Lake George Park Commission Stormwater Regulations Update

Presentation to the Adirondack Park Agency February 11,2021

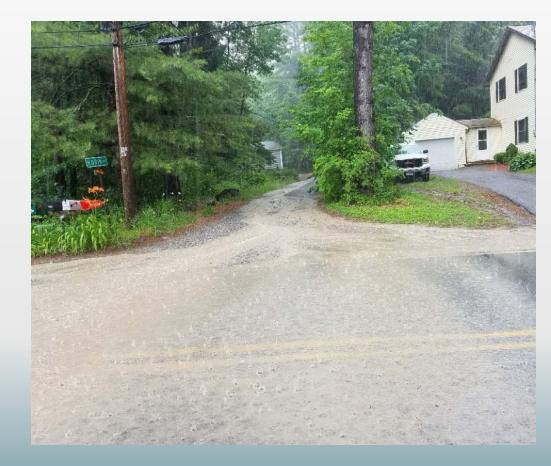


Photo courtesy of Carl Heilman

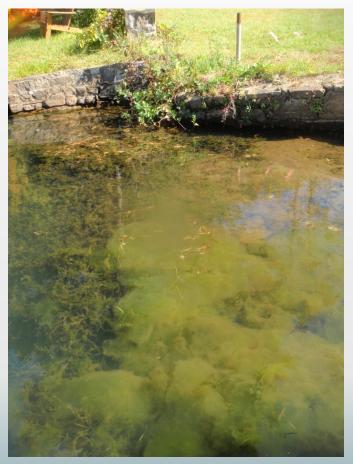
Stormwater Runoff and Water Quality

- Pollutants in stormwater runoff are the single largest impact to Lake George water quality and clarity
- These pollutants

 (phosphorus, nitrogen, sediment, chlorides) are
 the primary pollutants
 degrading Lake George



Benthic Algae Increases



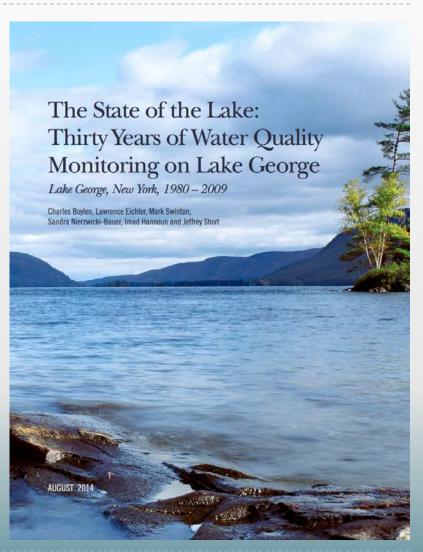
Correlation between increased benthic algae and developed areas



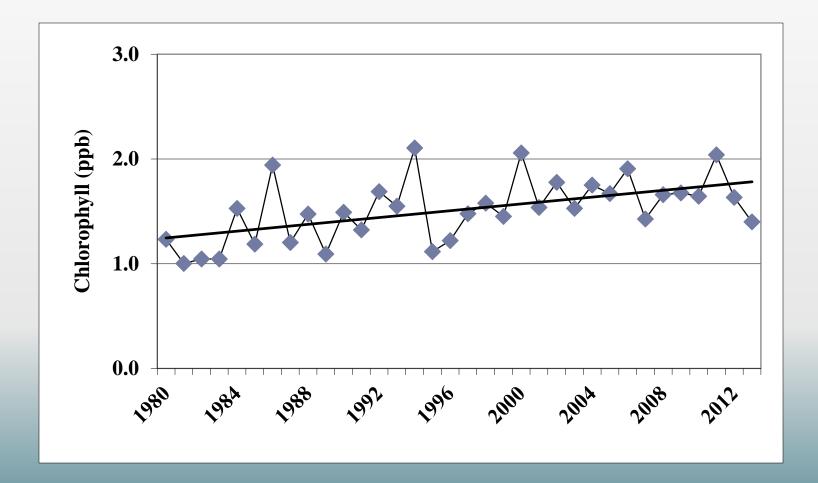


Science Behind LG Stormwater

- Studies documenting stormwater runoff pollution to Lake George
 - National Urban Runoff Program Lake George Report (1983)
 - The Plan for the Future of the Lake George Park (1987)
 - Stearns and Wheeler Phosphorus Budget Report (2001)
 - State of the Lake Report 30 Years of LG Monitoring (2014)
 - Many more...



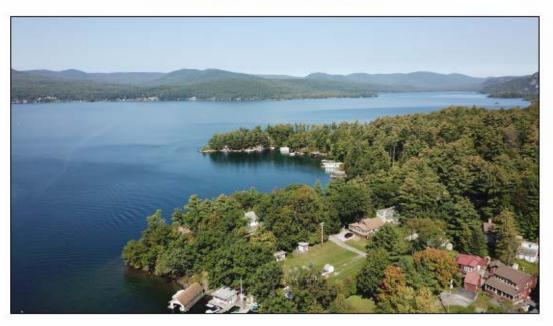
Chlorophyll increased lake-wide by 33% over 30 years

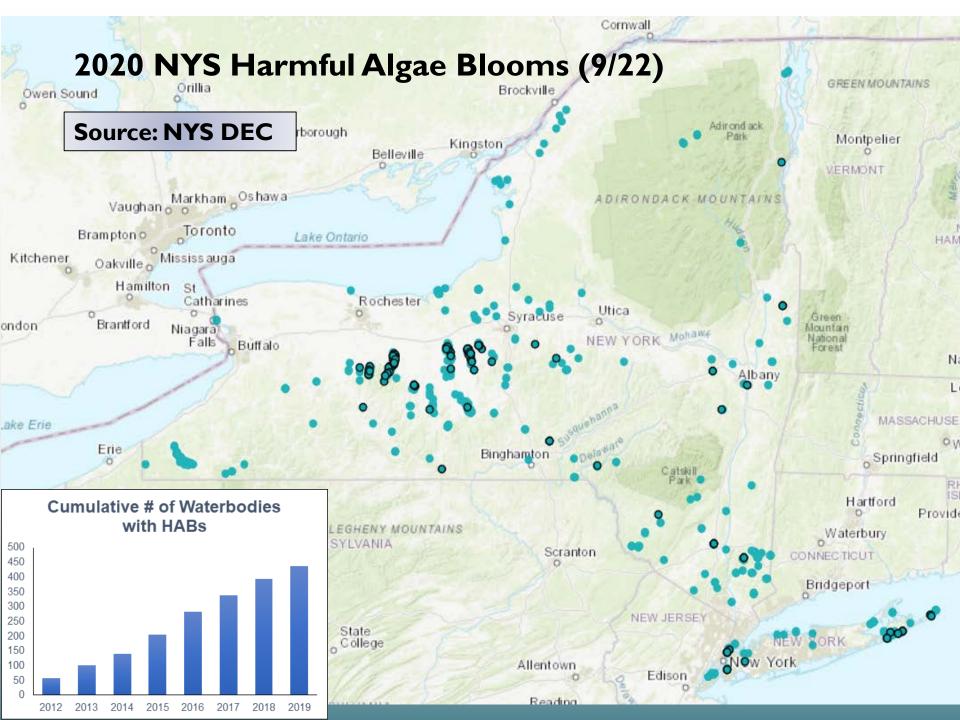




Department of Environmental Conservation Department of Health Agriculture and Markets

HARMFUL ALGAL BLOOM ACTION PLAN LAKE GEORGE





Lake George's First HAB – Nov 7, 2020



LGPC: Two Regulatory Initiatives, One Goal

For the first time in 20 years, the Commission conducted a full evaluation of its regulations

 Current condition still leads to slow decline

How do we change?

Scormwater Regulations:
Timber Harvesting
Retrofitting Properties
Setbacks for Better Projects
Fertilizer Restriction

<u>Stream Corridors Regulations:</u>
 35 foot stream buffers
 Stream crossing standards

Photo courtesy of Carl Heilman

Research and Public Input for Two Years

Meetings with Agencies and Municipalities:

- APA
- DEC
- Village of LG
- Town of LG
- Bolton
- Ticonderoga
- Queensbury
- Hague
- Fort Ann
- Putnam

Stakeholders:

- Development/Engineering
- Foresters
- Business Owners
- Conservation Agencies/Groups



#1: Timber Harvesting





 Existing regulations not well known (or followed)

 Two page "Notice of Intent" to Log in the Lake George Park, highlighting erosion control activities

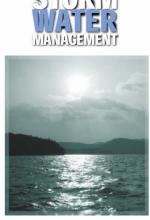
Less violations, more compliance, less problems...

Logging "Notice of Intent" and Plan Form

NEW YORK STATE OF OPPORTUNITY. Park Commis	ssion				8. POST-HARVEST PLAN FOR SITE STABILIZATION**		
75 Fort George Rd, PO Box 749, Lake George N	IY 12845 5	18.668.9347 fax 518	.668-5001 Info@igpc.si	ate.ny www.igpc.state.ny.us			
LOGGING IN THE LAKE GEORGE PARK NOTICE OF INTENT / SOIL CONSERVATION PLAN FORM					9. SITE PLAN**		
Certain Silviculture Activities are exempt qualify for exemption, submit this comple- prior to undertaking lan	ted form a	and a site plan to	the Lake George P	ark Commission* 15 days	Include with this form an accurate, scaled plot plan (ie. 1"= 20') that shows (1) the site topography and wat bodies, and (2) proposed roads, trails, landings, and stream crossings		
1. PROPERTY OWNER					10. STREAM CROSSINGS		
NAME		EMAIL					
MAILING ADDRESS		1			Will the activity require driving equipment through a Stream, or construction of a Stream crossing?		
CITY STATE		ZIP CODE PHONE			- A "Stream" means a AA-special perennial stream designated or mapped by the Department		
2. FORESTER (IF APPLICABLE)			I		 Streams can be found on DEC's Environmental Resource Mapper: https://gisservices.dec.ny.gov/gis 		
NAME EMAI		EMAIL			 Construction of a crossing includes disturbance to the bed or banks of a stream, placement of culve bridge abatements, head walls, etc. 		
MAILING ADDRESS					Answer: YES NO		
СІТҮ	STATE	ZIP CODE	PHONE		If you answered YES - a stream corridor permit is required before beginning, see www.lgpc.ny.gov		
3. LOGGER					11. LAND DISTUBANCE IN A STREAM CORRIDOR		
NAME		EMAIL					
MAILING ADDRESS					Within 35 feet of the high water mark of a Stream, a contiguous clear-cut opening may be created. The op cannot exceed 30% of the stream length on a site or a maximum of 75 linear feet, whichever is less. Will th		
СІТУ	STATE	ZIP CODE	PHONE		harvesting activity exceed this vegetation removal standard within 35' of a Stream?		
4. PROJECT LOCATION* (if logging in Town				at town directly]	Answer: O YES ONO		
□ TICONDEROGA □ DRESDEN		ECTION	BLOCK	LOT	If you answered YES - a stream corridor permit is required before beginning, see www.lgpc.ny.gov		
HAGUE FORTANN PUTNAM					12. LAND DISTUBANCE IN A STREAM CORRIDOR		
STREET ADDRESS	I						
PROPERTY IS PRESENTLY: DUNDEVELOPED		ALLY DEVELOPED	DEVELOPED &	OCCUPIED	Will the harvesting involve a wood road, log landing, skid trail or impervious area within 35 feet of the high mark of a Stream?		
5. FOREST MANAGEMENT OBJECTIVE							
					If you answered YES - a stream corridor permit is required before beginning, see www.lgpc.ny.gov		
					13. FORESTRY BEST MANAGEMENT PRACTICES**		
6. BEST MANAGEMENT PRACTICES TO BE U				V**	15. FORESTRI DEST MANAGEMENT PRACTICES		
6. BEST MANAGEMENT PRACTICES TO BE		INSITE TO PROT	ECT WATER QUALIT	1	Will the harvesting operation, wood roads, log landing, skid trails, equipment use and material handling be		
					accordance with the New York State Forestry Best Management Practices for Water Quality?		
					Answer:YESNO		
7. SCHEDULE FOR ROAD BUILDING AND H	ARVESTIN	G OPERATIONS*	***		If you answered NO - stormwater and stream permits are required before beginning, see www.lgpc.ny.gov		
					I certify that the above information is true to the best of my knowledge.		
				Page 1 of 2	Signature of Owner or Logger Print Name Date		

#2: Retrofitting: Making it Better

- Disturbing more than
 5,000 square feet?
 Address stormwater
 runoff from the
 property.
- Rain gardens
- Swales
- Infiltrators



FOR THE LAKE GEORGE BASIN

Low cost, great impact





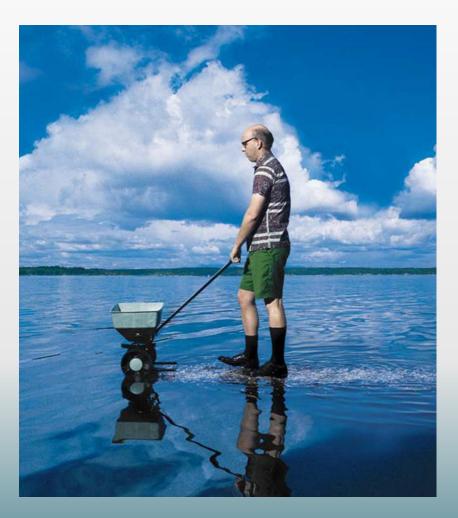
Retrofitting: the Long Game

This, over time, will help address existing runoff issues from private properties, but only when they improve their property



#3: Fertilizer Restrictions

- No fertilizer applications within 50 feet of a waterbody or wetland
- Will help reduce phosphorus and nitrogen inputs from lawns



Fertilizer Restriction





- This law already exists in Queensbury (2011) and Lake George (2014)
- Town codes staff believe that people understand the issue and they get generally good compliance

 Outreach to general public and to commercial lawn care industry

Strong Public Support

Thanks to a significant outreach and a highly collaborative effort, every municipality surrounding Lake George supports these upgraded stormwater regulations.

Public Stormwater Improvements

- NYS DOS and NYS DEC grants to communities total more than \$10 million to Lake George projects and issues in the past decade. More than any other lake in NYS.
- Much of this funding has been directed to address stormwater runoff issues from highways, local roads and public properties, to protect Lake George



Parallel Regulatory Effort: Stream Corridors



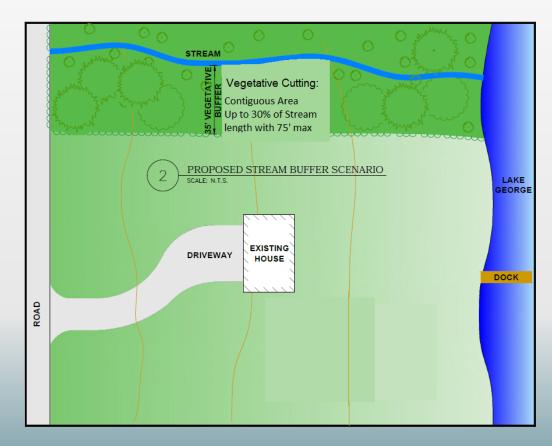
- Streams are the main pathway for water, and pollutants (sediment, nutrients) to get to Lake George. 57% of LG water comes from its tributary streams.
- Currently, there are few streamside vegetation cutting and development restrictions in the Lake George Park

35-Foot Stream Buffer Provisions

Proposal:

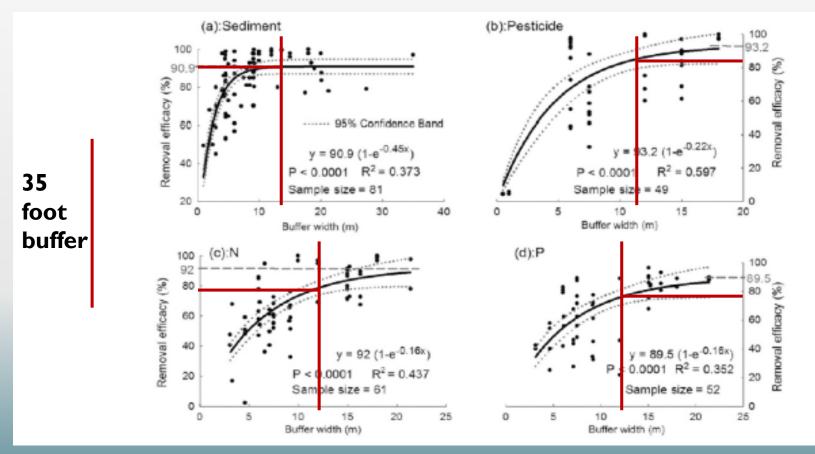
- Within 6 feet of shore, no vegetation may be removed, except that a contiguous clear-cut opening may be created. The opening shall not exceed 30% of the stream length on a site or a maximum of 75 linear feet, whichever is less
- Between 6 feet and 35 feet from the high-water mark of a stream no woody vegetation greater than one inch in diameter may be removed, except that a contiguous clear-cut opening may be created as noted above

Applies to all DEC regulated streams in the LG Park



Stream Buffer Proposal – Science

 On the modest side of recommended buffer widths based on literature, but still has great benefit to streams and water quality



Zhang, X., X. Liu, M. Zhang, R.A. Dahlgren, and M. Eitzel, 2010. A Review of Vegetated Buffers and a Meta-Analysis of Their Mitigation Efficacy in Reducing Nonpoint Source Pollution. Journal of Environmental Quality 39:76-84

Implementation: What's Next?

- February 23 LGPC monthly meeting: vote on both sets of proposed regulations
- If approved, submit formally to DOS for regulations to go into effect on April 1, 2021
- Finalize work with Bolton, Lake George and the Village to amend their local stormwater laws and codes



Existing LGPC Office Building



New 'Modular' LGPC Building (and Lake George Battlefield Park Interpretive Center)!



Thank You!

Dave Wick, Executive Director

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