2014 Lake George Aquatic Invasive Species Prevention Program

A Trailered Boat Inspection Program

Final Report

NEW YORK STATE OF OPPORTUNITY.

Lake George Park Commission

February 2015

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Acknowledgements

The Lake George Park Commission would like to thank the dozens of individuals, organizations, municipalities and agencies that have helped shape this aquatic invasive species prevention program. Without their support, this program would not have been realized. While these individuals are too numerous to list in their entirety, we would like to make special mention of the following for their tireless efforts on behalf of this program to protect Lake George.

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Executive Summary

Aquatic invasive species are a growing threat to Lake George and indeed all waters of New York State and the U.S. These non-native species have been shown to be far more aggressive than native species, often out-competing the local species and ultimately causing significant environmental, recreational and even economic impacts to waterbodies. Prevention of the introduction of these species into waterbodies has been shown to be far more cost-effective than management or eradication once introduced. Lake George currently has five known aquatic invasive species. The goal of the Commission's pilot regulatory program described in this report is to prevent, to the best of our ability, any new introductions of aquatic invasive species into Lake George.

The Commission's new regulations 6 NYCRR Subpart 646-9 entitled the "Prohibition of Aquatic Invasive Species Introduction" which became effective on May 15th, 2014, prohibit the human-induced introduction of aquatic invasive species (AIS) to Lake George. Recognizing trailered boats as the primary vector for aquatic invasive species transport regionally, these regulations require the inspection of all trailered boats prior to entrance into Lake George, as well as the registration and security of all launches on Lake George. These regulations are effective for a two-year pilot effort, and expire on December 31, 2015. During that time, these regulations and the associated program will be evaluated for effectiveness and possible long-term implementation.

Six inspection stations were created regionally around Lake George, at locations convenient to boaters prior to launch into the lake. These stations were operated generally from dawn until dusk, in an effort to achieve maximum convenience to boaters. The 2014 program operated, from May 15th 2014 to December 1, 2014. In that time, the Commission processed 20,229 boaters through the inspection stations. Of that number, 10,351 received full entrance inspections, 5,960 received inspections while exiting Lake George at the inspection sites, and 3,918 boats arrived at the inspection stations with launches already having received an inspection seal. Approximately 12 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. There was no cost to the boater for either the inspection process or decontamination, if required, thanks to funding received from NYS and local entities which covered the entire operating cost of the program for 2014.

This program is the direct result of a unique state and local partnership that has united environmental and economic minded citizens alike, and has gained widespread acclaim both locally and afar. This pilot regulatory program is being funded without any new taxes, fees, or NYS general fund moneys. Half of the funding for this State run program has been put forth by the State Environmental Protection Fund with support from the office of Governor Andrew Cuomo, and the other half has been provided by a consortium of local parties including Warren County, local municipalities and nonprofit lake-based organizations including the Fund for Lake George and the Lake George Association. This group of local

entities, known as the "SAVE Lake George Partnership", was instrumental in working to generate the funding necessary for the implementation of this boat inspection program.

This "Lake George Boat Inspection Program" met with resounding support from communities around Lake George, and even more importantly, the general boating public on Lake George. These individuals enthusiastically showed their understanding of the need, and ultimately their support, for these new regulations and this program.

This report details a brief history of the program's background and results from the first year of operation in 2014. 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.

2014 Boat Inspection Program Summary - By the Numbers

Number of inspection sites	6
Total Boater Inspections and Contacts (entrance, exit, re-seals)	20,229
Entrance Inspections	10,351
Exit Inspections	5,960
Returning Boats with Seals	3,918
Number of boats decontaminated	1,264
Average boat inspection time	5 minutes
Average boat decontamination time	9 minutes
Highest total number of inspections conducted in one week	1,703
Highest total number of decontaminations conducted in one week	118
Percentage of inspections requiring decontamination	12%
Number of boats with visible invasive species present	165
Percentage of uninspected boats with visible invasive species present	1.6%
Number of distinct waterbodies boaters came from prior to Lake George	457
Total number of staff at peak season	55
Total number of decontamination units	9
Number of public and commercial launches on Lake George	47
2014 Total Operational Cost	$668,537
Total cost of seasonal staff for 2014	$548,078
Cost of Equipment (purchased over 3 years)	$204,000
Cost of a Landa ECOS decontamination unit	$22,600
Cost to boater for inspection/decontamination	$0/$0
Estimated operational cost savings for year 2015 due to optimized staffing	$50,000
Annual Program Operating Cost Goal for Future Years	$500,000

Introduction

The Legislature established the Commission as an independent agency and delegated to it broad powers to protect, enhance and regulate the resources of the Lake George Park, and particularly the waters of Lake George. Environmental Conservation Law (ECL) § 43-0117(4) directs the Commission to promulgate regulations relative to the permitting of boats, the regulation of marinas, and the regulation of recreational activities to protect and preserve the water quality of Lake George, and further provides that no person "shall operate any boat or vessel, or undertake any regulated activity without complying with such regulations." ECL § 43-0107(8) provides that the Commission shall have the power to adopt, amend and repeal rules and regulations, consistent with ECL Article 43, as it deems necessary to administer Article 43, and "to do any and all things necessary or convenient to carry out the purpose and policies of this article and to exercise all powers granted by law."

Aquatic invasive species pose a significant threat to the protection and preservation of Lake George. Lake George is presently home to five aquatic invasive species, and the State of New York and local partners have expended more than $8 million on management of these AIS. It has been estimated that failure to adopt appropriate measures to reduce the introduction of additional AIS will result in more aggressive and unmanageable AIS entering Lake George. The further spread of AIS into Lake George is expected to result in significant losses to tourism and visits to the Lake George area, with a corresponding loss of approximately $9 million to as much as $48 million to the local economies who depend on tourism (Environmental Impact Statement, Lake George Aquatic Invasive Species Prevention).

Recognizing the importance of AIS prevention, the Commission and its local partners have been actively involved in AIS deterrence for decades. This effort realized one of the most extensive and comprehensive public outreach and environmental education programs in the country related to aquatic invasive species prevention for a specific waterbody. Recent initiatives to highlight include the Lake Steward Program established in 2008 by the Lake George Association. This steward program collected data through boater surveys, inspected the exterior of boats for AIS, and educated boaters on AIS spread prevention. Also, in the years 2012 and 2013 the Commission coupled a voluntary decontamination program with the steward program to increase the level of service available to boats that posed a risk of AIS introduction to Lake George.

Concurrent with the efforts noted above, beginning in 2011 the Commission conducted a two year outreach and study of possible methods to prevent the further spread of AIS into the waters of Lake George. This effort looked at methods to preserve the excellent water quality of Lake George and the economic and recreational benefits associated with the Lake George Park. The results of this study identified that the most effective and practical means of reducing the spread and infestation of new AIS into the waters of Lake George is through a mandatory inspection program of all trailered vessels prior to being launched into Lake George. This study, entitled “Lake George Aquatic Invasive Species

Prevention Plan and Generic Environmental Impact Statement" dated December 3, 2013, is available on the Commission website, http://www.lgpc.state.ny.us.

In consideration of the outcomes of the EIS/Prevention Plan, and with tremendous public support, the Commission amended its regulations and promulgated a new regulation: 6 NYCRR Subpart 646-9, Prohibition of Aquatic Invasive Species Introduction. This subpart is consistent with the legislative objectives of ECL Article 43 by regulating the use of boats on Lake George to enhance and preserve the quality of these waters for the public benefit. These regulations are intended to protect the waters of Lake George from further infestation of aquatic invasive species (AIS) and to reduce the spread and proliferation of the five AIS that are currently found within Lake George waters.

The Commission's AIS regulations, 6 NYCRR Subpart 646-9, are pilot regulations that run through the 2014 and 2015 boating seasons. These regulations require all trailered vessels to undergo mandatory inspection and possible decontamination prior to launching into Lake George. These regulations require all trailered vessels to visit a regional inspection station in the Lake George watershed, and undergo an invasive species inspection of the vessel and trailer. The standard for boats to pass inspection is that they be "cleaned, drained and dry" (C-D-D), which works to prevent both visible and non-visible aquatic invasive threats. Vessels that do not meet the C-D-D inspection standard may be decontaminated at a Commission sanctioned inspection station with High Pressure Hot Water (HPHW) prior to launching. Descriptive details of this process and additional program logistics are outlined below within the Program Description section.

The cost for administering the mandatory boat inspection and decontamination program is approximately $700,000 annually. The Commission's regulations require boat inspections and decontamination be provided by Commission-designated and certified persons. The cost of the Commission providing 40-50 staff members necessary to satisfy this regulatory requirement represents the majority of this $700,000 budget. These costs are generously being paid for through the NYS Environmental Protection Fund ($350K) as well as local funding through the SAVE Lake George Partnership ($350K). Thanks to the generosity of all involved funding partners, there is currently no cost to the boater for either the inspection, or if needed, the decontamination of the vessel.

Public Outreach and Involvement

The cornerstone of any successful AIS prevention program is public education. The Commission invested substantial effort over the period of two years to ensure public awareness of the issue, involvement in the development of the program, and ultimately its successful implementation.

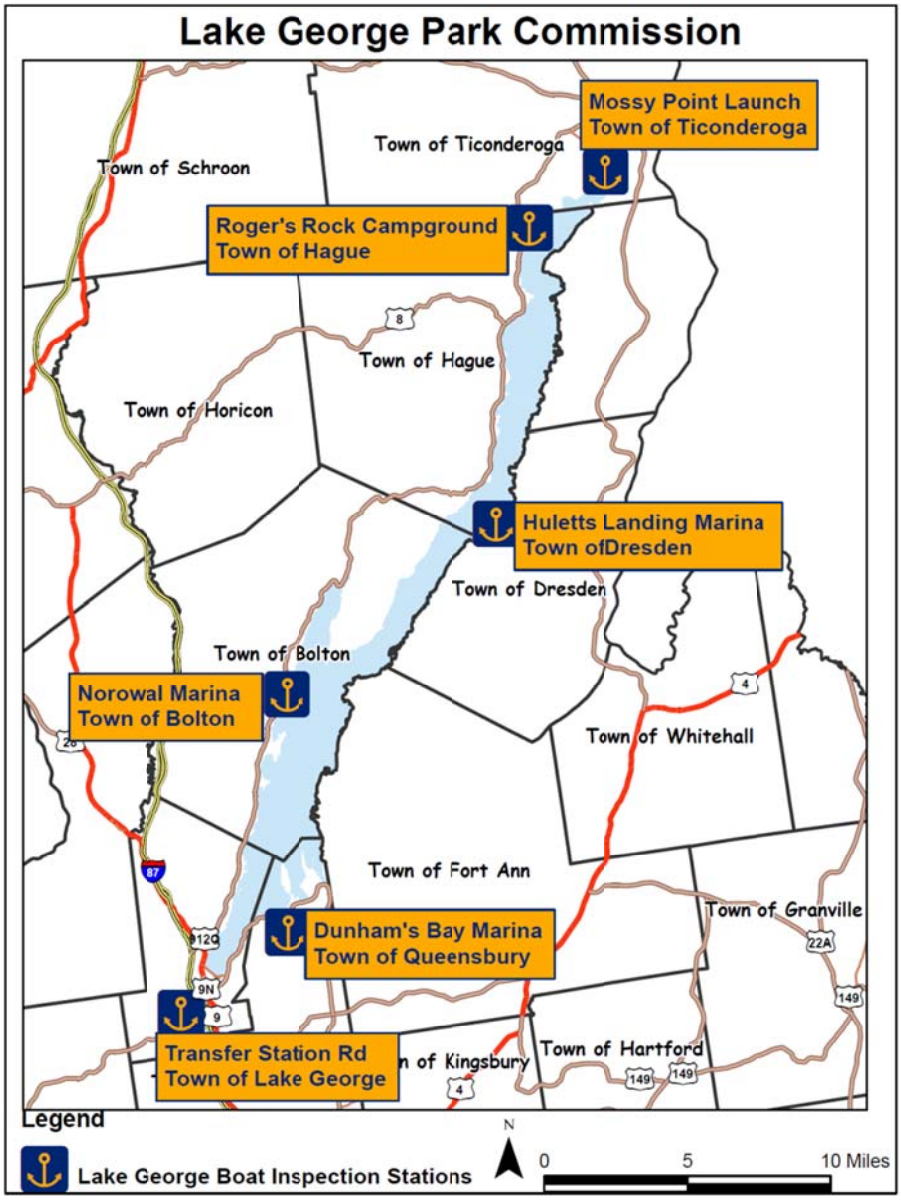
Outreach initiatives associated with this program were as follows:

1. Almost 100 public meetings throughout the Lake George basin and elsewhere
2. Over 200 newspaper articles on this issue and the program
3. Dozens of radio spots throughout the region and the Capital District
4. Hiring an advertising firm to formulate a cost-effective plan to reach the regional boating public
5. Several direct mailings to all boaters on Lake George through the LGPC database system
6. Road signage throughout the basin, courtesy of Warren County Department of Public Works
7. Email blasts through Warren County Tourism

8. Meeting with all public and private marinas around Lake George
9. Rack cards & Posters
10. Website dedicated to the Lake George AIS regulations (www.lakegeorgeboatinspections.com)

Program Description

As per the new regulations, all trailered vessels were required to undergo an inspection process prior to launch into Lake George as of May 15th, 2014. These inspections were conducted at six regional inspection sites located at convenient locations throughout the Lake George basin (see map). These sites are as follows: Dunham's Bay Marina in Queensbury, Transfer Station Rd in Lake George, Norowal Marina in Bolton, Roger's Rock Campground in Hague, Mossy Point in Ticonderoga, and Hulett's Landing Marina in Dresden (managed with Marina staff through contract). All staff at these sites underwent joint hands-on training by the Commission prior to the start of the boating season. This training was highlighted by onsite guidance from "Quagga D" Davis, an AIS inspection and decontamination instructor for the Pacific States Marine Fisheries Commission. A special thank-you goes to the Colorado Department of Natural Resources for their Aquatic Nuisance Species (ANS) Watercraft Inspection Handbook and training materials.



Inspection Process:

The inspection process begins when a boater arrives at one of the inspection stations. The boater is greeted by one of the Commission's Vessel Inspection Technicians (VITs) and is instructed to park and exit their vehicle to assist with the vessel inspection. By enlisting the boaters' assistance, the VITs educate the boaters on the importance of preventing AIS transport, and potential modes of transport on trailered vessels. The goal is to educate the boating public on the quick and easy inspection steps such as inspecting and draining their boat after every use in order to prevent the spread of AIS.

The VITs are trained to use the acronym, H.E.A.D. or Hull, Engine, Anchor, and Drain, during the inspection process. The acronym H.E.A.D provides the framework for a thorough inspection of the vessel in a systematic approach to all areas that require inspection.

HULL: The VITs walk around the boat with the owner, explaining the inspection process. The VITs conduct a visual and tactile inspection of the hull and trailer.

ENGINE: The VITs then inspect the engine of the vessel. This is accomplished by lowering the motor or lower unit and checking to see if any water drains from the engine. The VIT notes that engines use lake water to provide the necessary cooling. The result is the possibility of juvenile AIS in the water in their engine's cooling system. Ideally, no water would be present, satisfying the Drained and Dry components of the engine inspection.

ANCHOR and DRAIN:

The final steps of the inspection process require the VITs to board the vessel with the owner and check the anchor, anchor line, marine and /or recreational equipment and all other compartments for standing water. VITs inspect the anchor and the anchor line for mud, organics, and specific AIS such as mussels, clams, and spiny water flea. All of these organisms can attach to anchor lines and be transported between water bodies. Standing water within a compartment provides an environment in which juvenile AIS can survive and be transported between water bodies. Compartments and equipment that are dry to the touch satisfy the Drained and Dry components of the inspection criteria.

The final stage of the inspection requires the VIT to inspect the bilge area of the vessel for standing water. The bilge is the lowest part of a boat and this is typically where standing water is found. The VITs instruct the boat owner to remove the bilge plug, if it hasn't been already. The presence of standing water within the bilge or upon removal of the drain plug indicates the vessel has not been sufficiently Cleaned and Drained.

If a vessel does not meet the Clean, Drained, and Dry standard, it does not pass inspection. The boat owner is then offered a free decontamination on-site, which will ensure that the boat passes inspection and will be ready for launch. Upon such a determination, the vessel is moved to the decontamination pad where the VITs explain to the owner what will be done to decontaminate the vessel. If a vessel fails one portion of the inspection, the entire vessel does not require decontamination. For example, if the hull and compartments are clean and drained, but water is found in the engine, then only the engine requires decontamination. By only decontaminating the parts of the vessel that failed inspection, we save the boaters time and reduce inconvenience.

The exterior of the vessel and the trailer are decontaminated by using high pressure, high temperature water. The interior is decontaminated with low pressure, high temperature water. Low pressure is used on the interior because many components on the vessel's interior would be damaged by high pressures. The engine is decontaminated by using a special set of muffs that cover the engine's water intake. The high temperature water is turned on and then the engine is started. The high temperature water is run through the engine until the water that comes out the output reaches 140 degrees Fahrenheit.

Once a vessel has either passed inspection or has undergone the decontamination process, the inspector applies a Vessel Inventory Control Seal (VICS). This is a small plastic seal that attaches the vessel to the trailer via a small diameter wire. The wire is typically fed through the bow eye of the vessel and a closed loop on the trailer. Both ends of the wire are then fed through the seal and clamped. These seals are numbered and color coded, allowing the Commission to keep track of where and when the vessel was inspected and sealed.

Now that the inspection is complete and the boat is "sealed", the boater can launch at any of the nearly 50 publicly-owned and private commercial launches on Lake George. The Commission has agreements with the launches on the lake that allow the individual launches to remove the Vessel Inventory Control Seal and launch the vessel.

Also, public and commercial launches were issued VICS so they can seal boats as they exit Lake George. This is a great convenience to boaters that frequent Lake George. By getting their boat sealed as they leave the lake, the boaters save themselves having to get an inspection next time they come to the lake. As long as their VIC Seal is in place, they do not require another inspection. 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.

Data Collection:

During the inspection process, the VITs collect information on a paper "Inspection Activity Log". This information includes the vessel type (i.e. motor, sail, PWC) whether or not the vessel has a VIC seal present, where the vessel was launched in the last 30 days, etc. The Inspection Activity Log also has a list of inspection procedures that each inspector must complete. This ensures a thorough, consistent inspection. Data from this form is then entered onsite into an electronic survey using the "SnapMobile" application which is installed on Google Nexus tablet computers. The "SnapMobile" app keeps a digital record of all boat Inspections. This information is reviewed weekly, allowing the Commission to stay current with the number of inspections and decontaminations occurring at the numerous inspection locations, and manage for program efficiencies as appropriate. Staffing levels were adjusted based on the number of inspections performed each week.

Sample Collection:

During the inspection process, any aquatic invasive species found are collected and labeled with the date, vessel registration number, inspection station, and last water body visited. For ease of management, this information is entered into the same data collection survey as the Inspection Activity Log. The collected samples are then provided to the Darrin Freshwater Institute for confirmation of identification.

Decontamination Equipment:

Decontamination of vessels under this program is performed using high pressure hot water equipment. No chemicals are used in the process. Following the best science of vessel AIS decontamination, the water temperatures used are 140 degrees F for the exterior surfaces, and 120 degrees F for soft fabric surfaces of the interior of the boat. Similarly, the hull is sprayed with approximately 3,000 psi water, and internal components, bilge, and motor are simply rinsed with hot water.

The Lake George Park Commission uses LANDA Ecos 7000 Mobile Wash and Recovery units for vessel decontamination. These machines have four 100 gallon tanks that hold fresh water. The LANDA units use either a gasoline or electric powered pressure pump that provides the necessary high pressure, and a fuel oil burner that heats the water to the high temperature required for decontaminating vessels. The LANDA comes with a 15'x30' collection pad that collects all water used in the decontamination process, in a self-contained system. This prevents the water and any AIS present in that water from making its way into the environment.

The LANDAs have a water recovery and return system that vacuums the used water from the collection pad, filters the water, and reuses the water to refresh the onboard reservoirs. Water is changed generally on a weekly basis or as-needed depending upon the volume of decontaminations. This system allows the VITs to recycle water, reducing environmental impacts. The LANDAs come with a variety of different attachments that allow the VITs to decontaminate different portions of a vessel. There are high-pressure nozzles for the hull and trailer, low-pressure hoses for the interior compartments, and special attachments that allow for the flushing of motors.

Inspectors also use other hand tools to perform their inspections. An infrared thermometer is used to test the water from the LANDA machine, to ensure it reaches the prescribed temperature. Extendable inspection mirrors are used to inspect inconspicuous portions of trailers and bilge areas. Flashlights are used to light up dark areas of the bilge and underneath trailer wheel wells. Use of these tools allows for a more thorough inspection, reducing the chances of an invasive species making its way into Lake George.

Inspection Site Staffing and Site Improvements

Inspection Schedules:

Throughout the 2014 boating season, all inspection stations were open 7 days per week. The hours of operation for these stations varied by site and season based upon boater demand. During the peak boating season, all inspection sites were open at least 12 hours per day (dawn until dusk or later).

In the shoulder season (May 15-June 26, September 2 – October 12), site supervisors attempted to reduce hours in correlation with boater activity and daylight hours. Open and close times were decided by Commission staff based on the number of boater interactions recorded at each inspection site, as well as daylight hours. Daily schedules for each Inspection Station were created by the Inspection Station Supervisor and reviewed by Commission staff. The number of staff on duty each day varied based on the perceived need for Inspectors relative to boat inspection traffic. Typically, Fridays through Sundays were the busiest days, and therefore those days would have the greatest number of Inspectors on duty.

Staffing:

The Park Commission considered multiple staffing options including hiring seasonal state employees and using a temporary staffing agency. It was determined that the most cost effective method was to use a temporary staffing agency that could provide administrative services including payroll services as well as providing liability and worker's compensation insurance.

The initial request for application for VIT positions resulted in over 150 applications received by the temporary staffing agency and/or the Commission. Of this number roughly 50 individuals were selected to attend a training course in April, 2014, before the start of the boating season. Additional VITs were hired in mid to late August as a result of several VITs returning to college, leaving vacancies that needed filling.

Inspection Site Preparations:

Each of the Park Commission's inspection sites required some preliminary site work. These site improvements included supplying water, electricity, and office structures. Office structures provide

shelter for staff during inclement weather as well as serve as a secure location to store equipment overnight. All site improvements were completed by a private contractor with the help, coordination, and financial assistance of the Commission's partners.

The Transfer Station site (known as the Exit 21 site) is located in the Town of Lake George, and allowed the Commission to utilize an existing garage and pole barn to serve as an inspection station. This garage had both power and water, and provided the staff and equipment with adequate shelter. Due to the availability of power, the Commission was able to use an electric LANDA machine within the shelter at this site. Thanks go to the Village of Lake George for the use of this property and their assistance in site preparation work.

The Dunham's Bay site is located on Bay Road just south of the intersection of NYS Route 9L on lands owned by Frank Parillo as part of his marina. It required some stone to be brought in to level part of a gravel parking lot. The office structure, which is a 12'x16' pre-built shed, was placed on the stone pad. A 10'x25' steel storage container was delivered to provide secure storage for the LANDA machine and decontamination mats. A landline was connected to the office which provided the staff there with a means of communication between Commission staff and Inspectors. Electricity was connected to the office as well, allowing for the use of lights, electric baseboard heat, a small refrigerator, and to charge the radios and tablet computers. Thanks go to Frank and Scott Parillo for allowing the Commission to operate on their property for the purposes of this program.

The Norowal Marina site required the most site work. An existing 40'x60' steel structure, owned by Norowal Marina, was divided into three, 20 foot wide sections, one of which was turned into a drive-through inspection lane. In order to accomplish this, the rear wall was removed and a concrete floor poured. A drain was installed in the center of the floor, which will connect to the Town of Bolton's wastewater system. Power was connected to this building which provided the necessary lighting. The Commission chose to use an electric LANDA here as well, in order to reduce the noise disturbance to nearby homes. By having the drive through inspection bay, inspectors are able to inspect boats in any weather and at any time of day. An office structure for this site was placed on adjacent lands of Buzz and Cheryl Lamb. Stone was brought in and a portion of the parking lot was leveled for the office structure. Electricity was connected to the office as well, allowing for the use of lights, electric baseboard heat, and a small refrigerator and to charge the radios and tablet computers. A frost-proof water line was installed adjacent to the inspection building that allows for the LANDA machine to be refilled as needed. Additional stormwater management devices are expected to be installed in the spring of 2015. Norowal Marina is the busiest private marina on Lake George, with the most launches into Lake George annually. Thanks to the Norowal Board of Directors and Buzz and Cheryl Lamb for working with the Commission to plan for this operation, and for allowing this program to be operated at this busy marina location.

The Roger's Rock NYS DEC campground site in the Town of Hague required that some stone be brought in to level a small portion of an existing parking area for the office structure. Electricity was connected to the office via an overhead line from one of the campground restroom facilities. Water was taken from a nearby campground shower building via a garden hose, as needed. A landline was connected to the office which provided the staff there with a means of communication between Commission staff and Inspectors.

The Mossy Point NYS DEC state boat launch site required stone to be brought in to provide a level footing for the office structure. Electricity was run to the office from an existing NYSDEC restroom facility near the launch. This allowed the use of lights, electric baseboard heat, and a small refrigerator and to charge the radios and tablet computers. A steel storage container was delivered to the back of the parking lot to provide secure storage of the LANDA machine and decontamination mats and all assorted equipment. Thanks to DEC Region 5 leadership for allowing the Commission to operate at both the Roger's Rock and Mossy Point facilities.

Launch Management and Controls

There are more than 80 locations on Lake George where a trailered boat can be launched into the lake. These launches can generally be divided into three categories: Public (state and municipal), Commercial (marina and motel), and Private (Homeowner Association and Private Homeowner). The management of each of these types of launches was distinct under this program, and were handled as follows:

Public: There are three NYS DEC launches and two municipal launches (Hague and Putnam) on Lake George. The DEC properties (Mossy Point and Roger's Rock) are two of the most heavily used launches on the lake, and as such, they were utilized as inspection sites and fully staffed by LGPC inspection technicians full time during operating hours. The DEC Million Dollar Beach launch only operates in the shoulder seasons, and due to construction, was not operational for the fall season. The two municipal launches were not inspection sites, but were staffed by town personnel who were charged with checking for inspection seals and re-sealing boats as they exited the lake. The Commission thanks the Towns of Putnam and Hague for putting forward the funding and efforts to comply with this program. Operating hours of those launches was set by the Town Boards of the respective municipalities.

Commercial: There are 47 marina and motel launches on Lake George. These facilities were responsible for checking and clipping inspection seals prior to launch and for re-sealing boats to trailers upon exit from the lake during operating hours. These facilities were also required to secure their launches in some manner during non-business hours. These facilities have operating agreements with the Commission noting their responsibility under the program, and were required to keep simple log sheets of launch activity and records of seals provided and clipped. This process was straight forward and fairly easy for the commercial launches to administer, and there were few reported problems with managing this as a new system.

Private: There are seven Homeowner's Associations around Lake George that have launches on their property, and another 29 private homeowner launches. Boats owned by these individuals were allowed to launch freely, provided those boats remained on the property and did not travel to another waterbody. A list of boats was provided to the Commission, certifying that no outside boats could launch from that property.

Night Operations at State launches

By NYS DEC operational policy, state-owned launches on Lake George are open to the public at all times. At the state-owned launches of Roger's Rock Campground and Mossy Point, the Commission operates

regional inspection stations and provides staff during the daylight hours to facilitate convenient compliance with the AIS regulations. During the evening hours when these inspection facilities are closed, boaters demonstrate compliance with the regulations by clipping their vessel inspection control seal, and placing it into a secure lock-box provided at the inspection site. When Commission vessel inspection technicians 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.

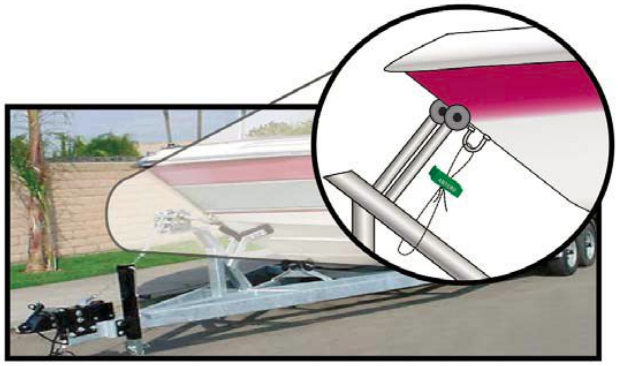
In furtherance of this after-hours effort, the Fund for Lake George administered a "Night Steward" program at the Roger's Rock and Mossy Point inspection stations to monitor boater activity during the hours when Commission inspections stations were closed (i.e. 9pm-6am). The main goal of this program was to determine after-hours boater activity, to educate after-hours boaters about the inspection program, and to provide an exit inspection and vessel inspection control seal for boats being retrieved from the Lake. Very few boaters launched while the Night Stewards were on duty, as noted in Figures 17 and 18. However, these Night Stewards did provide exit seals to 132 boats, primarily following the 9PM close time. This data is helpful in crafting appropriate Inspector staffing hours for the 2015 program.

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. These programs serve as a convenience to the boating public, and also represent significant program efficiencies.

Vessel Inspection Control Seals (VICS)

Pursuant to the AIS regulations, it is unlawful for any person to launch or attempt to launch a trailered vessel into the waters of Lake George during the boating season (April 15 to December 1) without an intact vessel inspection control seal. Vessels may be equipped with a VICS by Commission inspection and decontamination staff, as well as by operators of public and commercial launches upon retrieval of a boat from Lake George. When a boat is decontaminated or passes an inspection, Commission staff attaches a green colored VICS to the boat. When a boat is retrieved from Lake George, a launch operator attaches a red colored VICS to the boat. In this manner, boats retrieved from Lake George that are used exclusively on the Lake and return to the Lake with a red VICS need not undergo additional inspection. Further, in contrast with a green VICS, the red colored VICS alerts stewards for other waterbodies in the region that a vessel has last been in Lake George. Using this program, a boat that is only used on Lake George will never be required to undergo an AIS inspection.



Pre-Season "Frozen Boats" Program

It is recognized that boats that are exposed to cold North Country weather through winter storage do not have any viable or live invasive species on them. As such, boats coming out of storage for the first time and being launched into Lake George do not pose a risk of introducing any AIS to the lake. Towards that end, it was also recognized that there would be a large influx of boats coming out of storage and launching into the lake that, under the regulations, would need a full inspection as they were not sealed. To provide program efficiency from both a boater and a program standpoint, a program was created to pre-seal as many boats stored in the Lake George region as possible in anticipation for the launch of the program on May 15th.

To accomplish this, the Commission established a "Frozen Boats" Program. This program allowed local residents to have their boats certified as invasives-free with a Vessel Inspection Control Seal (VICS). This was a program that provided VICS for trailered boats that have been demonstrated to be exposed to the winter elements sufficiently long to kill any aquatic invasive species. A boat equipped with an intact inspection seal acquired through the Frozen Boats Program was not required to visit one of the regional inspection stations prior to its first launch of the year into Lake George.

Thanks to the help of nine local resident volunteers throughout the basin (one per surrounding town) and advertising by word of mouth and the Commission's inspection program website, LGBoatInspections.com, the Commission was able to seal more than one thousand local boats in advance of the 2014 boating season. This effort alleviated the need for local non-risk boats to be inspected, and created a smooth transition into the first boating season. Each volunteer expended dozens of hours to visit private residences throughout the basin and provide vessel inspection seals. All requests for a frozen boat seal were accommodated. The frozen boats program ended just after ice-out on local waterways, as the Commission could not ensure that boats had not yet launched for the season. This program provided multiple benefits of program efficiency, public good will, and common sense in managing risk from an invasive species prevention standpoint.

Hauler Agreements

In addition to the Frozen Boats Program for the local residential boating public, the Commission administered Hauler Agreements with local marine services professionals who maintain Lake George only boats. Specifically, a number of trailered vessels that operate on Lake George are under the sole care, custody, and control of marine services professionals within the basin. These service providers annually retrieve customer boats from the Lake in the fall, service the boats, store them, and then in early summer launch them again into the Lake. These boats present no risk of new AIS introduction to Lake George, and accordingly were exempt from the inspection program through a written hauler agreement with the marine services professional. These hauler agreements identify the boats for which the hauler maintains care, custody, and control, and authorizes these boats to be launched without inspection, provided the hauler can certify the subject vessel has not been launched into any waterbodies aside from Lake George. Vessels not identified in the agreement, or which have visited another waterbody are required to be inspected at one of the regional LGPC boat inspection facilities and receive of a Vessel Inspection Control Seal (VICS) prior to launch into Lake George.

Residential and Homeowner Association (HOA) Launches

The last group of no-risk local boats that may be launched into Lake George are those owned and launched by Residential and HOA lakefront landowners with private boat launches. Residential and HOA boat launches are those that are owned by individual landowners or registered HOA's, and which are not used for commercial purposes. In order to operate a residential or HOA launch, the respective owner must register the launch with the Commission, and as a condition of this registration process, specify the boats are owned by the landowner or respective HOA member, and certify that each of these boats is not trailered to other waterbodies. If and when a boat travels to another waterbody, it may only be launched into Lake George once it has passed a Commission sanctioned Cleaned-Drained-Dry inspection or decontamination and received a vessel inspection control seal. In this manner, similar to the hauler agreement referenced above, local boats utilized exclusively on Lake George need not undergo inspection, which saves the boat owner and Commission inspection staff valuable time.

Program Cost, Funding, and Partners

Reflective of this entire regulatory initiative, the funding for the Lake George AIS regulations was very much a combined effort. Every contribution associated with this endeavor, including countless hours by board members, volunteers and professionals within the basin and in Albany cannot be enumerated herein, but no doubt represent a monumental contribution without which this program could not have been realized.

This program drew not only widespread support from a large variety of organizations, but also considerable financial support from an array of public and private agencies and organizations. During the development of this program, funding was a key issue to be addressed. The goal was to make this program as non-impacting to the boating community on Lake George as possible, from both a convenience standpoint and from a cost standpoint.

Towards that end, considerable discussion was had at both the local level and in Albany. Ultimately, a cost-sharing arrangement was created, whereby the annual operating costs of the program over the two-year pilot effort would be shared equally between the State of New York and local municipal and nonprofit organizations.

The annual cost of implementing the LGPC Boat Inspection Program was estimated to be $700,000. Under the 50/50 cost share scenario, this equated to $350,000 for each party (state, local). The NYS portion of the funding was provided through the support of Governor Andrew Cuomo through the NYS Environmental Protection Fund. The local funding was generated through a newly created coalition named the "SAVE Group" (Stop Aquatic Invasives from Entering) Lake George, which is comprised of the organizations noted below in Table 6.

This state/local partnership is the backbone of the Commission's program, which would not exist without the support from all parties involved.

Below are itemized the dollars and cents costs and contributions of the program.

Expenses

1. Decontamination Units

The 2014 program utilized nine (9) Landa Ecos decontamination units. These units are approximately $22,600 apiece. The total cost associated with the purchase of these units is $204,000.

Table 1: The 9 units utilized for this project and their funding sources are identified below for reference:

Unit Number(s)	Type (Gas or Electric)	Purchase Year	Funding Source
1	Gas	2012 - May	Town of LG, Hague, Bolton, & Queensbury
2-3	Gas	2013 - May	LGPC/EPA grant
4	Gas	2013 - July	Town LG, Village LG
5-9	2 Electric/3 Gas	2014 - May	Warren County/NYS DOS

2. Outreach

Table 2: Outreach was funded as follows:

Funding & Services	Source
$10,000	NYS EPF
$9,500	Lake George Power Boaters Association
$22,000	Lake George Association(Paid directly for services)
Web design of www.LGBoatInspections.com	New York State Executive Chamber IT Department

3. Marine Patrol Enforcement

Table 3: Increased enforcement presence by marine patrol was funded as follows:

Funding	Source
$20,000	Village of Lake George

4. Training

Table 4: Inspection and decontamination training from instructor for Pacific States Marine Fisheries Commission

Funding	Source
$8,390.60	Fund for Lake George

5. Staffing and Program Administration

Table 5: Direct costs associated with staffing and program administration are as follows:

Expense Type	Amount
One Time Expenses	

Decontamination units (9)	$204,000.00
Site Work	$49,722.41
Safety/Security (fire extinguishers, lock boxes)	$1,648.49
Radios/Cellphones/tablets	$7,155.54
Inspection site office (4)	$31,627.00
Secure Storage Unit Delivery/Set up	$1,828.62
Cloud Setup	$251.27
Subtotal	**$296,233.33**
Recurring Expenses	
Wash Unit Maintenance/misc. parts	$6,594.44
Training Facility/ Refreshments	$1,093.48
Seals and Wire	$12,212.40
Fuel & Truck Maintenance	$4,983.56
Advertising/Rack Cards	$2,077.14
Hardware/Supplies	$8,028.29
Uniforms	$3,258.99
Subtotal	**$38,248.30**
Monthly Expenses	
Utilities (season total)	$1,908.76
Secure Storage (season total)	$3,321.25
Cellular Phones (season total)	$5,819.44
Cloud Services (April through 8/27/14)	$119.94
SnapSurvey WebHost Service (annual subscription)	$2,553.00
Subtotal	**$13,722.29**
Staffing	
Seasonal Staff Labor Cost	$548,078.47
Background Checks	$4,865.00
Marina Liability Insurance	$13,383.00
Finance charges	$501.94
Full time Park Ranger with Benefits	$49,738.05
Subtotal	**$616,566.46**
Summary: Program Annually Recurring Expense	***$668,537.05***
Original Estimated Cost	***$700,000***
Percent under budget	***4.5%***
Summary: Program One-Time Up-Front Expense	***$296,233.33***
Original Estimated Cost	***$300,000***
Percent under budget	***1.3%***
TOTAL Program Cost to Date	**$964,770.38**

Program Income

Table 6: 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 as follows:

Source	Funding (For 2014 Annual Program Cost)
NYS Environmental Protection Fund	$350,000
Warren County	$150,000
Village of Lake George	$50,000
Town of Lake George	$30,000
Town of Bolton	$30,000
Town of Queensbury	$30,000
Fund for Lake George	$30,000

Table 7: Equipment costs and site work were shared by EPA, NYS, and local municipalities

Source	Funding (For decontamination equipment and site work costs over a three year period)
NYS Environmental Protection Fund / NYS DEC	$100,000
Warren County / NYS DOS	$200,000
US Environmental Protection Agency	$50,000
Village of Lake George	$12,500
Town of Lake George	$25,000
Town of Queensbury	$17,500
Town of Bolton	$12,500
Town of Hague	$5,000

Table 8: Funds invested in furtherance of the effective administration of this program are as follows:

Funding	Source
$27,000	Town of Putnam, Staffing the Town's launch
$12,000	Town of Hague, Staffing the Town's launch
$70,022	NYS DOS / Fund for Lake George, Night Steward Program

2014 Inspection Program Results

The Lake George Park Commission boat inspection program had 20,229 boater contacts at 6 regional inspection stations in the year 2014 (Figure 1, see Appendices for all figures and tables referenced henceforth). Fifty-one percent of these (10,351) were boats arriving at Lake George without a Vessel Inspection Control Seal (VICS), requiring a full inspection (Figure 2). Of these 10,359 trailered boats, 12% posed a threat of aquatic invasive species transport, and received onsite decontamination (Figure 3).

Nineteen 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 a seal from the "frozen boats" program, or they were returning to Lake George

following a previous exit inspection. This represents significant program efficiency, in that these boaters do not require a full inspection, as they had already gone through either the entrance or exit inspection process. The exit inspection of trailered boats being retrieved from Lake George represents roughly 30% of all boater contacts (Figure 5).

A total of 165 visible aquatic invasive species were found on vessels throughout the season, equating to approximately 1.6% of boats arriving at Lake George (Table 9).

Table 9: Visible AIS retrieved during entrance inspections in the year 2014

Species	**Number Found**
Eurasian watermilfoil	119
Zebra mussels	23
Curly leaf pondweed	13
Water chestnut	8
Snail	2

For more detailed results, please see Table 12 in the attached appendices, which break the data out further by origin of boat and what was found.

During the inspection process Vessel Inspection Technicians gathered information about the subject vessel including the last waterbody from which the vessel was retrieved. The inspection program identified that boats arriving at Lake George had previously visited 457 unique waterbodies across the United States and Canada (Figure 6, Table 10). The ten most common waterbodies visited prior to coming to Lake George include the Hudson River, Saratoga Lake, and Lake Champlain (Table 11). The Hudson River and Lake Champlain are each known to have greater than 50 aquatic invasive species.

Data from the inspection program indicate trends in the timing of boater activity. There were significantly greater numbers of entrance inspections during the short "peak" summer season (June 27-September 1) compared with the longer shoulder season (May 15-June 26, September 2 – October 12), however common throughout the boating season is the propensity for weekend activity, most notably on Saturday (Figure 6, Figure 7). Expanding upon seasonal differences in boater activity, Figures 8 and 9 depict the number of entrance inspections and decontaminations throughout the boating season. These data reflect a bell-shaped curve indicating greater boater activity from late June through August, and significantly reduced activity at regional inspection stations during spring and fall.

In an effort to maintain the highest level of customer service in the inaugural year of the inspection program, Commission staffing levels were relatively high throughout the boating season. Total staff hours for the inspection program ranged from 1,200 to 1,600 hours per week from late May through early September when hours were lowered in response to waning boater activity (Figure 10). That said, waning boater activity in the tail end of the 2014 boating season resulted in a relatively costly program, with the relative cost per inspection rising from a low of $14.32 the week of July 4th into the hundreds of dollars per inspection in the month of November (Figure 11). Additional detail regarding the cost per inspection at each of the inspection stations during the peak and shoulder seasons is depicted in Figures 12 and 13, respectively. It should be noted, the relatively high cost per inspection recorded for stations located at Transfer Station Rd and Dunham's Bay are due to the upland location of these stations

causing them to be geographically limited to entrance inspection services. In contrast, all other inspection stations may provide entrance inspections as well as exit inspections for trailered vessels leaving Lake George.

The Night Monitor program administered by the Fund for Lake George logged 222 boater interactions including 90 boat launches, and 132 exit inspections at the State owned Roger's Rock Campground and Mossy Point boat launch (Figure 16). The majority of the interactions occurred within an hour of the Commission's operating hours for the 2014 season. Six boats reportedly attempted to launch without inspection. Upon being informed of the AIS regulations by the Night Monitor staff, five boaters decided to wait for Commission technicians to arrive and provide a boat inspection. One boat launched without inspection. Insufficient data was collected and reported to the Commission to pursue enforcement in this matter. Site specific data for this program is depicted in Figures 17 and 18.

Program Compliance

Critical to the successful administration of the Lake George boat inspection program is an adequate field presence to ensure regulatory compliance. For this purpose the Commission relies heavily upon its eight boat Marine Patrol, which is best equipped to monitor and visit the 80+ active boat launches that ring the shores of Lake George. Thanks to a generous $20,000 donation by the Village of Lake George, the Commission was able to increase the Marine Patrol's coverage in 2014, and provide inspection program oversight without compromising the patrol's critical role in public health and safety. All told, the Marine Patrol logged 1,070 man hours dedicated solely to aquatic invasive species management in 2014. A breakdown of these hours and associated activity is depicted in Figure 14. This increased AIS activity included an extra two boat patrol presence throughout the spring and fall shoulder seasons, which by the close of 2014 logged 460 on-water hours monitoring launch management compliance. In addition to this, Marine Patrol spent 383 hours communicating with launch owners and the boating public about the AIS regulations to ensure understanding and compliance with the requirements (Figure 15). In the course of the Commission's compliance checks there was an isolated instance where one of the commercial resort launches was found to have allowed guests to launch in contravention of the inspection regulations. This aberration was quickly communicated to the owner, and the violation amicably resolved by Order on Consent with the Commission.

2015 Anticipated Program Improvements

The Park Commission recognizes there is always room for improvement in any new program. Staffing and operational improvements slated for 2015 will result in a greater level of service and boater convenience at lower program costs. Overall, the goal is to operate as efficiently as possible without sacrificing service to the boating public.

One fiscal improvement being made for the 2015 season is the reduction in staffing overlap. In 2014 the Commission purposefully overlapped staff shifts in an effort to maintain consistency of work flow and communication throughout the work day. In consideration of program costs and the negative public

perception of an oversized staff, for the 2015 season overlapping shifts will be reduced. The overall effect will be reduced staffing levels and costs, and greater emphasis will need to be placed on inter-shift communication and responsibilities amongst staff members.

Another cost-saving move for the 2015 season is to have staffing levels more closely mirror boater activity levels. Specifically, staffing levels will be reduced in the shoulder season commensurate with reduced boating levels observed in 2014. This staffing adjustment will further reduce program costs.

Cost-savings for the 2015 season will also be achieved through in-house training, rather than hiring an outside consultant as was required for the program's initiation in 2014. Vessel Inspection Technicians serving for the 2015 season will receive cross-training from Commission staff and returning site supervisors. This training will include hands-on orientation regarding vessel inspection, decontamination, AIS identification, AIS collection and verification process, incidence reporting, and digital data recordation with hand held devices. Inspection station site supervisors will also receive management training.

Operationally, several site improvement goals have been identified for the 2015 season. One such goal is to reduce the amount of fine sediments being tracked by vehicle and trailer tires onto the decontamination containment pads. This sediment tends to clog and reduce the service life of the Landa ECOs filters involved with the greywater reclamation process, and can also cause costly damage to the LANDA pumps.

Discussions between the Commission and the SAVE Group regarding implementing a second year of the "night steward program" have not yet occurred. If the night steward program is to continue, both parties will cooperatively improve communication between Night Monitor staff and Commission staff regarding incidence reporting.

Lastly, the Park Commission will begin selling Lake George boater Registration Decals on a pilot-basis at one of the six regional inspection stations. If the sale of these decals can be carried out efficiently and provide a desired service to boaters, expansion of the program to all inspection sties will be evaluated. The purpose of selling the decals on-site is twofold. First, it provides convenient one-stop shopping for the boater. Secondly, it will improve boater compliance rates with Commission regulations which require most boaters on Lake George to be registered with the Commission on either a daily, weekly or annual basis.

Conclusions and Recommendations

The overall mission of the Lake George Park Commission is to oversee and manage the unique resources of the Lake George Park, particularly the pristine quality of the lake itself. This mission is best achieved by working together with all involved parties who have an interest and a stake in a clean and pure Lake George. Aquatic invasive species threaten the long-term ecology and water quality of the lake. The region's economy is based upon tourism, which is largely predicated upon the beauty and quality of Lake George. Thusly, the economy of the region and the quality of the lake go hand-in-hand.

The need to prevent, to the best of our ability, new introductions of aquatic invasive species has become more and more apparent. Lake George saw the introduction of two new AIS within a three year period prior to the implementation of this program (Asian clams and Spiny Waterflea). Almost two-million dollars was spent trying to control and eradicate Asian clams with limited success, and there is no management strategy for controlling Spiny Waterflea. The long-term prognosis of these species' impact on Lake George is not yet known, but real concerns exist regarding ecologic, water quality and possibly local economic impacts on surrounding properties.

It has often been prevailing wisdom that prevention of an issue is preferable to management, from both cost and impact perspectives. This assertion has been shown to be true on case studies of invasive species throughout the U.S. and the world. In our Lake George region, the Commission took a hard look at the best alternatives to minimize the risk of new AIS introductions into Lake George, and that effort resulted in this new trailered boat inspection program. While eliminating all possibility of new AIS introductions into Lake George is not possible, the program implemented by the Commission in 2014 is a strong effort to minimize this risk while balancing the overall cost of any such effort.

Success of any program should be measured not only by impact and results, but also by how the public agrees or disagrees with its premise and resulting implementation. By both of these standards, the inaugural year of the mandatory trailered boat inspection program has been seen as a success. One hundred sixty five boats were prevented from launching visible aquatic invasive species into Lake George, and another 1,264 boats inspected were found to be at risk for harboring aquatic invasive species. All of these boats received decontamination, at no cost to the boater, and they continued on to their boating experience on Lake George. Inspections averaged five minutes each, and decontaminations (when required) averaged nine minutes. Out of the 20,000-plus boaters who had interactions with inspectors, dissatisfaction with this program or the process was almost non-existent.

When all of the facts are tallied regarding cost, risk, convenience and public support, the Commission concludes that this program is meritorious for long-term implementation. The Commission believes that the benefit of this program outweighs the costs, and that all involved parties (state and local) should work together to identify all possible means to continue the program as it exists in its current format. The 2014 program came in under budget, and exceeded goals for service and public satisfaction. Program efficiencies will further reduce cost in 2015, with an ultimate goal of an annual program cost of $500,000 per year ($200,000 less than originally envisioned).

The Commission fully understands that this program is about managing risk. The question becomes how do we minimize risk of new AIS introductions as cost-effectively as possible? To help answer this question, we now have the benefit of a much greater understanding of boater launch activity into Lake George for a full season. Looking at this data, there are clear distinctions between peak season and shoulder season activity. The cost per inspection of boats in peak season is a reasonable $10-$20 per average (see figure 11), as there is much greater boating activity. Towards the end of the season, boater activity drops significantly, and even though staffing levels were reduced, the cost per inspection increased upwards of hundreds of dollars per inspection in late October and November.

This program has always endeavored to couple the best scientific information available with the best program implementation possible. The science of aquatic invasive species suggests that early and late season is not a peak period for transport of AIS, as aquatic plants and animals are not growing and spawning at those times. When the low-risk of transport is coupled with the low level of boater activity,

there exists a need to adopt regulations for the long-term which acknowledge these facts. In essence, does the program need to begin as early as April 15 and end as late as December 1, or can those dates be altered to provide for a more realistic cost/benefit? The Commission believes that this question should be addressed in the discussion of the long-term program goals and implementation.

To close, the Commission again acknowledges that this program, while administered by the Commission, is really a community effort. Funding, support, ideas, and outreach were all put forth by dozens of involved parties over a three-year period. The result of those labors is an aquatic invasive species program which is comprehensive, realistic in its objectives, and viable for the long-term.

It is the Commission's hope that full funding for this program can be provided for subsequent years, in a model which realizes no direct cost or fees to the Lake George boating public. Towards this end, the Commission will work with all involved parties to achieve the goal of an enduring AIS prevention program on Lake George.

Appendices

Figure 1: Total vessel inspections by inspection station in 2014 including boats arriving without VICS, boats arriving with VICS, and exit inspections

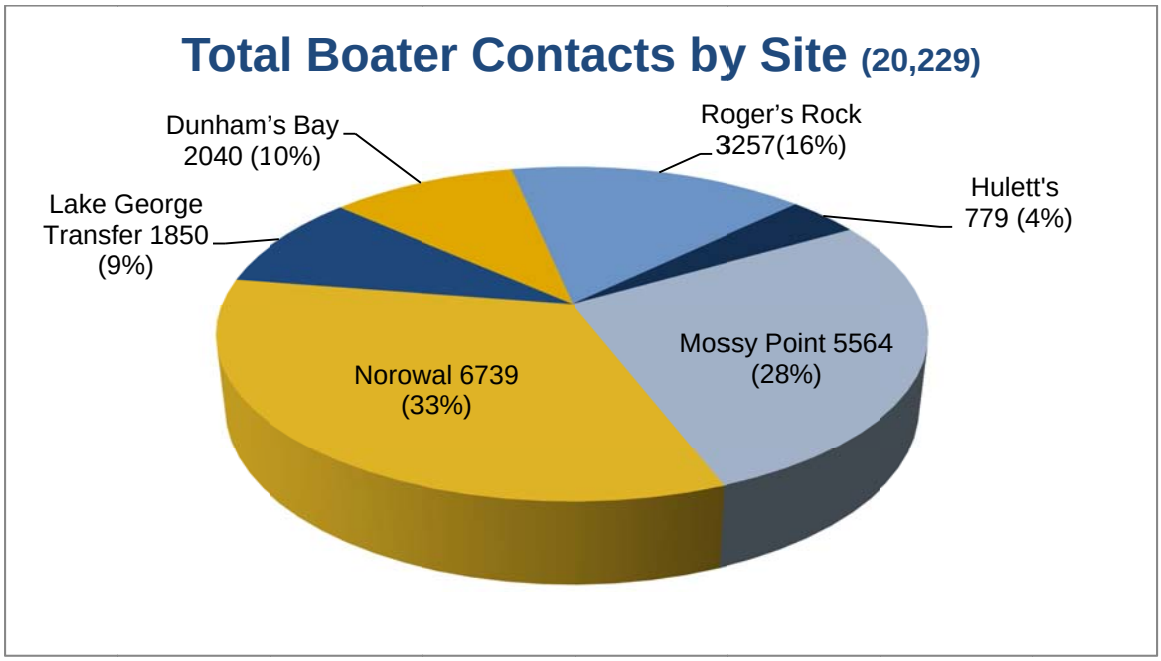


Figure 2: Total number of vessel inspections for boats arriving without VICS

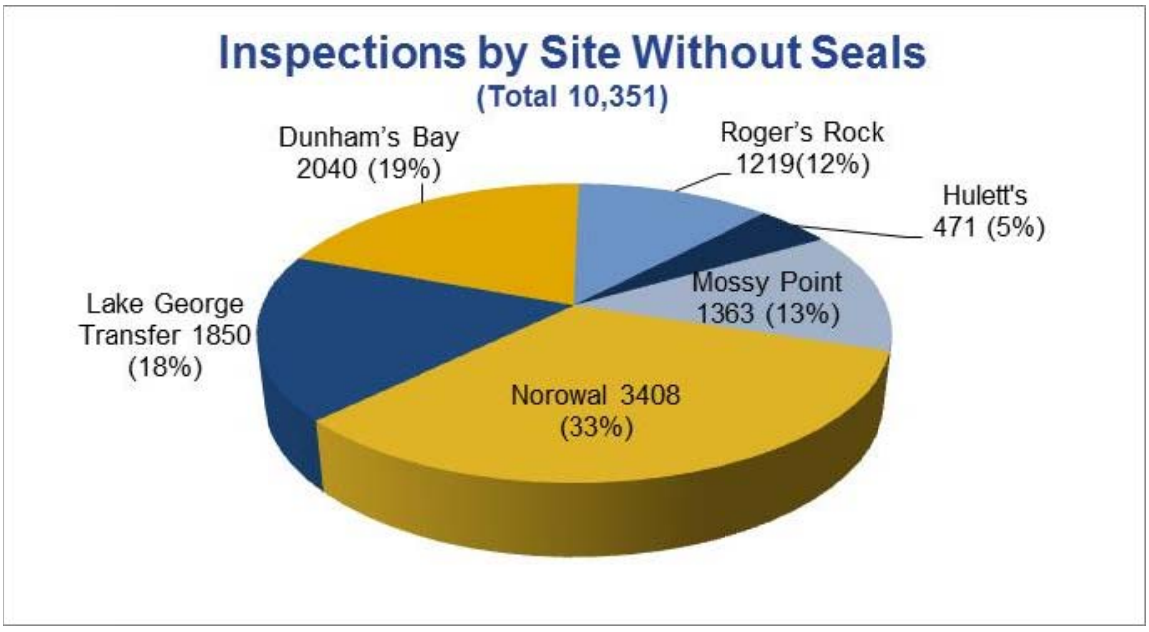


Figure 3: Total number of decontaminations

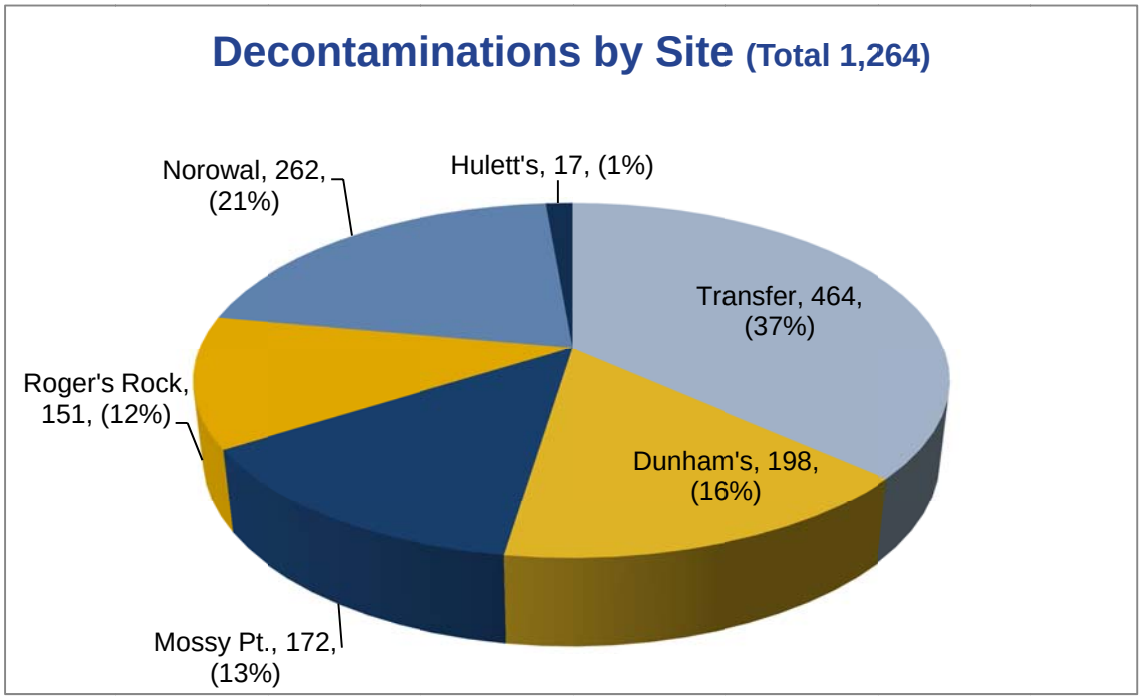


Figure 4: Total number of vessel inspections for boats arriving with VICS

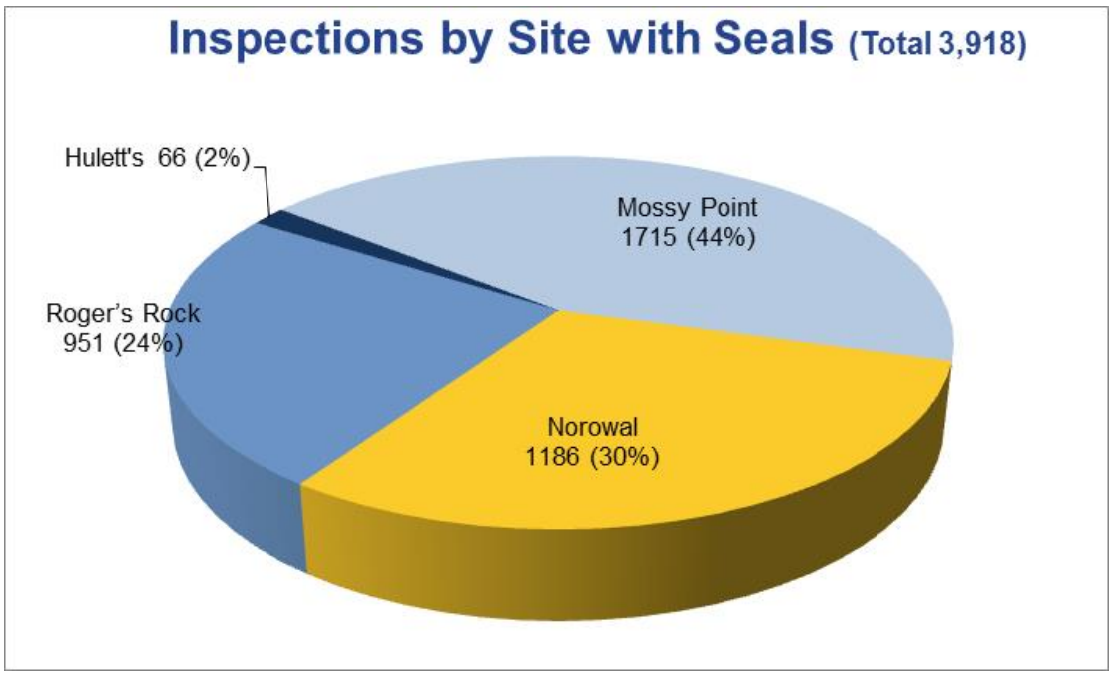


Figure 5: Geographic depiction of waterbodies visited prior to arriving at Lake George

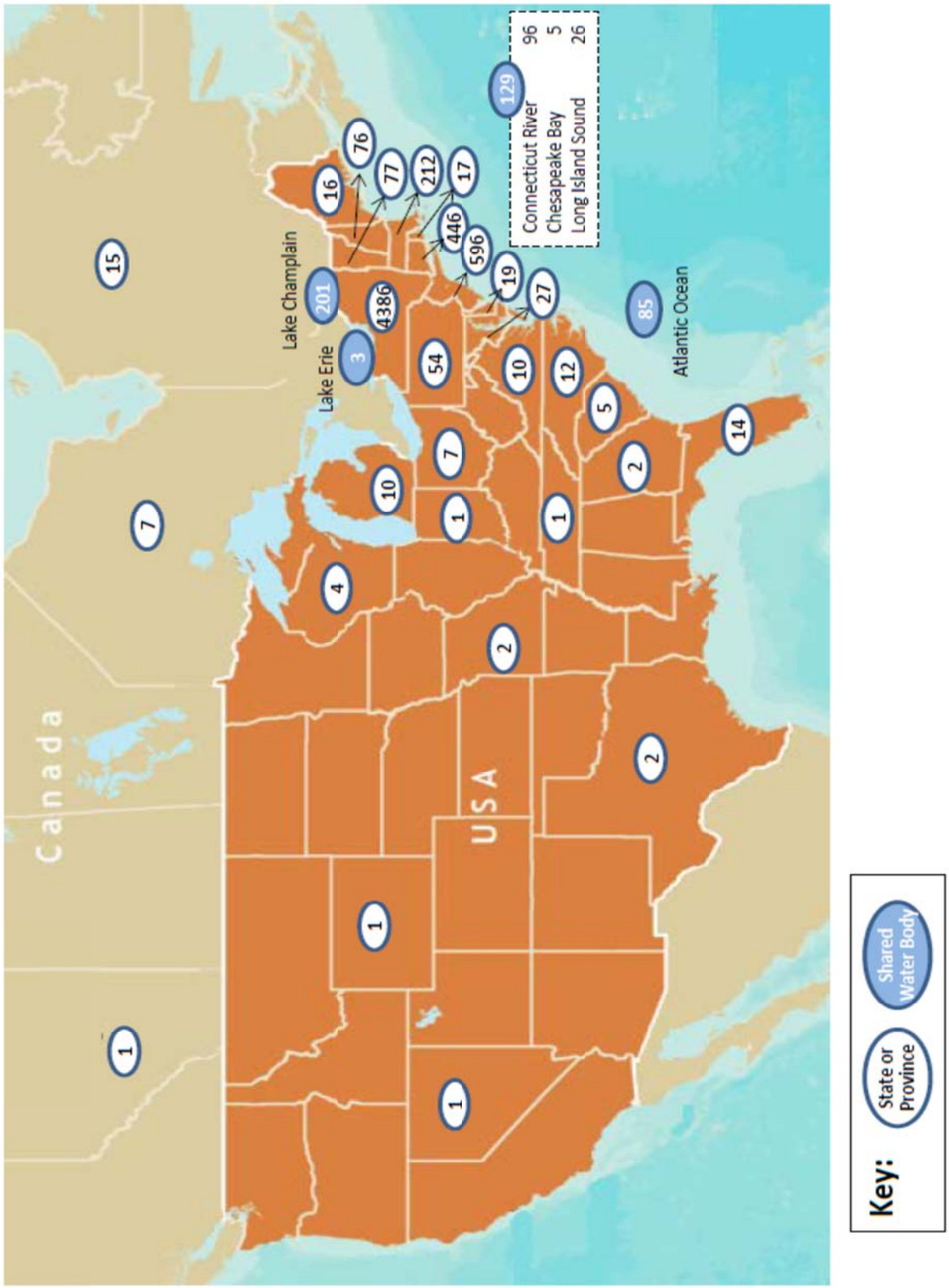


Table 10: Tabular list of waterbodies visited prior to arriving at Lake George

Last Water Bodies Visited (457) for Boats Entering Lake George - 2014

Connecticut
Atlantic Ocean
Bantam Lake
Bashan Lake
Candlewood Lake
Cedar Lake
Colebrook River Dam
Congamond Lake
Connecticut River
Connecticut River Canal
Cos Cab Harbor
Coventry Lake
Crystal Lake
Gardner Lake
Highland Lake
Housatonic River
Indian Wells Lake
Lake Harriman
Lake Lillinonah
Lake Pocotopaug
Lake Quassapaug
Lake Zoar
Long Island Sound
Moosic Reservoir
Mystic River
North Guilford Lake
Roger Lake
Silver Lake
Staffordville Lake
Thames River
Twin Lakes
Tyler Lake
Waramaug Lake
West Hill Pond
West Brook

Delaware
Atlantic Ocean
Chesapeake Bay
Christina River
Delaware River
Delaware State Pond
Indian River Bay
Marshyhope Creek
Nauticoke River
Susquehanna River

Florida
Atlantic Ocean
Florida Keys
Gulf of Mexico
Intracoastal Waterway
Palm Beach

Georgia
St. Johns River

Indiana
Brookville Lake

Maryland
Chesapeake Bay
Choptank River
Conowingo Reservoir
Northeast River
Ocean City
Pocomoke River
Potomac River

Maine
Atlantic Ocean
Crystal Lake
Eagle Lake
Great Pond
Little Sebago Lake
Long Lake
Range Pond
Round Pond

Massachusets
Anoda Lake
Atlantic Ocean
Boston Harbor
Buzzard Bay
Cape Cod Bay
Connecticut River
Falls Pond
Forest Lake
Gooses Pond
Hamilton Reservoir
Hampden Pond
Herdwood lake
Lake Boon
Lake Buel
Lake Chaubunagungamaug
Lake Congamond
Lake Garfield
Lake Metacomet
Lake Pontoosuc
Lake Quinsigamond
Lake Sabbita
Lake Singletary
Long Pond
Manchaug Pond
Mashpee Pond
Massapoag Pond
Merrimack River
Mystic Lake
Nantucket Sound
Navesink River
North Pond
Northeast Pond
Oneida Lake
Onota Lake
Otis Reservoir
Pantoosuc Lake
Plum Island Sound
Plunkett Reservoir
Quabbin Reservoir
Quaboag Pond
Quacumquasit Pond
Queen Lake
Salem Harbor
Southwick Pond
Lake Mahkeenac
Swift River
Wallum Lake
Watatic Pond
Watuppa Lake
Webster Lake
West Brookfield
Whitehall Lake
Whitman Lake
Wickaboag Lake

Michigan
Blue Lake
Houghton Lake
Elk Lake
Jordan Lake
Lake Huron
Lake Michigan
Lake St. Claire

Missouri
Mohawk River
Table Rock Lake

Nevada
Lake Mead (2,584 miles)

New Hampshire
Atlantic Ocean
Bow Lake
Coheco River
Connecticut Lakes
Contoocook River
Great Bay
Lake Mascoma
Lake Massabesic

Last Water Bodies Visited (457) for Boats Entering Lake George - 2014

Lake Memphremagog
Lake Monomoniac
Lake Ossipee
Lake Sunapee
Lake Winnipesaukee
Lake Winnisquam
Merrimack River
Merrymeeting Lake
Moore Dam Reservoir
Pleasant Lake
Silver Lake
Spofford Lake
Squam lake
Swanzey Lake
Whitingham

New Jersey
Atco Lake
Atlantic Highlands
Atlantic Ocean
Avalon Bay
Barnegat Bay
Beesley's Point
Bricktown Bay
Budd Lake
Candlewood Lake
Cape May
Cheesequake
Cranberry Lake
Culver Lake
Deal Lake
Delaware Lake
Forked River
Great Bay
Great Egg Harbor River
Greenwood Lake
Hackensack River
Hammonton Lake
Highland Lakes
Indian Lake
Johnson Pond
Keyport Bay
Lake Aeroflex
Lake Apacon
Lake Congamond
Lake Hopatcong
Lake Lenape
Lake Mohawk
Lake Mohonk
Lake Musconetcong
Lake Wallenpaupack
Lake Wawayanda
Little Neck Bay
Little Silver
Manahawkin Bay
Manasquan Reservoir
Manasquan River
Merrill Creek Reservoir
Metedeconk River
Monksville Reservoir
Mountain Lake
Mullica River
Navesink River
New York Harbor
Nueton Creek
Pam Pam Lakes
Passaic River
Paulinskill
Point Pleasant
Pompton Lakes
Rancocas Creek
Raritan Bay
Raritan River
Round Lake Reservoir
Round Valley reservoir
Salem River
Sandy Hook Bay
Scarlett Pond
Shrewsbury River
South River
Spofford Lake
Spruce Reservoir
Susquehanna River
Swartswood Lake
Swinging Bridge Lake
Toms River
Tuckahoe River
Union Lake
Upper Greenwood Lake
Wallum Lake
Wildwood Lake

New York
Abanakee Lake
Arrow Lake
Atlantic Ocean
Augur Lake
Ballston Lake
Barcelona Bay
Black River
Blue Mountain Lake
Brant Lake
Burden Lake
Canada Lake
Canadarago Lake
Canandaigua Lake
Conesus Lake
Cayuga Lake
Copake Lake
Cossayuna Lake
Cranberry Lake
Delaware River
Delta Lake
Eagle Lake
East river
Fire Island
Fish Creek
Forked Lake
Fourth Lake
Friends Lake
Fulton Chain
Glen Island Sound
Glen Lake
Good Year Lake
Great Sacandaga
Great South Bay
Green Lake
Green Pond
Greenwood Lake
Hadlock Pond
Harris Lake
Hemlock Lake
Hiawatha Lake
Hinckley Reservoir
Hogs Neck Bay
Honeoye Lake
Hudson River
Indian Lake
Jamaica Bay
Kayuta Lake
Keuka Lake
Kinderhook Lake
Lake Ellis Pond
Lake Erie
Lake Erie Barge Canal
Lake Flower
Lake Kushaqua
Lake Lonely
Lake Luzerne
Lake Mahopac
Lake Nancy
Lake Ontario
Lake Oscawana
Lake Placid
Lake Pleasant
Lake Ronkonkoma
Lake Titus
Lebanon Reservoir
Lincoln Pond

Last Water Bodies Visited (457) for Boats Entering Lake George - 2014

Lockport Canal
Long Island Oyster Bay
Long Island Sound
Long Lake
Loon Lake
Lower Saranac
Manhassset Bay
Merrick Bay
Mohawk River
Montauk Bay
Moon Lake
New York Harbor
Newburg
Niagara River
Old Forge Lake
Oneida Lake
Orange Lake
Oscawana Lake
Oswego River
Otisco Lake
Otsego Lake
Owasco Lake
Panther Lake
Paradox Lake
Peck's Lake
Peconic Bay
Peconic Lake
Port Jefferson
Private Lake, Narrowsburg
Putnam Pond
Rainbow Falls Reservoir
Racquette River
Raritan Bay
Reynolds Channel, LI
Rich Lake
Rio Reservoir
Round Lake
Sandy Hook
Saranac Lake
Saratoga Lake
Schroon Lake
Schroon River
Schuylkill River
Seneca Lake
Seventh Lake
Shellbank Creek
Sherman Lake
Skaneateles Lake
Snyders Lake
Sodas Bay
South Bay LI
Spring Lake
St. Lawrence River
St. Regis River
Staten Island
Stewart's Bridge Reservoir
Stewarts Pond
Stillwater Reservoir
Stissing Lake
Susquehanna River
Swinging Bridge Reservoir
Thompson's Lake
Thousand Islands
Toronto Reservoir
Trout Lake
Tupper Lake
Tuscarora Reservoir
Walton Park
Wantagh Long island
Warner's Lake
Whaley Lake
White Lake
Whitney Point Resevoir

North Carolina
Atlantic Ocean
Buffalo Lake
Fontana Dam
Intracoastal Waters
Jordan Lake
Lake Hickory
Lake James
Lake Norman
Lake Norway
Lake Orange
OuterBanks

Ohio
Alum Creek Lake
Caesar's Creek
Elm Creek
Lake Erie
Mosquito Reservoir
Ohio River

Pennsylvania
Allegheny River
Bald Eagle Lake
Bantam Lake
Beltzville Reservoir
Big Allen Lake
Blue Marsh Lake
Chesapeake River
Delaware Bay
Delaware River
Duck Harbor Pond
Duke Lake
Fawn Lake
Francis Walter Dam
Green lake Reservoir
Harvey's Lake
Lackawanna Lake
Lake Cohituate
Lake Hauto
Lake Nockamixon
Lake Oneida Reservoir
Lake Sheridan
Lake Wallenpaupack
Lake Wilhelm
Lake Winnepesaukah
Lehigh River
Marsh Creek Reservoir
Nanticoke River
Onota Lake
Raystown Lake
Roamingwoood Lake
Sara Lake
Sascachuwan River
Schuylkill River
Silver Lake
Susquehanna River
Toluic Reservoir

Rhode Island
Atlantic Ocean
Block Island Sound
Burlingame Lake
Johnsons Pond
Lake Wallen
Narragansett Bay
Newport Harbor
Pawtuxet River
Smithfield
Stafford Pond

South Carolina
Atlantic Ocean
Intracoastal Waterway
Lake Murray

Tennessee
Cherokee Lake

Texas
Lake Texoma
Texana Lake

Last Water Bodies Visited (457) for Boats Entering Lake George - 2014

Virginia
Chesapeake Bay
Lake Anna
Potomac River

Vermont
Arrowhead Reservoir
Bristol Pond
Burlington Bay
Dunmore
Echo Lake
Fern Lake
Harriman Reservoir
Hortonia Lake
Island Pond
Joe's Pond, Danville
Lake Bomoseen
Lake Carmay
Lake St. Catherine
Lake Dunmore
Lake Iroquois
Lake Sacramont
Lake Seymour
Lake Whitingham
Lake Willoughby
Mascomo Lake
Green River Reservoir
Sunset Lake
Waterbury Reservoir
Lake Raponda

Wisconsin
Jordan Lake
Lake Geneva
Pickerel Lake

Wyoming
North Fork River

Canada - Ontario
Lake Ontario
Newboro Lake
Ottawa River
Rideau Lakes
Sharbot Lake
St. Lawrence River

Canada - Quebec
Brome Lake
Grand Lac Nomininque
Lac-Etchemin
Lac Memphremagog
Lac St. Louis
Lake Archambault
Lake of Two Mountains
Maskinonge Lake
Mumford Lake
Ottawa River
Quebec River
Richelieu River
St. Francois
St. Lawrence Seaway

Canada - Alberta
Baptiste Lake Alberta
(2,550 miles)

Table 11: Top ten waterbodies visited prior to arriving at Lake George

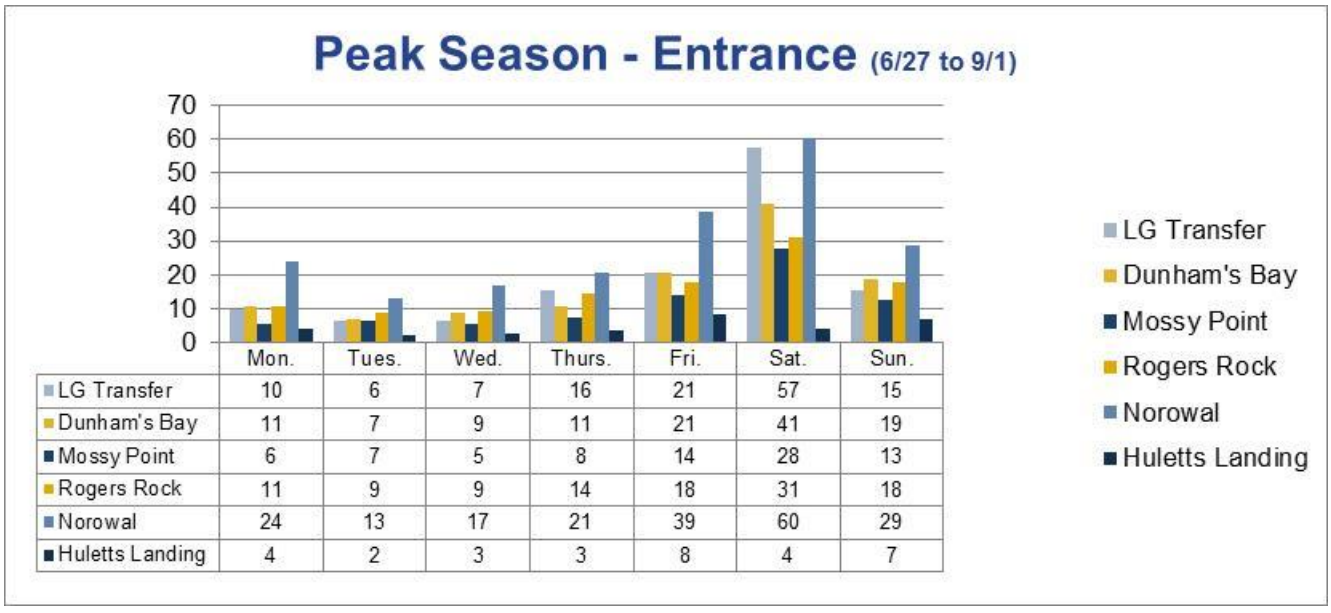
#	Water Body	Number of AIS	Number of watercraft from this waterbody
1	Hudson River	122	379
2	Saratoga Lake	4	279
3	Lake Champlain	50	203
4	Lake Hopatcong	3	185
5	Great Sacandaga Lake	3	196
6	Candlewood Lake	3	125
7	Long Island Sound	Salt Water	124
8	Greenwood Lake	2	122
9	Schroon Lake	3	114
10	Connecticut River	4	91

Table 12: Visible AIS recovered at inspection stations in 2014 and the last waterbody visited by the subject vessel prior to Lake George

Water Body	State	Eurasian Watermilfoil	Zebra Mussels	Water Chestnut	Curly-leaf Pondweed	Snail
Auger Lake	NY	x				
Candlewood Lake	CT	x		x		
Candlewood Lake	NJ	x	x	x		
Cayuga Lake	NY	x				
Congamond Lake	MA	x				
Chesapeake Bay area	MD	x				
Connecticut River	MA	x				
Erie Canal	NY		x			
Greenwood Lake	NJ	x		x		
Hudson River	NY	x		x		
Kinderhook Lake	NY	x				
Lake Bomoseen	VT	x				
Lake Champlain	NY	x				
Lake Erie	NY	x				
Lake George (exit)	NY	x				
Lake Hopatcong	NJ	x	x		x	x
Lake Lillinonah	CT	x				
Lake Lonely	CT	x				
Lake Mahopac	NY	x				
Lake Ontario	NY	x				
Lake Sacramont	VT	x				
Lake Wallenpaupack	NJ	x				
Long Island Sound	NY	x				x

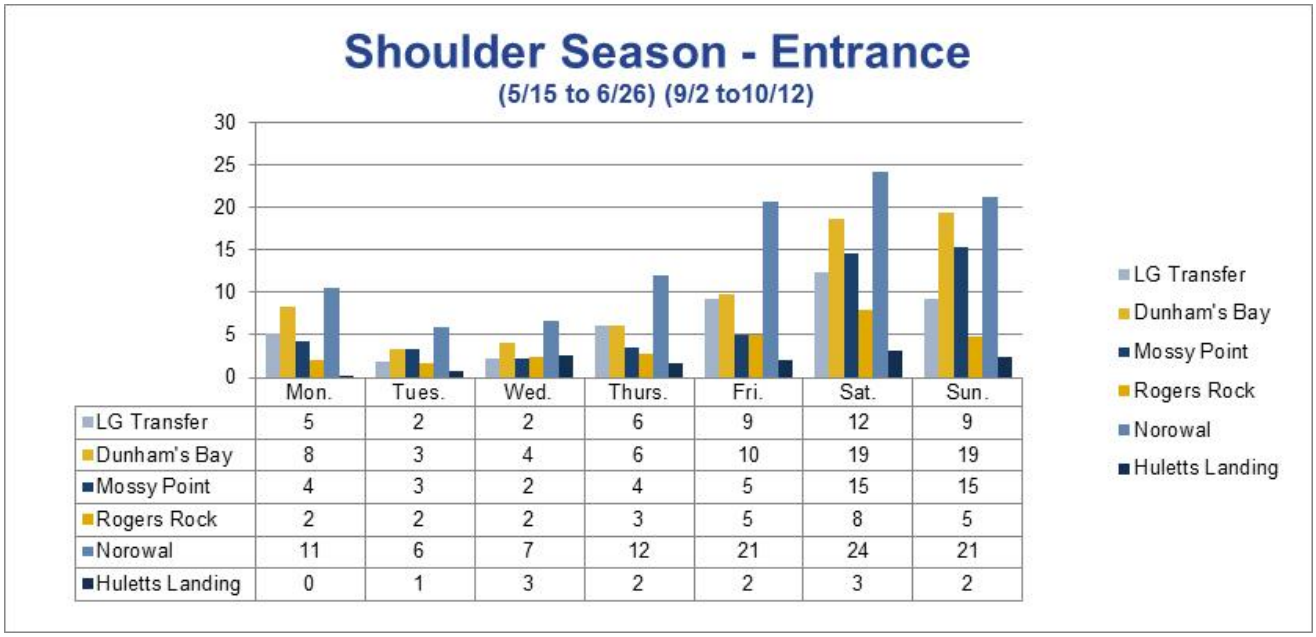
Manasquan River	NJ				x	
Mohawk River	NY	x		x		
North Guilford Lake	CT	x				
Onota Lake, MA	MA	x				
Pontoosuc Lake	MA	x				
Round Lake	NY	x				
Sacandaga Reservoir	NY	x	x			
Sandy Hook Bay	NJ	x				
Saratoga Lake	NY	x	x	x	x	
Schroon Lake	NY	x				
Seneca River	NY		x			
St. Lawrence River	NY	x				
Toronto Reservoir	NY		x			
Twin Lakes, CT	CT	x				

Figure 6: Temporal distribution of entrance inspections throughout the week in peak boating season



	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
LG Transfer	10	6	7	16	21	57	15
Dunham's Bay	11	7	9	11	21	41	19
Mossy Point	6	7	5	8	14	28	13
Rogers Rock	11	9	9	14	18	31	18
Norowal	24	13	17	21	39	60	29
Huletts Landing	4	2	3	3	8	4	7

Figure 7: Temporal distribution of entrance inspections throughout the week outside peak season



	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
LG Transfer	5	2	2	6	9	12	9
Dunham's Bay	8	3	4	6	10	19	19
Mossy Point	4	3	2	4	5	15	15
Rogers Rock	2	2	2	3	5	8	5
Norowal	11	6	7	12	21	24	21
Huletts Landing	0	1	3	2	2	3	2

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

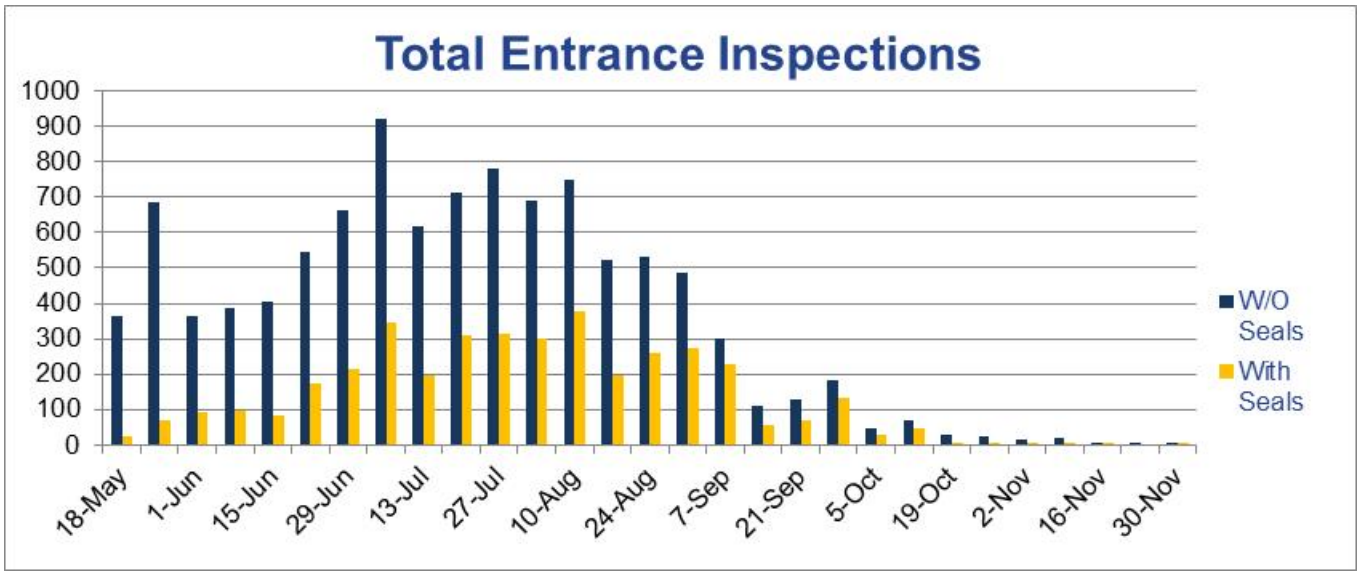


Figure 9: Temporal distribution of inspections and decontaminations by week throughout the boating season

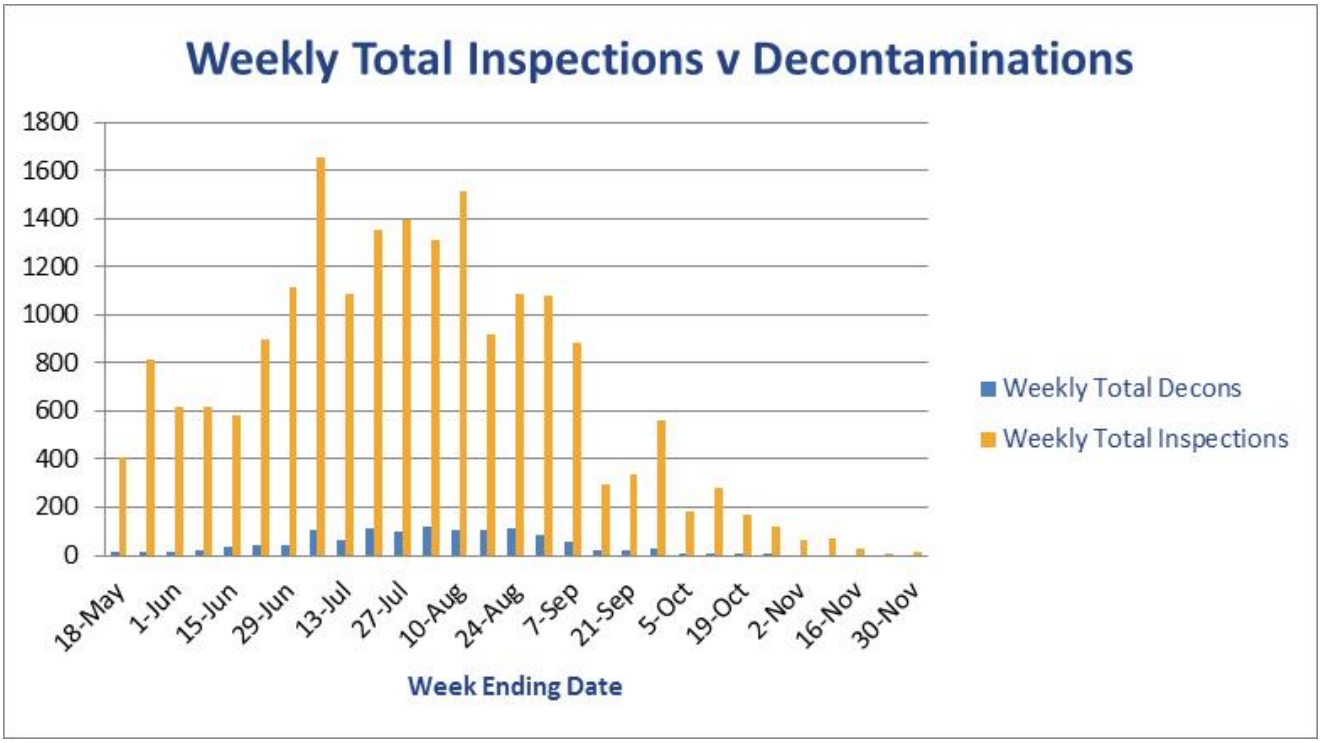


Figure 10: Temporal distribution of staff hours by week throughout the boating season

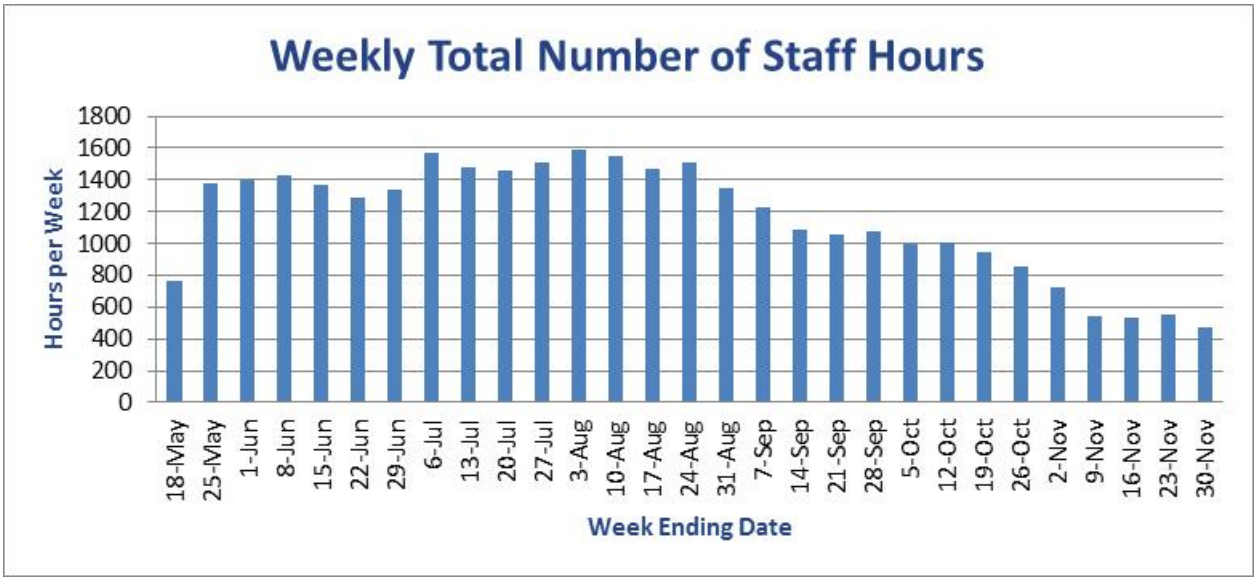


Figure 11: Temporal distribution of cost per inspection by week throughout the boating season

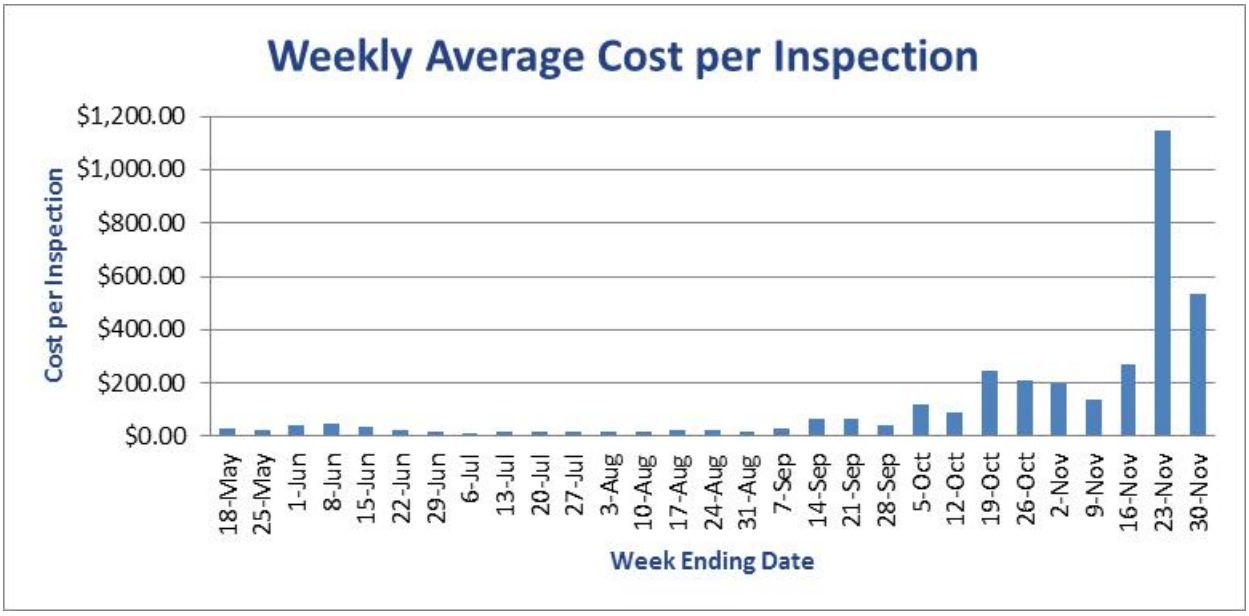


Figure 12: Temporal distribution of cost per inspection by site during the peak boating season

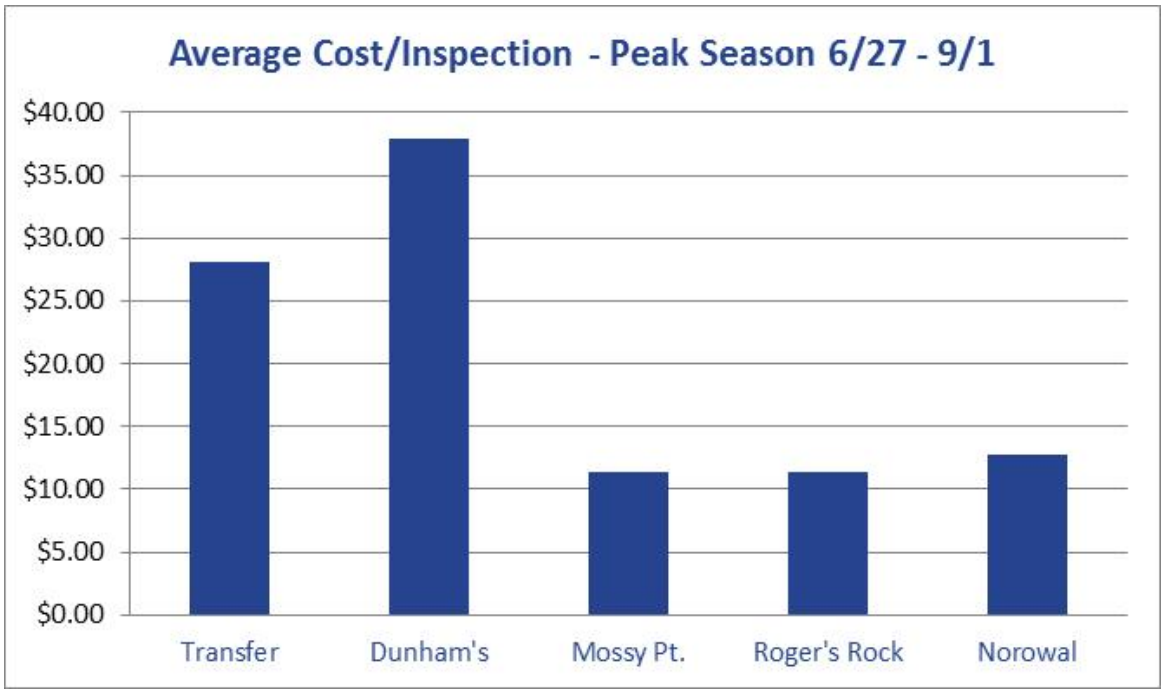


Figure 13: Temporal distribution of cost per inspection by site during the shoulder boating season

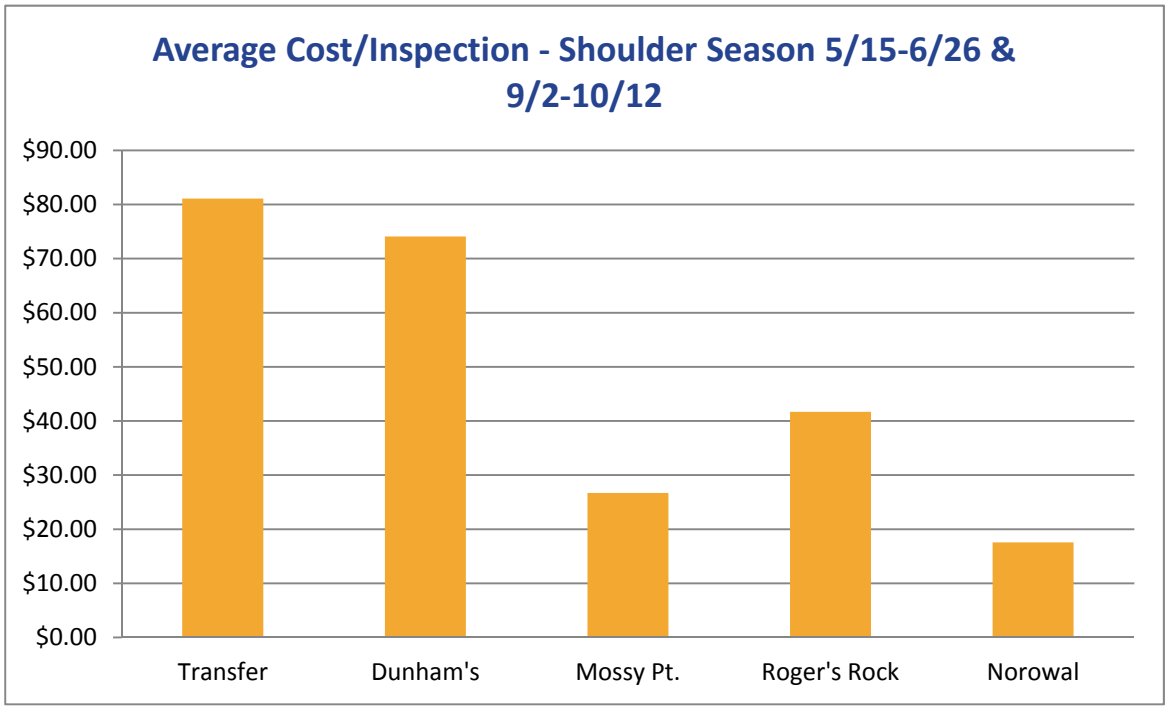


Figure 14: Commission Marine Patrol Time Dedicated to AIS Program Compliance, Totaling 1,070 hours

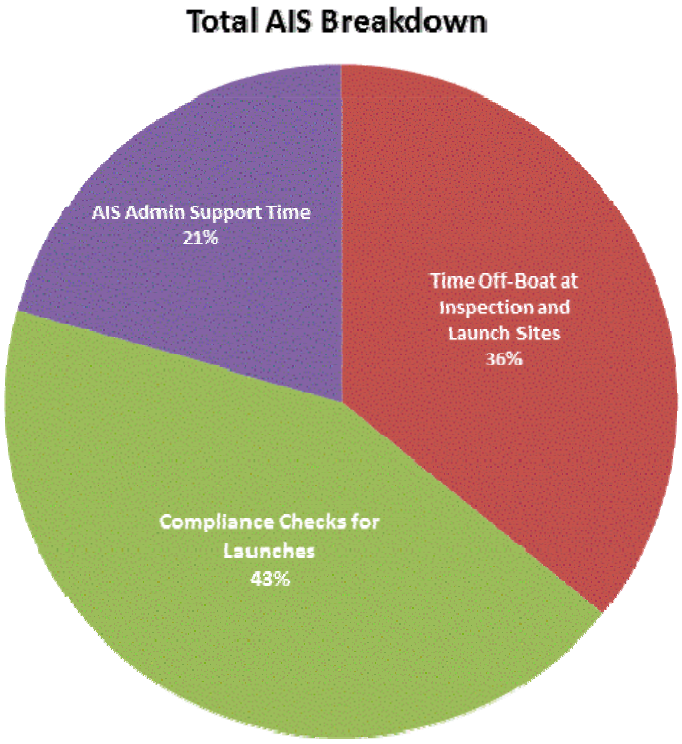


Figure 15: Commission Marine Patrol AIS Launch Compliance Checks by Location

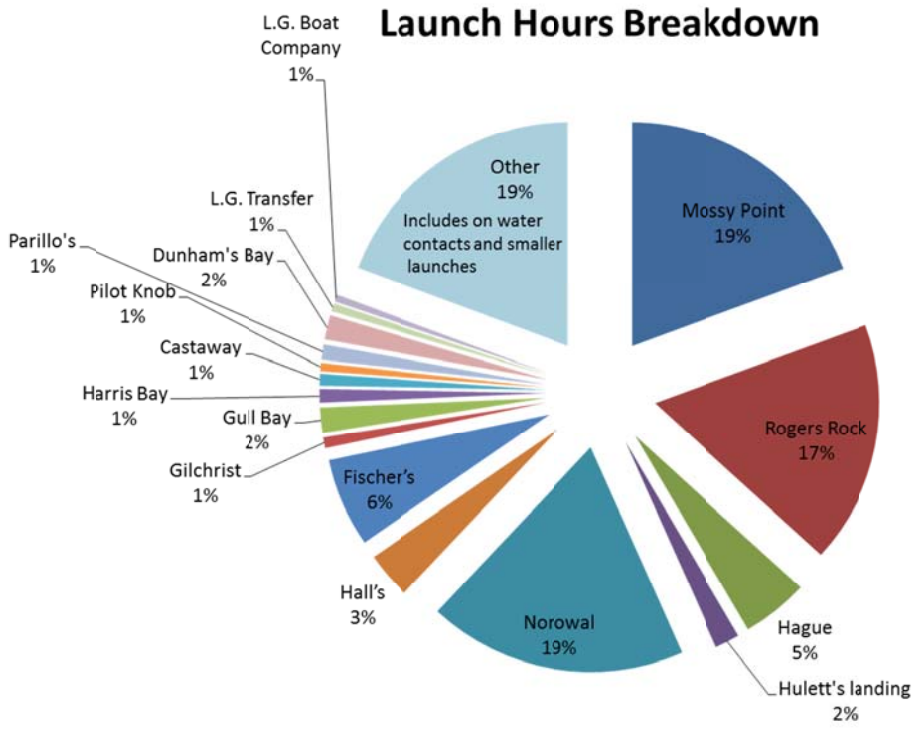


Figure 16: Total boater contacts of the Night Monitor program during times when Commission inspection stations were not open

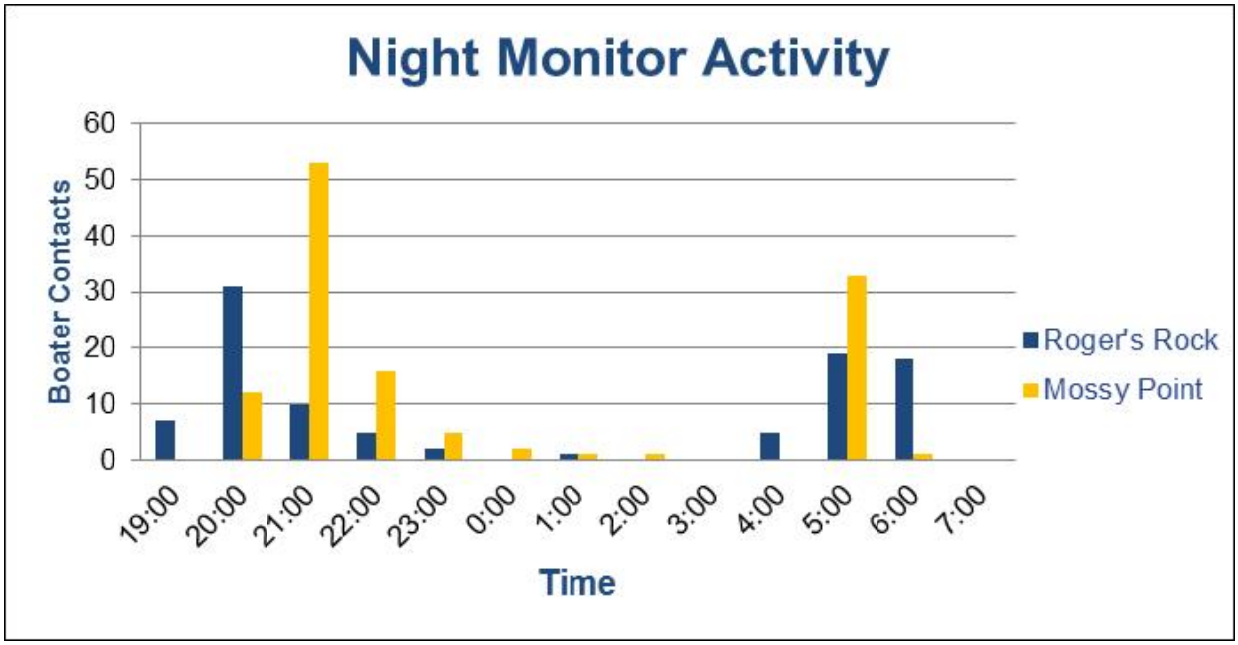


Figure 17: Boater contacts of the Night Monitor program at Mossy Point

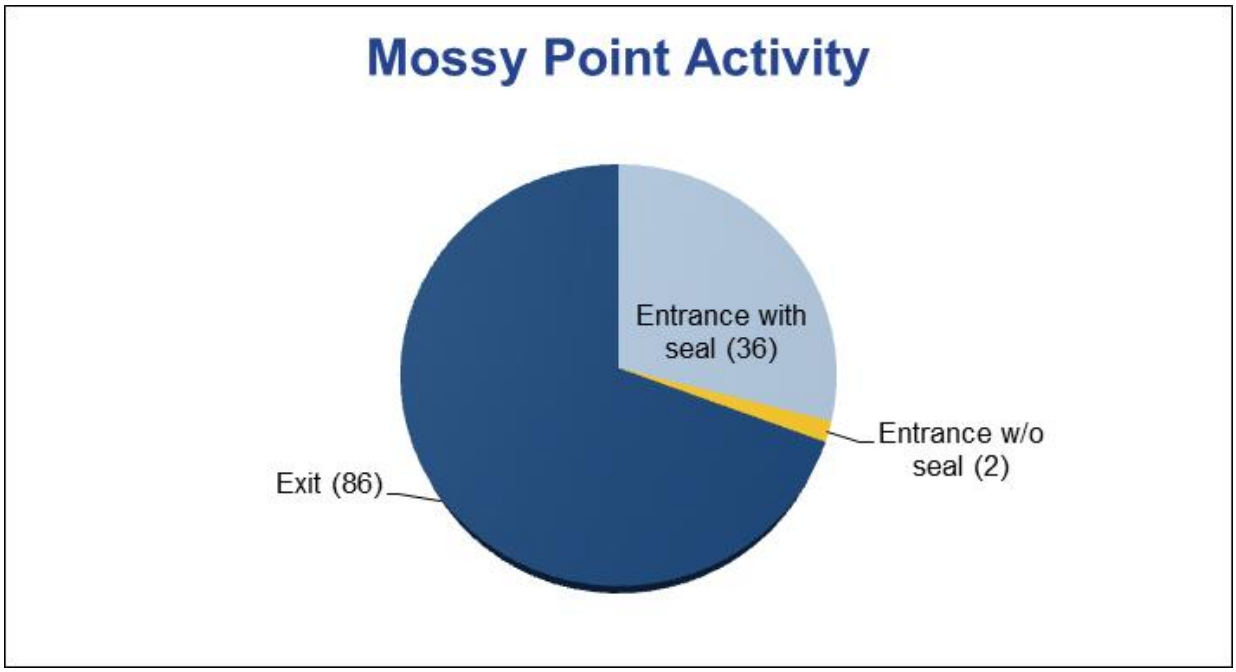


Figure 18: Boater contacts of the Night Monitor program at Mossy Point