2017 Lake George Aquatic Invasive Species Prevention Program

A Trailered Boat Inspection Program

Final Report





December 2017

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Executive Summary

Year 2017 marked the fourth year of the Commission's mandatory boat inspection program to keep aquatic invasive species out of Lake George. This program exists thanks to a tremendous partnership between State and local partners who fund 100% of the cost of the program, eliminating any cost to the boaters for this important effort. This past year continued trends that have been seen in the past, such as an increased launch activity at the State's beautiful new access site at Million Dollar Beach, boaters coming from all over the northeast to recreate on Lake George, and many

boats still (unfortunately) bringing aquatic invasive species to Lake George. If any such invasives are found on the boat and trailer, they are provided with a decontamination through a high pressure, high temperature power wash. In addition, our technicians flush out the motor and bilge if needed, check bait to make sure it is certified, and even the anchor boxes and ropes are checked to make sure they are "clean, drained and dry".

The vast majority of boaters coming to Lake George are aware of the inspection requirements, and fully



believe in the efforts being undertaken by the Commission and our many partners. The protection of Lake George from new aquatic invaders is not only linked to the long-term preservation of this tremendous natural resource ecologically, but also protects the long-term economy by helping to keep Lake George as pristine as it is.

The 2017 program operated from May 1st 2017 through October 31st, 2017. In that time, the Commission processed 31,168 boaters through the seven regional inspection stations. Of that number, 10,869 received full entrance inspections, 12,588 received inspections while exiting Lake George at the inspection sites, and 7,878 boaters arrived at the inspection stations with vessels already having received an inspection seal. Approximately 17 percent of boats receiving an inspection did not meet the "clean, drained, and dry" standard of the program, and required decontamination prior to launch into Lake George. We are always striving to educate boaters about the importance of bringing clean vessels to Lake George, and the goal is to reduce the number of decontaminations required by having people take steps on their own to ensure they are clean and ready to be launched.

The Commission would like to thank Governor Cuomo for his ongoing support of this important program. We also thank our local partners who provide the other half of the cost of this program, including the Warren County Board of Supervisors, the Village of Lake George, the Towns of Bolton, Queensbury and Lake George, the Lake George Association and the Fund for Lake George.

For a full overview of the program's creation, planning and logistics please refer to the Lake George Aquatic Invasive Species Prevention Plan / Environmental Impact Statement on the Commission's website. Also, please review the dedicated website to this program, at www.lakegeorgeboatinspections.com.

Table 1: Boat Inspection Program Summary - By the Numbers

	2014	2015	2016	2017	Total
Number of inspection sites	6	7	7	7	7
Total boater inspections and contacts					
(entrance, exit, re-seals)	20,229	27,852	31,128	31,168	141,545
Entrance inspections without VICS seal	10,351	10,247	10,506	10,869	41,973
Exit inspections	5,960	9,949	12,259	12,588	40,756
Returning boats with seals	3,918	7,656	8,363	7,878	27,815
Number of boats decontaminated	1,264	1,631	1,920	1,869	6,684
Average boat inspection time	5 minutes	5 minutes	5 minutes	5 minutes	5 minutes
Average boat decontamination time	9 minutes	9 minutes	9 minutes	9 minutes	9 minutes
Highest total number of inspections conducted in one week	1,703	1,949	2,375	2,287	N/A
Highest total number of decontaminations conducted in one week	118	148	163	182	N / A
Percentage of inspections requiring decontamination	12%	16%	18%	17%	16.00%
Number of boats with visible plant matter present	232	154	127	244	757
Number of boats with visible invasive species present	165	106	109	110	490
Percentage of uninspected boats with visible invasive species present	1.60%	1.03%	1.04%	1.01%	1.17%
Number of distinct waterbodies boaters came from prior to Lake George	457	432	477	449	N/A
Total number of staff at peak season	55	53	48	48	N/A
Total number of decontamination units	9	9	9	9	9
Number of public and commercial launches on Lake George	47	47	47	47	47
Total operational cost	\$ 668,537.00	\$596,486.43	\$491,104.45	\$555,883.85	\$ 2,312,011.73
Total cost of seasonal staff	\$ 548,078.00	\$482,443.00	\$ 434,858.35	\$ 441,162.11	\$ 1,906,541.46
Cost of LANDA equipment (purchased over 3 years)	\$ 204,000.00	\$0.00	\$0.00	\$0.00	\$ 204,000.00
Cost to boater for inspection/decontamination	\$0/\$0	\$0/\$0	\$0/\$0	\$0/\$0	\$0/\$0
Operational cost savings over prior year due to optimized seasonal staffing	N/A	\$ 65,635.00	\$47,584.66	\$ (6,303.77)	\$ 106,915.89

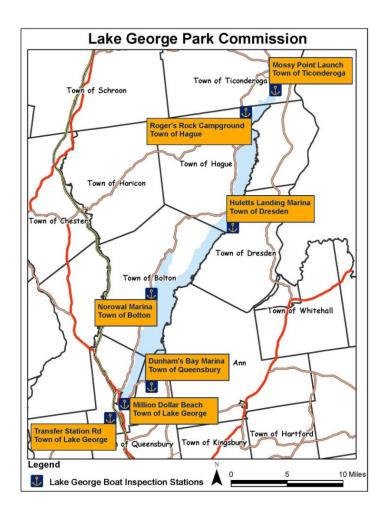
2017 Program Description

In 2017, inspections took place from May 1st through October 31st at seven regional inspection stations located around the lake in locations convenient to boaters. Inspection data is collected on paper logs and then uploaded electronically for weekly review. Any visible plant or animal materials found during an inspection were collected and sent to the Darrin Freshwater Institute or the Lake George Association for identification. Decontamination is performed by using high pressure, hot water. No chemicals are used in the decontamination process.

For more details on the inspection, decontamination and boat sealing processes, please refer to the "Lake George Aquatic Invasive Species Prevention Plan and Generic Environmental Impact Statement" on the Commission website.

Inspection Site Staffing

All inspection stations were open 7 days a week during the peak boating season. Hours of operation were adjusted in the shoulder seasons (May 1st -June 26th, September 4th – October 31st) based on launch activity



from 2014-2016, weather conditions, and local events such as fishing tournaments and regattas. As expected, Fridays through Sundays were the busiest days requiring at least three or more Inspectors on duty at most sites (Figure 6).

Following Labor Day weekend, the Transfer Station site in Lake George was closed as a result of decreased boater activity. The Dunham's Bay site began weekend-only operations in late September for the same reason.

The 2017 season saw a three percent wage increase for returning staff. This was done in an effort to give returning staff an incentive for coming back each year and keep up with minimum wage increases. Total staffing costs increased approximately 1.5% over last season.

Staffing:

Global Employment Services, Inc. (GES) continued to provide staffing, payroll and administrative services this year. This firm is responsible for providing staffing of all Vessel Inspection Technician positions, liability and worker's compensation insurance. Commission staff works directly with GES management on the selection and hiring of program personnel. Operational oversight of all seasonal staff falls under the direction of the Commission's Operations Supervisor III.

Launch Management and Controls

There are three types of lunches on Lake George, Public (State and Municipal), Commercial (Marinas and motels), and Private (Home Owners Associations and individual homeowners), totaling over 80 locations. The Commission has signed Launch Agreements with these launches to ensure compliance with the program. Each Launch Agreements requires the recording of all launches and retrievals of vessels and securement of the launch during off hours.

Off-Hours Operations at State launches

By NYS DEC operational policy, Rogers Rock and Mossy Point state-owned launches on Lake George are open to the public at all times. Million Dollar Beach is administered as a day-use site, and closes at night in the primary boating season. During the off hours when the Commission's inspection facilities are closed, boaters demonstrate compliance with the regulations by signing into a launch register, removing their VICS and placing it into a secure lock-box provided at the inspection site. When VITs arrive at the launch in the morning, the seals are recovered from the night drop box, and these seals are compared with the number of vessel trailers in the parking lot. Any discrepancies between seals and trailers in the lot are researched to ensure compliance.

Management Efficiencies: "Lake George Only" Boats

In preparation for the Lake George AIS regulations it was recognized that a significant portion of the regulated constituency are boats that are stored locally and only used on Lake George. In consideration of this, the Commission organized programs that would allow these boats to forego the inspection process knowing that they were not a threat to bring new AIS to Lake George.

The Commission continued the management of Residential and Homeowner Association (HOA) launches and local marine services professionals through the use of Launch Agreements and Hauler Agreements, respectively. These agreements are updated and Haulers provide new manifests of the vessels under their care, custody and control each season.

If and when a boat listed within a launch agreement or a hauler manifest travels to another waterbody, it may only be launched into Lake George once it has passed a Commission sanctioned Cleaned-Drained-Dry inspection and/or decontamination and received a vessel inspection control seal.

Trout Lake

Trout Lake was included in the boat inspection program for the 2017 season. Trout Lake is tributary to Lake George, falls within the Lake George Park boundary, and currently has no known AIS. Including Trout Lake in the AIS program serves to protect both waterbodies from potential ecological damage.

There are no public launches on Trout Lake, but there are several private and HOA launches. The Commission executed Launch Agreements with Trout Lake launch owners as was done with launch owners/operators on Lake George. These Launch Agreements allow vessels owned by the launch owner and listed on the agreement to be launched into Trout Lake. If the vessel was launched anywhere other than Trout Lake, it must be taken to an Inspection Station, inspected and if necessary, decontaminated prior to its launch into Trout Lake.

Program Cost, Funding, and Partners

This program exists through generous funding provided through a cost-sharing between the NYS Environmental Protection Fund and through local municipal and nonprofit contributions. Expenses and income are detailed in the tables in this section.

To get a full understanding of the program, below are the itemized costs and contributions of the program since 2014.

Expenses

1. Staffing and Program Administration

Table 2: Direct costs associated with staffing and program administration are as follows:

Expense Type	Amount	Amount	Amount	Amount	Amount
One Time Expenses	2014	2015	2016	2017	Total
Decontamination units (9, see Table 1)	\$204,000.00	\$0.00	\$0.00	\$0.00	\$204,000.00
Site Work and Signage	\$49,722.41	\$1,617.00	\$0.00	\$55.00	\$51,394.41
Safety/Security (fire extinguishers, lock					
boxes)	\$1,648.49	\$68.10	\$0.00	\$0.00	\$1,716.59
Radios/Cellphones/tablets/credit card					
terminals	\$7,155.54	\$2,125.69	\$573.83	\$437.76	\$10,292.82
Inspection site offices (1 in 2015 at					
MDB)	\$31,627.00	\$7,700.00	\$0.00	\$0.00	\$39,327.00
Secure Storage Unit Delivery/Set up	\$1,828.62	\$350.00	\$0.00	\$0.00	\$2,178.62
Canvas Covers for Landas (2 in 2014, 4					
in 2015)	\$1,500.00	\$3,000.00	\$0.00	\$0.00	\$4,500.00
Cloud Setup for Data Reporting	\$251.27	\$0.00	\$0.00	\$0.00	\$251.27
Subtotal	\$297,733.33	\$14,860.79	\$573.83	\$492.76	\$313,660.71
Recurring Expenses					
Wash Unit Maintenance/misc. parts	\$6,594.44	\$1,445.16	\$3,748.59	\$2,321.50	\$14,109.69
Training Facility/ Refreshments	\$1,093.48	\$0.00	\$0.00	\$0.00	\$1,093.48
Seals and Wire	\$12,212.40	\$3,094.00	\$10,494.45	\$5,663.00	\$31,463.85
Fuel & Truck Maintenance	\$4,983.56	\$3,621.70	\$3,000.47	\$2,794.52	\$14,400.25
Advertising/Rack Cards	\$2,077.14	\$1,285.00	\$0.00	\$0.00	\$3,362.14
Hardware/Supplies	\$8,028.29	\$865.51	\$1,248.76	\$5,241.47	\$15,384.03
Hulett's Landa Parking Rental	\$3,500.00	\$3,500.00	\$3,500.00	\$8,900.00	\$19,400.00
Uniforms	\$3,258.99	\$3,770.90	\$3,286.40	\$0.00	\$10,316.29
Subtotal	\$41,748.30	\$17,582.27	\$25,278.67	\$24,920.49	\$109,529.73
Monthly Expenses					
Utilities (season total: electrical service,					
outhouses, landlines, water)	\$4,141.96	\$3,633.24	\$2,783.94	\$3,865.23	\$14,424.37
Secure Storage (Annual total)	\$3,321.25	\$3,247.68	\$3,247.68	\$3,831.24	\$13,647.85
Cellular Phones (2014: season total;					
2015 & 2016: through Nov.)	\$5,819.44	\$1,485.41	\$2,028.88	\$941.00	\$10,274.73
Cloud Services	\$269.91	\$269.91	\$269.91	\$269.91	\$1,079.64
SnapSurvey WebHost Service (annual					
subscription)	\$2,553.00	\$3,350.00	\$4,500.00	\$4,124.00	\$14,527.00
Subtotal	\$16,105.56	\$11,986.24	\$12,830.41	\$13,031.38	\$53,953.59

Percent under budget	2.78	14.79	5.56	3.99	6.55
TOTAL Program Cost to Date	\$972,153.65	\$596,486.43	\$491,104.45	\$555,883.85	\$2,615,628.38
Percent under budget	0.76				
Original Estimated Cost	\$300,000.00				
Summary: Program One-Time Up- Front Expense	\$297,733.33	\$14,860.79	\$573.83	\$492.76	\$313,660.71
Percent under budget	3.65	16.91	5.67	4.08	7.88
Original Estimated Cost	\$700,000.00	\$700,000.00	\$520,000.00	\$579,000.00	\$2,499,000.00
Summary: Program Annually Recurring Expense	\$674,420.32	\$581,625.64	\$490,530.62	\$555,391.09	\$2,301,967.67
Subtotal	\$616,566.46	\$552,057.13	\$452,421.54	\$517,439.22	\$2,138,484.35
Full time Park Ranger with Benefits	\$49,738.05	\$52,774.00	\$0.00	\$58,846.00	\$161,358.05
Finance charges	\$501.94	\$0.00	\$0.00	\$0.00	\$501.94
Marina Liability Insurance	\$13,383.00	\$13,800.00	\$14,658.40	\$15,500.00	\$57,341.40
Background Checks	\$4,865.00	\$3,050.02	\$2,904.79	\$1,342.18	\$12,161.99
Seasonal Staff Labor Cost	\$548,078.47	\$482,433.11	\$434,858.35	\$441,751.04	\$1,907,120.97
Staffing					

^{*} In 2016, Park Ranger salary and benefits paid for out of the Commission budget, not Inspection Program funding.

Program Funding

Table 3: Staffing and program administration costs incurred by the Commission were shared by New York State and the "Save Lake George Partnership" of locally-based municipal and nonprofit entities:

Source	Funding (For 2017 Annual Program Cost)
NYS Environmental Protection Fund	\$350,000
Warren County	\$100,000
Village of Lake George	\$30,000
Town of Lake George	\$30,000
Town of Bolton	\$30,000
Town of Queensbury	\$30,000
Fund for Lake George	\$30,000
Lake George Association	\$30,000
Total	\$630,000

Table 4: Funds invested in furtherance of the effective administration of this program are as follows:

	Staff Hours	Town Contribution	LGA Grant Money	Total
Putnam Launch	2,222	\$6,666.00	\$19,998.00	\$26,664.00
Hague Launch	972.5	\$2,674.37	\$8,023.13	\$10,697.50

The Lake George Association administered funds from their New York Aquatic Invasive Species Spread Prevention Program Grant to aid the towns of Putnam and Hague in their efforts to staff the town launches.

2017 Inspection Program Results

The Lake George Park Commission boat inspection program had a total of 31,055 boater contacts in 2017 (Figure 1, see Appendices for all figures and tables referenced henceforth). Thirty-five percent of these (10,801) were boats arriving at Lake George without a Vessel Inspection Control Seal (VICS), requiring a full inspection (Figure 2). Of those 10,801 trailered boats, 17.25% posed a threat of aquatic invasive species transport, and received onsite decontamination (Figure 3).

Just over 25 percent of program boater contacts were boats returning to Lake George with a Vessel Inspection Control Seal (Figure 4), meaning they had either already had an entrance inspection from a previous visit or they were returning to Lake George following a previous exit inspection. The exit inspection of trailered boats being retrieved from Lake George represents roughly 40.4% of all boater contacts.

During the 2017 season, 244 vessels arrived at inspection stations with visible organisms (plant and/or animal) attached to the vessel or trailer. A total of 117 visible aquatic invasive species were found on vessels throughout the season, equating to approximately 0.38% of boats arriving at Lake George. (Table 5)

Table 5: Visible AIS retrieved during entrance inspections in 2014, 2015, 2016, and 2017

Species	2014	2015	2016	2017
Eurasian watermilfoil	119	67	69	70
Zebra mussels	23	20	11	29
Curly leaf pondweed	13	12	17	5
Water chestnut	8	7	11	12
Rusty Crayfish	0	0	1	0
Variable leaf milfoil	0	0	0	1
Snail	2	0	0	0
Total Collected	165	106	109	117

For more detailed results, please see Table 8 in the attached appendices, which break the data out further by origin of the vessel and what species was found.

In 2017, boats arriving at Lake George had previously visited 449 unique waterbodies across the United States and Canada (Figure 6, Table 7). The ten most common waterbodies visited prior to coming to Lake George include the Hudson River, Saratoga Lake, and Lake Champlain (Table 9).

As expected, inspection activity is significantly greater during the short "peak" summer season (June 26th-September 4th) compared to the longer shoulder season (May 1st -June 25th, September 5th – October 31st). Expanding upon

seasonal differences in boater activity, Figures 7 and 8 show the number of entrance inspections and decontaminations throughout the boating season. Staffing levels were adjusted in accordance to these trends in activity. Total staff hours for 2017 ranged from 387 to 1,410 hours per week from late May through early September (Figures 7 and 8).

Diminishing boater activity late in the 2017 season resulted in a relatively costly program, with the cost per inspection rising from a low of \$13.34 the week of August 4th into the hundreds of dollars per inspection in the month of October (Figure 10).

Program Compliance

Program compliance is conducted primarily by the Commission's Marine Patrol. The patrol devoted considerable time to the aquatic invasive species programs in 2017 (Figure 11). This year, the patrol spent 145 hours at the inspection stations around the lake speaking with inspectors, educating the public, and helping to enforce the Commission's regulations.

The patrol spent 791 hours and made 6,510 checks on launches, both public and private, around the lake. During those checks, there was activity present 317 times. Several of those checks resulted in finding vessels that were not registered to launch at certain private launches.

The patrol also spent 64 hours on AIS support time. This time includes participation in the annual Asian clam survey and boater education.

In 2017, three tickets were written under this regulation related to launching without an inspection.

Sanitary Inspections

In 2017, Vessel Sanitary Inspections also took place at boat inspection stations when time allowed. Pursuant to 6 NYCRR Subpart 646-1.6(i), "No person shall launch any vessel into the waters of the park, or operate a vessel on the waters of the park, which is not permanently sealed to prevent the discharge of wastewater into the waters of the park." Vessels that were found not permanently sealed were provided rubber stoppers as a means of sealing wastewater systems.

Table 6: Vessel sanitary inspections at AIS stations

Location	Sanitary Inspections
Mossy Point	22
MDB/Transfer	149
Norowal	123
Dunham's	18
Rogers' Rock	3
Total	315

Conclusions and Recommendations

Year 2017 saw a successful program for the LGPC's boat inspection program. The Million Dollar Beach (MDB) site continues to be the busiest inspection station on Lake George due to its low cost, accessibility and availability of parking. It was indeed a busy summer, as inspection activity records were broken twice within two weeks this summer at the MDB. There may be opportunities to reduce program costs for the Lake George program as the Adirondack Aquatic Invasive Species Spread Prevention Program expands. The planned opening of an Inspection and Decontamination

station at the Exit 18 Rest Area on NY I-87 Northway could lead to a reduction in uninspected boats arriving in the Lake George region. The Commission applauds the efforts of the DEC, DOT, and the rest of the Adirondack AIS Spread Prevention Program partners in their efforts to get this site up and running.

Year 2017, the fourth year of the Lake George Park Commission's Boat Inspection Program succeeded in preventing over one hundred boats from entering the lake with confirmed invasive species, and potentially many others that arrived to the lake not clean, drained and dry, and possibly carrying invasives not easily spotted through visual inspection. This program is only successful because of the incredible support for it. Without the aid of the local municipalities (all 9 municipalities surrounding Lake George have written resolutions of support), the media, recreational users, and local businesses, this program could not exist. The Commission gives special thanks to Governor Andrew Cuomo's Office, Warren County, the local municipalities and our nonprofit lake-based partners including the Lake George Association and the Fund for Lake George.

As the Commission seeks to maintain a sustainable, long-term program, it is conscious of these partners and their considerable efforts to make it happen. The Commission strives to make the program as cost-effective and public-friendly as possible. Lake George still has the relatively enviable position of having only five invasive species in its crystal clear waters, and with public support and community partnerships, we endeavor to keep it that way for generations to come.

Appendices

Figure 1: Total boater interactions by inspection station in 2017 including boats arriving without VICS, boats arriving with VICS, and exit inspections

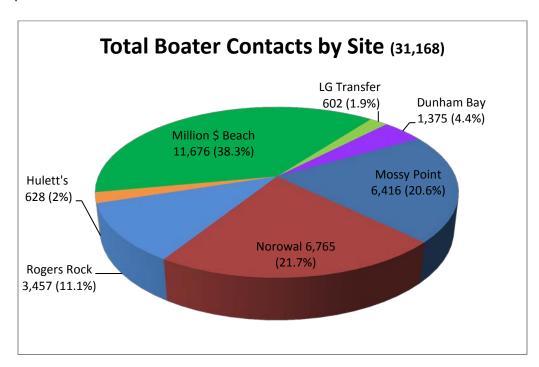


Figure 2: Total number of vessel inspections for boats arriving without VICS

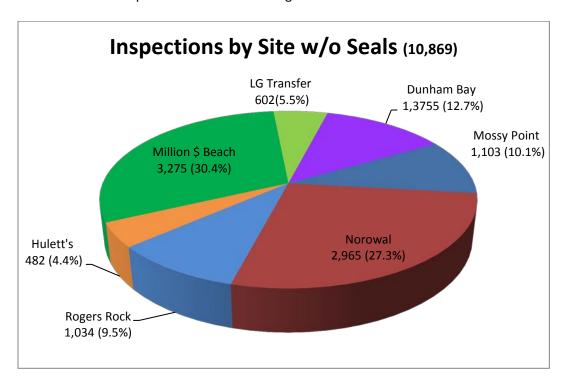


Figure 3: Total number of decontaminations

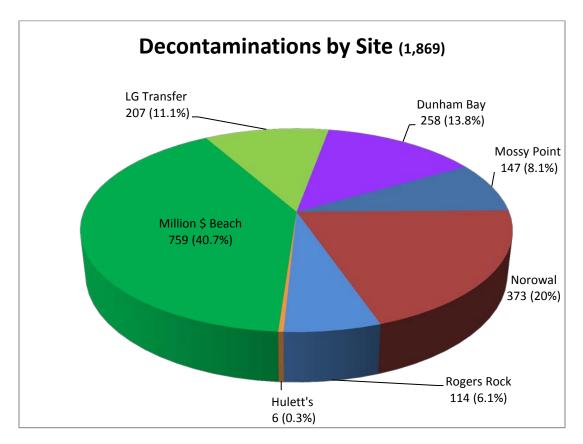


Figure 4: Total number of vessel inspections for boats arriving with VICS

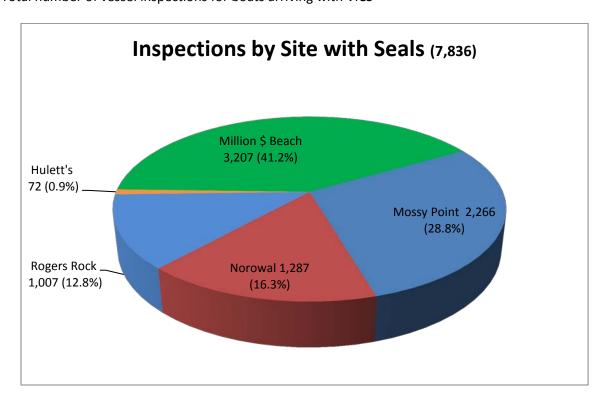
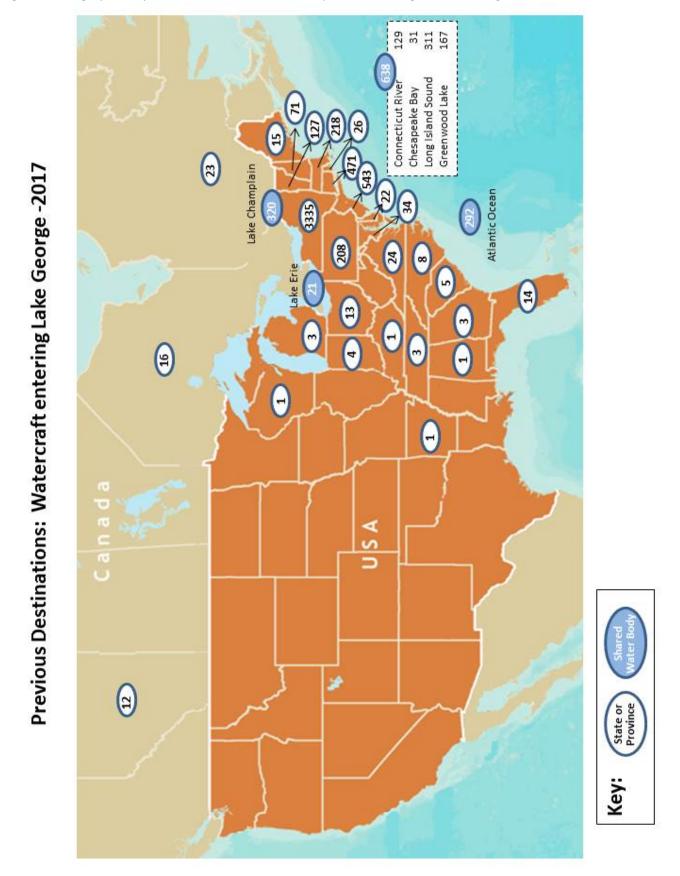


Figure 5: Geographic depiction of waterbodies visited prior to arriving at Lake George



Alabama Lake Martin

<u>Arkansas</u>

Lake Dardanelle

Connecticut
Atlantic Ocean
Bantam Lake
Barnegat Bay
Beach Pond Lake
Beseck Lake
Candlewood Lake

Cedar Lake Colebrook River Dam Columbia Lake

Columbia Lake
Connecticut River
Coventry Lake
Crystal Lake
Gardner Lake
Highland Lake
Housatonic River
Lake Congamond
Lake Lillinonah

Lake Mahopac Lake McDonough Lake Pocotopaug Lantern Hill Pond

Lantern Hill Pond Lake Zoar Little Pond Long Island Sound

Pachaug Pond
Quaddick Reservoir
Rain Bow Reservoir
Staffordville Lake
Thames River
Twin Lakes
Tyler Lake
Waramaug Lake

West Hill Pond Wononpakook Lake

<u>Delaware</u> Atlantic Ocean Chesapeake Bay

Delaware River Delware Bay McGinnis Pond Nauticoke River Silver Lake

<u>Florida</u>

Atlantic Ocean

Florida Keys Gulf of Mexico

Intracoastal Waterway Lake Butler

Georgia

Lake Allatoona Lake St. Clair Lake Lanier

Lake Lanier Lake Harding

Indiana

Brookville Lake Dugan Lake Geist Reservoir Lake Shaffer

Kentucky

Yatesville Lake

Maryland

Chesapeake Bay Chester River Delaware Bay Elk River Northeast River Potomac River Sassafras River

<u>Maine</u>

Atlantic Ocean
Clear Lake
Lake Arrowhead
Lake Auburn
Little Sebago Lake
Lovewell Pond
Moosehead Lake
Range Pond
Sebago Lake
Thompson Lake

Massachusets

Anoda Lake
Atlantic Ocean
Big Alum Lake
Big pond Lake
Boston Harbor
Buzzard Bay
Cape Cod Bay
Ceder Lake
Charles River
Chauncy Lake
Cheshire Lake

Concord River Connecticut River Goose Pond Hamilton Reservoir Hampton Pond Lake Attitash

Lake Buel

Lake Chaubunagungamaug

Lake Cochituate
Lake Congamond
Lake Lashaway
Lake Mahkeenac
Lake Pearl
Lake Pontoosuc
Lake Quinsigamond
Lake Sabbatia
Lake Shirley

Leadmine Pond
Long Pond
Manchaug Pond
Manasquan River
Merrimack River
Nantucket Sound
Onota Lake
Otis Reservoir
Pantoosuc Lake
Plantain Pond
Plunkett Reservoir
Quabbin Reservoir
Salem Harbor

Wallum Lake Walker Pond Webster Lake Wickaboag Lake Winona Lake

Michigan
GullLake
Houghton Lake
St. Clair River

Minnesota Lake Superior

New Hampshire Ackers Pond

Atlantic Ocean
Connecticut River
Contoocook Lake
Lake Monomoniac
Lake Ossipee
Lake Sunapee
Lake Winnipesaukee

Lake Winnisquam
Merrimack River
Moore Dam Reservoir
Newfound Lake
Pawtuckaway Lake
Pleasant Lake
Silver Lake
Spofford Lake
Squam lake

New Jersey
Assumpink Lake
Atlantic Ocean

Barnegat Bay Budd Lake

Canistear Reservor
Clinton Reservoir
Collier Mills Lake
Cranberry Lake
Culver Lake
Delaware River
Echo Lake
Egg Harbor Bay
Farmington Lake

Farmington Lake
Fords Pond
Green Pond
Greenwood Lake
Harmony Lake
Hudson River
Keyport Harbor
Lake Apacon
Lake Carnegie
Lake Hopatcong
Lake Mohawk

Lake Riviera

Lake Owassa

Lake Wallace
Lake Wallenpaupack
Lake Wawayanda
Manahawkin Bay
Manasquan Reservoir
Manasquan River
Merrill Creek Reservoir
Metedeconk River
Monksville Reservoir

Mountain Lake Mullica River Navesink River Newton Lake New York Harbor

Passaic River Pompton Lakes

Oak Ridge Reservoir

Raritan Bay Raritan River

Round Lake Reservoir Round Valley reservoir Sandy Hook Bay Shark River Shrewsbury River South River Spruce Reservoir Swartswood Lake Swinging Bridge Lake

Toms River

White Meadow Lake

New York
Alexander Bay
Alexander Lake
Allegany Sate Park
Atlantic Ocean
Auger:Lake
Ballston Lake
Big Moose Lake
Black Lake
Black River

Blue Mountain Lake

Brant Lake
Brantingham Lake
Burden Lake
Canada Lake
Canadarago Lake
Canandaigua Lake
Caroga Lake
Cayuga Lake
Cazenovia Lake
Chautauqua Lake
Chenango River
Collins Lake

Copake Lake
Cossayuna Lake
Cranberry Lake
Cross Lake
Crystal Lake
Delta Lake
Eagle Lake

Conesus Lake

East Sidney Reservoir
Eaton Brook Reservoir

Eire Canal First Lake Fish Creek Pond Forked Lake Fourth Lake Friends Lake Franklin Falls Pond Fulton Chain Garnet Lake Genesee River Glass Lake Glen Lake

Great Sacandaga Lake Great South Bay Greenwood Lake Guilford Lake Hadlock Pond Harris Lake

Hinckley Reservoir Honeoye Lake **Hudson River** Indian Lake Jamaica Bay Jones Inlet Keuka Lake Kinderhook Lake Kingsley Reservoir Lake Abanakee Lake Algonquin Lake Carmel Lake Champlain Lake Erie Lake Luzerne Lake Mahopac

Lake Luzerne
Lake Mahopac
Lake Ontario
Lake Oscawana
Lake Placid
Lake Pleasant
Lake Sebago
Lake Wallenpaupack

Lake Wallenpaupad Lebanon Reservoir Limekiln Lake Lincoln Pond Lily Lake

Long Island Oyster Bay Long Island Sound

Long Lake Loon Lake Lower Saranac Manhassset Bay Mariaville Lake 'Merrick Bay Middle Bay

Mine Kill State Park Mirror Lake Mohawk River

Mohegan Lake Mohican Lake Montauk Bay

Moreau Lake New York Harbor Niagara River Oneida Lake Orange Lake Oscawana Lake Oswego River Otisco Lake Otsego Lake Owasco Lake Oyster Bay Paradox Lake Peach Lake Peconic Bay

Peconic Lake Piseco Lake Putnam Pond Racquette Lake Racquette River Rainbow Lake Revnolds Channel

Round Lake Salmon River Saranac Lake Saratoga Lake Schroon Lake Seneca Lake Seneca River Sherman Lake Skaneateles Lake Sleepy Hollow Lake Snyders Lake Sodas Bay South Bay LI St. Lawrence River Stewarts Pond Starlight Lake Stillwater Reservoir Sullivan Reservoir Summit Lake

Swinging Bridge Reservoir Taylor Pond Tennanah Lake Thompson Lake Thousand Islands Toronto Reservoir **Trout Lake** Tupper Lake Upper Saranac Upper St. Regis Warner's Lake Whaley Lake

Susquehanna River

White Lake

North Carolina Altantic Ocean Cape Fear River Falls Lake Hickory Lake Intercoastal Lake Norman Mountain Island Lake

Ohio

Alum Creek Lake Lake Erie Lake Shawnee Mosquito Lake Ohio River Springfield Lake Pleasant Hill Lake West Branch Reservoir

<u>Pennsylvania</u> Tioga-Hammond Reservoir Belmont Lake Beltzville Reservoir Blue Marsh Lake Conneaut Lake Conowingo Reservoir Deep Creek Lake Delaware Bay Delaware River **Duck Harbor Pond** Fawn Lake Harvey's Lake Hiawatha Lake Lake Ariel Lake Bethlehem Lake Carev

Lake Ladore Lake Nockamixon Lake Wynonah Lake Wallenpaupack Lily Lake Memorial Lake Onota Lake Raystown Lake Roamingwoood Lake Schuylkill River Susquehanna River Van Sciver Lake

Lake Erie

Lake Harmony

Atlantic Ocean Burlingame Lake Echo Lake Johnsons Pond

Rhode Island

Keech Pond Narragansett Bay Warwick Pond

Waterman Reservoir

South Carolina Intracoastal Waterway

Lake Carolina Lake Hartell Lake Kowee

Tennessee

Patrick Henry Lake Pickwick Lake Tennessee River

Vermont Crystal Lake **Dunmore**

Harriman Reservoir Lake Bomoseen Lake Champlain Lake St. Catherine Lake Dunmore Lake Fairlee Lake Hortonia Lake Iroquois Lake Seymour Lake Whitingham Lake Willoughby Otter Creek Perch Pond

Somerset Reservoir Waterbury Reservoir Woodard Reservoir Wrightsville Reservior

Virginia

Chesapeake Bay Chickanhominy Lake Chincoteague Bay James River Lake Anna

Smith Mountain Lake Potomac River

Canada - Alberta

Genesee Lake Lake Claire

Canada - Ontario

Charleston Lake
Lake Ontario
Lake Huron
Lake Rochelle
Maskinonge Lake
Ottawa River
Salmon Lake
St. Lawrence River

Canada - Quebec

Deux Montagnes
Lac Brome
Lake Magog
Lac Memphremagog
Lac Parent
Lake Archambault
Lake Massawippi
Little Cedar Lake
Musquaro Lake
Richelieu River
Saint Maurice River
St Lawrence River

Table 8: Visible AIS recovered at inspection stations in 2017 and the last waterbody visited by the subject vessel prior to Lake George

Origins of Aquatic Invasives in 2017						
Water Body last visited	Boats With Invasives	State	Eurasian Milfoil	Zebra Mussel	Curly Leaf Pondweed	Water Chestnuts
Candlewood Lake	4	CT	✓			
Coventry Lake	1	CT	✓			
Salem Harbor	1	MA	✓			
Deep Creek Lake	1	MD	✓			
Delaware River	1	NJ	✓			
Greenwood Lake	5	NJ	✓		✓	
Lake Hopatcong	8	NJ	✓		✓	
Lake Tahoe	1	NV	✓			
Ballston Lake	3	NY	✓	✓		✓
Butterfield Lake	1	NY		,	✓	
Fulton Chain Lakes	1	NY		✓		
Glen Lake	1	NY		✓		
Great Sacandaga	2	NY	✓			✓
Hadlock Pond	1	NY			✓	
Hudson River	14	NY	✓	✓	✓	✓
Lake Champlain	2	NY	✓			
Lake Mahopac	2	NY	✓	✓		
Lake Moraine	1	NY	✓			
Long Island Sound	1	NY	✓			
Loon Lake	2	NY	✓		✓	
Mohawk River	7	NY	✓	✓		✓
Niagara River	1	NY	✓			
Owasco Lake	1	NY	✓			✓
Saranac Lake	3	NY	✓		✓	
Saratoga Lake	23	NY	✓	✓	✓	✓
Swinging Bridge	1	NY	✓			
Lake Catherine	2	VT	✓		✓	

Table 9: Top ten waterbodies visited prior to arriving at Lake George

Top ten waterbodies visited prior to arriving at Lake George

	Water Body	Number of AIS	Number of watercraft from				
	water body	Number of Als	2017	2016	2015	2014	
1	Hudson River	122	542	602	515	379	
2	Saratoga Lake	4	371	386	375	279	
3	Lake Champlain	50	320	281	251	203	
4	Great Sacandaga Lake	3	270	272	263	196	
5	Long Island Sound	Salt Water	311	253	246	124	
6	Lake Hopatcong	3	222	216	197	185	
7	Schroon Lake	3	204	196	204	114	
8	Greenwood Lake	2	167	157	127	122	
9	Candlewood Lake	3	147	146	141	125	
10	Connecticut River	4	129	124	127	91	

Figure 6: Shows peak season Entrance Inspection activity by day for each inspection station.

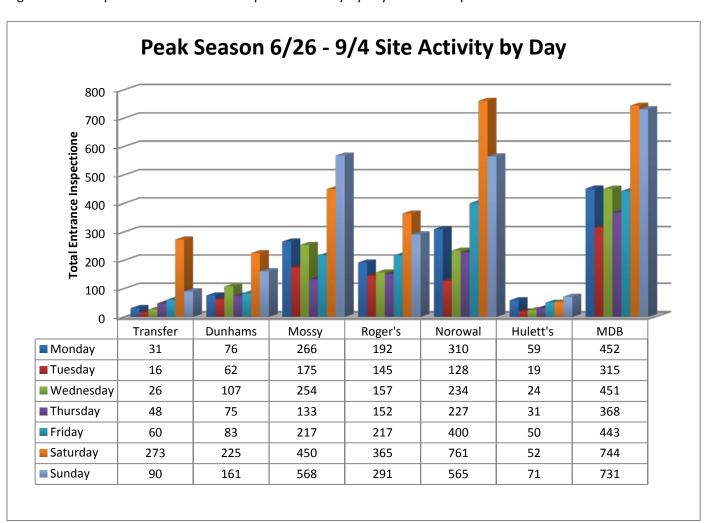


Figure 7: Temporal distribution of entrance inspections by week throughout the boating season

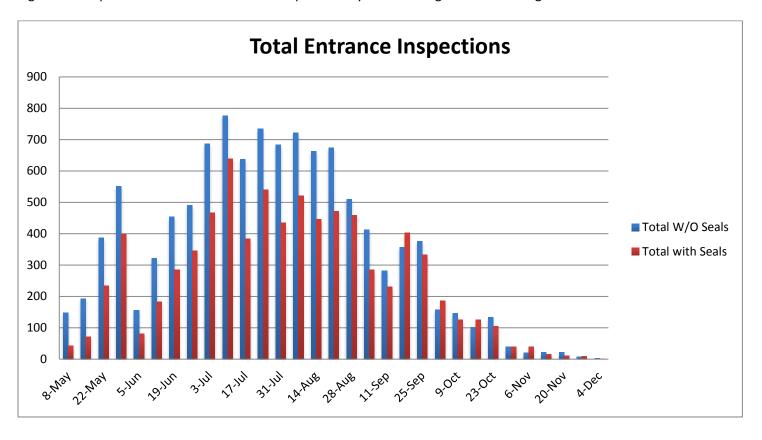


Figure 8: Temporal distribution of inspections and decontaminations by week throughout the boating season

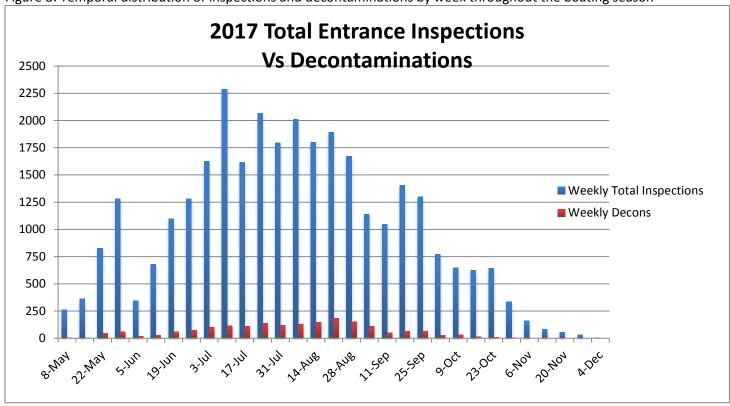


Figure 9: Temporal distribution of staff hours by week throughout the boating season

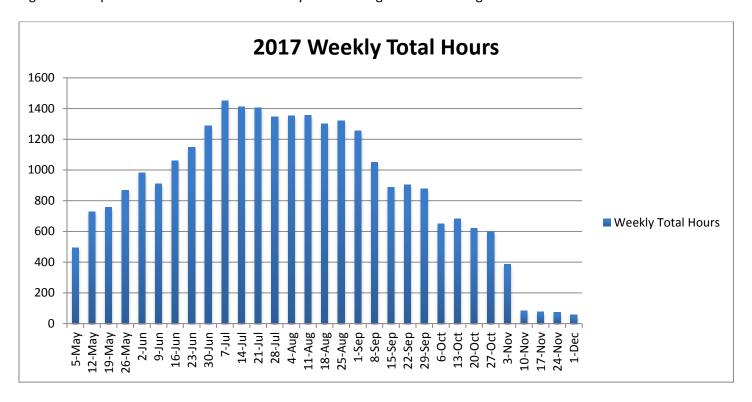


Figure 10: Temporal distribution of cost per interaction (entrance w/ seal, entrance w/o seal, exit inspections combined) by week throughout the 2017 boating season.

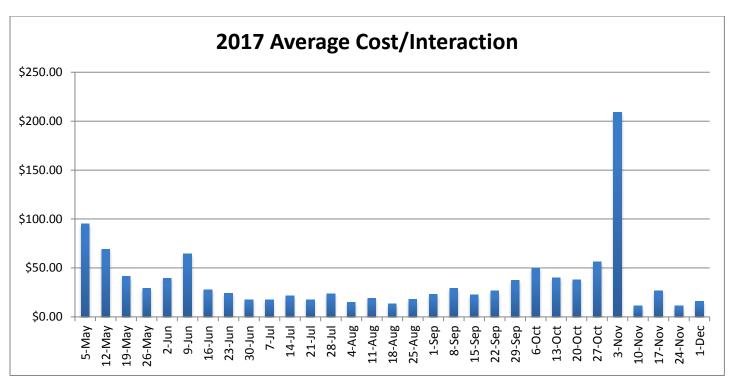


Figure 11: Commission Marine Patrol time dedicated to AIS program compliance, totaling 791 hours.

