STATE OF STATE OF STATE OF STATE OF	Adirondack Park Agency
RECE	IVED
Date: Janua	iry 7, 2022

NEW YORK Department of				AQV (11/2016)
STATE OF OPPORTUNITY Environmental Conservation				FOR DEC USE:
Conservation				Application Number
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION				Water Body Name
(DEC) DIVISION OF MATERIALS MANAGEME	ENT - BUREAU	OF PESTICIDE	s	Date Received
MANAGEM	ENT			Fee Receipt Number
APPLICATION FOR A PERMIT FOR THE CONTROL OF AN AQUATIC PEST	- TITLE 6 NYCI	RR PART 327/3	328/329	Type of Application
http://www.dec.ny.gov/ch				New Previous #
SUBMIT THE APPLICATION 3 MONTHS BEI A CHECK OF \$100 MUST ACCOMPAN				NYCDEP/APA/Other
REFER TO	THE ATTACH	ED APPLICATI	ON INSTRU	
	PERMIT APP	PLICANT INF	ORMAII	
Name of Permit Applicant/Association/Agency: Lake (George Park (Commission		
Name of Authorized Person signing the (if on behalf of an Association/Organi			tive Direct	or
Mailing Address 75 Fort George Road, PO Box 749				
City:		State:		Zip Code:
Lake George		NY		12845
Telephone	Email:			Website:
Number: 518-668-9347	dave@lgpc.s	state.ny.us		www.lgpc.ny.gov
The Permit Applicant is a (check a				
Riparian Owner:	parian Owner: Lessee: Associa			tion of Riparian Owners:
If the Permit Applicant is Board of Directors resolution ir	an Associat	ion of Ripar the propose	ian Owne d pesticio	rs/Lessees, a copy of the de application must be attached
Other: Governmental agency charged (please explain)	with protecti	ing Lake Geo	orge and th	ne safety of the recreating public.
2. PE	STICIDE AP	PLICATOR	NFORMA	TION
Name of Pesticide Business/Agency performing application (if applicable):	Solitude La	ke Managem	ient	
Business/ Agency	Telephone			Contact: Glenn Sullivan
Registration Number: 17886	Number: 9	908-310-877	о	Gienn Suilvan
Business Mailing Address: 7256 Rt. 9W				
City: Catskill	State:Zip Code:NY12414		· ·	
Email:	Website:			
gsullivan@solitudelake.com		www.solitu	delakemar	nagement.com
Name of Certified Applicator(s) performing application: Glenn Sulliva			Applicator(s) tion Number: C0680740	
Mailing Address: (if different than Business Address)				

City:	State:	Zip Code:	Telephone
			Number:

		3.	PERMIT	HIST	ORY			
Have you previous	ly been issued						Yes	No XXXX
If Yes, provide the	prior permit nu	mber(s):						
Is the application ic	lentical to one	covered by a	previous	perm	it?		Yes	No XXXX
If Yes, provide the	prior permit nu	mber:						
Describe any other the water body? (a The Lake George I watermilfoil control	ttach separate Park Commissi	documentation conducts	on) an annua	al hand	l/diver assi	sted harv		
The short term goa allowing for a much expansion. The lo effectively be appli	What are the goals of the proposed permit application? The short term goal of this trial treatment is to eliminate the vast majority of milfoil in the treatment area, allowing for a much more cost-efficient and minimally impacting system to control milfoil growth and expansion. The longer term goal of this pilot effort is to show that this treatment methodology could cost- effectively be applied to other affected areas of Lake George that have shown resistance to traditional milfoil removal methods, while having no impact to public health, recreation or the environment.							
	territoria de la constata	4. WATE	R BOD	/ INFO	RMATION		in the second	
Name of water body Blairs	Bay in Lake Ge	eorge					lassificatior , Class B):	
Address or location of water body: Gle	1		n of Putr	nam, c				
County where water body is locat			Town w	vhere	located:Pu			
Are fish present?	Yes XXXXXX	No	Are fish	n stocl	ked?		Yes XXXXX	No
If fish are present	, see the Instr	uctions for /	AQV Sec	tion #	4.			
Are there any regulation proposed treated w		er or tidal wet	lands as	sociat	ed with the		Yes XXXX	No
Do application site	s include lands	under the co	ontrol of t	he DE	C?		Yes	No
If Yes, please specify: The shorelines of Lake George are considered wetlands under the jurisdiction of the Adirondack Park Commission.								
Total water bodyAverageLatitude: 43 45'46" Nsize in acres: ~28,800depth in feet: 70Longitude: 73 27'30" W								
Water body uses	(Check all tha							1
Swimming XXXXXX	Irrigation XXXXXX	Livestock watering		Pota wate	ble r uses XX	Dome water	estic uses XX	Fishing XXXXXX
Other uses (list) Recreational boati	ng, scenic boat	tours						

5. A DETAILED MAP MUST BE INCLUDED WITH THIS APPLICATION

- The exact map scale size and average depths of the water body.
- The outline and average depths of the application site(s), with all streams/treated sites/catch basins clearly identified.
- Inlets and outlets to the water body. (if the applicant can't control the outflow, also include the downstream watershed map information for Attachment D Downstream Modeling)
- Location of known designated bathing sites, livestock watering sites, water intakes, public lands contiguous to the water body, public boat launches and any other features relevant to the application.
- Wetlands contiguous to the water body.

6. WATER BODY APPLICATION INFORMATION (FILL OUT THE APPLICABLE LETTERED SECTION)

A. Whole or Partial Wa	ater Body Appli	cation:			
Total number of					
application sites:	1				
Surface acres of each					
application site:	4				
Total application area					
in surface acres:	4				
Average depth of					
each application site:	10.6'				
Total number of					
acre feet:	42.4 acft				
B. Stream Application	for Black Fly o	r Lamprey			
Miles of streams			Stream flow estimates		
treated:			in cubic feet per second (cfs):		
C. Mosquito Larvacidi	ng Application				
Number of sites			Total		
or catch basins:			acreage/sq ft:		
10 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	7. PES	TICIDE APP	LICATION INFORMATION		
(A COMPL	ETE PESTICIDI	E LABEL M	UST BE ATTACHED TO THE APPLICATION)		
Pesticide name:		ProcellaC	OR EC		
Pesticide active ingredient: flo			ifen-benzyl		
		0.7			
% Active Ingredient:		2.7			
Destiside EDA Destistas	tions Niccosh out	67600 90	67690-80, SLN NY-190001		
Pesticide EPA Registra	tion Number:	0/090-00,	SLN NY-190001		
Formulation:		liquid			
Formulation.		nquia			
Application rate: 4 PD			4 PDUs/acft (12.68 oz/acft)		
(e.g. gals/acre ft. or gals/surface acre)					
Dosage rate:		7.72 ppb			
Dosage rate: (e.g. ppm, ppb)		7.72 ppb			
(e.g. ppm, ppb) Total number of applica		7.72 ppb			
(e.g. ppm, ppb) Total number of applica (including bump/split ap	plications)	1			
(e.g. ppm, ppb) Total number of applica	plications) application:	1 Between 5	5/17/22- 6/30/22, depending on permit approvals and priate stage of plant growth		

Amount of pesticide needed per application:	4.2 gallons
Total amount of pesticide needed per calendar year:	4.2 gailons
Target pest: (scientific and common name)	Eurasian watermilfoil, Myriophyllum spicatum
Method of application (e.g. sprayed on surface, bag dragged behind boat):	mixed with water on boat and injected below the water surface
If the proposed application involves an aircraft, indicate FAA Number(s):	n/a

8. WATER USE RESTRICTIONS

List all the applicable water use restrictions as stated on the label/SLN, in 6 NYCRR 327.6, or the applicable water quality standards.

Swimming	none
Irrigation	restricted until concentration measures <1ppb for greenhouse, nursery, hydro-ponic and agricultural irrigation; <2 ppb for landscape and non-agricultural irrigation
Livestock watering	restricted until concentration measures <1ppb
Potable water uses	none, since application rate is below 50 ppb
Domestic water uses	none, since application rate is below 50 ppb
Fishing	none
Other	

9. OUTFLOW AND DOWNSTREAM MODELING

 Does this water body have an outlet?
 Yes XXX
 No

 If yes, can the applicant hold the water during and for the required water use restrictions after the application?
 Yes
 No XXX

- Check the box if the applicant proposes to hold the water for the required water use restrictions, fill out Attachment C, and describe how the water will be held.
- □ Check the box if the applicant cannot hold the water for the required water use restrictions, see Attachment D, and complete the Downstream Modeling spreadsheet.

10. RIPARIAN OWNER/USER NOTIFICATIONS

If there is more than one riparian owner, or vested riparian users, these riparian owners and users must be notified in writing of the application and the water use restrictions, and their right to object. (See Attachment A - Sample Riparian Letter) If there will be outflow of treated waters through lands owned by other than the sole water body riparian owner, they too must be notified. (See Attachment D - Downstream Modeling)

11. CERTIFICATION OF NOTIFICATION OF RIPARIAN OWNERS AND USERS

The applicant must complete and sign the Certification of Notification of Riparian Owners and Users below. A copy of the notification letter and a list of riparian owners/users to whom the notification letter was sent must accompany this application. Check all appropriate statements:

XXXX	All owners of real property abutting the body of water proposed to be treated pursuant to this application, a list of whom is attached to this application, have been notified by letter of the proposed pesticide permit. This list includes property owners abutting the outflow from this body of water, if the water is not to be held in the treated water body for the period of time during which use of water is restricted. Such letters were mailed or personally delivered on <u>1/7/22</u> . A copy of the letter is attached.				
	A review of the appropriate real property tax records indicates that no person other than the applicant owns any real property abutting the water body proposed to be treated.				
	A person(s), not owning abutting real property, possesses vested legal right to use the water boo proposed to be treated. All such persons, and the nature of their right to use of the water propos be treated is attached. Such letters were mailed or personally delivered on/_/ A copy letter is attached.				
	To my knowledge, no person other than the applicant possesses any vested legal right to use the water body treated pursuant to this application.				
Name:	If Applicant is not an individual, include the title of signatory:				
Signatu	re: Date:				

12. AFFIRMATION:

The applicant/applicator guarantees that they will employ the listed pesticides in conformance with all conditions of the permit and agrees to accept the following conditions as a prerequisite to the issuance of a permit: that the issuance of the permit is based on the accuracy of all statements presented by the applicant/applicator; that damage resulting from the inaccuracy of any computations, improper application of the pesticide, or legal responsibility for the representations made in obtaining approvals or releases, or the failure to obtain approvals or releases from the riparian owners/users likely to be affected is the sole responsibility of the applicator.

I hereby affirm under penalty of perjury that information on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class "A" misdemeanor pursuant to Section 210.45 of the Penal Law.

Signature of Permit Applicant or Representative:	Title	Date:
Non With	Executive Director L. b. P.C.	1/7/22
Signature of Certified Applicator:	Title Project Manager	Date: 1/6/22

13. NOTES

INSTRUCTIONS TO COMPLETE FORM AQV

A permit for the use of a pesticide for the control of an aquatic pest in waters of the State must be obtained in accordance with the rules and regulations of the State of New York in Parts 327, 328 and 329 of Title 6 New York Code of Rules and Regulations (6 NYCRR), adopted pursuant to Article 15, Title 3 of the Environmental Conservation Law (ECL). The following numbered directions correspond to the numbered blocks on the "Application for a Permit to Use a Pesticide for the Control of an Aquatic Pest (AQV)" form. Please read the instructions carefully and complete the application form accordingly.

Completed applications with all requested attachments must be submitted at least 3 months before the proposed pesticide application date to provide the DEC with sufficient time for application review. If all the information is not provided, or if the information is not correct, the application will be incomplete and returned to the applicant for correction. Application review may not begin until a signed, complete, original application has been received by the DEC. Additional copies may be needed as determined by DEC Regional offices.

EXCEPTIONS FROM HAVING TO OBTAIN A PERMIT: A permit shall not be required for the application of a pesticide to a pond of one acre or less in size which has no outlet to surface water. In addition,

Part 327 Aquatic Vegetation Pesticide Permits shall not be required:

- for the use of copper sulfate for the purpose of algae control by a duly constituted water supply agency in its water supply waters; or
- for control of aquatic vegetation in waters one acre or less, having no outlet to other waters, and which lie wholly within the boundaries of lands privately owned or leased by the individual(s) making or authorizing such treatment.

Part 328 Aquatic Undesirable Fish Pesticide Permits shall not be required:

• for control of fish by the DEC on waters completely enclosed by or bordered by lands owned or leased by the DEC or the State.

Part 329 Aquatic Insect Pesticide Permits shall not be required:

• for the use of pesticides for controlling biting aquatic insects in temporary ponds or ponds not containing fish and which have no outlet to other waters and lie wholly within the boundaries of lands privately owned or leased by the individual(s) making or authorizing such treatment.

NOTE: Waters which are exempt may nevertheless be subject to Article 24/Part 663 Freshwater Wetlands Permit, Article 25/Part 661 Tidal Wetlands Permit, 6 NYCRR Part 190 Temporary Revocable Permit, or State Pollutant Discharge Elimination System (SPDES) General Permit for Point Source Discharges to Surface Waters of New York State from Pesticide Applications requirements. It is the responsibility of the applicant to determine if any other permit is needed prior to making a pesticide application.

The applicant must notify the Regional DEC Pest Management staff 7-14 days prior to the actual pesticide application to the water body. For permits requiring water use restrictions, the Regional Pest Management staff must also be notified within 24 hours after the application (or the first business day following the application for Friday, weekend or holiday applications). In addition, the applicant must allow the Regional Pest Management staff access to the water body and the ability to observe the pesticide application. The applicant must also give notice of the proposed date to the appropriate Regional, State or County Department of Health 7-14 days prior to the application, where the water body or outflow waters serve as water supplies.

1. PERMIT APPLICANT INFORMATION

The name of the permit applicant proposing the application should be provided. If the application is being prepared for an organization, association or an agency, the applicant should be the organization/agency. If the entity is incorporated, please use the name registered with the NYS Division of Corporations. If the applicant is not an individual, please provide the name of the person authorized to submit the application for the organization. NOTE: The individuals signing the application must be the individuals identified on the application form. The application must be signed by an authorized individual, such as a riparian owner, an authorized representative of a lake association, or an authorized agency employee.

Check the appropriate block to identify whether the applicant is a riparian owner or lessee, or an organization, agency, or other entity. If the applicant is an Association of Riparian Owners/Lessees, a copy of the Board of Directors resolution in support of the proposed application must be attached.

A check in the amount of \$100 per permit application, made payable to "Commissioner, NYSDEC", must accompany the permit application.

2. PESTICIDE APPLICATOR INFORMATION

Please provide the certified applicator information as identified on the application. Attach a list of certified applicators, if necessary. If applicable, provide the name and address, registration number and website/e-mail information of the Pesticide Business/Agency conducting the pesticide application.

3. PERMIT HISTORY

Put in your prior permit numbers from the previous year, if applicable.

List or attach separate documentation for any other permitted projects, alternative pest management projects, or relevant studies concerning the water body.

Identify the purpose of the application (e.g. a rapid response to new invasive species, management of nuisance native species, part of a long term management plan, etc.)

The DEC encourages and promotes the development of Lake Management Plans which incorporate information on addressing the aquatic pest problem by utilizing integrated aquatic pest management practices such as control of nutrient and sediment runoff, use of benthic vegetation barriers, mechanical vegetation harvesting, and herbivorous fish. Information on management plan development and integrated pest management is available from your local DEC Regional Office, or refer to "A Primer on Aquatic Plant Management in New York State" on our website at: https://www.dec.ny.gov/docs/water_pdf/ch6apr05.pdf

4. WATER BODY INFORMATION

If fish are present, list the related application requirements specified on the label and explain how you will comply with these requirements. Place the information in the Notes Section # 13 of the permit application or attach documentation. Examples of these requirements, typically found in the Environmental Hazards portion of the pesticide label, include but are not limited to: determining water hardness, dissolved oxygen, pH, and/or alkalinity; and prohibitions when Koi or sensitive fish species are present.

Except in the Adirondack Park, where the Adirondack Park Agency (APA) administers the Freshwater Wetlands Act, under the ECL Article 24 Freshwater Wetlands Act and the ECL Article 25 Tidal Wetlands Act, The Division of Environmental Permits in DEC regulates activities, including pesticide applications, in freshwater and tidal wetlands, and in their adjacent areas. Contact the DEC Regional DEP staff or the APA if you have any questions about obtaining a wetlands permit.

The Environmental Resource Mapper, found on our website at: <u>http://www.dec.ny.gov/animals/38801.html</u>, is an interactive mapping application that can be used to identify some of New York State's natural resources and environmental features that are state protected, or of conservation concern. Currently included on the maps are locations of:

- Freshwater wetlands regulated by the State of New York (outside the Adirondack Park). Contact the Adirondack Park Agency for wetlands within the Adirondack Park.
- New York's streams, rivers, lakes, and ponds;
- Water quality classifications.
- Animals and plants that are rare in New York, including those listed as Endangered or Threatened (generalized locations).
- Significant natural communities, such as rare or high-quality forests, wetlands, and other habitat types.

Indicate if any of the application sites include lands under the control of the DEC. Such applications of pesticides require authorization from the DEC Division having jurisdiction. The permit will not be valid for such waters unless signed by the Director of the Division (or designee) in the area provided for this authorization.

If the water can't be held at the water body outlet, identify the water body information, including the water body uses and wetlands, along the outlet stream, for the Attachment D - Downstream Modeling.

5. DETAILED MAP

A copy of relevant portion of the 7 ½' U.S.G.S. quadrangle map containing the water body or stream(s) proposed for application must be attached. In addition, an expanded scale drawing showing in detail, including but not limited to, the following features of the application sites (if necessary, more than one such drawing should be submitted).

- A detailed map of the water body, with outlines of the weed beds, and outlines of site(s) proposed for application, or a diagram of all streams/surface acreage/catch basins proposed to be treated. All sites to be treated must be clearly identified. Be sure to include map scale.
- Length of shoreline in proposed application site(s) in feet; or length of target stream(s) proposed for application in feet.
- Width of proposed application site(s) outward from the shore (in feet).
- Depth soundings in site(s) proposed for application and their location(s). Information must be sufficient
 to determine correct pesticide application dosage if calculation is based upon the volume of water to be
 treated.
- Inlet and outlet streams, and location of any outflow control devices.

- Names and locations of known public and private water supply intakes, livestock watering sites, bathing
 sites, public boat launches or public lands in vicinity of the application sites and on the outlet waters.
- Any NYSDEC regulated freshwater or tidal wetland.

Detailed information on the dates and dosage rates of specific application sites may need to be illustrated on the map for the Attachment D - Downstream Modeling. If the water can't be held at the water body outlet, include a map, including the water quality classifications, along the outlet stream for the Attachment D - Downstream Modeling.

6. WATER BODY APPLICATION INFORMATION

For this section, choose the type of application and provide totals for the entire proposed permitted project. More detailed information on individual application dates and application sites may be required on the map or for the next application section.

A. Whole or Partial Water Body Application – Separate the application sites when you are treating ½ the water body at a time even if you propose to treat the entire water body. Provide information for each application site, application date or dosage rate. Enter the totals for the entire proposed permitted project on the form but use the map or separate documentation to identify individual application sites, if necessary.
 B. Stream Application for Black Fly or Lamprey Control - Identify total miles of streams proposed for application. Give the stream flow estimates in cubic feet per second (cfs).

C. Mosquito Larvaciding - Provide the total number of application sites or catch basins/sewers and the total acreage/sq ft, proposed for application.

7. PESTICIDE APPLICATION INFORMATION

Provide the information for each separate pesticide product proposed for application. Only one pesticide product may be requested on each permit application. Each individual application site, date of application, including split and bump applications must be accounted for. Use separate documentation or the map if necessary.

Specify the proposed date(s) of application. These must be the dates contained in the notification notice sent to all riparian owners. If the proposed dates change for any reason, the riparian owner(s) must be re-notified of the date change.

8. WATER USE RESTRICTIONS

List all the water use restrictions as stated on the pesticide product label or accompanying Special Local Need (SLN) labeling.

Consult the DEC regulations in 6 NYCRR 327.6 for specific restrictions on Copper Sulfate, Diquat and 2,4,-D on our website at: http://www.dec.ny.gov/regs/2491.html.

Information on the DEC Water Quality Standards in 6 NYCRR 703 may be found on our website at: http://www.dec.ny.gov/chemical/23853.html

The New York State Department of Health (DOH) maximum contaminant levels (MCL) tables for public water supplies, including the 50 ppb unspecified organic contaminant (UOC) standard, may be found in the DOH regulations in Title 10, Section 5-1.52.

9. OUTFLOW AND DOWNSTREAM MODELING

Indicate whether the waterbody has an outlet, and if "yes" show the location of the outlet on the detailed map of the waterbody. If the waterbody has an outlet, indicate whether the water level in the waterbody can be controlled during and for the required period of time after the application. Some pesticide products contain water use restrictions as either label requirements or in regulation. Outflow from the treated waterbody must not be permitted if the pesticide label states that there must be little or no outflow from the waterbody.

If the water level is going to be held for the required water use restrictions, describe how the water will be held and if necessary, complete a Drawdown Study. The study should include calculations and drawings of the outlet, dam, etc. and clearly indicate how the water will be held. See Attachment C - Drawdown And Outflow Studies for more details. The data used in these calculations are based on normal conditions. If extreme weather is anticipated the pesticide application should not occur. Modifications to the spillway, or capping a standpipe, to control the water may require a DEC Dam Safety Permit. Contact the DEC Bureau of Flood Protection and Dam Safety if you have any questions. DEC Bureau of Habitat staff may require that a minimum stream flow be maintained.

If the water level is not going to be held, data will be needed to demonstrate how far the outlet waters will flow during the water use restriction period in order to identify potential adversely affected downstream riparian owners. See Attachment D - Downstream Modeling for more details.

10. RIPARIAN OWNER/USER NOTIFICATIONS

An example of a notification letter, which is specific to only aquatic vegetation control, is attached at the end of this instruction sheet (Attachment A). This suggested letter contains the minimum wording necessary to satisfy riparian owner/user notification. You may add additional information. Certification that these written notices were provided must be completed in Section 11 of the AQV, Certification of Notification of Riparian Owners and Users.

<u>*Riparian owners*</u> are persons who own property along the shore of the proposed application sites. The ownership of the riparian property surrounding or bordering the waterbody proposed for application must be established, and if there is to be outflow during the restriction period along any outlet, this ownership must also be established.

<u>*Riparian users*</u> are those users of a waterbody who have a <u>vested</u> right to the use of the waterbody. Examples of such a vested right include a person with deeded access to the waterbody for recreational or other purposes, or a person who has a vested right to withdrawal and use of water from the waterbody.

If there is more than one riparian owner, or if there are one or more vested riparian users, these riparian owners/users must be notified in writing of the application and their right to object.

If there will be outflow of treated waters through lands owned by parties other than the sole waterbody riparian owner, they too must be notified.

Riparian owner/user notification must include:

- The date of the notice.
- Name of Applicant/Association and a contact phone number.
- The purpose of the proposed aquatic pesticide application.
- The pesticide(s) to be used. A copy of the pesticide product label (or the label with <u>only</u> the application directions not relevant to the proposed application deleted) must accompany the letter. According to ECL 33-0905.5, this information may be provided in either a written, digital or electronic form which shall be determined by the recipients.
- The anticipated water use restrictions.
- The date(s) of the proposed application. If application dates change from those stated in the notice or if dates are uncertain, a contact person and phone number with hours of availability must be provided.

- The fact that they may object to the application, how to file an objection, the location of the DEC Regional Office and the contact person where they may register their disapproval of the proposed application.
- The period of time, no more than 21 calendar days, to respond to the DEC if they do not consent to the proposed application.
- A statement that lack of comment will be considered agreement to the application.

By conditions imposed in the permit, the applicant may also be responsible for the posting of notification signs along shorelines, public access points, bathing sites, and swimming sites for notice of fishing, swimming and other restrictions as a result of the pesticide application. In addition, applicants may be required to mark or buoy the sites to be treated prior to application.

For public notice of aerial or community wide applications for aquatic insect larvacide applications, for nuisance or public health purposes, the DEC may require additional notification procedures to satisfy ECL 33-0905 - Prior Label Notification Requirements, such as posting the application information in a publication of largest circulation in the area. See Attachment B - ECL 33-0905 - Prior Label Notification Requirements.

11. CERTIFICATION OF NOTIFICATION OF RIPARIAN OWNERS AND USERS

Check the appropriate blocks, and have the authorized individual sign and date. In cases where regulations or label directions require that treated water not be used for a stated period of time, the applicant must submit proof with the application that the water use restrictions can be enforced. The enforcement may occur by either securing consent from riparian owners/users or demonstrating that riparian owners/users will not be significantly adversely impacted.

12. AFFIRMATION

The application must be signed by an authorized individual, such as a riparian owner, an authorized representative of a lake association, or an authorized agency employee. NOTE: The individual signing the application must be the authorized person identified on the application form. Also include the individual's title, if a representative of a lake association or employee of an agency, and the date of endorsement. The Certified Applicator who is actually associated with the pesticide application must sign the application.

MAIL THE COMPLETED APPLICATION, ATTACHMENTS, AND APPLICATION FEE TO THE APPROPRIATE REGIONAL DEC OFFICE LISTED BELOW:

Region 1	Nassau, Suffolk	50 Circle Road, Stony Brook, NY 11790-3409 - (631) 444-0340
Region 2	New York City	1 Hunters Point Plaza, 47-40 21 st Street, Long Island City, NY 11101-5407 - (718) 482-4994
Region 3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	21 South Putt Corners Road, New Paltz, NY 12561-1696 (845) 256-3097
Region 4	Delaware, Green, Otsego, Schenectady, Albany, Schoharie, Montgomery, Rensselaer, Columbia	1130 North Westcott Road, Schenectady, NY 12306 (518) 357-2045
Region 5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga,	232 Golf Course Road, Warrensburg, NY 12885 - (518) 623-1200

	Warren, Washington	
Region 6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	Utica State Office Building, 207 Genesee Street, Utica, NY 13501 (315) 793-2554
Region 7	Broome, Cayuga, Chenango, Cortland, Tioga, Onondaga, Oswego, Madison, Tompkins	1285 Fisher Avenue, Cortland, NY 13045-1090 - (607) 753-3095
Region 8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Wayne, Schuyler, Seneca, Steuben, Yates	6274 East Avon-Lima Road, Avon, NY 14414-9519 - (585) 226-2466
Region 9	Allegany, Cattaraugus, Niagara, Erie, Chautauqua, Wyoming	270 Michigan Avenue, Buffalo, NY 14203-2999 - (716) 851-7220

Attachment A: Sample Riparian Owner/User - Notification/ Consent Letter

Date of Notice: _____

Dear Riparian Property Owner/User:

To control the excessive growth of the aquatic plant species ______ (indicate plant species or algae) in ______ (name of water body), the ______ (name of applicant) proposes to conduct an application of the aquatic herbicide(s) (product name).

A copy of the aquatic herbicide label(s) has been attached to this notice.

We anticipate the application to occur on ______ (list all proposed dates) and will proceed only after ______ (applicant name) obtains a permit for the application from the DEC. Prior notification of the exact dates of application will be provided by ______ (posting of shoreline, mailing, door to door, etc.).

As an affected riparian owner/user, you have the right to consent or object to the restrictions of water use resulting from the proposed application. The water use restrictions associated with use of the above pesticides are checked below:

Swimming and bathing are prohibited for	
Fishing and/or fish consumption is prohibited for	
Livestock watering is prohibited for	
Irrigation or spraying of agricultural crops is prohibited for	
Use of potable water is prohibited for	
Use of water for domestic purposes is prohibited for	
Other	(Specify)

You have twenty-one (21) days to respond to this notice. If you would like to object to the proposed application(s), you must file a written document stating your objection to the proposed application. Your objection must demonstrate that your use of the water body will be significantly adversely affected.

If you do not respond to this notice, your lack of response will be considered to be consent to the proposed application. If you have any questions on the permitting process, please contact the DEC representative listed above.

Send your objections to the proposed pesticide application to the person listed below:

Name of Contact Person NYS Department of Environmental Conservation (DEC) Region ______ Address Telephone Number

If you would like further information about the pesticide application, or information on the exact dates of the pesticide application, please contact the following person:

Name of Contact Person:	
Telephone Number:	
Hours Contact Person is Available:	

Attachment B: ECL 33-0905 - PRIOR LABEL NOTIFICATION REQUIREMENTS

For aerial or community wide aquatic insect larvacide applications, for nuisance or public health purposes, the DEC may require additional notification procedures to satisfy ECL 33-0905 - Prior Label Notification Requirements.

Option 1

Prior notice of the pesticide application(s) shall be provided by supplying the proposed application dates, and copies of the information, including all warnings, contained on the label(s) of the pesticide to be applied, or an actual copy of the product(s) label, to owners, owners agent, or the occupants of all buildings and structures on the premises of the pesticide application site. According to ECL 33-0905.5, this information may be provided in either a written, digital or electronic form which shall be determined by the recipients.

Option 2

Prior notice of the pesticide application shall be provided by newspaper publication at least twice, once at least one week in advance of the proposed pesticide application and once during the application season. A publication that includes the following information will satisfy your notification obligations:

A. A detailed statement describing the proposed application, the purpose of the application and the sponsor of the application;

B. The product name, EPA product registration number(s) and common chemical names of the pesticide(s) to be applied, and the U.S. Environmental Protection Agency toxicity category of "danger", "warning" or "caution" for each pesticide to be applied;

C. The proposed date(s) of the pesticide application.

D. The target pest(s) of the application;

E. A detailed description and/or map of the specific application sites. Specific reference should be made to a map that is on file in a public office in the municipality where the application is to be conducted, as well as the hours during which the map is available for public viewing;

F. The New York State Department of Environmental Conservation's Regional office telephone number, the regional Poison Control Center phone number and the National Pesticide Telecommunications Network telephone number 1-800-858-PEST; and

G. The name, address and telephone number of a contact person located at the project sponsor's place of business and the hours of availability of the contact person, a statement that the contact person will answer questions regarding the proposed pesticide application, a statement that inquiries concerning symptoms of pesticide poisoning for the pesticides of concern should be made to the regional Poison Control Center and, unless the applicator and the sponsor agree otherwise in writing, a statement that the sponsor will be advised of the specific pesticide application date on the calendar day prior to the proposed application and may be contacted to obtain that information.

Attachment C: DRAWDOWN AND OUTFLOW STUDIES

If the applicant proposes to hold the water, the applicant must describe how the water will be held for the period of time the pesticide water use restrictions are in effect, or until a test approved by the DEC proves the pesticide concentration is less than the water use restriction. If the outflow is to be stopped by means of an advance water drawdown, a Drawdown Study must be completed. (see example below)

Describe how water will be held (e.g. description of the dam or diversion, dam safety permit number)

Drawdown Study:	
Acres of watershed:	
Acres of water body:	
Rainfall data during the water use restriction period (inches): (see link below)	
Evaporation data during the water use restriction period (see table below) (inches):	
Runoff Coefficient (C): (see table below)	
Inflow = (runoff coefficient x inches of rainfall x acres of watershed)	
Evaporation = (inches x acres of lake)	
Amount to draw down water (Q) = (Inflow minus Evaporation divided by acres of lake)	

Drawdown Study Example:

Watershed Area:	19 acres
Lake Area:	4 acres
Rainfall:	3.26 inches (14 day hold time in June) (see NOAA weather station data link below)
Evaporation:	3.5 inches (14 day hold time in June) (see Evaporation Data Table below)
Runoff Coefficient:	0.45 - Forest, good cover, some clay soils (see Runoff Coefficient Table below)

- *Q* = 1. Inflow (runoff coefficient x inches of rainfall x acres of watershed)
 - 2. Subtracted by Evaporation (inches x acres of lake)
 - 3. Divided by acres of lake

Inflow = 0.45 x 3.26 inches x 19 acres =	27.87 acre-inches
Evaporation = 3.5 inches x 4 acres =	<u>14.00 acre-inches</u>
	(27.87 – 14.00 = 13.87 acre-inches)

Q = 13.67 acre-inches / 4 acres = 3.47 inches or 0.29 feet (to draw down the water) Estimating the Watershed Runoff Coefficient (C):

 $C = (C1 \times A1) + (C2 \times A2)...(Cn \times An) / A$ (total lake watershed acreage)

Determine the total acreage for each land use description in the watershed and multiply it by the appropriate runoff coefficient in the table below and then divide by the total watershed acreage to determine the watershed runoff coefficient used in the calculations above.

Land Use Description		А	В	С	D
		Sandy Soils			Clay Soils
Agricultural Land	Without conservation treatment	0.49	0.67	0.81	0.88
	With conservation treatment	0.27	0.43	0.61	0.67
Pasture or range land	Poor condition	0.38	0.63	0.78	0.84
	Good condition	-	0.25	0.51	0.65
Meadow	Good condition	-	-	0.44	0.61
Forest	Thin stand, poor cover	-	0.34	0.59	0.70
	Good cover	-	-	0.45	0.59
Open space, lawns, parks, golf courses	Good conditions (Grass cover 75% or more)	-	0.25	0.51	0.65
	Fair conditions (Grass cover 75% or less)		0.45	0.63	0.74
Commercial or Business	85% impervious	0.84	0.90	0.93	0.96

Runoff Coefficient Table (C):

Industrial	¹ 72% impervious	0.67	0.81	0.88	0.92
Residential	Average Lot Size				
	1/8 acre lot size	0.59	0.76	0.86	0.90
	1/4 acre lot size	0.25	0.55	0.70	0.80
	1/3 acre lot size	-	0.49	0.67	0.78
	1/2 acre lot size	-	0.45	0.65	0.76
	1 acre lot size	-	0.41	0.63	0.74
Paved parking lots, roofs, driveways		0.99	0.99	0.99	0.99
Streets and Roads	Paved with storm sewers	0.99	0.99	0.99	0.99
	Gravel	0.57	0.76	0.84	0.88
	Dirt	0.49	0.69	0.80	0.84

Rainfall Data:

The National Oceanic and Atmospheric Administration (NOAA) Online Weather Data (NOWData) is a data query system providing basic climate statistics to the public.

Aquatic pesticide permit applicants can access the monthly precipitation normal in inches, for the month of the proposed pesticide application, from the closest New York weather station to the water body, under the Weather Station Data - NOWData link on the Northeast Regional Climate Center website at: <u>http://www.nrcc.cornell.edu/</u>. If the aquatic pesticide permit applicant proposes to hold the water for 7 days, use one quarter of the value given for the calculations above.

Evaporation Data: (NOAA Technical Report NWS 34 Mean Monthly Pan Evaporation - December 1982)

Use evaporation data from the closet station to the water body. These evaporation values are the 30 day mean in inches, so if you want to hold the water for 7 days use one quarter of this value for the calculations above.

	May	June	July	August	September	October
Aurora Research Farm	5.26	6.36	6.98	5.78	4.04	2.79
Boonville	5.23	5.92	6.47	5.36	3.40	2.69
Canton	5.83	7.33	6.93	5.57	3.65	2.65
Downsville Dam	4.66	5.09	5.51	4.88	3.32	2.15
Geneva Res. Farm	5.59	6.70	7.60	6.03	4.10	2.73
Greenport Power House	5.0	5.50	6.18	5.20	3.95	3.30
Lockport	4.77	5.87	6.42	5.40	3.68	2.35
Mineola	6.31	7.19	8.0	6.73	5.32	3.74
Mt. Pleasant Farm	5.09	5.90	6.35	5.49	3.83	2.55
New York Central Park	5.06	6.02	7.86	5.88	4.0	3.01
Voorheesville	5.05	5.57	6.16	5.20	3.52	2.30

ATTACHMENT D: DOWNSTREAM MODELING

If the water is not going to be held, data will be needed to demonstrate how far the outlet waters will flow during the pesticide water use restriction period in order to identify potential adversely affected downstream riparian owners or users. If not provided on the map or in the application, detailed information on the locations, dates of application, and dosage rates of specific application sites may be required to estimate the concentration of the pesticide at the outlet.

The purpose of the Downstream Modeling spreadsheet, which is available from DEC Pest Management staff and on the DEC website, is to model the pesticide's movement downstream. It shows the distance downstream from the treated water body, where riparian owner and user notification of the water use restrictions must be provided, from the outlet to a point below the notification value (e.g. drinking water restriction). The spreadsheet is used to estimate concentrations of pesticide and travel time to a given point in flowing waters using United States Geological Survey (USGS) reference gage water flow and watershed data. Pesticide dilution is estimated using a USGS reference gage from which the flow of the watershed in question may be obtained by correlating it to the flow and corresponding area from the reference gage, along with watershed information from downstream tributaries and inputs.

The Downstream Modeling spreadsheet is only an estimate, but will provide a scientific basis for notification of downstream riparian owners and users about the pesticide's water use restrictions. The spreadsheet is available from Regional Pest Management staff and on the DEC website with the AQV application. Instructions for completing the Downstream Modeling and links to the required data are included in the spreadsheet.

Blairs Bay Lake George, New York

2021 Submersed Aquatic Macrophyte Survey Report





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2021 Aquatic Macrophyte Survey Report

Blairs's Bay Lake George

Introduction

On August 10th & 13th 2021, Warren County Soil & Water Conservation District conducted a detailed aquatic macrophyte survey for the Lake George Park Commission at Blair's Bay Lake George in Glenburnie, New York (Warren County). Blair's Bay, Lake George is located inside the Adirondack Park. The primary goal of the submersed aquatic vegetation (SAV) survey was to map and identify the abundance and distribution of Eurasian water milfoil to provide science-based recommendations for the continual management control strategies, as a more aggressive approach seems to be appropriate. Eurasian water milfoil at this location had previously been the target of suction harvesting, benthic barrier and hand harvesting in efforts to control its population. In addition to the target invasive plant, all submersed vegetation was mapped. The appendix of this report contains survey data tables as well as detailed distribution and abundance maps for each aquatic macrophyte species collected/observed in Blair's Bay. Also included is an aquatic macrophyte library, which provides a description of each species documented in 2021.

Methodology

Point-Intercept Submersed Aquatic Plant Mapping

The Point Intercept Method (PIM) of sampling aquatic macrophytes is designed to determine the extent of aquatic plant growth within an area of concern. The total number of sample locations is typically based on the total acreage of the treatment area, where at least one sample location per acre is surveyed at a given site. For Blair's Bay, 38 GPS-referenced locations were sampled for the presence of aquatic macrophytes. During the survey, each pre-determined sampling point was accessed via a boat and the real-time GPS coordinates of the sample location were recorded using a handheld GNSS system. The same sample locations that were gathered during this survey can be utilized for future surveys for accuracy and ease of comparison purposes, if desired. This way changes in the aquatic macrophyte community can be tracked over time, especially to determine the efficacy of management program. A sample point map is included in the appendix that depicts these sampling stations. One rake toss was conducted at each sample point for detection of target species and native submersed aquatic vegetation (SAV). The Rake Toss Methodology, developed by the US Army Corps of Engineers and modified by Cornell University, was intended for use in this type of aquatic macrophyte survey (Lord and Johnson 2006). The following data was collected for each sampling station: overall abundance of aquatic macrophyte growth, relative abundance of each species, and any other pertinent field notes regarding the sample location. Based on available bathymetry information we determined that the bay had approximately 38 acres of littoral zone within 0.3 of a mile radius from the proposed treatment area. Thus, sampling stations are spread out over the entire area of 35 feet in depth or less, with a concentration on the known area of milfoil located in said grid system. Water depth was measured at each sampling station using a sonar-based depth finder and a weighted tape measure as appropriate to the SAV conditions. Water depths are depicted on a map in the appendix of this report. Based on our 38 water depth measurements, we calculated an average depth of

11.9 feet, with a maximum depth of 34 feet. The entire bay within 0.3 of a mile radius from the proposed treatment zone has an area of approximately 80 acres, of that 38 acres have a depth shallower than 35feet. That means only 47.5 % of the area would be considered littoral zone by depth; bottom conditions further reduce the applicable littoral zone due to bottom substrate type. Large stretches of this sampling location have a steep bedrock substrate which does not hold sediment and are not conducive to SAV growth. For each rake toss, the weed rake, attached to a 10-meter-long piece of rope, was tossed from a random side of the boat. The weed rake used for aquatic macrophyte surveys has a specific design. It is constructed with two 13.5-inch wide metal garden rakes attached back to back. The wooden handles are removed, and a 10-meter-long nylon rope is attached to the rake heads. It is important to toss the weed rake the full 10 meters (a loop at the end of the rope is attached to the boat to prevent losing the rake). The weed rake is slowly retrieved along the bottom, and carefully hoisted into the boat. To determine the amounts of overall submersed vegetation, the weed mass is assigned one of five densities, based on the semi-quantitative metrics developed by Cornell University.

Aquatic Vegetation Abundance Scale

Field Note

Symbol	Abundance	Level Description
0	Zero	No plants on rake
Т	Trace	One or two stems or fingerful on rake
S	Sparse	Three to ten stems or handful on rake
М	Moderate	More than ten stems or covering all rake tines
D	Dense	Rakeful of plants, difficult to bring into boat

As shown above, these densities are: *No Plants* (empty rake), *Trace* (one or two stems per rake, or the amount that can be held between two fingers), *Sparse* (three to 10 stems, but lightly covering the rake, or about a handful), *Medium* (more than 10 stems, and covering all the tines of the rake), or *Dense* (entire rake full of stems, and one has trouble getting the plant mass into the boat). Pictures of the corresponding densities are included in the appendix. These densities are abbreviated in the field notes as 0, T, S, M, and D. Next, the submersed weed mass is sorted by genus (or species if possible) and one of the five densities is assigned to each genus and/or species. Finally, overall floating macrophyte density within a 10-meter diameter of the survey boat is assigned a density, as well as an estimated density for each separate genus (or species) observed. This data is recorded in the field notes. This procedure is then repeated for the remaining sample points. For the purposes of this survey, the terms "density" and "abundance" refer to the same description.

Lake George New York is classified as an oligotrophic or meso/oligotrophic lake with a mean depth of approximately 70 ft deep; the lower nutrient, low production lake has a limited littoral zone by percentage of area, unlike many of the smaller Adirondack waterbodies. The Eastern shoreline and in fact a majority of the lake George shoreline is dominated by steep rocky substrates, it is not uncommon to be in 30 feet of water less than 25 feet from the mean high water mark.

In Blair's Bay Glenburnie, the areas which are directly adjacent to the proposed treatment site were heavily sampled for aquatic macrophytes from the depths of 0-25 feet; the areas within the 0.3 miles of the proposed treatment site which were conducive to aquatic plant growth due to either or both bottom sediments type and depth were also sampled. The areas favorable to aquatic vegetation at this location were dominated Myriophyllum spicatum (EWM). The reason for extended spacing between marked sample locations was as we travelled both to the north and south of the proposed treatment area, water shallow enough (< 30 ft) for aquatic plants had benthic conditions consisting of mostly bedrock or large cobble/ boulder piles, very little soft sediment. Areas consistent with aquatic plant growth by depth and sediment type visible from the surface (<15ft) were sampled. Shallow areas which had bottom sediments consisting of mostly sand with low organic content were also sampled repeatedly for low growing macrophytes such as Eriocaulon, Eleocharis, Juncus, Myriophyllum alterniflorum and M. tenellum. M. alterniflorum was noted at site 3 during the survey; a diver swimover of the area did anecdotally report a hand full of plants seen in 2 –4 feet of water at a location near the delta of Sucker Brook in Blair's Bay. M. alterniflorum is listed as a threatened species in New York, but it is found in many shallow sandy areas in Lake George. Isoetes lacustris is also listed as a rare macrophyte by the State of New York, but commonly found below 20 feet deep in Lake George. M. tenellum was found at 4 sites total during survey, with three being close to or within the proposed treatment area.

Summary of Aquatic Vegetation Blair's Bay—Lake George

Glenburnie (Blair's Bay)			
Common Name	Scientific Name	Stations	% occurrence
Eurasian Water milfoil	Myriophyllum spicatum	14	36.8
Slender Naiad	Najas flexillis	14	36.8
Robbins Pondweed	Potamogeton robbinsii	13	34.2
Muskgrass	Chara	8	21.1
Stonewort	Nitella	7	18.4
American Eelgrass	Vallisneria americana	7	18.4
Coontail	Ceratophyllum demersum	6	15.8
Longbeak Buttercup	Ranunculus longirostris	6	15.8
Northeastern Bladderwort	Utricularia resupinata	6	15.8
Grassy Pondweed	Potamogeton gramineus	6	15.8
Brown Fruit Rush	Juncus pelocarpus	5	13.2
Largeleaf Pondweed	Potamogeton amplifolius	5	13.2
Narrowleaf Pondweed	Potamogeton narrow-leaf 3	4	10.5
Narrowleaf Pondweed	Potamogeton narrow-leaf 4	4	10.5
Slender Water milfoil	Mryiophyllum tenellum	4	10.5
Canadian Waterweed	Elodea canadensis	3	7.9
Clasping leaf Pondweed	Potamogeton perfoliatus	3	7.9
Narrowleaf Pondweed	Potamogeton narrow-leaf 2	2	5.3
Quillwort	Isoetes lacustris	2	5.3
White stem Pondweed	Potamogeton praelongus	2	5.3
Narrowleaf Pondweed	Potamogeton narrow-leaf 1	2	5.3
Flatstem Pondweed	Potamongeton zosteriformis	2	5.3
Spikerush	Eleocharis acicularis	1	2.6
Pipewort	Eriocaulon septangulare	1	2.6
Alternate flowered water milfoil	Myriophyllum alterniflorum	1	2.6
Southern Naiad	Najas guadalupensis	1	2.6
Water Marigold	Megalodonta beckii	1	2.6

Discussion

Macrophyte Abundance and Distribution

The table above is a summary of the frequency of occurrence data for the 2021 Point Intecept survey at Blair's Bay - Lake George. Entries in red indicate an invasive species, while entries in green indicate an macro-alga species. The aquatic plant community can be divided into several different categories. These include submersed aquatic plants (such as pondweeds, milfoils, and bladderworts), floating-leaf plants (such as water lilies) and free-floating aquatic plants (such as duckweeds and watermeal). The latter two groups typically comprise the floating plant community. Macroscopic algae (such as muskgrass and stonewort) are typically collected during these surveys as they impact the SAV community or serve in a similar ecological niche. Emergent growth (such as pickerelweed and cattails) commonly occur along shoreline margins, but typically are not a focal point of SAV point intercept surveys, nor were any seen or collected during this survey. At Blair's Bay, aquatic macrophytes were collected at 32 of the 38 sample points (or 84%) in the basin. Both trace and sparse abundance macrophytes were collected at twenty (or 56%) of the sites. Moderate abundance macrophytes accounted for 29% of the sites (n=11) while only one of the sites (n=1, or 3%) were considered dense abundance. We typically consider moderate and dense Eurasian Watermilfoil (EWM) to be at nuisance abundance. Therefore, nuisance growth occurred at 32% of the sites with EWM growth at Blair's Bay.

Richness (or diversity) is the measure of different species at a specific location. At Blair's Bay, we collected/ observed 27 different aquatic macrophytes. Further, we can examine the individual sample site richness to determine if there are locations in the basin that have higher (or lower) richness. The richness ranged from 0 to 11 unique aquatic macrophytes. The mean richness at all 38 stations was calculated at 3.4 macrophytes. In other words, an average of just under three and a half different macrophytes were collected at each sample site. Sample station richness is depicted on a map in the appendix of this report.

Eurasian water milfoil is an aggressive invasive submersed plant and is the current target of localized control efforts in this bay. The EWM beds cover an area of approximately 3 acres of the 38 acres surveyed; Eurasian water milfoil occurred at 14 (or 37%) of the sites surveyed and was one of the dominant aquatic macrophytes collected/observed at this area; matched by Najas flexilis. Most abundances were trace (3, or 21%) or sparse (3, or 21%). Therefore, 58% of the sites were medium (n=4) or dense (n=4), which we would consider a nuisance. Eurasian water milfoil is found in two large bed areas with native macrophytes surrounding the two beds, although EWM was found scattered in lesser



amounts between the two beds. Its possible that given time, EWM will begin to dominate the area between the two beds forming one large population of Eurasian water milfoil; this has been seen at a number of locations in Lake George before and at this location in particular.

Najas flexilis is very common in Lake George and New York State. N. flexilis was collected at 14 (or 37%) of the sites in 2021. At all of these sites the small plants were found in trace abundance (n=14, or 100%).

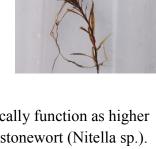
Potamogeton robbinsii is a highly desirable native pondweed. It was documented in Blair's Bay at 13 sites (34%) with a distribution found at depths of 10 feet or more, but can be found in shallower waters.

Macroalga- Chara and Nitella are visible multi-branching algal species that ecologically function as higher plants. There are two main native genera in the northeast: muskgrass (Chara sp.)and stonewort (Nitella sp.).

Chara (muskgrass) tends to be darker green in color, with stiffer calciumencrusted branches generally found in shallower waters. It was found at 8 sites (21%) in Blair's Bay at an average depth less than 6 feet.

Nitella (stonewort) was found at 7 sites (18%) at an average depth of 24 feet; it tends to be lighter green, smooth more delicate branching and located among the last plants found in deepest waters at the end of the littoral zone.

Vallisneria Americana - Eel Grass have long basal ribbon like leaves with obvious lacunae bands their entire length, common in Lake George it was found at 7 sites (18%) at varying depths.











Ceratophyllum demersum –Coontail is a free floating plant with whorled leaves and one commonly mistaken for EWM. The plant was identified at 6 sites (16%) in Blair's Bay and was often found in amongst EWM beds.

Ranunculus longirostris –Longbeaked Buttercup has leaves that are finely divided into many thread-like segments, round to fan-shaped in outline, to ³/₄ inch long and about 1 inch wide, alternately attached. Stems and leaves are all submersed and mostly hairless. It was found in trace or sparse amounts at 6 sites (16%) during sampling ranging from 4 to 12 feet in depth.

Utricularia resupinata –Northeastern Bladderwort unlike a majority of Bladderworts, resupinata is not a free floating plant, it was found in trace amounts at 6 sites (16%) in shallow sandy areas in Lake George. Thin thread like leaves with carnivorous bladders on leaf stems and roots identify this species. Found at depths of less than 5 feet it sometimes forms mats in shallow sandy areas throughout the lake.

Potamogeton gramineus - Grassy Pondweed was one of the ten potamogetons found during this survey, P. gramineus is a common Lake George species which can be found throughout the littoral zone from 1 to 25 feet deep. During this survey it was recorded from 3 to 14 feet deep at 6 sites (16%) in trace amounts.









Juncus pelocarpus - Brownfruit Rush is commonly found in sandy sediments from the wave break zone to 12 feet of depth in Lake George, during this sampling in Blair's Bay it was recorded in 3 to 10 feet of water at 5 stations (13%). 4 stations (80%) were listed as trace, 1 station (20%) was listed as sparse.

Potamogeton amplifolius - Large-leaf Pondweed was one of the ten potamogetons found during this survey, P. amplifolius is a common Lake George species which can be found throughout the littoral zone from 3 to 25 feet deep. During this survey it was recorded from 6 to 21 feet deep at 5 sites (13%) in trace amounts at 4 sites (80%) and sparse amounts at 1 sites (20%).

Narrow-leaf Potamogeton 3 - there are a number of narrow-leaf potamogeton species common to Lake George that without seeds and a dissecting microscope are very difficult to identify to species. This species was found at 4 sites (10%) in Blair's Bay. It was found between 9 and 20 feet in depth, 3 samples densities were trace (75%) 1 sample density was recorded as sparse (25%).

Narrow-leaf Potamogeton 4 - there are a number of narrow-leaf potamogeton species common to Lake George that without seeds and a dissecting microscope are very difficult to identify to species. This species was found at 4 sites (10%) in Blair's Bay. It was found between 4 and 8 feet in depth, All 4 samples densities were trace (100%).

Myriophyllum tenellum - Slender Water Milfoil is the third milfoil found during the survey, and the first of the two native milfoils found. M. tenellum is found in soft or sandy areas throughout Lake George. It was found between 4 and 12 feet in depth, 3 samples densities were trace (75%) and within or close to the proposed treatment area, 1 sample density was recorded as moderate (25%) was found outside the immediate treatment area.











Elodea Canadensis – Canadian Waterweed has slender stems that can reach a meter in length, and a shallow root system. The stem is adorned with 3 whorled lance-like leaves that are attached directly to the stalk that tend to congregate near the stem tip. It was found in 3 at three sample sites (7%) in Blair's Bay. The depths were from 14 to 21 feet deep, with densities of trace (1), sparse (1) and moderate (1).

Potamogeton perfoliatus - Clasping-leaf Pondweed is another of the ten potamogetons found during this survey, P. perfoliatus is a common Lake George species which was found throughout the littoral zone from 3 to 32 feet deep. During this survey it was recorded from 8 to 32 feet deep at 3 sites (8%) in trace amounts.

Narrow-leaf Potamogeton 2: - there are a number of narrow-leaf potamogeton species common to Lake George that without seeds and a dissecting microscope are very difficult to identify to species. This species was found at 2 sites (5%) in Blair's Bay. It was found between 11 and 15 feet in depth, Both sample densities were trace (100%).

Isoetes lacustris: - Lake Quillwort is one of two species of found in lake George and listed as a rare aquatic plant in New York State; this plant is commonly found in the deep waters of Lake George, from depths of 20 to 30 deep. It was found at two sites in Blair's Bay (5%) in trace amounts. One of the sites was listed as 13 feet deep but was on a steep section of the bay, chances are this sample came from a deeper end of the rake toss sample area.











Potamogeton praelongus- White stem Pondweed is another of the ten potamogetons found during this survey, P. peraelongus is a common Lake George species which was found throughout the littoral zone from 8 to 25 feet deep. During this survey it was recorded from 12 to 14 feet deep at 2 sites (5%) in trace amounts.

Narrow-leaf Potamogeton 1: - there are a number of narrow-leaf potamogeton species common to Lake George that without seeds and a dissecting microscope are very difficult to identify to species. This species was found at 2 sites (5%) in Blairs Bay. It was found at 4 and 21 feet in depth, Both sample densities were trace (100%).

Potamogeton zosterformis: Flat-stem Pondweed is another of the ten potamogetons found during this survey, P. zoterformis is a common Lake George species which was found throughout the littoral zone from 5 to 20 feet deep. During this survey it was recorded from 6 to 9 feet deep at 2 sites (5%) in trace amounts.

Eleocharis accicularis: Spikerush is commonly found in sandy sediments from the wave break zone to 10 feet of depth in Lake George, during this sampling in Blair's Bay it was recorded in 5 feet of water at 1 station (3%). 1 site (100%) was listed as trace.











Eriocaulon septangulare: Pipewort is commonly found in sandy sediments from the wave break zone to 10 feet of depth in Lake George, during this sampling in Blair's Bay it was recorded in 8 feet of water at 1 site (3%). 1 site (100%) was listed as trace.

Myriophyllum alterniflorum: Alternate Flowered Water Milfoil is one of two native species of found in lake George and listed as a threatened aquatic plant in New York State; this plant is not uncommon in the waters of Lake George, from depths of 3 to 10 deep. It was found at one site in Blair's Bay (3%) in trace amounts. The one site (#3) during the survey with M. alterniflorum noted was listed as 4 feet deep; a diver reported a few plants seen on the stream delta in Blair's Bay.

Najas guadalupensis: Southern Naiad is found occasionally in Lake George, this species was identified at one station (3%)in Blair's Bay at 8 feet in depth.

Megalodonta beckii: Water marigold is common in Lake George, found throughout the littoral zone in waters from 5 to 25 feet in depth. In Blair's Bay it was found at a single site (3%) in a trace amount in 13 feet of water.



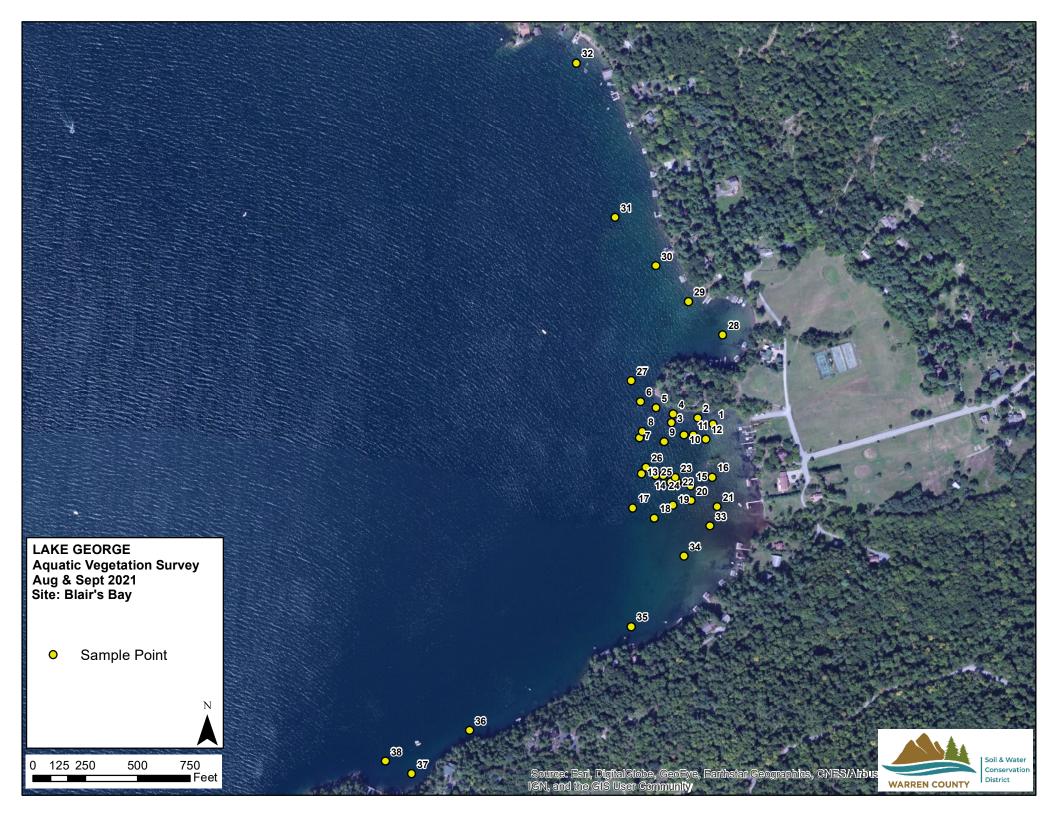


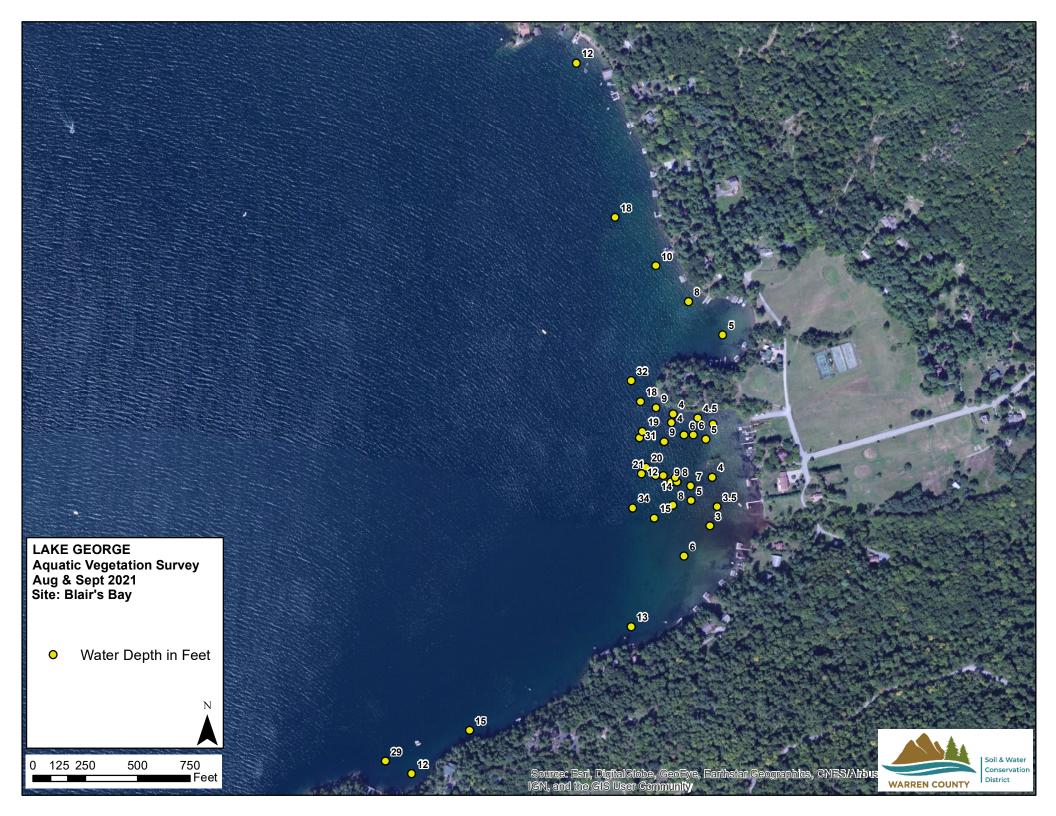


Appendix

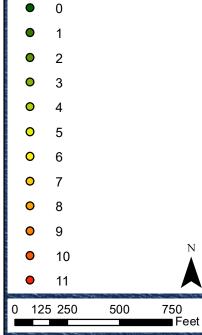
Site-#	5 Depth (ft)	C.demersum	Chara	E. acicularis	E. canadensis	E. septangulare	I.lacustris	J. pelocarpus	M. beckii	M. alterniflorum	M. spicatum	M. tenellum	N. flexilis	N. guadalupensis	Nitella	P. amplifolius	P. gramineus	P. perfoliatus	P. praelongus	P. robbinsii	P. zosterformis	P. narrowleaf 1	P. narrowleaf 2	P. narrowleaf 3	P. narrowleaf 4	R. longirostris	U. resupinata	V. americana	o Richness	o Rake density
1																														
2	4.5		Т			1		S	1		Т	1	Т		1		1		1	Т					Т	Т	Т		8	S
3	4		Т							Т	S		Т		Т		Т			Т		Т				S		Т	10	Μ
4	4					1		1	1			1	1		1		1		1	1						1			0	0
5	9										S																		1	Т
6	18				Т		1		1	1	Т		Т	1	Μ				1	Т		1	1		1			1	5	Μ
7	31														Т														1	Т
8	19					1		1	1		1	1	1						1	S									1	S
9	9											Т						Т		М				Т					4	М
10	6	Т									М												Т					Т	4	М
11	6	Т									М					Т				Т	Т							Т	6	М
12	5							Т				Т	Т							Т							S		5	S
13	21	S			S											S				S		Т							5	S
14	9										Μ									S	Т		Т						4	Μ
15	7												Т			Т				Т					Т	Т			5	S
16	4		Т					Т				Т	Т														Т		5	Т
17	34										Т				S														2	S
18	15										D																		1	Μ
19	8		Т			Т					S		Т	Т			Т	Т		Т					Т	S		Т	11	Μ
20	5			Т													Т								Т	Т	Т		5	S
21	3.5		Т										Т																2	Т
22	8					1		1	1		D	1	1				1		1	1						1			1	D
23	10	Т									D													S					3	М
24	12	Т				I		1	1		D	I	I	1		Т	Т		Т	Т						Т		Т	8	М
25	14	М			М						М								Т	Т								Т	6	М
26	20	1					Т	1			1				Т	1		1	1		1			Т					3	Т
27	32									1			Т		S			Т											3	S
28	5		Т					Т	1	1	1						1	I	1					I		1	Т		3	S
29	8												Т																1	T
30	10	I				I		I			I		T		L	I	I	1		I	I	I		1	I	I			1	T
31	18												-																0	0
32	12		Т			I		Т	I	1	I	М	Т				Т	1	I	I				1		I		Т	6	S
33	3		T					-				1.1	T														Т	-	3	T
34	6	I	•			I		1	I		1	1	•		l	I	I	1	I	I	I			1		I	•		0	0
35	13						Т		Т				Т			Т	Т							Т					6	T
36	15	1				I		I		1	I	I	•	I				1	1	I	1	I	I		I	I		I	0	0
37	12																												0	0
38	29	I				I	I	I	I	I	I	I	I	I	Т	I	I	I	I	I	I	I	I	I	I	I		I	1	T

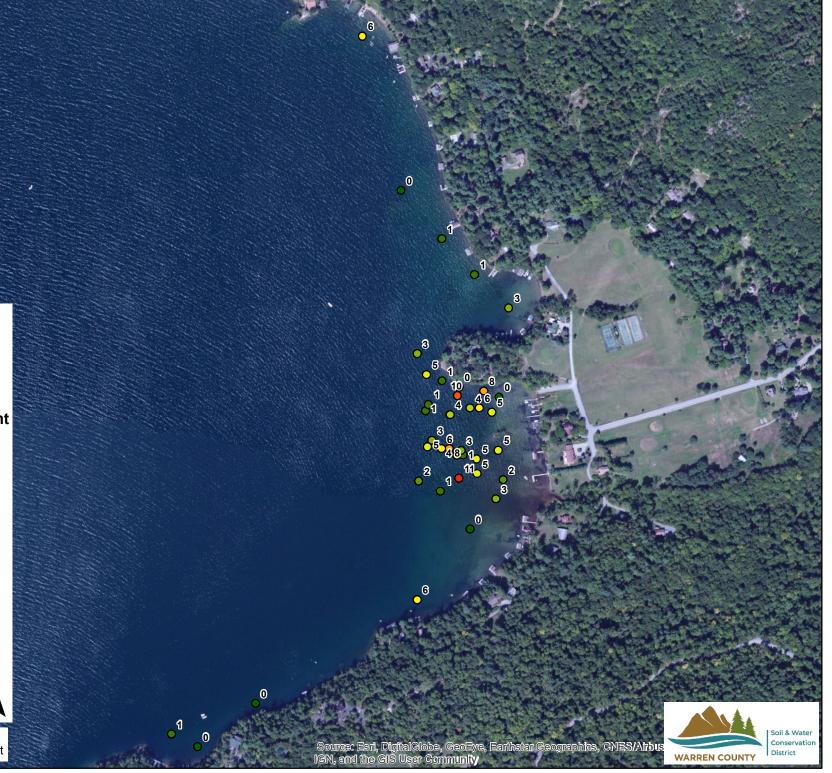
Blair's Bay (Glenburnie)	Total		Trace		Sparse		Moderate		Dense	
Abundance Distribution	Sites	%	Sites	%	Sites	%	Sites	%	Sites	%
Total Sites	38									
Overall Abundance	32	84	10	26	10	26	11	50	1	3
Myriophyllum spicatum	14	37	3	21	3	21	4	29	4	29
Najas flexilis	14	37	14	100						
Potamogeton robbinsii	13	34	6	69	3	23	1	8		
Chara sp	8	21	8	100						
Nitella sp	7	18	4	57	2	29	1	14		
Vallisneria americana	7	18	7	100						
Ceratophyllum demersum	9	16	4	67	1	17	1	17		
Potamogeton gramineus	9	16	9	100						
Ranunculus longirostris	6	16	4	67	2	33				
Utricularia resupinata	9	16	5	83	1	17				
Juncus pelocarpus	5	13	4	80	1	20				
Potamogeton amplifolius	5	13	4	80	1	20				
Myriophyllum tenellum	4	11	3	75			1	25		
Potamogeton narrow-leaf 3	4	11	3	75	1	25				
Potamogeton narrow-leaf 4	4	11	4	100						
Elodea canadensis	3	8	1	33	1	33	1	33		
Potamogeton perfoliatus	3	8	3	100						
Potamogeton narrow-leaf 2	2	5	2	100						
Isoetes lacustris	2	5	2	100						
Potamogeton praelongus	2	5	2	100						
Potamogeton zosteriformis	2	5	2	100						
Potamogeton narrow-leaf 1	2	5	2	100						
Eleocharis acicularis	1	3	1	100						
Eriocaulon septangulare	1	3	1	100						
Megalodonta beckii	1	3	1	100						
Myriophyllum alterniflorum	1	3	1	100						
Najas guadalupensis	1	3	1	100						

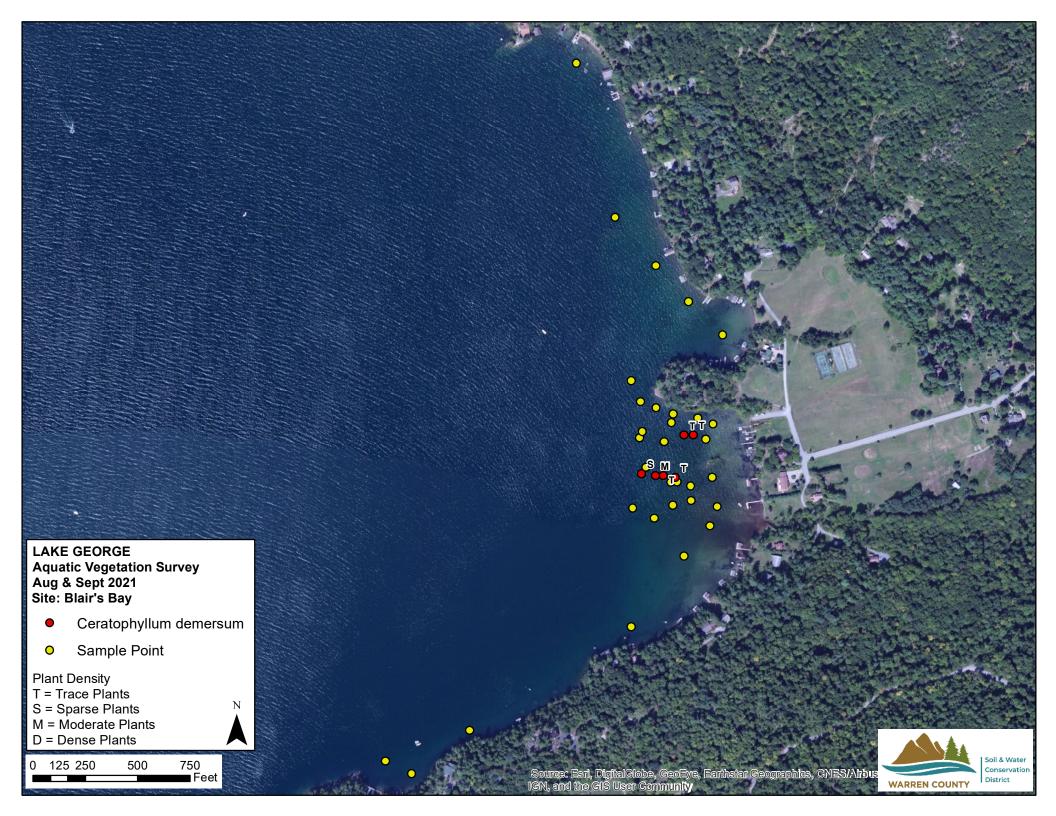




Richness-Number of Species per Sample Point







- Chara sp •
- Sample Point 0

Ν

750 Feet

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

500

raphics, CNES/Airbus DigitalGlobe Source: Esri, IGN, and the GIS User Community

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• Eleocharis acicularis

500

N

750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants S = Sparse Plants
- M = Moderate Plants D = Dense Plants
- D Dense Plants

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community

C



• Elodea canadensis

Ν

750 Feet

Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants

500

D = Dense Plants

Source: Esrl, Digital Globe, Geo Eye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community

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• Eriocaulon septangulare

500

Ν

750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants S = Sparse Plants M = Moderate Plants
- D = Dense Plants

Source: Esrl, Digital Globe, Geo Eye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community

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- Isoetes lacustris •
- Sample Point 0

Plant Density

0 125 250

T = Trace Plants S = Sparse Plants

Ν

750 Feet

M = Moderate Plants

500

D = Dense Plants



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italGlob

Source: Esri.



Juncus pelocarpus •

Ν

750 Feet

0 Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

500

aphics, CNES/Airbus DigitalGlobs Source: Esri, IGN, and the GIS User Community

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Myriophyllum alterniflorum •

500

N

750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

aphics, CNES/Airbus DigitalGlobs Source: Esri, IGN, and the GIS User Community



Megalodonta beckii •

N

750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

500

aphics, CNES/Airbus DigitalGlobs Source: Esri, IGN, and the GIS User Community



Myriophyllum spicatum •

500

Ν

750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

aphics, CNES/Airbus DigitalGlobe Source: Esri, IGN, and the GIS User Community

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MD

D

C



• Myriophyllum tenellum

500

Ν

750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants
- D = Dense Plants

Source: Esrl, Digital Globe, Geo Eye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community

0

8



- Najas flexilis •
- Sample Point 0

Ν

750 Feet

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

500

aphics, CNES/Airbus DigitalGlobe Source: Esri, IGN, and the GIS User Community

0

0



• Najas guadalupensis

500

Ν

750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants
- D = Dense Plants

Source: Esrl, Digital Globe, Geo Eye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community

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- Nitella sp
- Sample Point

Ν

750 Feet

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants

500

D = Dense Plants



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Potamogeton amplifolius •

500

Ν

750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants M = Moderate Plants
- D = Dense Plants

aphics, CNES/Airbus DigitalGlobs Source: Esri, IGN, and the GIS User Community



Potamogeton gramineus •

500

N

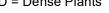
750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants M = Moderate Plants
- D = Dense Plants



aphics, CNES/Airbus Dic italGlob Source: Esri. IGN, and the GIS User Community



• Potamogeton narrow-leaf 1 o

500

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750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants
- D Dense Plants



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• Potamogeton narrow-leaf 2 p

500

Ν

750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants
- D Dense Plants



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• Potamogeton narrow-leaf 3 s

500

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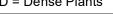
750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants



Source: Esrl, Digital Globe, Geo Eye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community

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Potamogeton narrow-leaf 4 v •

500

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750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants



T



Potamogeton perfoliatus •

500

Ν

750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

aphics, CNES/Airbus DigitalGlobe Source: Esri, IGN, and the GIS User Community

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• Potamogeton praelongus

500

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750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants
- D Dense Plants

Source: Esrl, Digital Globe, Geo Eye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community



Potamogeton robbinsii •

500

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750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants M = Moderate Plants
- D = Dense Plants

aphics, CNES/Airbus DigitalGlobs Source: Esri, IGN, and the GIS User Community

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ST



Potamogeton zosteriformis •

500

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750 Feet

Sample Point 0

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

aphics, CNES/Airbus DigitalGlobs Source: Esri, IGN, and the GIS User Community



Ranunculus longirostris •

Ν

750 Feet

0 Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

500

aphics, CNES/Airbus DigitalGlobe Source: Esri, IGN, and the GIS User Community



• Utricularia resupinata

500

N

750 Feet

• Sample Point

Plant Density

0 125 250

- T = Trace Plants S = Sparse Plants
- M = Moderate Plants
- D = Dense Plants



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Vallisneria americana •

Ν

750 Feet

0 Sample Point

Plant Density

0 125 250

- T = Trace Plants
- S = Sparse Plants
- M = Moderate Plants D = Dense Plants

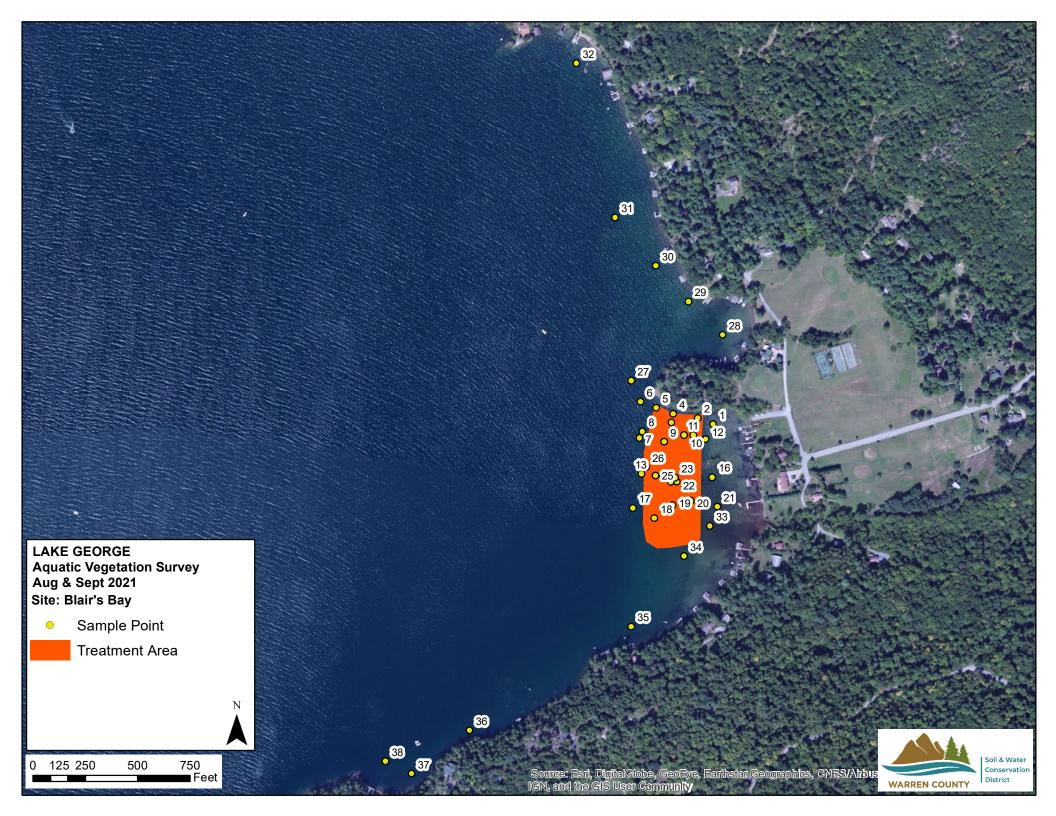
500



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• Myriophyllum alterniflorum

Sample Point

Treatment Area

500

N

750 Feet

Plant Density T = Trace Plants S = Sparse Plants

M = Moderate Plants

D = Dense Plants

0 125 250

Source: Esrl, Digital Globe, Geo Eye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community

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Myriophyllum tenellum

Sample Point

Treatment Area

500

750 Feet

Plant Density T = Trace Plants S = Sparse Plants M = Moderate Plants D = Dense Plants

0 125 250

Source: Esrl, Digital Globe, GeoEye, Earthstar Geographics, CNES/Airbus IGN, and the GIS User Community

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BLAIR'S BAY 2022 EURASIAN WATERMILFOIL CONTROL PLAN



EWM Treatment Area: 4.0 acres, 10.6 ft AD





Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Blair's Bay Lake George Warren County, New York 43.651930°, -73.497042°



BLAIR'S BAY LAKE GEORGE

Date: 11/18/2021 File: George_BlairsBay_TA_2022 Prepared by: KM Office: Washington, NJ



Blairs Bay Sampling Plan

Sample sites

The location and coordinates of the sample sites are shown on the attached map.

Collection schedule

After application, samples will be collected at each site on the following schedule:

- 1-3 hours
- 10-12 hours
- 24 hours
- 3 days
- 7 days

Samples at each site will continue to be collected every 7-14 days until lab analysis confirms that the ProcellaCOR EC concentration is below 1 ppb in all of the samples collected during a single sampling event. If results from all samples collected 3 days after application are below 1ppb, sampling will not be conducted 7 days after application.

Should samples BB3 - BB5 return results >1ppb, additional sample sites will be added ~300 ft further into the lake from the associated site at the next sampling date.

Sampling protocol

The following manufacturer sampling protocol will be followed: For ProcellaCOR FasTEST use the clear glass vial to collect the sample. Submerge the bottle upside down until elbow deep. Cap the clear glass vial underwater. The contents of the clear vial should be transferred to the amber glass vial until completely filled to preserve the sample. Place the amber vial in bubble wrap sleeve to protect the glass vial during shipping, and overnight all samples to SePRO's SRTC lab in Whitakers, NC. If samples are collected on a Friday, store samples in a refrigerated area, and ship samples on Monday.

Cross-contamination prevention

Each sample collected contains two bottles - one unpreserved bottle for collection and one preserved bottle for transfer and shipping. Once used, collection bottles are moved to a "spent bottle" container and not reused for other sample sites.

Sample sites BB1, BB2 & BB4 are only reachable by boat, and BB3 & BB5 may also be collected by boat for efficiency. There is no method to prevent contamination of the boat hull when moving from site to site, and given the low herbicide concentration range, the possibility of boat contamination leading to a sample result of >1ppb can't be dismissed. To minimize this possibility, samples will be collected from the outer edge of the dilution zone (samples BB3-BB5) before collecting samples from BB1 & BB2.

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BLAIR'S BAY 2022 HERBICIDE SAMPLING PLAN MAP





EWM Treatment Area: 4.0 acres, 10.6 ft AD

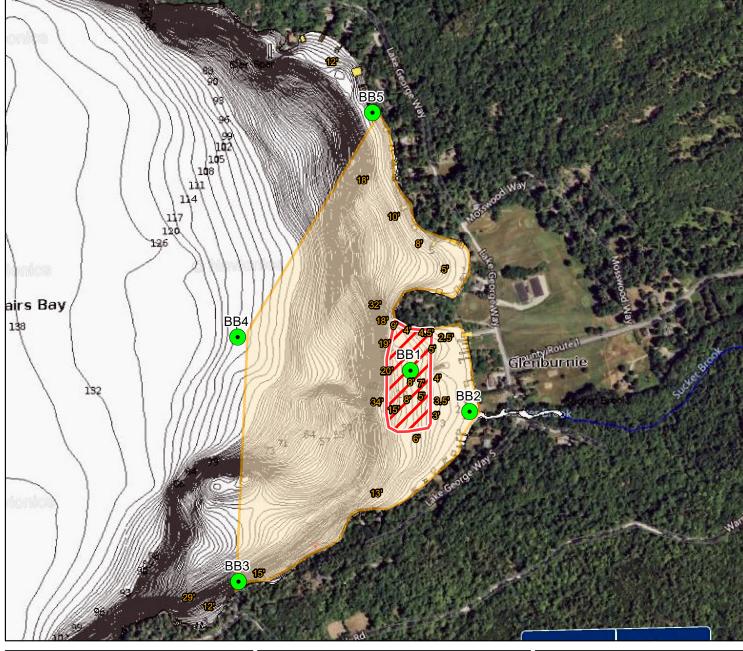
Herbicide Dilution Zone: 60 acres

- Water depth in feet at point (source: WCSWCD)
- 14 Bathymetry contour in feet (source: Navionics)



Herbicide Residue Sampling Stations

Station	Latitude	Longitude
BB1	43.763229°	-73.458842°
BB2	43.762507°	-73.457457°
BB3	43.75967°	-73.46299°
BB4	43.76386°	-73.4629°
BB5	43.76765°	-73.45962°



Blair's Bay Lake George Warren County, New York 43.651930°, -73.497042°



BLAIR'S BAY LAKE GEORGE

Date: 2/2/2022 File: George_BB_HerbSmplPlan_2022 Prepared by: KM Office: Washington, NJ