

Canandaigua Lake Watershed Council Accelerating Water Quality Improvements and Flood Resiliency Through Enhanced Partnerships

**Co-chairs: Supervisor Dan Marshall and Supervisor Jared Simpson
Treasurer: Mayor Bob Palumbo**

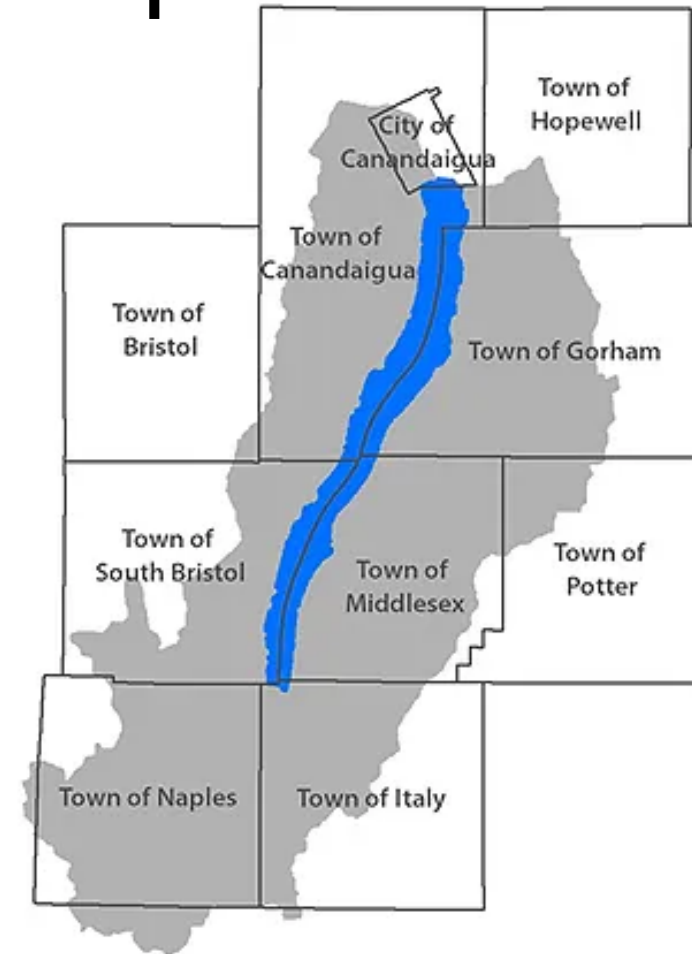
**TOWNS: BRISTOL, CANANDAIGUA, GORHAM, HOPEWELL, ITALY, MIDDLESEX, NAPLES, POTTER,
SOUTH BRISTOL VILLAGES: NAPLES, NEWARK, PALMYRA, RUSHVILLE CITY: CANANDAIGUA**

Protecting the Lifeblood of our Region

**CANANDAIGUA LAKE
WATERSHED COUNCIL**

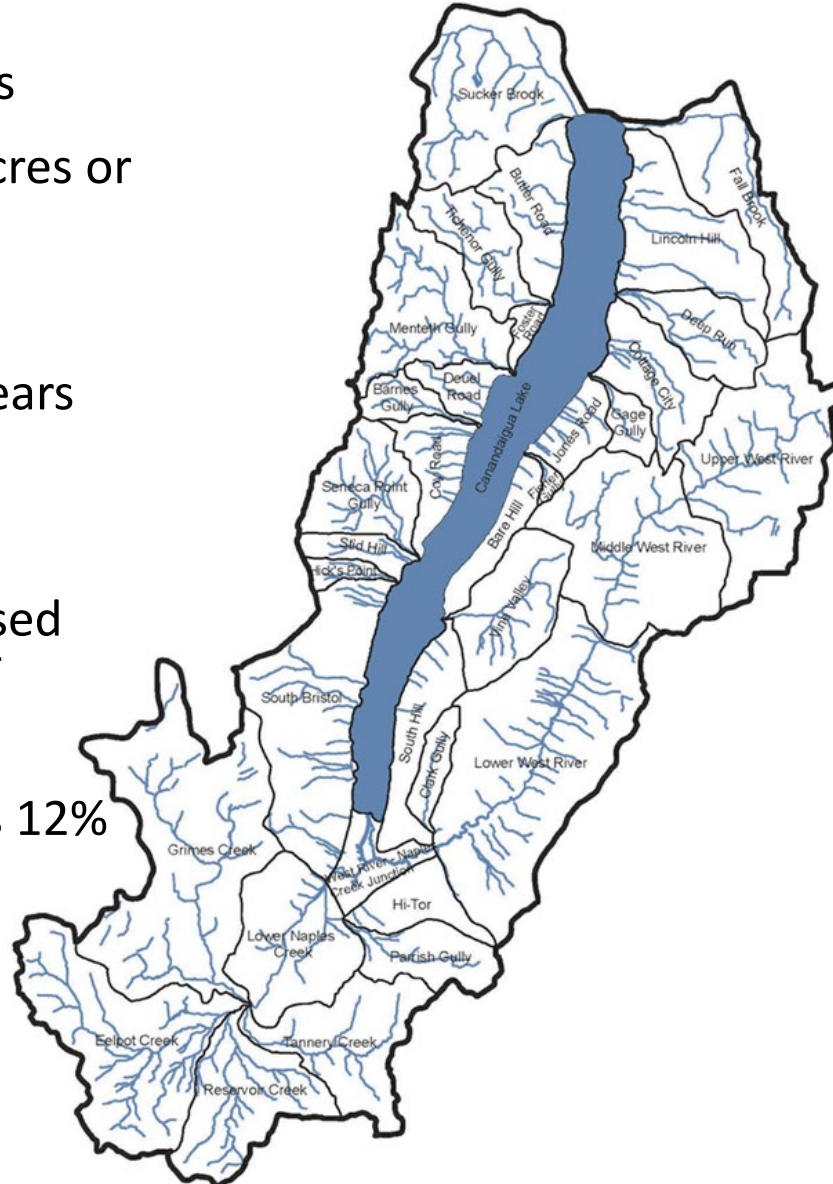


PROTECTING THE LIFEBLOOD OF OUR REGION



Canandaigua Lake Watershed Facts

- Lake Length: 15.5 miles
- Average Width: 1.1 miles
- Maximum Depth: 276 feet
- Surface area of Lake: 10,550 acres
- Watershed Land Area: 109,000 acres or 174 sq. miles
- Volume: 433 billion gallons
- Hydraulic Retention Time: 13.4 years
- Shoreline Length: 36 miles (97% privately owned)
- Over \$1 billion in shoreline assessed value – some areas \$11,000+/ft of shoreline
- Ontario County- Cdga shoreline is 12% of tax levy- 0.2% of land area
- 70,000+ people use it as a water supply**



Harmful Algal Blooms have been occurring since 2015

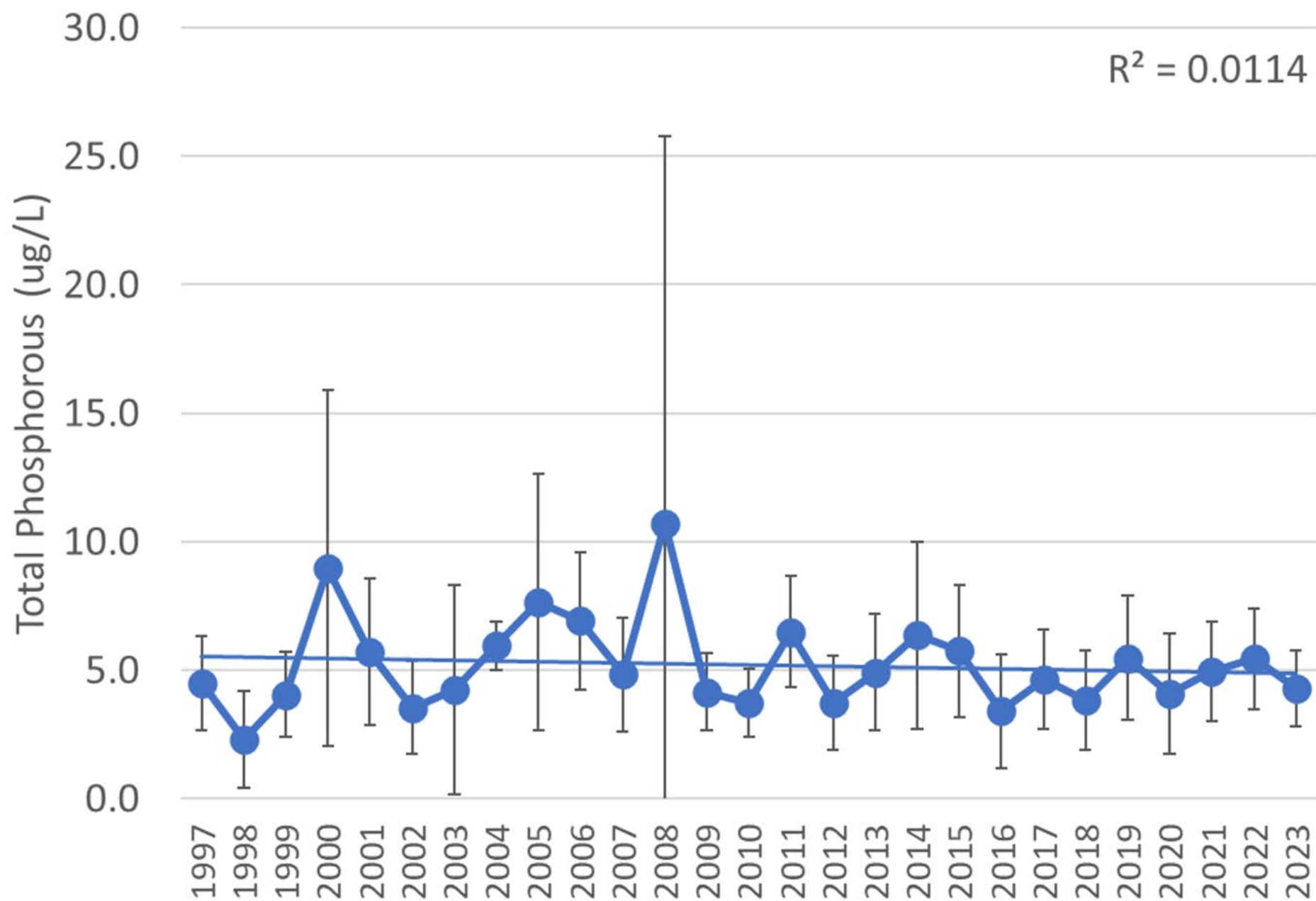




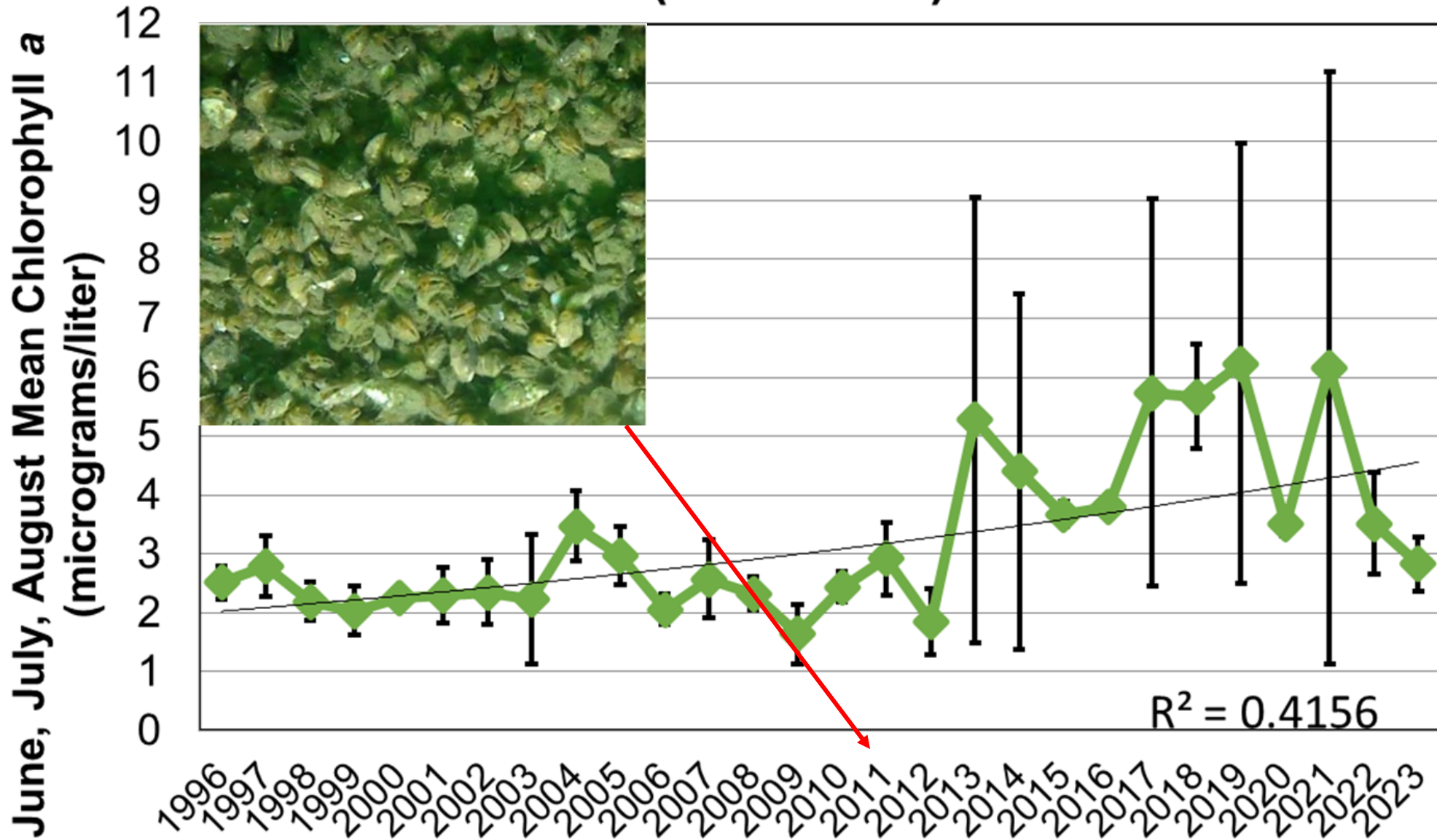
2020 and 2024 Aerial Pictures of HABS



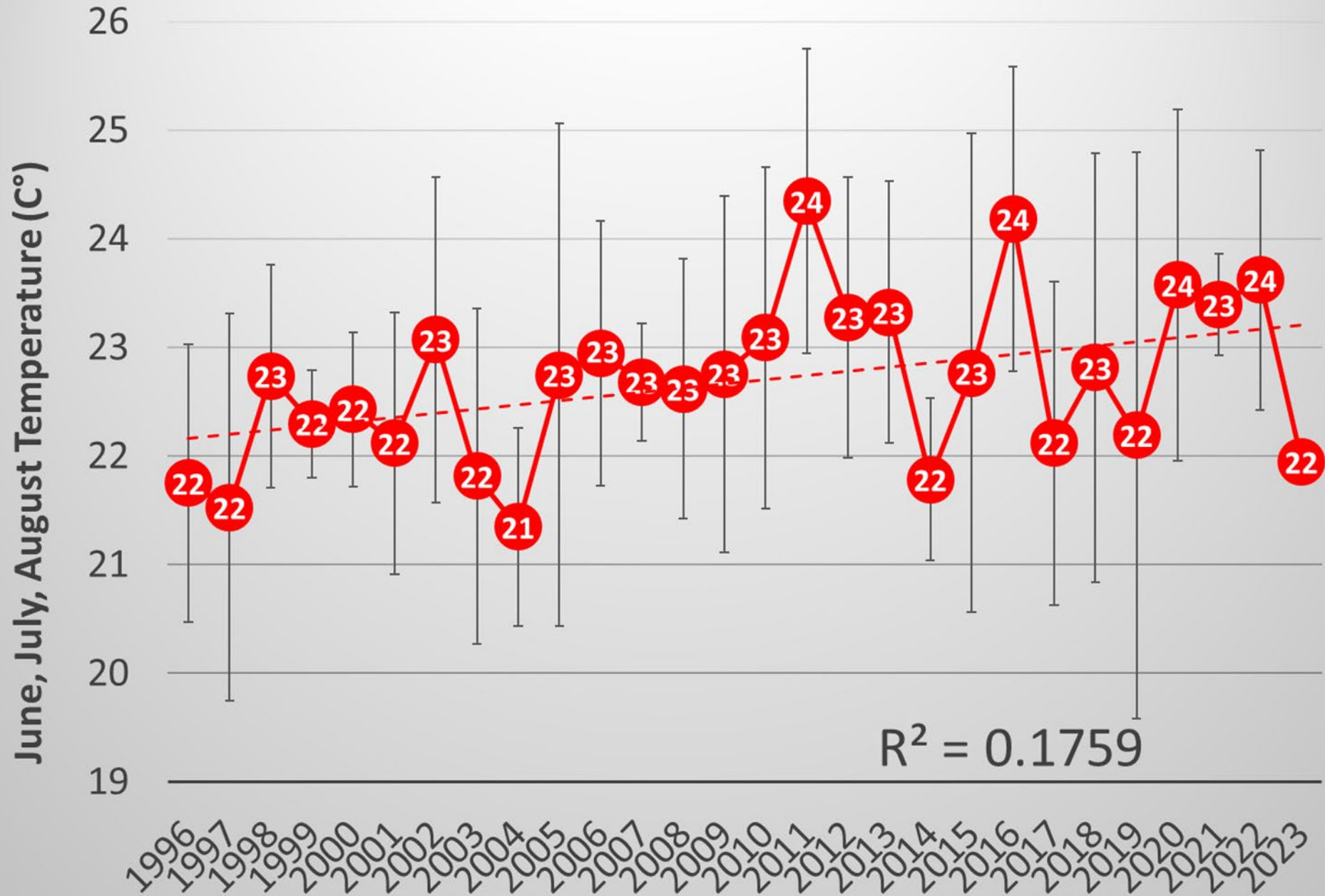
Mean TP (ug/L) May to October at Deep Run (2 m)



Long-term Summer Mean Algal Abundance (1996-2023)



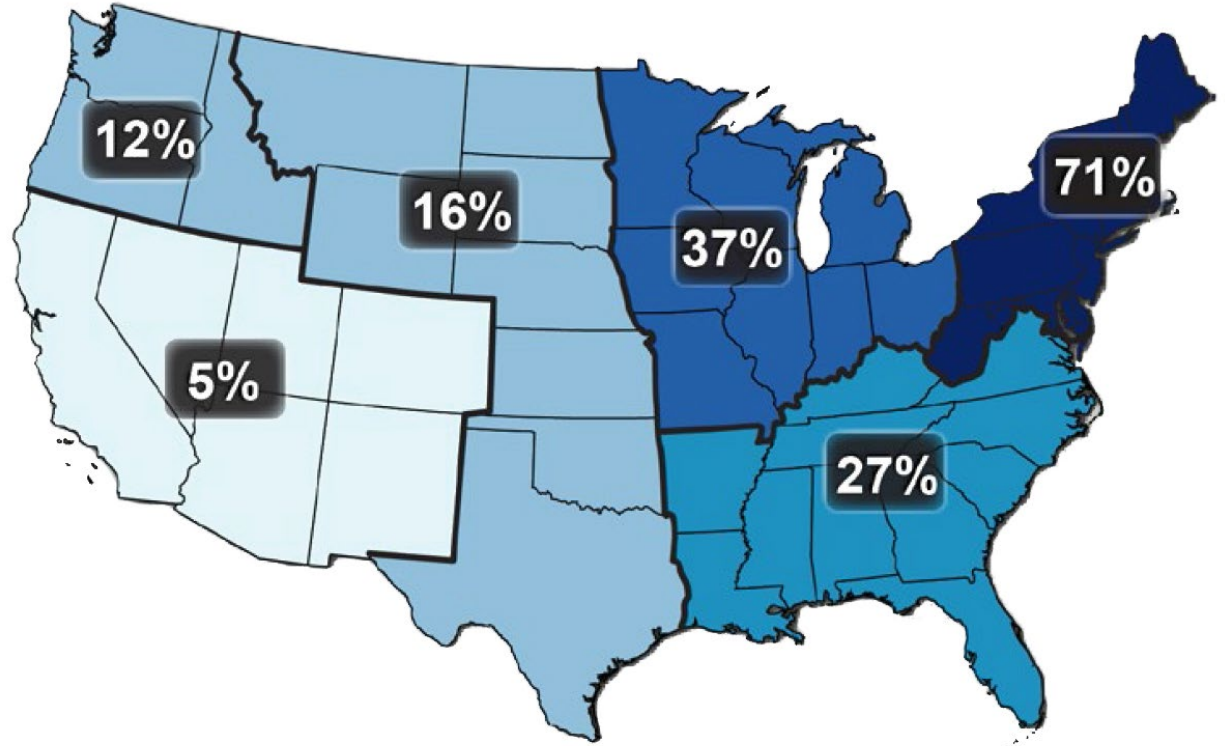
Summer Surface Temperatures (1996 - 2023)



Extreme Rain Events Increase

Heavier precipitation in the northeast began in 1996 - Researchers from Dartmouth College

- The increase in extreme Northeast storms occurred as an abrupt shift in 1996, particularly in the spring and fall, rather than as a steady change over several decades.
- 53% increase in precipitation events that are 2 inches or greater- 1901 to 1996 as compared to 1996 to 2014
- The findings were published in an early online release of the American Meteorological Society's Journal of Hydrometeorology.



Percent increases in the amount falling in the heaviest 1% of daily precipitation events from 1958 to 2012. Trends toward more intense precipitation are particularly clear in the Midwestern and Northeastern US. From Third National Climate Assessment, modified

Updated the existing Watershed Plan to a Nine Element Watershed Plan

2014 COMPREHENSIVE UPDATE OF THE CANANDAIGUA LAKE WATERSHED MANAGEMENT PLAN

FINAL

THE CANANDAIGUA LAKE WATERSHED COUNCIL

THE POLLUTANTS OF CONCERN FOR CANANDAIGUA LAKE INCLUDE:

- SEDIMENT
- PHOSPHORUS
- NITROGEN
- HEAVY METALS
- HYDROCARBONS
- OTHER TOXIC SUBSTANCES
- PERSONAL CARE PRODUCTS
- PATHOGENS
- DEICING SALT



PROTECTING THE LIFEBLOOD OF OUR REGION

CANANDAIGUA LAKE

WATERSHED

NINE ELEMENT PLAN FOR ENHANCED PHOSPHORUS MANAGEMENT



PROTECTING THE LIFEBLOOD OF OUR REGION



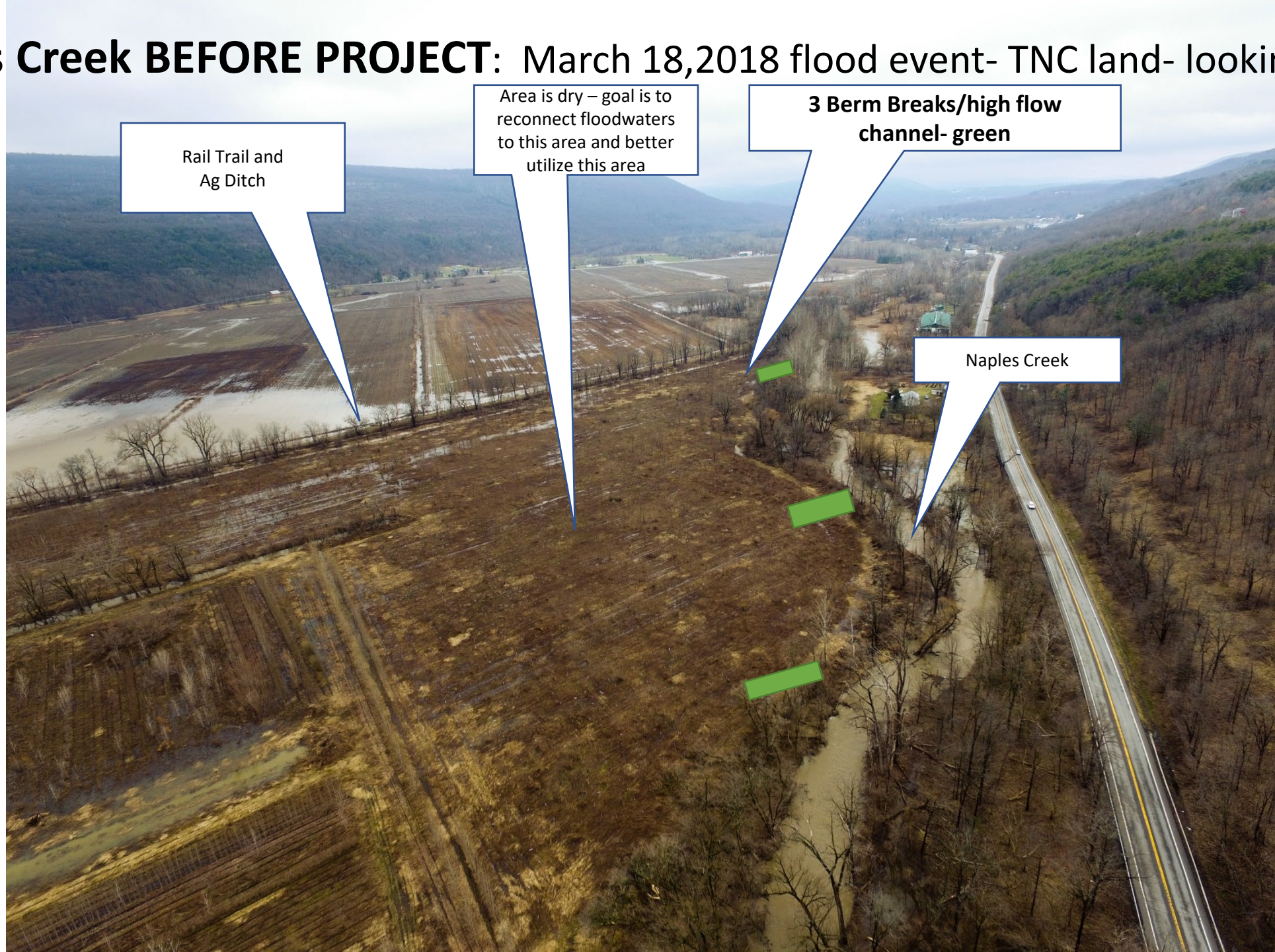
This Nine Element Plan was prepared with funding provided by the New York State Department of State under Title 11 of the Environmental Protection Fund

Quick Summary of Funding the Watershed Council Program

- 2025: \$165,000 from the 14 municipalities
- 2025 DRAFT Watershed Council Budget- \$821,000
- Watershed Council currently managing \$1.4 million in NYS grants
- **Major** equipment and labor assistance to implement projects and provide the local cash match
- City/Town of Canandaigua and Towns of Gorham/Hopewell are currently developing numerous Hazard mitigation projects for the significant public infrastructure damages that occurred on July 9, 2023- potentially over \$1,000,000 in mitigation projects

2024 Watershed Council Fair Share Formula											
Breakdown of Criteria used in the Formula											
Municipality	Gal. Use	Shore line	% of w'shed	Pop. Den.	Watershed Assess	Tourism \$	Two of the criteria change each year: gallons used and Watershed assessed value.				
Measurement	millions	miles	%	sq- mile	millions-\$	Range	City used 105 Million more gallons in 2022				
V. Newark	1,548	1.5	1.4	2449.7	456.5	7					
T. Canandaigua		11.5	16.0	195.0	871.9	4					
Gorham	162	7	17.5	87.5	523.3	3					
South Bristol	33	7.4	9.9	42.1	405.6	4					
V. Palmyra	442										
Middlesex		7.5	18.4	43.6	189.0						
Naples			19.0	32.4	91.2	3					
V. Naples	50		0.8	939.8	56.4	3					
Rushville	43		0.3	909.1	22.4						
Italy		0.4	9.5	27.4	41.9						
Hopewell			1.8	94.3	34.8	1					
Potter			3.3	49.8	4.2						
Bristol			0.3	59.0	2.7						
Approved Formula											
Watershed Council											
2024											
2023											
2000											
Municipality	Gal. Use	Shore line	% of w'shed	Pop. Den.	Watershed Assess	Tourism \$	Total Score	% of Total	Annual Municipal Cost	Comparison	Comparison
Cdga City	85.3	1.3	0.7	10.5	39.2	10.0	147.0	26.5%	\$ 40,062	\$ 36,815	\$ 24,028
V. Newark	57.3	0.0	0.0	0.0	0.0	0.0	57.3	10.3%	\$ 15,611	\$ 15,735	\$ 14,827
T. Canandaigua	0.0	10.0	8.4	0.8	74.9	5.7	99.8	18.0%	\$ 27,210	\$ 26,047	\$ 11,582
Gorham	8.9	6.1	9.2	0.4	44.9	4.3	73.8	13.3%	\$ 20,117	\$ 19,414	\$ 9,306
South Bristol	1.8	6.4	5.2	0.2	34.8	5.7	54.2	9.8%	\$ 14,766	\$ 14,060	\$ 6,899
V. Palmyra	24.3	0.0	0.0	0.0	0.0	0.0	24.3	4.4%	\$ 6,635	\$ 6,326	\$ 5,004
Middlesex	0.0	6.5	9.7	0.2	16.2	0.0	32.6	5.9%	\$ 8,891	\$ 8,450	\$ 4,676
Naples	0.0	0.0	10.0	0.1	7.8	4.3	22.3	4.0%	\$ 6,066	\$ 5,770	\$ 3,959
V. Naples	2.8	0.0	0.4	4.0	4.8	4.3	16.3	2.9%	\$ 4,450	\$ 4,486	\$ 3,670
Rushville	2.4	0.0	0.2	4.2	1.9	0.0	8.6	1.6%	\$ 2,345	\$ 2,247	\$ 1,689
Italy	0.0	0.3	5.0	0.1	3.6	0.0	9.1	1.6%	\$ 2,470	\$ 2,364	\$ 1,391
Hopewell	0.0	0.0	0.9	0.4	3.0	1.4	5.8	1.0%	\$ 1,573	\$ 1,510	\$ 915
Potter	0.0	0.0	1.7	0.2	0.4	0.0	2.3	0.4%	\$ 629	\$ 606	\$ 440
Bristol	0.0	0.0	0.2	0.3	0.2	0.0	0.6	0.1%	\$ 176	\$ 170	\$ 110
							554.0	100.0%	\$ 151,000	\$ 144,000	\$ 88,500
Weights	7	1	1	1	3	1		151,000.00			

Naples Creek BEFORE PROJECT: March 18, 2018 flood event- TNC land- looking south



Rail Trail and
Ag Ditch

Area is dry – goal is to
reconnect floodwaters to
this area and better
utilize this area

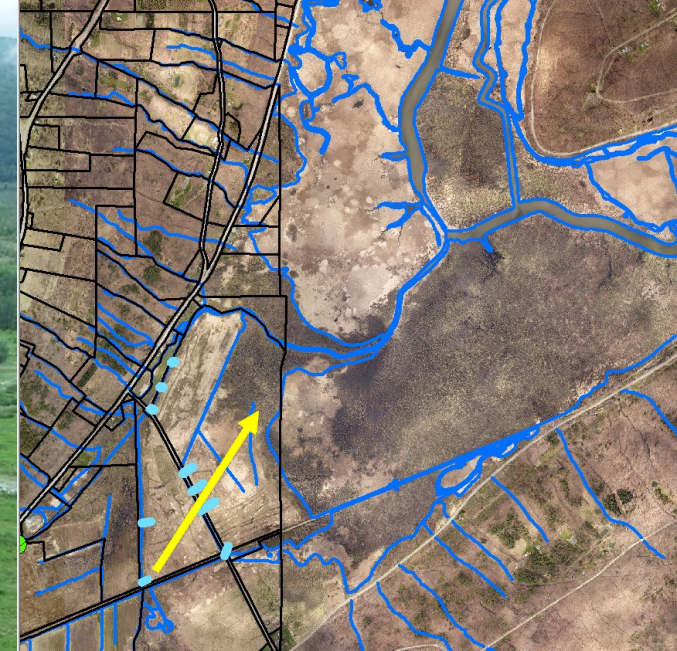
3 Berm Breaks/high flow
channel- green

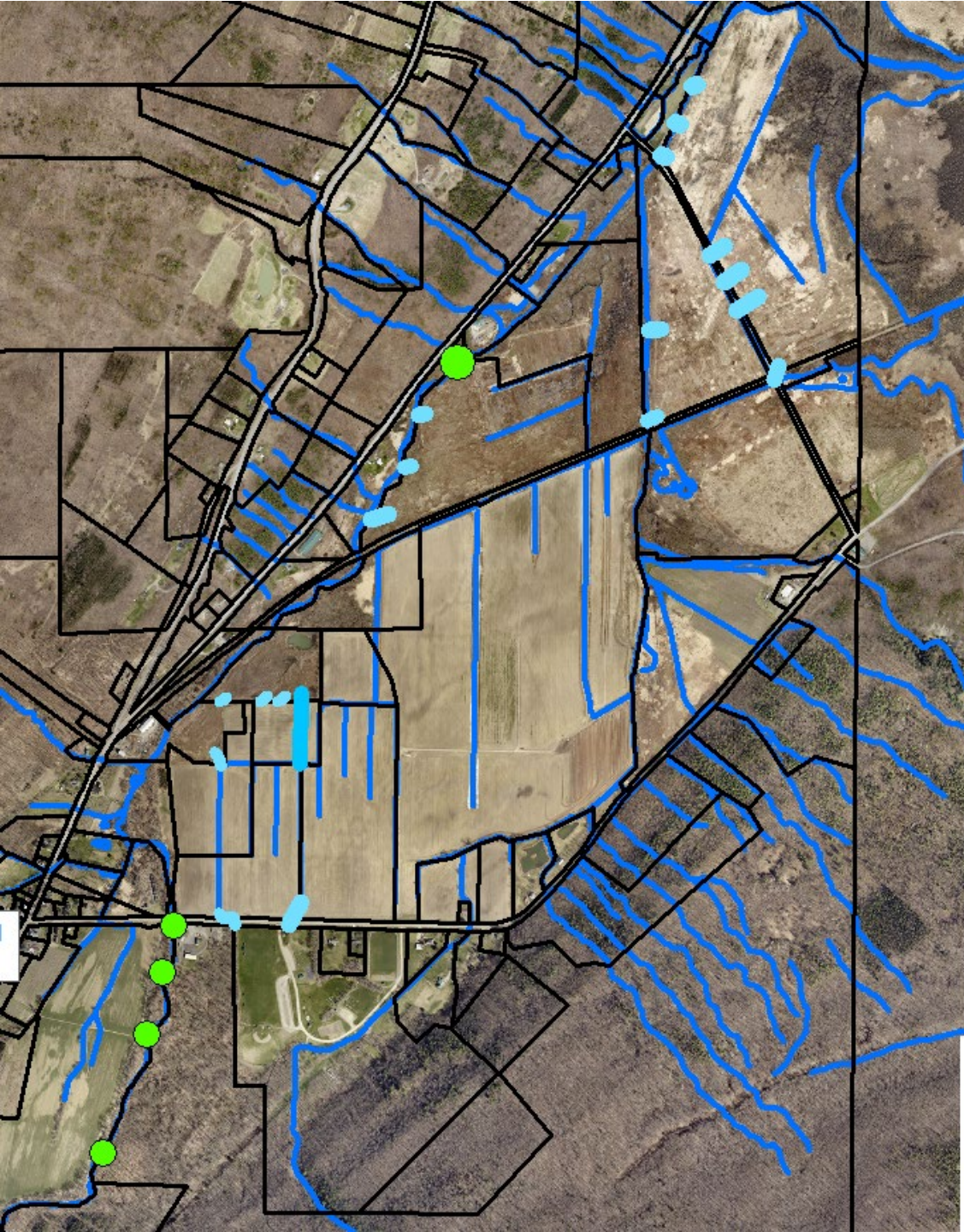
Naples Creek

Naples Creek- TNC property breakouts



Berm Breaks on DEC Land

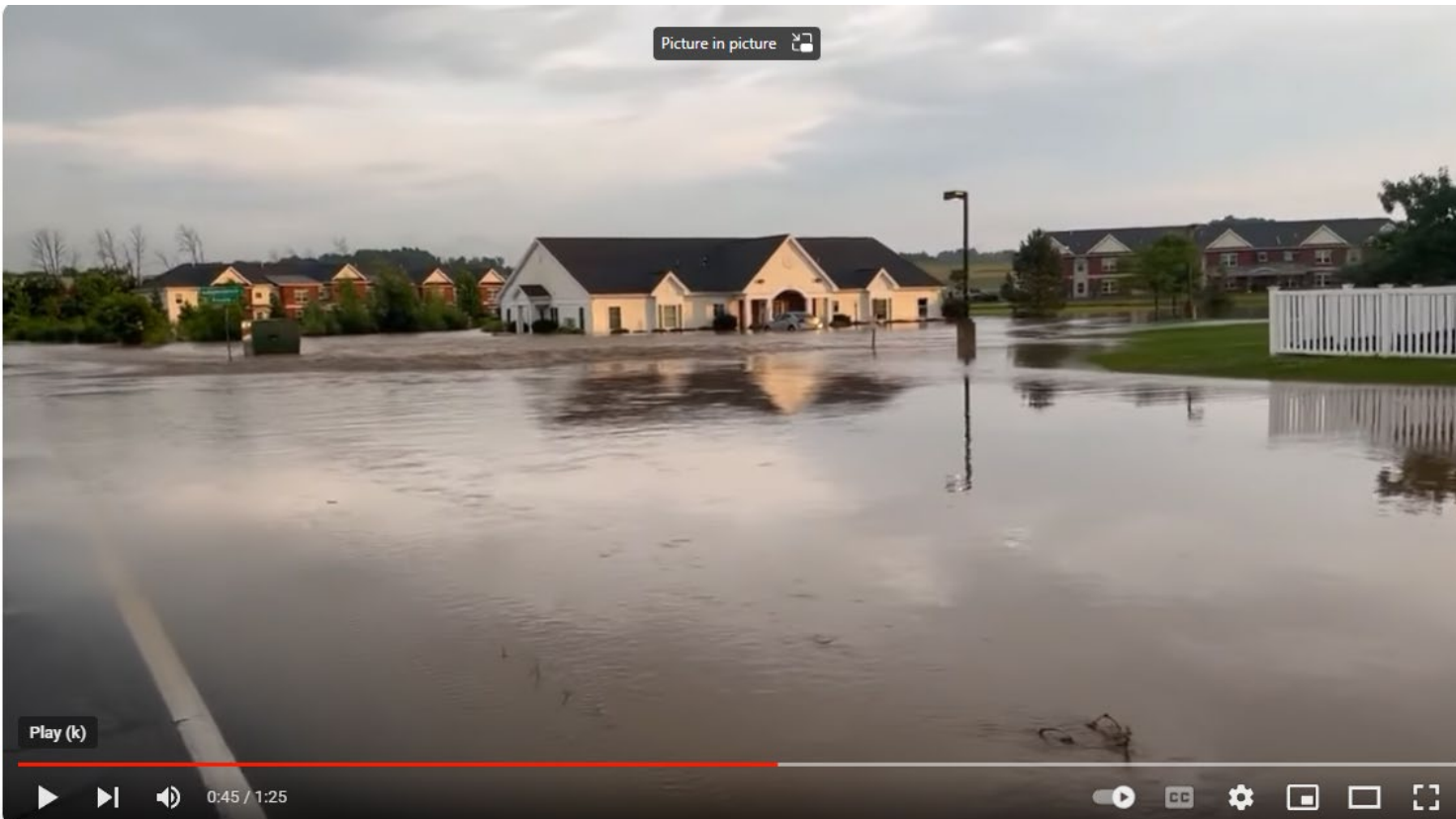




Naples Creek Water Quality and Flood Resiliency Project

- Partnership project- multiple funding sources and project partners
- 25% of all flow that enters Canandaigua Lake passes by this project area- roughly 10 billion gallons/yr!
- 13 plus new berm breaks to allow flow to enter floodplain
- 7 new culvert systems to convey flow into water quality storage areas
- 110 acres of land permanently protected- including 6,300 feet of riparian corridor
- 5 debris jams removed from the stream and bridge areas
- Fixed trail system along stream and allowed flow to access adjacent forested floodplain system
- Naples Creek now has more frequent and greater access to 100s of acres of additional flood plain that provides major water quality treatment

July 9th- Sucker Brook West Gibson and Happiness House



Sucker Brook Subwatershed - 5,800 acres

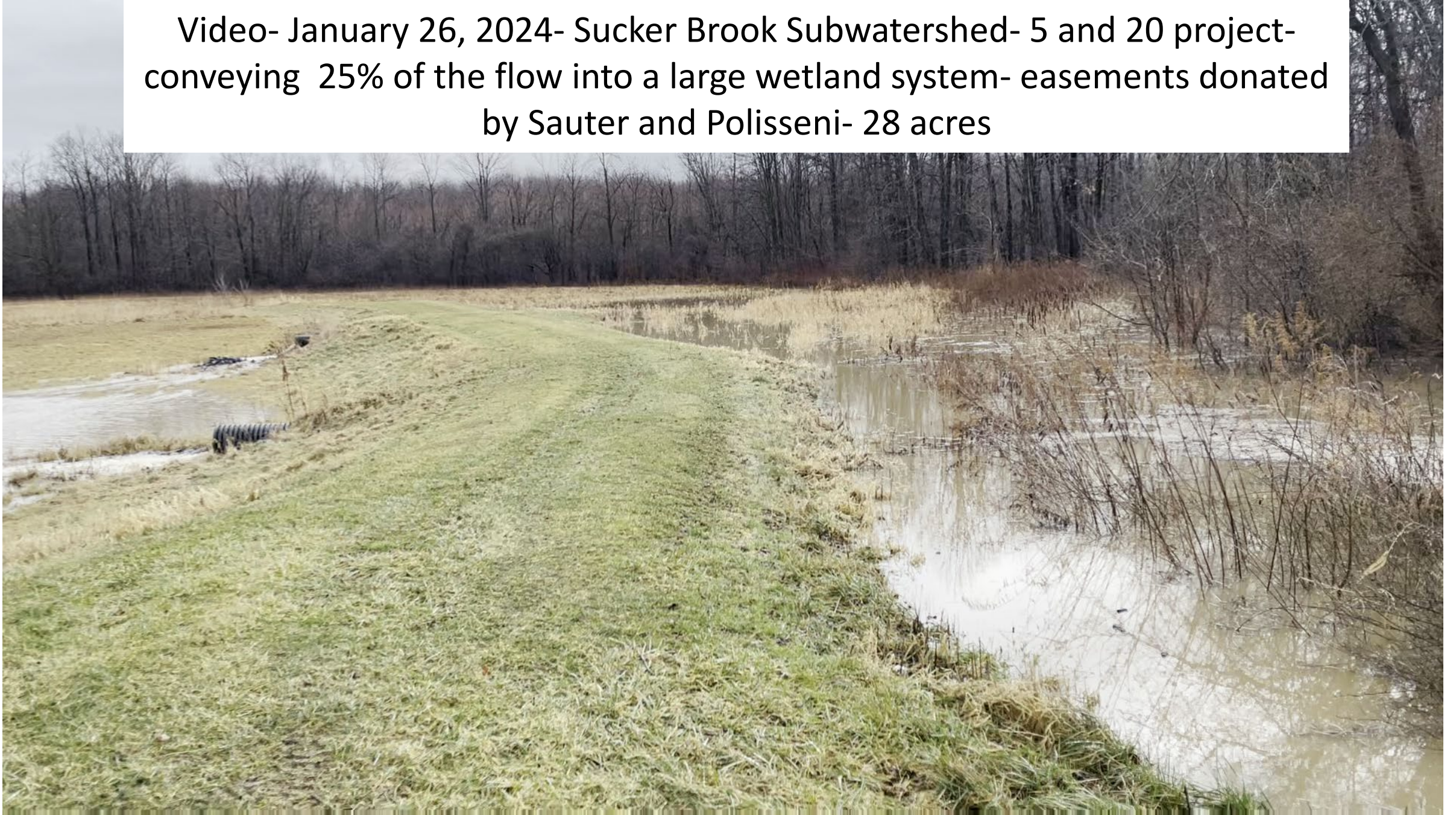




Video- January 26, 2024- Sucker Brook Subwatershed- 5 and 20 project- conveying 25% of the flow into a large wetland system- easements donated by Sauter and Polisseni- 28 acres



Video- January 26, 2024- Sucker Brook Subwatershed- 5 and 20 project- conveying 25% of the flow into a large wetland system- easements donated by Sauter and Polisseni- 28 acres



Video- January 26, 2024- Sucker Brook Subwatershed- 5 and 20 project-
outflow greatly reduced by large wetland system- easements donated by
Sauter and Polisseni- 28 acres



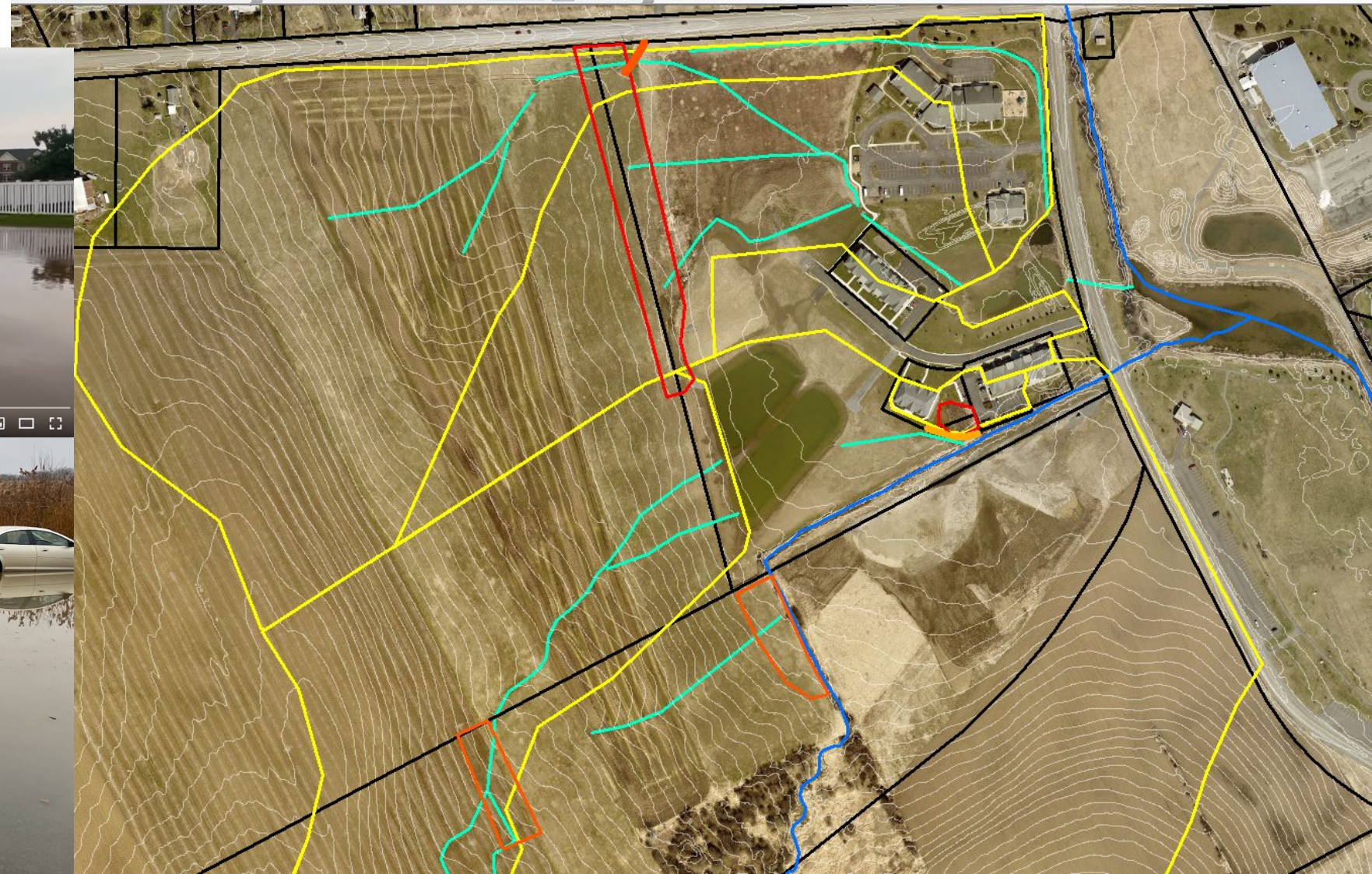
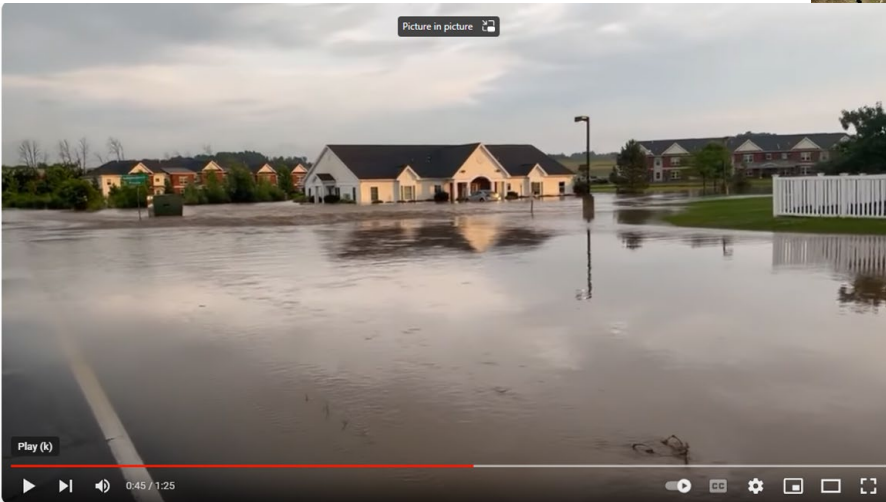
County Road 30 Project- January 26, 2024



Sucker Brook at West Gibson Street bridge- January 26, 2024- Peak flows reduced by upland storage basins



Happiness House/Sucker Brook Flood and Water Quality Resiliency Improvements



Reservoir Road- Only road to Village of Naples Water Treatment Plant
Debbie Storm Damage and Restoration Work



Landowner/Farmer/Town/Watershed Partnership



Landowner/Farmer/Town/Watershed Partnership



Vine Valley Stream Partnership



Fallbrook Impacts on the North End of the Lake



20-acre Fallbrook Water Quality and Flood Resiliency Project

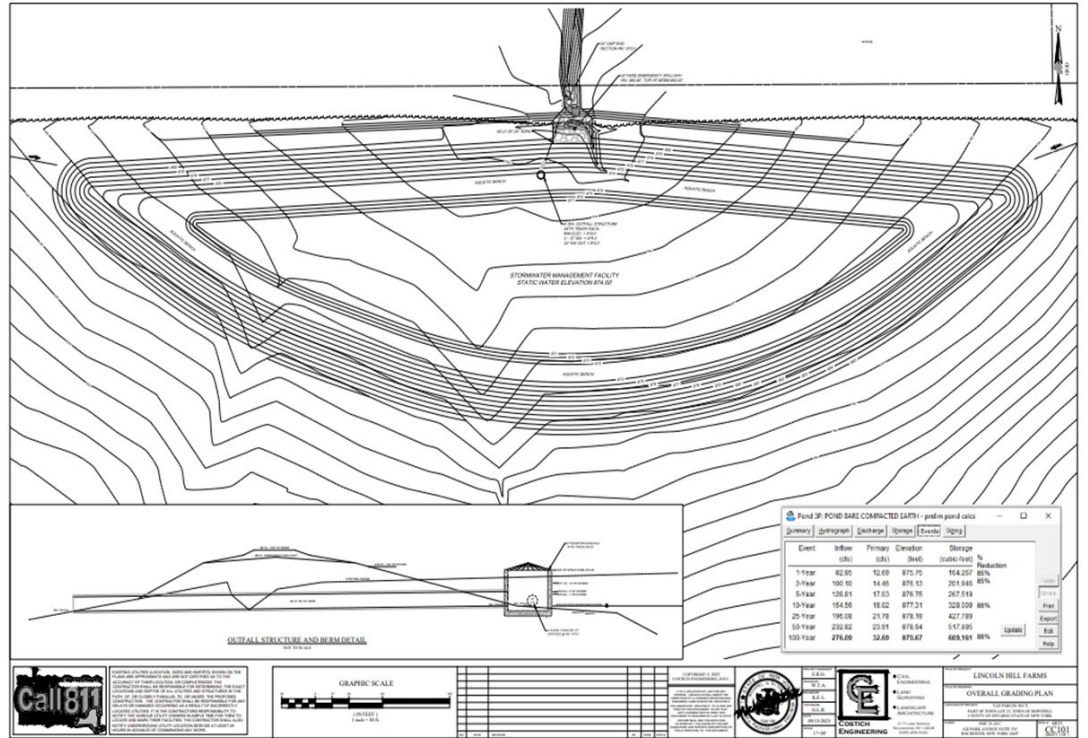
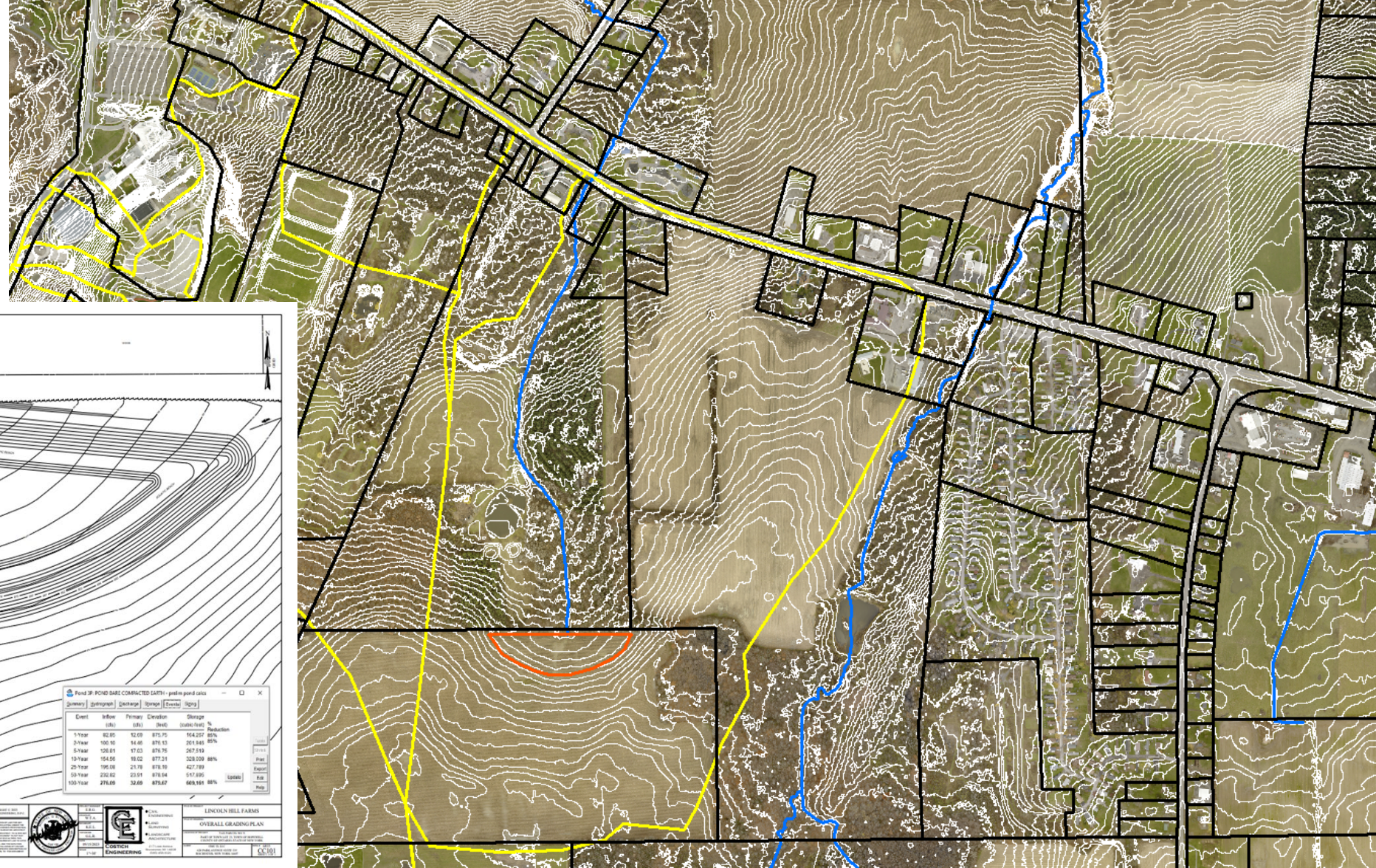




5&20 Near Becker Motors/Miami Motel- July 9th 2023



Hopewell- 5&20/Smith Road- Flood Resiliency and Water Quality Project



- Construction completed by local municipal crews
- Donated 5 acre easement by Mastrisimone
- Overseen by Watershed Council
- Donated town equipment
- Rented large dozer
- Major cost savings by completing project- “in-house”

Construction Begins! April of 2024



Erosion channel before project- 3.5 acre water quality basin completed in May of 2024



Before

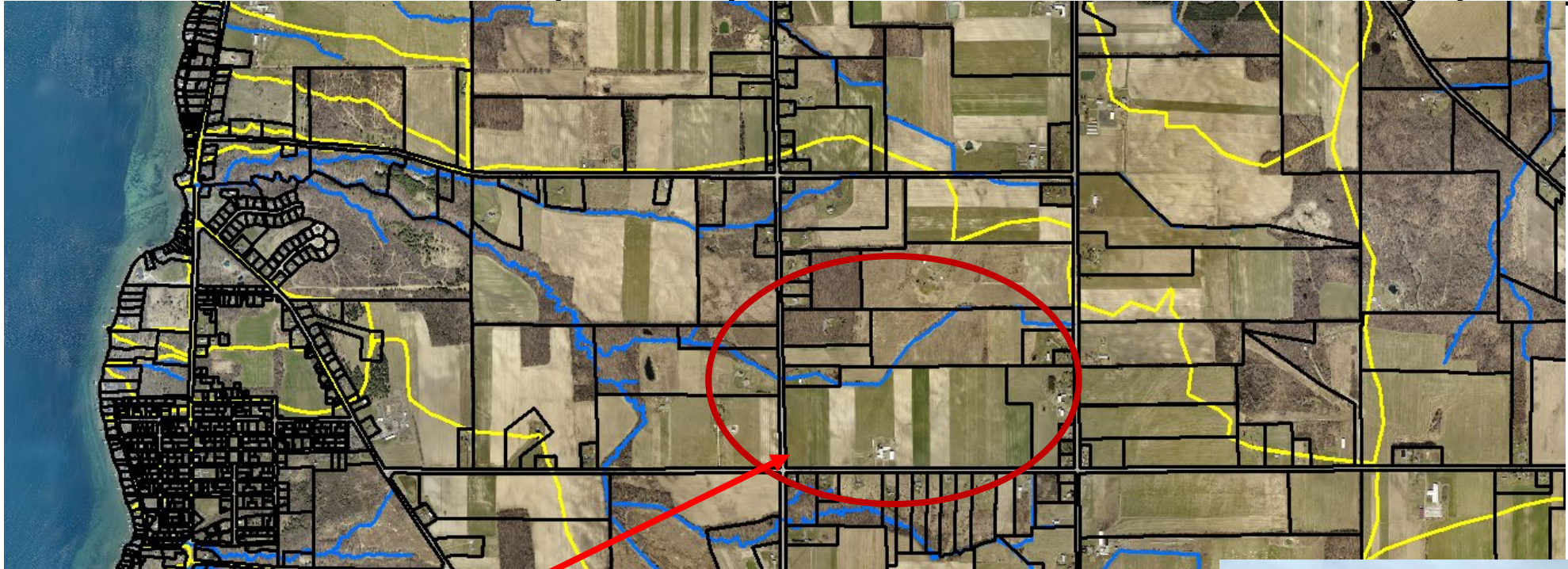


Edge of Field Partnership with Landowner,
Watershed Council, County and Towns

After



Deep Run Subwatershed- Gorham- many opportunity areas to build water quality and flood resiliency projects





Clean Streets
Clean Water

City of
Canandaigua
the Chosen Spot

BUCHER

5-26

2/2/2018

CANANDAIGUA
DEPARTMENT OF
PUBLIC WORKS

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CE

Enhancing Partnership between Canandaigua Lake Watershed Council and Charitable Organizations

- Obtained 501c3 Public Charity designation from IRS- can receive tax deductible donations
- Increase Financial Assistance through public/private partnerships to allow us to accelerate the implementation of many of these projects to protect Canandaigua Lake and increase flood resiliency
- Increased Funding will only be used for the construction of projects- no overhead/administrative costs
- We have a long history of implementing cost effective partnership projects that have been highly successful



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PROTECTING THE LIFEBLOOD OF OUR REGION

Accelerating Water Quality and Flood Resiliency Through Enhanced Partnerships

TOWNS: BRISTOL, CANANDAIGUA, GORHAM, HOPEWELL, ITALY, MIDDLESEX, NAPLES, POTTER, SOUTH BRISTOL VILLAGES: NAPLES, NEWARK, PALMYRA, RUSHVILLE CITY: CANANDAIGUA

Who we are

Collaborative Approach
Award winning coalition of 14 watershed and water purveying municipalities that have been working together for 25 years to protect the lake.

Research Driven
Conduct long-term monitoring and major research efforts to understand threats to the lake.

Comprehensive Planning
Authored last 3 comprehensive watershed management plans to guide protection efforts.



The Watershed Council is now a 501(c)(3) tax-deductible public charity!

You can now donate to the Canandaigua Lake Watershed Council to fund our highly successful water quality improvement projects.

Lake Saving Projects

- Climate change and high intensity storm events are making our lake more susceptible to harmful algae blooms.
- We have been building proactive water quality and flood improvement projects throughout the watershed to build resiliency.
- We need to build more of these projects across the watershed landscape.




Harmful algae bloom



Flooding

Past projects restored or created over 300 million gallons of water quality treatment and flood storage per storm event!



Naples Creek Restoration Project allowed the creek to access these water quality filter areas to reduce pollution to the lake.

For more information, visit www.canandaigualake.org