Huddle Bay are located along the eastern portion of the bay in water depth of from 1 to 4 meters. They are separated by an area mainly consisting of the native *Potamogeton amplifolius*. Extensive areas of moderate to low density scattered Eurasian watermilfoil plants occurred throughout the eastern half of the bay, and in deeper water (5 to 6 meters) past Hiawatha Island. The populations at this site have changed little since 1988. Slope is slight, with deep silty substrates in water depths greater than 2 meters. No management has occurred at this site since initial hand harvesting by the Lake George Park Commission in 1986.

Sheriff Dock Area (M-21). This former bed area was reduced to a zone of moderate density scattered plants, in the zone of water deeper than the benthic mats installed by the LGPC in 1986. Further expansion is restricted by depth; however a zone of dense milfoil growth at the deep margins of the benthic barrier is now evident possibly growing on accumulated silt at the margins of the barrier. Scattered and moderate density plants were found around both benthic mats in shallower waters. Inspection of the mat in 1995 revealed substantial silt deposits on the surface of the mat, particularly at the end nearest the effluent of the Sheriff's Dock storm sewer. Scattered plants were also found growing on the surface of the mats and in seams of the barrier material. The mat material was also showing signs of deterioration with large sections removed when new docks were installed. Curly-leaf Pondweed was also found at this site. Slope is moderately steep, with bottom sediments generally sand and silt. This area has extremely high traffic, but also has a restricted speed limit. Recent surveys (1999-2003) indicate a large bed of

Eurasian watermilfoil stretching from the pump station on Beach Road to the pier at Shepard's Park. 2.3 acres of benthic barrier were installed at this site in 1986.

Shadow Bay (M-22). Initial surveys in 1989 found this bay almost entirely filled by a Eurasian watermilfoil dense bed, with few scattered plants. Being a quiet, sheltered area, it is one site at which Eurasian watermilfoil flowers and fruits have been observed. Curly-leaf Pondweed was also observed. Slope is moderately flat, with bottom sediments predominantly silt. The dense bed at this site was covered with benthic barrier material in 1990. Hand harvesting has continued, on an annual basis, since the removal of the bottom barrier (1991). A large number of milfoil plants (393) were removed at this site in 1998. The repeated visits in 1998 appear to have had an influence on the population here, because in 1999 only 39 plants were removed and less than 10 have been removed annually since. No plants were found at this site in 2002. In 2003, 6 plants were removed.

Lake George Yacht Club (M-23). This site had low to moderate density scattered plants among the docks, with little or no vegetation found beyond the dock area. Curly leaf Pondweed was also observed in moderate densities. This area has heavy boat traffic. Slope is moderately steep, with variable bottom sediments. The dense milfoil growth at this site was covered with benthic barrier and the scattered plants

were hand-harvested in 1990 - 1993. Hand harvesting of this site was discontinued in 1993 and substantial regrowth has occurred. Moderate to dense growth of milfoil is now found in the swim area. In 2000, suction and hand harvesting were conducted at this location, with a significant reduction in milfoil growth. In 2001, hand harvesting reduced milfoil growth at this site with the removal of 347 milfoil plants. Maintenance via hand harvesting at this location is critical to maintaining limited milfoil growth. In 2002, a total of 89 plants were hand-harvested to clear the site. Extensive *P. crispus* growth along with fairly dense filamentous algae was noted. In 2003, a total of 199 plants were removed in two visits. By late August (after initial visit) several plants were seen growing under docked boats and throughout slips. There is extensive vegetation growth here and smaller milfoil plants were likely not visible during the first visit.

NW Bay - Bay Between Fan and Bear Point (M-24). This small bay currently has low, moderate and dense growth areas of Eurasian watermilfoil. Scattered growth of Curlyleaf Pondweed was also observed. Slope is moderately flat, with highly variable bottom sediments from rocks to silt. The bottom also has numerous logs and other bottom obstructions. All of the Eurasian watermilfoil was removed from this site as part of the 1989 and 1990 hand harvesting project. Intermittent hand-harvesting efforts since that time have not kept this site in control. By 1998, this site had become a large bed. The 2000 survey observed expansion to the north and western edges of the bed. Density levels now suggest more intensive management efforts. In 2001, surveys indicated a decline in milfoil growth at this site, with several areas of moderate density growth and scattered growth throughout this small bay. A similar status was noted for 2002 and 2003. Decline of milfoil populations in Lake George, not attributable to management efforts, are rare and additional inspections of this location are warranted. This site was not managed in 1998-2002 due, in part, to it's designation and study as a proposed site for the Sonar® Demonstration Project.

Basin Bay - North tributary (M-25). Scattered plants of Eurasian watermilfoil were found as a result of the survey, along with numerous Curly-leaf Pondweed plants. Plants were found on the delta formed by the inflow of an unnamed brook. The slope was moderately flat out to 4 meters depth, at which point the slope increased greatly. Bottom sediments graded from sand to silt. Eurasian watermilfoil was removed from this site as part of the 1989-90 hand-harvesting project. Harvesting continued through 2003, maintaining milfoil populations at a low level. In 1997, 629 plants were removed with an additional 63 plants removed in 1998. Hand-harvesting techniques appear to have been effective here with 31 plants removed in 1999, 3 in 2000 and 10 in 2001. No plants were found in 2002 or 2003.

Bay SW of Cannon Point (M-26). This is a small bay with a moderate size bed of Eurasian watermilfoil and an additional area of moderate density scattered plants that is substantially larger than the area of the bed. An abundant population of Curly-leaf Pondweed was also found. A few individuals of *M. alterniflorum* were also found. Slope is moderately flat, with a silty bottom. Some boat traffic occurs in this area as a result of a sailboat mooring area, and docks for a condominium complex constitute the activities using this site. Benthic barrier material was installed over the milfoil bed at this site in 1990 and limited suction harvesting conducted in a portion of the moderate density areas. Barrier was removed in 1991 and without maintenance activities, substantial regrowth of *P. crispus* and

Eurasian watermilfoil has occurred since that time. This site currently supports a large area of dense growth of Eurasian watermilfoil. No management has occurred here since 1999.

Bay NW of Cooper Point (M-27). Scattered plants were found near the docks of a marina, at the north end of the bay and in the southwest corner of the bay adjacent to the seawall. An area of low growing moderately dense plants was also observed in the wetlands at the northern end. Eurasian watermilfoil was removed from this site as part of the 1989, 1990, 1993, 1995 and 1996 hand harvesting projects. The short stature of the plants in the wetland area and the shallow depth (0.5 meters) make hand harvesting of plants in this location difficult. A small area of dense growth was observed in 1996, and continued to flourish through 1999. Intensive hand harvesting in 2000 removed 440 milfoil plants, effectively clearing this site of milfoil. A single milfoil plant was removed in 2001. Slope is flat, and the bottom is silty. In 2002 plant count had returned to previous levels; 386 plants were removed to clear the site. In 2003, 134 plants were removed to clear the site.

Bay S of Hearthstone (M-28). The only Eurasian watermilfoil shoot found was removed for a voucher specimen in 1987 during the tributary survey, just to the north of the beach area. No Eurasian watermilfoil has been found since that date. The bottom was moderately steep, with sediments grading from sand to silt.

Bay NE of Tea Is (M-29). Moderate density Eurasian watermilfoil is found near and to the north of the tributary outlet. A few low-density scattered Eurasian watermilfoil plants were also found among an extensive area of Curly-leaf Pondweed. Slope is moderately steep, with sediments grading from sand to silt. Suction harvesting was used to manage the milfoil at this site in 1990, with hand harvesting conducted in 1991 and 1992. No maintenance occurred between 1992 and 1995. Moderate density growth required intensive hand harvesting in 1996. The site was cleared of 25 plants via hand harvesting in 1997, 17 in 1998, 6 in 1999 and none were found in 2000. A single milfoil plant was removed in 2001, none were found in 2002 or 2003.

North Tea Is Bay (M-30). A large area of moderate to high-density plants was found around the periphery of this bay, in 1 to 4 meters of water. A dense bed had formed in 2-3 meters water depth. A significant amount of Curly-leaf Pondweed was also present. The bottom is generally silty with a flat slope. No management has occurred at this site; however the large area of dense milfoil growth suggests an intensive management strategy. If sufficient benthic barrier can be obtained (e.g., ca. one acre) this bed can likely be covered. However, due to high boat traffic the barrier would be expected to sustain some damage by anchored boats.

English Brook (M-31). A limited area of low density scattered Eurasian watermilfoil plants were found south of the delta. However, all of the Eurasian watermilfoil was removed from this site as part of the 1989 and 1990 hand harvesting projects. In 1993, scattered milfoil plants were cleared from this area, however, a small area of moderate density growth of milfoil plants was found at this time. Sediments grade from sand to silt, with a moderately flat slope. This area is in a zone of heavy boat traffic. From 1995 through 1996, the scattered plants were removed by hand harvesting, however the moderate density area was only reduced in density. Hand harvesting removed 84 plants to clear this site in 1997.

No plants were found here between 1998 and 2001. In 2002, five plants were removed by hand-harvesting to clear the site. In 2003 no plants were found.

Crosbyside Culvert (M-32). A single Eurasian watermilfoil shoot was harvested for a voucher specimen in 1987. No Eurasian watermilfoil was found in 1989 or 1990. During the 1991 tributary survey scattered milfoil plants were discovered at this site and harvested. The plants were growing to 5m depth directly in front of Usher's Park beach and in front of a white boathouse to the south of the beach. Twelve milfoil plants were found and removed in 1995 and an additional four removed in 1996. No milfoil plants have been found here since. The slope is moderately steep, and sediment is sand and silt.

South of Plum Point (M-33). The bottom is predominantly sand and cobble with a moderately flat slope. Eurasian watermilfoil plants were removed for voucher specimens in 1987; none had been sighted since then through 2002. In 2003 five plants were cleared from the site.

Bay Between Plum Point and Woods Point (M-34). The slope is moderately steep, with a sandy bottom. Low density scattered Eurasian watermilfoil plants along the shore north of the stream in 1987 were removed for voucher specimens. Eurasian watermilfoil was not sighted in 1989 or 1990, but 2 additional plants were removed during the 1993 and 1995 surveys. No milfoil was found at this site in 1996 or 1997, and one plant was removed in 1998, and 2 in 1999. No milfoil was found at this site in 2000 or 2001. In 2002, two plants were removed to clear the site. No plants were found in 2003.

NW Bay - Bay South of Fan Point (M-35). All Eurasian watermilfoil stems found were harvested for voucher specimens in 1987. No plants were found in 1989; however, a single plant was found and removed as a voucher specimen in 1990, and 2 plants were removed in 1992. No milfoil was observed at this site in 1995; however, a single plant was found and removed in 1996 as well as in 1997. Four milfoil plants were harvested in 1998, 2 in 1999 and none were found here in 2000, 2001 or 2002. Two plants were found in 2003. This steep and rocky site is an unlikely Eurasian watermilfoil site.

Bay E of Dark Bay (M-36). An area of low density scattered Eurasian watermilfoil plants were found on the eastern side of the bay in 1988. In 1989, a small bed within a boat slip, as well as a few scattered plants was observed. This steep slope site has a sandy/rocky bottom. The scattered plants at this site were removed by hand harvesting in 1989 and 1990. The small bed was covered with benthic barrier in 1990. Hand harvesting at this site has continued since the removal of the benthic barrier with only limited regrowth observed until 1997, when a substantial number of plants (190) were removed from the boat slip. Moderate growth occurred in 1998 as well with 129 plants removed, almost entirely from the boat slip. Ninety-six plants were removed from the boat slip area in 1999 and 35 in 2000. No milfoil was found at this site in 2001. In 2002 and 2003, 117 and 223 plants respectively were hand-harvested to clear the site.

South Warner Bay culvert (M-37). [See site M-11].

North Warner Bay Culvert (M-38). In 1990 this site was suction harvested, and in 1991 the area was hand harvested. Due to the dense growth of native macrophytes and the presence of native watermilfoil,

not all of the Eurasian watermilfoil in the area was removed. In 1992 this site was surveyed and an area of moderately scattered plants was discovered. In 1993, this site was upgraded to its current description of moderate density growth of Eurasian watermilfoil. Continued hand harvesting from 1997 to present has cleared the milfoil plants in this area. The 2003 survey found extensive Eurasian watermilfoil growth beyond that feasible for hand harvesting. Either plants were overlooked in past surveys or this site has drastically increased in the abundance and distribution of milfoil over the course of the past year. The slope at this site is flat and the sediment is deep, soft silt. Hand harvesting is no longer a viable management option here and the plants are too far spread and intermixed with native plants for benthic barrier placement. Substrate (deep silt) precludes the use suction harvesting. In short, physical management appears to be impractical.

South Katskill Bay (M-39). Eurasian watermilfoil was found in 1 meter of depth, behind a boathouse in an area of lily pads on the southern shore. Slope is moderately flat, with a mixture of sand and silt substrates. All of the Eurasian watermilfoil was removed from this site as part of the 1989 and 1990 hand harvesting project. Several plants have been taken from this site in subsequent years although none were found in 1995 and very few plants have been removed since that time, with 12 removed in 1999. A single milfoil plant was removed from this site in the 2000 survey. Twenty-seven milfoil plants were removed by hand harvesting in 2001 and 36 were removed in 2002. In 2003, 22 plants were harvested.

Bay South of Red Rock Bay (M-40). There was a small area of low density scattered Eurasian watermilfoil plants. A moderately dense area of Curly-leaf Pondweed was also found amongst a highly diverse community of native plants. Slope is flat, with an organic silt substrate. The Eurasian watermilfoil was removed from this site as part of the 1989 and 1990 hand harvesting project. Hand harvesting has continued during the recent revisits with three milfoil plants removed in 1995 and 5 in 1996 and 1997. The milfoil population appears to have surged here in 1998, with 151 plants removed to clear the area, 105 in 1999, 93 in 2000, 32 in 2001 and 4 in 2002. This patch was found near the northeastern point at the base of a rock pile. No plants were found in 2003.

Paradise Bay (M-41). There was a moderate-sized area of low-density scattered plants in the northern arm of the bay. Eurasian watermilfoil was found at depths of from 1 to 4 meters. The native plant community appears disturbed. This area receives heavy boat traffic. Slope is moderately flat, with a silty substrate. Eurasian watermilfoil was removed from this site as part of the 1989 and 1990 hand harvesting project. Hand harvesting continued at this site until 1992. Since 1993, no maintenance has occurred and growth of milfoil has grown to large areas of heavy to moderate bed growth on the southeast shore. Moderate to scattered density of plants on the southwestern shore are also found within this enclosed bay.

Bolton Bay (M-42). A small area of low density scattered Eurasian watermilfoil plants had been found at this site, but all the plants were collected for voucher specimens in 1987. No Eurasian watermilfoil was observed in 1989; however, several hundred plants were removed by hand harvesting 1993. In 1995, 251 milfoil plants were removed to clear this location. An additional 40 plants were removed in 1996. By 1997, the population had increased to 210 hand harvested plants. In 1998, a small bed of moderate density of milfoil plants was found on the southern tip of the point south of the Bixby

boathouse. A total of 1,148 plants were hand harvested from this new location, in 2-4 meters of water on a steep slope of soft silt, amongst large boulders and deadfalls. This site is adjacent to a small tributary south of Bixby Point. The 1999 survey removed 114 plants, primarily from this new location. This site has remained clear of milfoil since 2000.

Bolton Bay (M-43). A small area of low-density scattered Eurasian watermilfoil plants was found around a submerged dock crib at the foot of Mohican Road. The sediment here is a mixture of rock and silt, with sand in shallow areas, the slope is moderately flat. Eurasian watermilfoil was removed from this site as part of the 1989 and 1990 hand harvesting project. In 1993, over 300 milfoil plants were removed by hand harvesting at this site. In 1995, all milfoil plants found (58) were removed. In 1996, an additional 91 milfoil plants were harvested to clear this location. In 1997, 67 milfoil plants were found scattered across the bay. A total of 94 milfoil plants were removed in 1998, and 93 in 1999. Two milfoil plants were removed from this location in 2000 and 2001. No plants were found in 2002 or 2003.

Bolton Bay - NE of Bridge (M-44). This site was found in 1988; the area has a small dense bed. The bottom is silty, grading to sand in the boat channel. The site experiences heavy boat traffic under the adjacent bridge. The milfoil at this site was managed via suction harvesting in 1990. Hand harvesting was conducted in 1992, however moderately dense growth of Eurasian watermilfoil was reported for this site in 1993. In 1995, this site remained a small moderately dense growth area of milfoil. Suction harvesting was employed to clear this site in 1996, with hand harvesting included as a follow-up measure. A total of 117 plants were hand harvested to clear the site in 1997. When visited in 1998, only 4 plants were found and removed, and 2 in 1999 and 2000. Five milfoil plants were harvested in 2001 and another 8 in 2002. None were found in 2003.

Tiroga Point Channel (M-45). Scattered Eurasian watermilfoil plants were observed throughout the channel, increasing to a moderate density near the southern end along with *M. verticillatum*, a native milfoil, in this shallow man-made channel, draining a wetland. The depth was 1-2 meters, with a bottom consisting of organic silt. No management has occurred at this site. Water clarity and quality in this channel is much poorer than the norm for Lake George and precludes physical management techniques.

Leotine Island (M-46). A few Eurasian watermilfoil plants were found on the reef to the east of Leotine Island in 1989, and all plants were removed. In 1990, five plants were found along the shoreline near the southern end of the reef. The plants were removed as voucher specimens. In 1993, 255 plants were removed by hand from this site. A small number (19) of milfoil plants were found and removed in 1995. The slope is moderately steep, with a rocky bottom. In 1996, several small dense patches of milfoil were found and removed from areas adjacent to anchors for navigation markers on this reef. Hand harvesting in 1997 removed nearly 400 plants, but the population was only reduced. The survey in 1998 found a small dense bed near the southern navigation marker, and hand harvesting removed nearly 650 plants scattered throughout the rest of that rocky area. The 1999 survey removed 122 plants from the outer perimeter of the bed and northward along the shoal. In 2000 and 2001, a combination of benthic barrier, suction and hand harvesting was employed at this location. A total of 5425 ft² of Palco® Pond Liner was

installed in 2000, and 1575 ft² of Palco® Pond Liner in 2001. In 2002 a total of 1020 plants were hand-harvested at this site. In 2003, 3253 plants were hand-harvested and all benthic barrier panels were removed to clear this site for the first time.

Smith Bay (M-47). In 1988, a single plant of Eurasian watermilfoil was found and removed from this moderately sloping, silty bay. Moderately dense Curly-leaf Pondweed was found in 1989, but no Eurasian watermilfoil was observed. In 1990, a small area of moderate density growth of milfoil was observed with an outlying area of scattered plants. These plants were in depths of 3 to 4 meters. The milfoil was managed at this site in 1990 with suction harvesting. During follow up visits in 1993 and 1995, hand harvesting removed 33 and 157 milfoil plants, respectively. In 1996, 176 milfoil plants were removed, primarily along the southern shore of the bay in an area remote from that suction harvested in 1990. The 267 milfoil plants removed in 1997 and 255 in 1998 were scattered near the base of a steep drop off on the southeastern shore of the bay, about 5 meters deep. A few plants were also removed along the opposite shore on the northern side of the bay. A total of 127 plants were removed in 1999 and 142 in 2000, roughly from the same areas as described in 1998. In 2001, a total of 76 milfoil plants were removed from this site and in 2002, 29 plants were hand-harvested. Only two plants were found in 2003. There is a very diverse population of native plants here, and heavy filamentous algae growth on the southern side of the bay.

Gull Bay (M-48). Numerous low-density scattered Eurasian watermilfoil plants were found off of the stream adjacent to the public beach in this bay. Curly-leaf Pondweed was also found at this location. During revisits to this site a small bed of Eurasian watermilfoil was found at the end of a “T” dock. The slope was moderately flat, the bottom grading from sand in the shallows to silt past 3 meters in depth. The Eurasian watermilfoil was managed at this site as part of the 1989 hand-harvesting project. In 1990, both hand and suction harvesting were used for plant management. A small moderate density patch and large area of scattered milfoil growth was observed in 1995. In 1997, three large areas of dense growth were observed. Two of these were near the speed restriction buoys at the mouth of the bay. The remaining bed was centrally located in the bay, though not near the area that was suction harvested in 1990. There appears to be a healthy *Potamogeton* population existing here as well. The 1999 survey removed 20 scattered plants from the mouth of a tributary at the foot of the bay, just to the north of the swim area. Sketches were drawn of the three existing beds in the central portion of the bay in 2000 and 2001. No management occurred here in 2002 or 2003.

South of Burnt Point (M-49). A single specimen of Eurasian watermilfoil was found, and collected as a voucher specimen, in 1988. No additional Eurasian watermilfoil has been found since 1989. The slope was moderate at this site, with a rocky bottom.

Clark Hollow Bay Brook (M-50). Scattered Eurasian watermilfoil plants were found in 2-3 meters depth parallel to the shoreline in 1989. The slope is moderately flat, with a bottom grading from sand in shallow water to silt in deeper water. All of the Eurasian watermilfoil was removed from this site as part of the 1989 and 1990 hand harvesting project, and during subsequent revisits. Five milfoil plants were removed in 1997. In 1998 a small patch of moderate density was found near a boathouse on the northern

side, approximately 4 meters deep. A total of 191 milfoil plants were hand harvested to clear the site. In 1999, a small patch of milfoil was discovered off in deeper water to the north of the original location, thus 136 plants were harvested, but the site was not cleared at the completion of the survey. A small bed of milfoil was found 100 meters to the north of the current location in 2000. Limited hand harvesting (174 plants removed) was conducted. In 2001, 4375 ft of Palco® Pond Liner was installed. Significant future management efforts are necessary. In 2002, seventeen scattered plants were handharvested from the southern reaches of this site. In addition, existing benthic barrier was maintained and nine panels (4500 ft) of Palco® were installed adjacent to existing mats. In 2003, a single panel of Palco® was placed and 250 plants were hand harvested.

Eichlerville Bay (M-51). Moderate and low-density Eurasian watermilfoil plants were found at this site. The majority of plants were in two areas along the outer fringe of the delta, in depths of 3-4 meters. The bottom slope was gradual and sediments consisted mainly of silt with large amounts of detritus. Milfoil at this site was managed via suction harvesting in 1990, and hand harvesting in 1991 and 1992. Since that time, limited maintenance has occurred and the milfoil populations are similar to those observed in 1989, with an extensive area of dense growth of milfoil observed at the deep margin of the littoral zone.

Rogers Rock Park Beach (M-52). Low density scattered Eurasian watermilfoil plants were found along the boat mooring line at the park, adjacent to the public swimming beach, and around the boat launch ramp. The slope at this site was flat, with a predominantly sandy substrate. The plants were restricted to depths of 1-2 meters. All of the Eurasian watermilfoil was removed from this site as part of the 1989 and 1990 hand harvesting project. No milfoil plants have been found at this site since that time.

Southwest Tongue Mountain [Clay Bay] (M-53). Numerous low-density scattered Eurasian watermilfoil plants are annually found in this small bay immediately to the south of the first-named West Tongue Mountain site (M-24). The bottom is composed of clay and silt surrounding numerous exposed boulders. Water clarity is unusually poor due to an eroding clay bank at this location. Slope is moderately flat. Eurasian watermilfoil has been removed from this site on an annual basis since 1989, with a minimal number of plants found and removed since that time. No milfoil was found at this location in 2001. Seven plants were removed in 2002 and a single plant in 2003 to clear the site.

Cooks Bay, Hulett's Landing (M-54). Nine milfoil plants were removed from this site in 1993, and a single Eurasian watermilfoil plant was found and collected in 1990. No Eurasian watermilfoil was found at this site in 1989. All milfoil plants were found in the northeast shore of the bay near a small tributary. The slope is gradual with sediment predominantly sand and silt. In 1995, 4 milfoil plants were found and removed. No Eurasian watermilfoil was found in 1996 or 1997. Four plants were removed near a red roof boathouse on the north side of the bay in 1998, and a single plant was found here in 1999. No milfoil was present at this location in 2000, 2001, 2002 or 2003.

Indian Bay, Hulett's Landing (M-55). Two Eurasian watermilfoil plants were found by a local resident, and sent to the Fresh Water Institute for identification in 1988. Slope in this bay is gradual with a silt/sand bottom adjacent to the tributary with a highly diverse native plant community. No Eurasian watermilfoil had been found since 1988 until 1998 when a single plant was removed, and an additional 4 in 1999. No milfoil has been found since 1999.

South Sawmill Bay (M-56). A large dense bed of Eurasian watermilfoil was found southeast of Veteran's Memorial Park in the middle of Sawmill Bay, in 3-5 meters water depth. Adjacent areas of moderately dense and low-density scattered plants were also observed. Benthic barrier was installed in both 1991 and 1992; however considerable amounts of milfoil remain in the area predominantly to the east and north of the matted zone. In 1997 through 2001, barrier at this location was inspected and found to be in good condition with small quantities of silt present. The majority of benthic barrier material installed in 2001 (5950 ft²) was removed from this location.

South End, Green Island (M-57). Moderate to bed density Eurasian watermilfoil was found within the dock complex at the extreme south end of Green Island. Water depth within the dock area is 2-3 meters, with gradually sloping bottom and soft silty sediments. Numerous obstructions including pipes and old pieces of dock cribbing were found at this site. The milfoil at this site was managed via suction harvesting in 1990. By 1993, the area that was harvested had returned to bed density, and inside the east crib dock a small, new area of moderately dense milfoil has been discovered. This condition was observed in 1995. In 1996, suction harvesting and hand harvesting were used to manage this location. Annual maintenance is recommended. A total of 289 milfoil plants were hand harvested in 1997. Site inspections in 2000, 2001 and 2002 produced no milfoil. In 2003 a single plant was found.

Silver Bay (M-58). A large number of scattered Eurasian watermilfoil plants were found within the dock and boathouse complex in Silver Bay in 1990, along with a few individuals of Curly-leaf Pondweed. Water depth in this area ranged from 1 to 2 meters. The sediment in this area is sand to clay with a gradually sloping bottom. Milfoil was removed from this area by hand harvesting in 1991. In 1995 and 1996, a small bed of milfoil and a large area of scattered plants were observed at this location. A moderate density growth of milfoil has been observed here on a yearly basis since that time. Intense recreational use and shallow water depth limits management options at this location. In 2002 a dense growth of filamentous algae was noted. All 181 milfoil plants encountered were hand-harvested to clear the site. In 2003 an additional 71 plants were found and removed.

Hondah Cottages (M-59). Approximately 550 low-density scattered Eurasian watermilfoil plants were found and removed from among the docks south of the Veteran's Memorial Park beach in 1993. Sediments in this area were sand and silt and the bottom slope is gradual. There is a high density of native plants located here. Boat traffic in this area is high. In 1995, 259 milfoil plants were removed. In 1996, 283 milfoil plants were removed. In 1997, 407 milfoil plants were removed via hand harvesting and 344 in 1998. The 1999 survey removed 105 plants and 96 milfoil plants were removed in 2000. A total of 10 milfoil plants were removed from this location in 2001, 3 were taken in 2002, and one in 2003. A nearby bed within Sawmill bay provides ample fragments to re-colonize this site on an annual basis.

Camp Andrew Bay (M-60). Moderate and low-density Eurasian watermilfoil plants were observed in two distinct areas at this location in 1989. Milfoil was found in depths of from 2-3 meters. The bottom sediments are silt and the slope is gradual. Eurasian watermilfoil was removed from this area by suction harvesting in 1990, and hand harvested in 1991. In both 1992 and 1993 an area of moderately dense milfoil was observed at this site. In 1995, a bed of milfoil and larger area of moderate density growth

was observed in this bay. This condition persisted through 1999, and a second smaller bed was found to the north of the original one. In 2000, benthic barrier was installed (2500 ft²), and both suction and hand harvesting were conducted to return this location to a maintenance level. In 2001, suction and hand harvesting was employed to complete management of this site. In 2002, 137 plants were removed. In 2003, 65 plants were removed along with all benthic barrier panels.

Moonlight Bay, Harbor Island (M-61). An area of dense Eurasian watermilfoil growth remains at this site, along with an extensive area of scattered low-density plants. The dense area is near a beaver lodge in the southern end of this small bay. Numerous small milfoil plants were observed growing in the edges of the beaver lodge, making management of this population difficult. Sediments in the bay consisted of clay and the bottom slope was moderate. Milfoil was managed in this area by suction harvesting in 1990 and hand harvesting in 1991. No management occurred at this location between 1992 and 2002 because it was designated as a control site for the proposed Sonar® treatment program.

Marine Village (M-62). A small number of scattered Eurasian watermilfoil plants were found among the docks at this site. Bottom sediments were sandy and slope was gradual. The plants were removed by hand harvesting in 1990, 1991, 1993, and 1995 through 1998. None were found here in 1999 or 2000. Two milfoil plants were harvested from this location in 2001. None were found in 2002 or 2003.

South of Agnes Island (M-63). In 1989, approximately 25 Eurasian watermilfoil plants were found near submerged dock cribs at this northern basin tributary site. Surrounding sediments are sand and clay; however, silt has accumulated between the dock cribs. Hand harvesting has occurred here every year since 1990. One Eurasian watermilfoil plant was removed from this location by hand harvesting in 1993. No milfoil plants were observed in 1995 and one plant was removed in 1996. The site was cleared with the removal of 24 plants in 1997, and 19 in 1998. A total of 40 Eurasian watermilfoil plants were harvested from this site in 1999, 5 in 2000 and 1 in 2001 and 2002. In 2003, 3 plants were removed.

Three Brothers Island (M-64). Few scattered plants of Eurasian watermilfoil were found along the western side of these islands within a small area of lily pads. Sediments are sandy to boulders with a moderate slope. All plants were hand-harvested in 1993 through 1999. A single milfoil plant was removed in 2000. No milfoil was found at this site in 2001. In 2002, 36 plants were removed by hand-harvesting in ca. 3 meters of water. In 2003, 27 plants were removed from the same location.

West of Three Brothers Island (M-65). Approximately 5 plants of Eurasian watermilfoil were found at the docking facility for Three Brothers Island in 1989. No milfoil has been found at this site since 1989.

North Sawmill Bay (M-66). A large area of moderate-density Eurasian watermilfoil plants were found clumped along the western speed and hazard buoys at the north end of Sawmill Bay. Depth of this population was 4-5 meters. Eurasian watermilfoil populations now rim the entire Sawmill Bay area. A portion of the milfoil at this site was covered with benthic barrier in 1990. The barrier positioned in 1990 remains in place at this time. Milfoil now surrounds the barrier at this site.

Bluff Head Creek T-8 (M-67). Two Eurasian watermilfoil plants were found in 1990 at this northern basin tributary site. Surrounding sediments are sand and clay however silt has accumulated between the dock cribs. Both Eurasian watermilfoil plants were removed from this location for voucher specimens in 1990. A single milfoil plant was removed during the 1993 site revisit and two plants were removed in 1995. In 1996, 18 milfoil plants were removed. One milfoil plant was removed in 1997, 2 in 1998, 3 in 1999, 2 in 2000 and 4 in 2001. Four plants were removed in 2002. No plants were found in 2003.

Rock Dunder Island (M-68). Eight scattered plants and a number of fragments of Eurasian watermilfoil were found on the north side of the tributary in 1993. Sediments are sand and clay with a moderate slope. No Eurasian watermilfoil plants were found in 1995. In 1996, 9 milfoil plants were found and removed. In 1997, 37 plants were found scattered along the base of the drop-off on the southeastern side of the island. A total of 59 plants were removed from this same location in 1998. The 1999 survey found 21 plants here, mostly along the southeast side of the island. An additional 5 milfoil plants were found in 2000. No milfoil was found at this site in 2001. Thirteen plants were handharvested in 2002. A single plant was found in 2003.

Kitchal Bay (M-69). Four Eurasian watermilfoil plants were found and removed during the 1991 survey. All plants were found between two covered boathouses on the east end of the bay. The slope is gradual to moderate and the sediment consists of a mixture of clay and sand at this site. Milfoil had not been recorded at this site until one plant was found and removed in 1997. No milfoil has been found here since that time.

West Halfway Island (M-70). A single Eurasian watermilfoil plant was found and removed as a voucher specimen during the 1990 Tributary Survey. The following year four more plants were removed. A minimal number of plants have been removed from this site since that time. No milfoil was found at this site in 2001 through 2003.

Hague Brook (M-71). Two Eurasian watermilfoil plants were found and removed as voucher specimens in 1990. Later in the 1990 season, a number of Eurasian watermilfoil plants were observed at the outer edge of the delta near the pin buoys. This site was upgraded to a bed in 1991. A large dense bed of Eurasian watermilfoil now extends along the outer edge of the delta in water depth of from 2 to 5 meters. Sediments at this site are sandy on the delta grading to silt at the edges of the delta. The slope on the delta is gradual with a relatively sharp drop-off at the edge. No management efforts have been conducted to date. This site is relatively large, but is suitable for suction harvesting.

South Cooks Bay (M-72). This site is located at the south edge of the bathing beach at Rogers Rock State Park, adjacent to the mouth of a small tributary. Slope at this site is gradual with sediments of sand and silt. A single Eurasian watermilfoil plant was found in 1990 and 1991; both were removed as voucher specimens. An additional four plants were removed during the 1993 Tributary Survey. In 1995, 27 milfoil plants were removed. A single milfoil plant was removed in 1996. In 1997, a total of nine plants were harvested. During the 1998 survey, one plant was found and removed. A total of 43 plants were removed from this site in 1999 and none were found in 2000 or 2001. In 2002 a total of 12 plants were found. In 2003, 3 plants were removed.

Tributary in Dark Bay (M-73). Nine scattered Eurasian watermilfoil plants were hand harvested adjacent to a white boathouse north of the tributary in this bay during the 1993 survey. In 1995, 53 milfoil plants were found and harvested from this site. In 1996, an additional 21 milfoil plants were removed. In 1997, only five plants were found and removed from this site. The number increased to 15 when this site was visited in 1998, 14 plants were removed in 1999, 13 in 2000 and 4 in 2001. In 2002, 189 plants were hand-harvested at this site. In 2003, 35 plants were removed. Sediments are sand and rock with steep slopes.

Point North of Agnes Island (M-74). Four Eurasian watermilfoil plants were found and removed as voucher specimens after receiving a letter in 1990 from a resident describing the location. Seven plants were removed during the 1993 survey. The slope is gradual near shore and moderate beyond a depth of 4 meters. Sediments are silt and sand. No plants have been observed at this site since 1995. In 2002 a moderately dense bed was cleared by hand-harvesting at this site. In 2003, 59 plants were cleared from this site.

Bell Point (M-75). An area of moderate density milfoil was located within the dock area at Bell Point following a description of the area by a local resident. The slope in this area is steep with soft sediments at the south edge of the docks and bedrock at the north. Numerous obstructions are present on the bottom in this area. Hand harvesting removed 144 plants at this site in 1995, with an additional 385 milfoil plants removed in 1996. Extensive management was done on this site in 1997. A total of 655 plants were hand harvested from inside the dock area before suction harvesting was attempted later in the season. Unfortunately the site could not be cleared due to a malfunction with the harvesting equipment, and approximately 1/3 of the milfoil population was removed. One 30-gallon can of Eurasian watermilfoil was hand harvested to clear milfoil from this site in 1998. It was not suction harvested due to the condition of the existing plants, many of which were low growing, scattered, and did not appear healthy. The 1999 survey found this site to be much improved from the previous year, as 146 plants were removed, and the site was designated as cleared of milfoil for the first time since the initial discovery in 1987. In 2000, 196 milfoil plants were removed to clear this site. A total of 650 milfoil plants were harvested from this site in 2001. In 2002 a total of 776 plants were hand-harvested to clear the site. Extensive *P. crispus* growth was noted at that time. In 2003, 392 plants were cleared from this site.

South Shelving Rock Point (M-76). An area of scattered Eurasian watermilfoil plants adjacent to a dock on the south side of the point was hand harvested in 1993. In 1996, the density in this area had increased to moderate. The slope of the bottom in this area is gradual and the sediment is sandy. A small section of benthic barrier may be appropriate for this location. This site was originally designated for suction harvesting in 1997, but due to equipment failure, a “raking” technique was applied. This technique was somewhat effective. In 1998, this site was cleared via suction harvesting and hand harvesting. A total of 2, 30-gallon barrels of Eurasian watermilfoil were removed. The 1999 survey revealed that the milfoil has an established presence, as several attempts to clear this site via hand harvesting failed. A total of 489 plants were removed, and the site was merely reduced. A more intensive management strategy was utilized in 2000 with 350 ft² of benthic barrier installed. In 2001, the barrier was removed and 30 milfoil plants removed by hand harvesting to complete management at this location. In 2002, only 13 plants were found and removed suggesting previous management efforts

were highly effective at this site. In 2003, 34 plants were removed from a small patch under the bow of a boat at the private dock. *P. crispus* is common here.

Walker Point (M-77). An area of scattered milfoil plants was found north of the point and stretched to the boathouses of the Loines estate. The slope in this area was steep; the sediments were soft silt and cobble. All plants were found 1 to 4 meters in depth and were removed during 1993. No milfoil had been found at this site until the 1998 survey, when 19 plants were removed. These plants were found around the boathouse of the Loines estate, in a similar locale to previously existing populations. Dense growth of the native pondweed *Potamogeton foliosus* was also noted. None were found here in 1999 or 2000. A single milfoil plant was removed in 2001 and 2002. In 2003 no plants were found.

Bay North of West Tongue Mountain (M-78). This site is approximately 0.5 km north of the West Tongue Mountain site. The milfoil was found growing among a pair of fallen trees just off shore. The slope at this site is moderately steep, and the sediments consisted of sand, gravel, and silt. Fewer than 10 plants were removed from this area in 1992, 1993 and 1995. Eighteen milfoil plants were removed in 1996. In 1997, a moderately dense grouping of 405 milfoil plants were found and removed via hand harvesting on the southern side of the bay, on the edge of a very steep drop off. Eighty plants were removed by hand harvesting in 1998, however this site was not cleared. A large area of moderate density growth of milfoil remains to the south of the point. This site was suction harvested in the summer of 1999, and 1 barrel of milfoil was removed.

Follow-ups with hand harvesting cleared this site of milfoil. Intensive hand harvesting in 2000 removed 660 milfoil plants to clean this location. A total of 146 milfoil plants were removed in 2001, 288 in 2002 and 67 in 2003 to clear this site.

Shore South of Bear Point (M-79). The site is approximately 0.5 km south of Bear Point. This site had 2 milfoil plants at the base of a fallen tree in 1993. The slope was very steep, and the plants were located on a small shelf in soft silt. No milfoil was found in 1995. In 1996, five milfoil plants were harvested, and three in 1997. The 1998 survey did not reveal any milfoil plants present here. Ten plants were removed in 1999. No milfoil was found at this site in 2000. Eight milfoil plants were harvested in 2001, 16 in 2002 and a single plant in 2003.

Bay South of Bear Point (M-80). An area of widely scattered milfoil plants was found in this bay. The site was cleared of 15 plants at 1 to 3 meters in depth in 1993. In 1995, one milfoil plant was found with an addition two milfoil plants removed in 1996 and 1997. None were found here in 1998. Thirty-seven plants were removed to clear this site in 1999 and 2 in 2000. No milfoil was found at this site in 2001. Twenty-nine plants were located and removed in 2002 and four in 2003. The slope was gradual; the sediment was a mixture of wood chips and silt.

Butternut Brook (M-81). This site was located south of Point Comfort at the mouth of Butternut Brook. A single milfoil plant was found and removed in 1991, from the culvert in the end of the bay. The slope of the bay is very gradual; the sediment is sand and soft silt. No additional milfoil had been found since the original harvest in 1991 until the 1998 survey, when one plant was removed. No milfoil has been found at this site since 1998.

Barber Bay (M-82). Scattered milfoil plants were found in the center of the bay during the 1991 tributary survey. The majority of the plants were removed from 2-5 meters of water. The slope was gradual, and the sediments consisted of sand and silt. In 1995, all milfoil plants observed (204) were removed by hand harvesting. In 1996, 168 milfoil plants were harvested. Fourteen plants were cleared from amongst the logs in the central portion of the bay in 1997. In 1998, the population was cleared with the removal of five plants, and 14 were pulled in 1999. In 2000, a small colony of milfoil was located at the base of an area of cobblestones on the southwest shore of the bay and a total of 105 milfoil plants were removed from this area. In 2001, 143 milfoil plants were harvested from this location. In 2002, ten plants were removed from this site. In 2003, two plants were found.

Van Warmer Bay (M-83). This site had a single milfoil plant found along a dock just south of a hazard buoy in front of the Brodeur camp on the east shore. One milfoil plant was removed from this site in 1991, 1992 and 1993. The slope is gradual, and the bottom sediment is sand. No milfoil was observed from 1995 through 2003.

Harris Bay Inlet (M-84). In 1991 milfoil was found in an area stretching from the tributary culvert to the boat docks in less than one half meter of water. Approximately 50 milfoil plants were observed. A number of milfoil plants were removed as voucher specimens. This area was exposed (dry) during 1993. No milfoil was observed in 1995 or 1996. Twenty-nine plants were found and removed in 1997 and 5 in 1998. None were observed here in 1999 or 2000. A single milfoil plant was removed in 2001. Five plants were removed in 2002 and none in 2003. The sediment in this area is very soft silt, and the slope at this site is flat.

Dunham Bay Inlet (M-85). Three milfoil plants were found scattered between the bridge and a boat dock to the east in approximately 2 meters of water during the 1991 survey. There were also a large number of milfoil fragments found covering the bottom in the south end of the bay. Since that time, this site has only been surveyed due to large milfoil populations throughout the bay. In 1996, no milfoil was observed in this area, but 18 plants were removed in 1997 and 32 in 1998. A total of 185 plants were hand harvested from this site in 1999 and an additional 10 milfoil plants in 2000. No milfoil was found at this site in 2001. In 2002, 29 plants were found and removed and 91 were cleared in 2003. Dense growth of a Eurasian watermilfoil bed within Dunham's Bay (M- 19) is a likely source of propagules. The plants located here have mainly been found scattered at the edges of the boat channel. The slope at this site is gradual, and sediments are a combination of sand, soft silt and cobble.

East Shore (M-86). Two milfoil plants were found at this site during the 1991 tributary survey. No milfoil plants have been found at this site since. The site has a sheer rock wall to the north, and a storm culvert between two docks. The slope at this site which is adjacent to the Crosbyside area, is steep, and sediments are sand, light silt, and rock.

Crosbyside (M-87). This site is approximately 100m north of T-37a. It is adjacent to a culvert in a wooden seawall. A total of 4 milfoil plants were taken for voucher specimens in 1991. No milfoil was found in 1995; however 2 milfoil plants were harvested in 1996. There were no plants found here in 1997 or 1998, and 5 were found in 1999. No milfoil was found in 2000, 2001, 2002 or 2003. The slope is gradual, and the sediment is sand and rock.

Crosbyside (M-88). Six milfoil plants were removed in 1991 for voucher specimens at this site, which is at the mouth of a seasonal tributary. No milfoil plants were found at this site in 1993. In 1995, two milfoil plants were removed. No milfoil was observed in 1996, 1997 or 1998. Five plants were cleared in 1999 with M-87. No milfoil was found in 2000, 2001 or 2002. A single plant was found in 2003. The tributary runs to a double slip dock approximately 50m south of T-37d (M-89). The slope is moderately steep; the sediment is a combination of silt, sand, and rock.

Crosbyside (M-89). A pair of milfoil plants were found in 1991 and removed from this site directly in front of a private beach with drainage culverts on each side. This site is approximately 50m north of T-37c, the slope is moderately steep, and the sediment is a combination of sand, silt, and cobble. No milfoil was found in 1995 through 2001. Two plants were located and removed in 2002 with none again in 2003.

South Tea Island Culvert (M-90). This site is located to the southwest of Tea Island adjacent to the Lake George water treatment plant. A large culvert drains under a dock and into the lake at this location. Milfoil was first found in 1991 in the outwash area of the culvert. A total of 7 milfoil plants were removed from this site in 1993. Eleven milfoil plants were removed in 1995 and an additional 7 in 1996. One plant was harvested in 1997, and none in 1998, 1999 or 2000. A single milfoil plant was harvested in 2001. No plants were found in 2002 and two were found in 2003. The slope at this site is moderate and the bottom sediment consists of sand and rock.

Harris Bay-East Side (M-91). Milfoil was located in 1991 in the outwash area of a culvert, on the northeast shore of the bay. An area of scattered to dense growth of milfoil extends from the marina south along the east shore. The slope is gradual, and the sediment is a mixture of sand, silts, and cobble. This site has received no management activity to date.

Bay East of Hens and Chickens (M-92). The site is on the east shore at Shelving Rock Point. The slope is moderate near shore to a depth of 3 meters. The bottom is rocky in shallow waters (less than 2 meters) and changes to sand and silt with logs and debris covering the bottom in deeper waters. The shoreline slopes steeply to the lake edge and a pump house and water intake are found at this location. Milfoil was first found at this location in 1992, when 1 plant was removed. Seven milfoil plants were removed in 1993. No milfoil plants were observed in 1995 or 1996. Hand harvesting of this site in 1997 removed 61 milfoil plants. No milfoil was located here in 1998 through 2001. In 2002, five plants were hand harvested with none found in 2003.

East of Refuge Island (M-93). A single milfoil plant was found and removed from a small cove on the east shore across from Refuge Island in 1992. No milfoil was found at this site in 1993, 1995 or 1996. Eighteen plants were removed from this site in 1997, 3 in 1998, and 6 in 1999. A single milfoil plant was removed in 2000, 2001, 2002 and 2003. Sediments in this area are sand and cobble from 0 to 2 meters, and sandy silt and detritus from 2 to 4 meters. The slope was flat to 2m depth, then moderate.

Northwest of 3 Sirens Islands (M-94). The site is on the eastern side of Tongue Mountain in a small cut along the shoreline. The slope is steep and rocky with small pockets of silty sediments. A single milfoil plant was found in 1992 and removed. None were found between 1993 and 1997. In 1998, 11

milfoil plants were removed. No milfoil has been found here between 1998 and 2001. In 2002, two plants were removed. No milfoil was found in 2003.

N.W.B. Head of Bay (M-95). Two plants were harvested from this site in 1992 and a single milfoil plant in 1993. The site is located at the extreme north end of the bay, between two boathouses in approximately 2 m of water. The slope is gradual to moderate with sand and silt inshore and soft silt after a depth of 4 m. No milfoil plants were found in 1995 through 1998. Seven were located and removed in 1999. No milfoil was found at this site in 2000, 2001 or 2002. A single plant was found in 2003.

Harris Bay/mid-bay (M-96). The small milfoil bed at this site, which was first observed in 1992, is located south of the 5 mile per hour buoy line and north of a small rock outcropping in the middle of Harris Bay. The slope is flat and the bottom is rocky with large areas covered by bedrock, the plants are growing in large pockets of silt on top of the bedrock. No management has occurred at this site.

West Side Clay Island (M-97). The milfoil at this site was located in 1992, in a sunken coal barge in 3 meters of water. Fine silty sediment was inside the barge along with the majority of the milfoil plants. Very few plants were found outside of the barge where the sediment was a mixture of sand and silt. All milfoil observed has been hand harvested to clear the site. No milfoil was found at this site in 2000 or 2001. A single plant was removed in 2002 with none again in 2003.

South Jenkins Brook (M-98). First observed in 1993, the site is just south of a small tributary (Jenkins Brook) on the north side of Jenkins Point, Hague. Approximately 30-50 plants were discovered under a white mooring float. In 1995, a small area of dense growth around a water intake was observed. This condition persisted in 1996. In 1997, a small bed approximately 100 feet in length was observed, encompassing the original site around the mooring. Benthic barrier was installed at this site in 1997. Management in 1998 included further installation of benthic barrier, including maintenance of the existing barrier, supported by suction harvesting and hand harvesting. Management efforts continued in 1999, with benthic barrier, suction, and hand harvesting efforts. Efforts at this site are limited by available barrier materials and an extensive area of low density growth of Eurasian watermilfoil. This site required intensive efforts in 2000, including several more panels of benthic barrier (1750 ft²) and hand harvesting. Barrier cleaning and inspection was carried on in 2001 and 2002 including the hand harvesting of 15 plants before the decision was made to postpone needed management here. In 2003 extensive barrier work was conducted with the placement of 23 panels (8050 ft²) adjacent to, and sometime on top of existing barrier. This site will require a few additional panels of barrier with supporting hand harvesting in 2004. The slope at this site is moderate, with bottom sediment of sand and light silt.

Holman Hill Creek (M-99). A scattered area of milfoil (50-100 plants) was first located during the 1993 tributary survey. The site is in front of the boathouse on the north side of Holman Hill Creek. In 1995, 125 plants were removed from this site. In 1996, 54 milfoil plants were removed, and 81 in 1997. In 1998, milfoil plants removed had been reduced to eight. The 1999 survey removed 91 milfoil plants, primarily small individuals near the boathouse, and a larger number at the northern edge of the delta. A total of 4 milfoil plants were found and removed in 2000. An additional 22 milfoil plants were removed

in 2001. No plants were found in 2002. A single plant was found in 2003. The slope is moderate to a depth of 3 meters and the bottom sediments are delta sands. Beyond 3 meters depth, bottom slope becomes steep to 10 meters depth.

Temple Island (M-100). Two milfoil plants were found at this location in 1993 and removed. The plants were found 100m from the west shore and 100m south of the culvert across from the Island. The slope is flat to gradual and sediments are sand and light silt. No milfoil was found in 1995 or 1996, and one plant was harvested in 1997. Nineteen plants were removed from here in 1998. These plants were primarily located on the western shore of the bay, just north of the docks on that shore. The 1999 survey removed two plants from within the bay area, along the seawall. No milfoil was found at this site in 2000. Six and sixteen milfoil plants were found and removed in 2001 and 2002 respectively. None were found in 2003.

Brook North of Green Point (M-101). A single milfoil plant was found in 1993 and 1995 on the delta of this stream in about 1 meter of water. Close to shore the bottom was rocky with numerous logs. Sand and silt dominated the sediments beyond 1 meter depth. The slope is moderate to steep. No milfoil was found in 1996 or 1997. The 1998 survey found three plants at this site in a marshy area behind a red boathouse, and 10 were removed in 1999. A total of 21 milfoil plants were removed in 2000 and 7 in 2001. Two plants were found and removed in 2002. None were found in 2003.

South Tributary at 5 Mile Mountain (M-102). The site is in a small cut in the shoreline along the eastern side of the Tongue Mountain range, the slope is moderate and the sediment consisted mainly of shallow silt in rock depressions. Eight plants were removed during 1993 and twelve in 1995. No milfoil was found in 1996, 1997, or 1998, two plants were harvested in 1999. No milfoil was found at this site in 2000 or 2001. In 2002, 111 plants were hand harvested. None was found in 2003.

North of North Meadow Point (M-103). Five milfoil plants were hand-harvested from this site in approximately 3m of water in 1993. The site is on the north side of the point east of a large rock on shore; a small green shed is on shore even with the location of the site. No milfoil was found at this site in 1995 and a single plant was removed in 1996. None were found in 1997. In 1998, a resident reported a number of possible milfoil plants inside the bay north of Meadow Point, the first bay south of Agnes Island, and 162 plants were cleared from around their dock area. In 1999, 102 plants were removed to clear the site. Two milfoil plants were removed in 2000, 3 in 2001, 5 in 2002 and 1 in 2003. There is a diverse native population of plants in existence here as well.

Assembly Point/West Bay (M-104). A small area of moderate density growth of milfoil plants was found in 1993. This site is 100 meters south of the wetland outlet on the western side of Assembly Point. Milfoil plants were found near a sailboat mooring. In 1995, 27 milfoil plants were removed from this location. There was no presence of Eurasian watermilfoil in 1997 through 2003. Slope was moderate and sediments were sand and silt.

Assembly Point/Northwest (M-105). A single milfoil plant was found and removed, approximately a quarter mile southwest of the tip of Assembly Point, in front of a white boathouse. The plant was in

water 3 m deep in a sand/silt sediment mixture, and the slope was gradual to moderate. Milfoil has not been found here since that time.

Assembly Point/Southeast Bay (M-106). The site was in the bay on the southeast side of Assembly Point. Three plants were found in the mouth of the bay in 1 to 2 meters of water in 1993. The sediments consisted of sand and silt, the slope in this area was flat to gradual. No milfoil was found at this site in 1995, 1996 or 1997. Two plants were removed in both 1998 and 1999. No milfoil was found at this site since.

Elizabeth Island (M-107). The site is located on the delta of a small tributary to the east of Elizabeth Island. Bottom slope is gradual and sediments are mainly sand with sand and silt mixed at the deeper margins. A single milfoil plant was found at this site in 1994. No milfoil was found at this site since that time. In 2002, 246 plants were found scattered in this site and removed. In 2003, 28 plants were removed.

Harris Bay Culvert (M-108). This site is immediately adjacent to site M-91 and should probably be combined. The culvert is found at the Lake George Boat Company. Moderate density growth of milfoil is found at the mouth of the culvert and extending into the docks of the marina complex.

SW Happy Family Islands (M-109). Scattered patches of milfoil were observed adjacent to a covered boathouse (Cedar Rock Lodge). In 1995, 27 milfoil plants were observed and removed by hand harvesting. In 1996, moderate density patches of milfoil were found to the north of the original site and hand harvested. The population was reduced with the removal of 346 plants in 1997 and 305 in 1998. Several visits to hand harvest in 1999 removed 910 plants to clear this site. In 2000, a total of 185 milfoil plants were removed. In 2001, 89 milfoil plants were removed. In 2002 and 2003, 15 and 86 plants respectively, were removed. Maintenance levels have been achieved at this site. The bottom slope is gradual and the sediments composed of sand and cobblestones with scattered rock outcrops.

Diamond Point (M-110). Sparsely scattered milfoil plants were found in a small embayment just north of Diamond Point in 1994 at depths of 2 to 3 meters. Bottom slope at this site is gradual and sediments are sand and silt. Milfoil has not been found here since that time.

NWB-NE Walker Point (M-111). In 1995, scattered milfoil plants were first found around an “L” shaped dock and boat launch approximately 500 m north of Walker Point. The milfoil plants (106) were removed by hand harvesting. In 1996, six milfoil plants were removed. No plants were located at this site until 2003 when a single plant was removed. Slope is moderate and the sediment is mainly silt with some sand.

Whale Rock, East of Agnes Island (M-112). In 1996, a moderate density area of milfoil growth was observed in pockets of silt on the eastern side of Whale rock. Slope is steep and the sediment is mainly silt on this bedrock outcrop. By 1998, these patches had grown together to form a moderate sized bed along the eastern edge of the rock. This site received benthic barrier in 2000. A total of 1050 ft² of barrier were installed, and hand harvesting was employed to complete management. In 2001, 170 milfoil plants were removed by hand harvesting. In 2002 heavy growth was noted but management did not

occur. In 2003, 881 plants were removed by hand harvesting including ca. 50 plants removed on a second visit in late August.

Diamond Island (M-113). In 1996, several small dense patches of milfoil plants were observed on the western side of Diamond Island. The milfoil plants (112) were removed by hand harvesting. A total of 248 plants were hand harvested in 1997, however several small areas of dense growth remained. In 1998, this site was suction harvested, and two barrels of milfoil were removed to clear the site. In 1999, 572 plants were hand harvested from the rocky walls along the south and western sides of the island to clear the site. A total of 110 milfoil plants were removed in 2000. In 2001, an additional 332 milfoil plants were removed from this site. In 2002 and 2003 only 97 and 35 plants respectively were found and removed showing a general decline in plant abundance at this location due to effective management. Slope is moderate to steep and the sediment is mainly silt between boulders.

Sandy Bay - Mooring Post (M-114). In 1996, scattered and moderate density milfoil plants were first found within a marina on the southwest side of Sandy Bay. No management has occurred here since. In 2000 and 2001, surveys of the area revealed little or no milfoil growth. Loss of milfoil at this site is unexplained, although harvesting by local landowners is suspected. In 2002 hand harvesting by landowners was confirmed. No plants were found and this site is designated as cleared. In 2003 2 plants were found. Slope is moderate and sediment is mainly silt with some sand.

Cape Cod Village Bay (M-115). In 1996, a single milfoil plant was found around a series of finger docks at the Cape Cod Village Resort. A return visit in 1997 did not indicate the presence of Eurasian watermilfoil. However, six plants were found and removed here in 1998, and two were removed in 1999 and 2000. No milfoil was found at this site in 2001 but 9 and 1 were located and removed in 2002 and 2003 respectively. Slope is moderate and sediment is mainly sand.

Holman Hill Creek - North (M-116). An area of scattered milfoil plants was first found in 1996. The milfoil plants (54) were removed by hand harvesting. In 1997, 92 plants were removed. A total of 148 milfoil plants were removed from a spot on the southern edge of an old steel pier in 1998. Hand harvesting in 1999 removed 39 plants to clear the site. In 2000, an additional 16 milfoil plants were removed. No milfoil was found at this site in 2001. In 2002, 18 plants were hand harvested and again none in 2003. Slope is moderate and sediment is mainly a silt composition with some sand.

Glenbernie - Blairs Bay (M-117). A small area of dense growth of milfoil was observed under a swim float near the steamboat landing in Blairs Bay. Slope is moderate and sediments are mainly sand. No management has been conducted here to date. The site has become a large bed, and was in flower at the time of visit in 2001. No management occurred here in 2002 or 2003.

Blairs Bay, North (M-118). Scattered milfoil plants were observed within a dock area to the south of the Association beach. Slope is gradual and sediments are a sand/clay mixture with some silt and detritus material. No management was conducted in 1996. Twenty plants were hand-harvested within a dock crib and boathouse in 1997. Two were removed in 1998, and 14 in 1999. A total of 113 milfoil plants were removed from the base of a cobblestone area along the southwest shore of the bay in 2000.

In 2001, an additional area of scattered milfoil plants were found near the point and 120 plants removed. In 2002, nine plants were found and removed. In 2003, 36 plants were removed.

East Side HBYC (M-119). Eurasian watermilfoil plants were observed scattered off the northeast corner of the marina in 1997. Four plants were harvested to clear the site. Two were removed here in 1998, 7 in 1999, 2 in 2000, 1 in 2001, 3 in 2002 and 5 in 2003. Slope is gradual and sediments are composed of soft silt over a sandy bottom with a mixture of wood chips and other detritus.

North Warner Bay – Culvert (M-120). Eurasian watermilfoil was first observed off the entrance to the tributary in 1997. One plant was harvested in water about three meters deep. Seventeen were removed from a rock outcropping located along the western shore in about 2 meters of water in 1998, and eight were harvested in 1999. In 2000, eleven milfoil plants were removed. No milfoil was found at this site in 2001. In 2002, 46 plants were hand harvested. In 2003, 83 plants were harvested. The bottom is sandy, with a gradual slope out to three or four meters. There is a minimal population of native plants here.

Bay South of Paulist Fathers (M-121). Eurasian watermilfoil was first observed in rocks at the edge of old crib docks in 1997. Four plants were harvested here in 1997 and a single plant in 1998. No milfoil has been observed at this site since 1998. Sediments are of a soft sand/silt composition.

Still Bay (M-122). Eurasian watermilfoil was first found here in 1997, at the mouth of Still Bay Brook, just north of Cooper Point. Six plants were harvested, scattered between the docks as well as out in water approximately three meters deep. None were found in 1998, and two removed in 1999. No milfoil was found at this site in 2000. Two and 13 milfoil plants were harvested in 2001 and 2002 respectively. A single plant was found in 2003. Sediments are composed primarily of firm sand and bottom slope is gradual.

West Flirtation Island (M-123). A small bed of Eurasian watermilfoil was found here in 1997, about 75 yards from the docks of the Northern Lake George Yacht Club. The Eurasian watermilfoil plants were found in water 3 or 4 meters deep. No management occurred here until 1999, when the site was suction harvested. Approximately 5 barrels were removed from the site, via a combination of suction and hand harvesting. In 2000, intensive hand harvesting removed 414 milfoil plants from this location. An additional 169 milfoil plants were removed in 2001. In 2002, 114 plants were removed. This site was cleared of 308 plants in 2003.

North Shelving Rock Pt. (M-124). This location was first found in 1998, and was pointed out by a resident. A single plant was found at the Knapp estate, inside the slips of the first docks to the north of the South Shelving Rock site (M-76). No milfoil plants have been located since 1998. Bottom sediment consists of soft sand, and the slope is very steep a few meters out from shore.

East of Sagamore Island (M-125). First reported in 1998, a single milfoil plant was found and removed from this site. This site is located on the eastern shore of the Narrows adjacent to Sagamore Island. Bottom slope is moderate and sediments are a combination of sand and silt. The surveys in 1999-2003 did not find milfoil plants here.

NW of Dollar Islands (M-126). Milfoil was first observed at this tributary site in 1998. Four plants were removed from around a large rock and downed tree at the southern end of the site. The site is located on the western shore of the Narrows. The bottom consists of soft silt and the slope is moderate to steep. No plants were found here in 1999 or 2000. A small group of milfoil plants (90) were found and removed in 2001. No milfoil plants were found here in 2002 or 2003.

SW French Point (M-127). All Eurasian watermilfoil found here was located in a brush pile at the mouth of the tributary to a depth of four meters. First located in 1998, 10 plants were removed to clear this location of milfoil. Surveys in 1999 through 2003 did not reveal any further milfoil infestation.

Bay North of Commission Point (M-128). This site was first located in 1999. The Eurasian watermilfoil population consists of a thick bed, located opposite docks for the picnic area. Milfoil is growing among the branches of a fallen tree, therefore making hand harvesting very difficult. A total of 940 plants were removed, and the site was slightly reduced. Suction and hand harvesting were employed at this site in 2000. Three 30 gallon barrels of milfoil were suction harvested and 206 milfoil plants hand harvested from this location. In 2001, intense hand harvested completed management at this site, removing 959 milfoil plants. In 2002, 161 plants were removed and in 2003, 88 plants were taken.

Camp Sagamore (M-129). First located during the tributary survey of the north basin in 1999, two milfoil plants were hand harvested from underneath a few logs on the bottom of the lake. Several old dock cribs were inspected at this location in 2000, and produced a large number of milfoil plants. A total of 69 milfoil plants were harvested from this location in 2001. This area has a gradual slope, sand and silt sediment and cobblestones near the shore. The endangered species *Subularia aquatica* was also found here along the shore, in less than 1 meter depth. In 2002, 337 plants were hand harvested in a boulder pile from an old crib dock (under the new floating dock). In 2003 only 6 plants were located and removed.

South Trib 5 Mile Mtn Brook (M-130). This site was first identified during the 1999 tributary survey. Two milfoil plants were identified and removed. This location has a moderate slope, with boulders to 4 meters depth, and then primarily a sand/silt sediment composition. Beaver activity was also noted here. No milfoil was found at this site in 2000, 2001, 2002 or 2003.

North Steere Island (M-131). The 1999 tributary survey found 3 Eurasian watermilfoil plants, which were removed via hand harvesting. This site has a moderate slope, boulders to 1 meter depth and then sand and rock sediment composition. No milfoil was found at this site in 2000 or 2001. In 2002, 68 plants were hand harvested. In 2003, 5 plants were removed.

Lamb Shanty Bay (M-132). One milfoil plant was harvested from this site during the 1999 tributary survey, from about 4 meters depth on the side of an underwater drop-off. The location is sandy with a gradual slope out to three meters depth, and then steep slope to 7 meters depth, with soft silt sediment. Milfoil was not found at this site in 2000, 2001, 2002 or 2003.

Rogers Rock Club (M-133). Identified by a local resident in 1999, milfoil was found around the entire perimeter of the pier at the club. A total of 127 plants were removed via hand harvesting in 1999. An additional 31 plants were removed in 2000 and 28 in 2001. In 2002, 57 plants were removed from the same location at this site. In 2003, 12 plants were removed. There is a very diverse plant community here, especially in the shelter of the slip on the north side of the pier, the area most heavily populated by milfoil. The site in general has a steep slope, with soft sediment in amongst large boulders.

St. Sacramento Island (M-134). Identified by an inquiry of a local resident, milfoil was found in a small cove on the southeastern side of the island in 1999. The identification was made too late in the season for any management, but a boat survey identified several small clusters of milfoil within the cove. In 2000, a total of 124 milfoil plants were harvested, however the site was only reduced. Hand harvesting in 2001 removed 116 milfoil plants. A single plant was located and removed in 2002 and 2003. There is a gradual slope with sand and silt sediments; large boulders and downed trees are also apparent.

Northeast Van Warmer Bay (M-135). This location was first reported in 2000 by a lakeside resident. A total of 26 milfoil plants were harvested. No milfoil was found here in 2001, 2002 or 2003. There is a gradual slope with sand and silt sediments. Approx. 300 meters south of Elizabeth Island, 9 camps north of the pin buoy south of the island.

Pocket Bay, Assembly Point (M-136). This site was first located in 2000, as part of the FUND for Lake George Tributary Survey. A single milfoil plant was harvested adjacent to where the tributary meets the lake. No milfoil was found at this site in 2001, 2002 or 2003. There is a gradual bottom slope with sand and silt sediments.

West Dollar Island (M-137). This site was first located in 2001, as a result of a report by a lake user. A small area of dense milfoil growth was observed near one of the docks on the southeast end of West Dollar Island. There is a gradual bottom slope with bedrock outcrops, sand and silt sediments. No management occurred at this site in 2001. In 2002, a total of 467 were hand harvested from a moderate bed. In 2003, 19 plants were removed from the same spot as noted in 2002.

Bay NE of Fan Point (M-138). This site was first located in 2001, as part of the FUND for Lake George Tributary Survey. Two milfoil plants were harvested adjacent to where the tributary meets the lake. In 2002, 22 plants were removed. In 2003, additional milfoil growth was noted outside of the boundary for M138. The boundary was thus extended to include this bed. 3,889 plants were hand harvest here in 2003. It is likely some percentage of these will return thus continued surveys are strongly suggested for this site. There is a gradual bottom slope with sand and silt sediments.

NE Little Harbor Island (M-139). This site was first located in 2001, as part of the FUND for Lake George Tributary Survey. A single milfoil plant was harvested adjacent to where the tributary meets the lake. In 2002, 190 plants were located and removed by hand harvesting. In 2003, 39 plants were harvested. There is a gradual bottom slope with sand and silt sediments.

SE of Three Sirens Island (M-140). This site was first located in 2001, as part of the FUND for Lake George Tributary Survey. A single milfoil plant was harvested adjacent to where the tributary meets the

lake. In 2002, 63 plants were hand harvested and 12 were located I 2003. There is a gradual bottom slope with sand and silt sediments.

Camp Andrew Bay, West (M-141). This site was first located in 2001, as a result of a report by a local resident. A narrow strip, approximately ten feet wide, of dense growth of Eurasian watermilfoil extends from the mouth of the bay around the western point for a distance of about 100 meters. In 2002, four panels of Palco® were placed here and 522 plants were hand harvested. In 2003, benthic panels were removed and 684 plants were hand harvested to clear the site for the first time. Continued maintenance will be required at this site. Bottom slope in this area is moderate, and sediments are a mixture of sand and silt.

S. of Fox Island (M-142). This is a dense bed located just outside of site M140 below a small rock outcropping ca. 50 meters south of Fox Island. Discovered in 2002, 2221 plants were hand harvested to clear the site. In 2003, 48 plants were harvested to clear the site.

S. of Bluff Head Creek (M-143). This site was discovered just south of site M-67 in 2002. A small patch of milfoil was found on the east shore off of the small rock cliffs. The moderately dense patch was found in the southern section of the site just off of a private boathouse in sand and silt at ca. 2 meters deep. Hand harvesting cleared this site of 375 plants in 2002 with an additional 232 plants found in 2003.

N. Jenkin's Brook (M-144). First discovered in 2002, this site is actually just south of Jenkin's Brook, but north of the site named 'South Jenkin's Brook (M-98)'. It is a narrow (ca. 10' wide) band of milfoil extending north and south ca. 100' from shore in 2-3 meters of water. Six panels of Palco® were placed here in 2002. In 2003, 146 plants were harvested. It is anticipated that existing panels can be removed from this site in 2003.

Juniper Island (M-145). First confirmed in 2003 following resident's suggestion received by LGPC. This site was a moderate-to-dense bed circling the majority of Juniper Island. Slope was moderate to steep with boulders, cobble and bedrock as the primary substrate. Depths of growth range from ca. 4 feet near shore to 16-18 feet at southernmost section of site. In 2003 this site was cleared by hand harvesting 2,832 plants.

Blair's Bay-South (M-146). First confirmed in 2003 following resident's suggestion received by LGPC. This site was a dense but narrow strip of milfoil found among boulders off of and between two private docks. One strip of black pond liner was in place (apparently placed by resident as there is no official record of this site prior to 2003). Slope is flat-to-moderate. In 2003, this site was cleared of 2,688 plants.

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