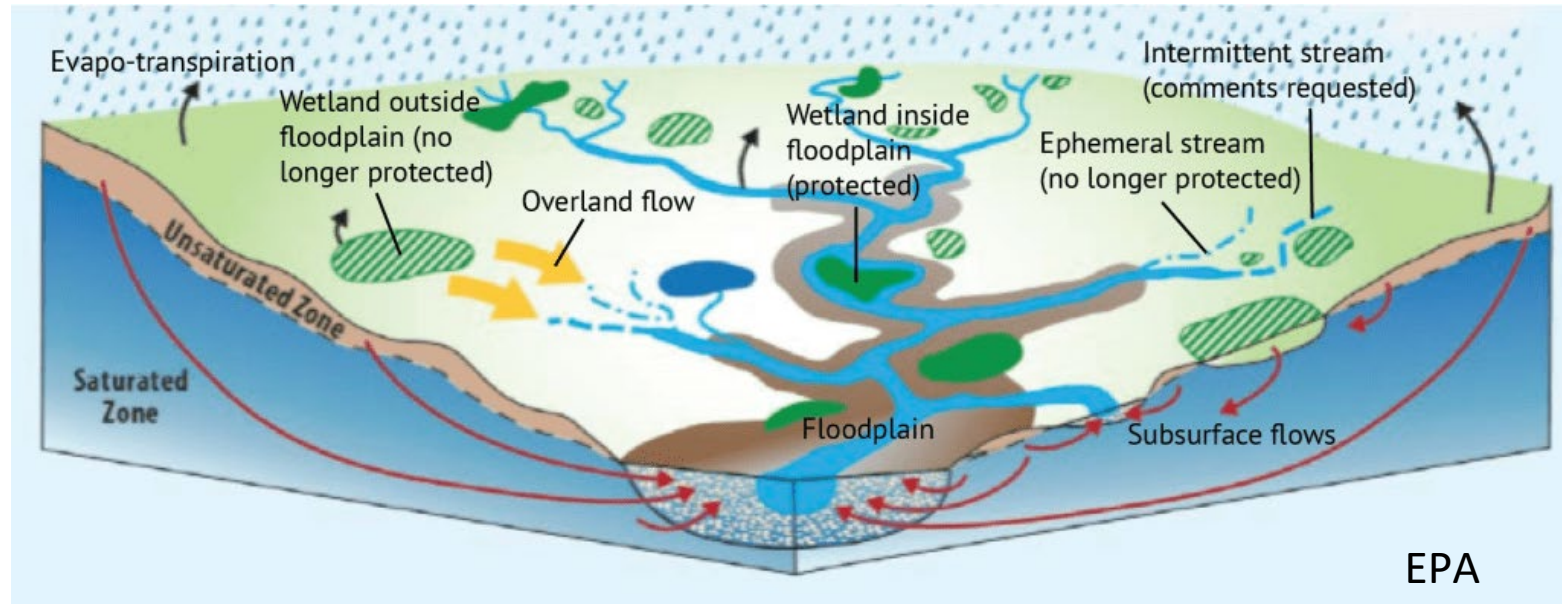




Department of
Environmental
Conservation

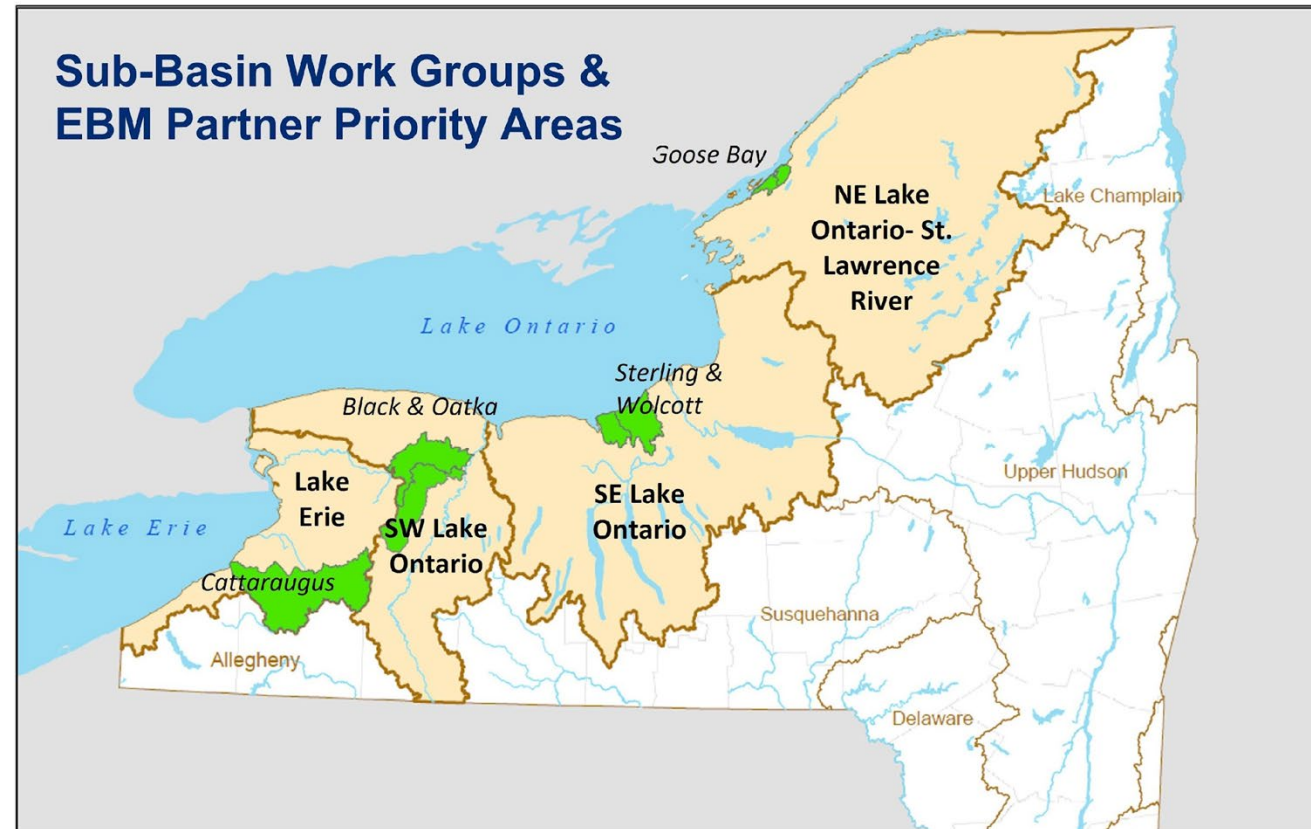


Watersheds and Floodplains

Emily Fell; Eastern Great Lakes Watershed Coordinator; NYSDEC Great Lakes Program, in partnership with the NYS Water Resources Institute at Cornell University
Understanding and Managing Floodplains for Healthy Watersheds and Resilient Communities– November 3rd, 2022

Intro – DEC Great Lakes Program

- Coordinate science and adaptive management
- Provide research, education, and training
- Coordinate community engagement and stewardship
- Provides and identifies grants



Draft GLAA 2030 Goals

1. Reduce or Eliminate Releases of Persistent Toxic Substances
2. Control Sediment, Nutrient, and Pathogen Loadings
3. Prevent and Control Invasive Species
4. Conserve and Restore Native Fish and Wildlife and Their Habitats
5. Enhance Community Resiliency and Ecosystem Integrity
6. Revitalize Local Communities and Economies

Are your Great Lakes interests and concerns included in these goals?

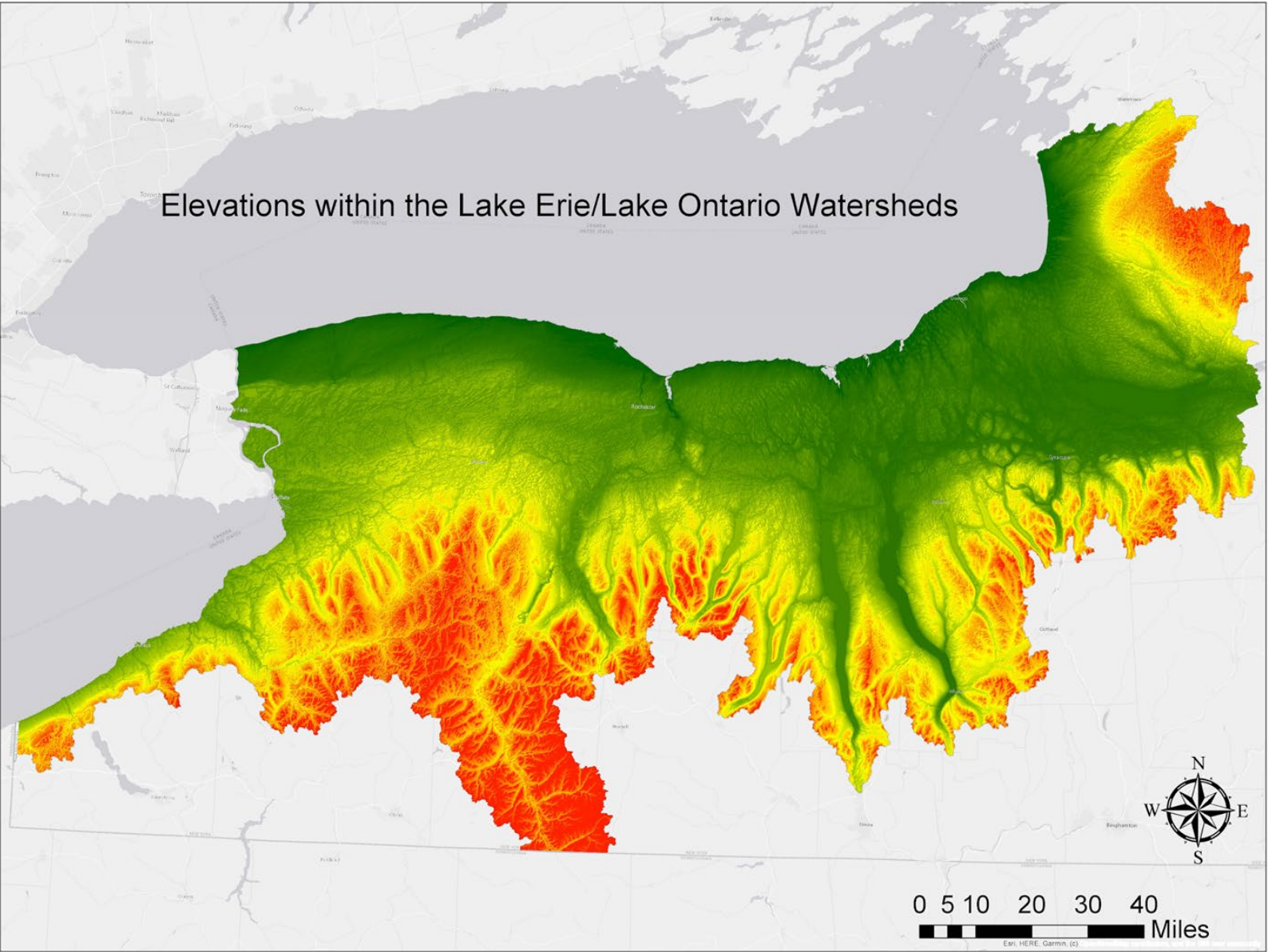




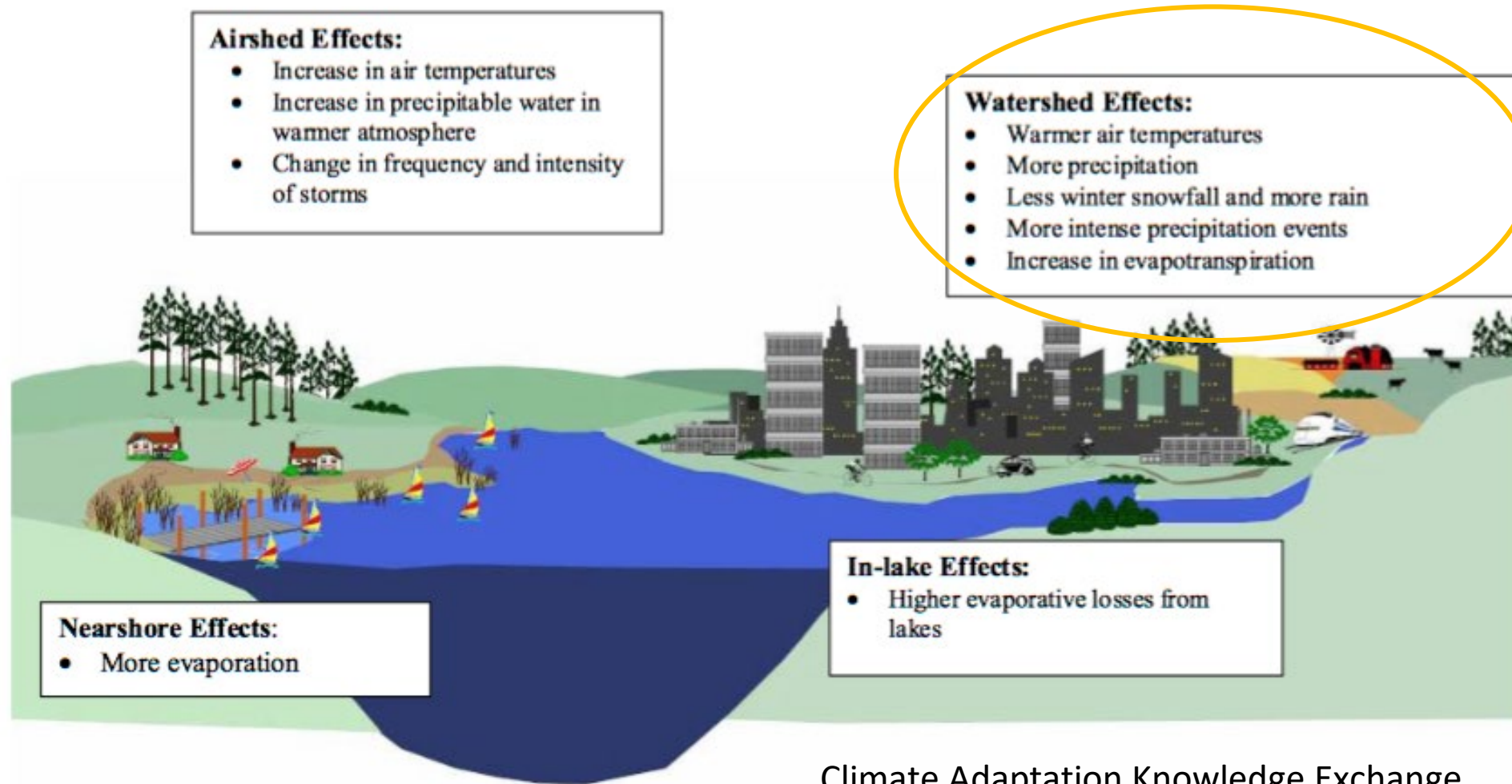
**We all Live
in a
Watershed-
Great Lakes
Watershed
Drainage**

The highly varied topography of New York's Great Lakes watershed supports a diversity of ecosystems.

Elevations within the Lake Erie/Lake Ontario Watersheds

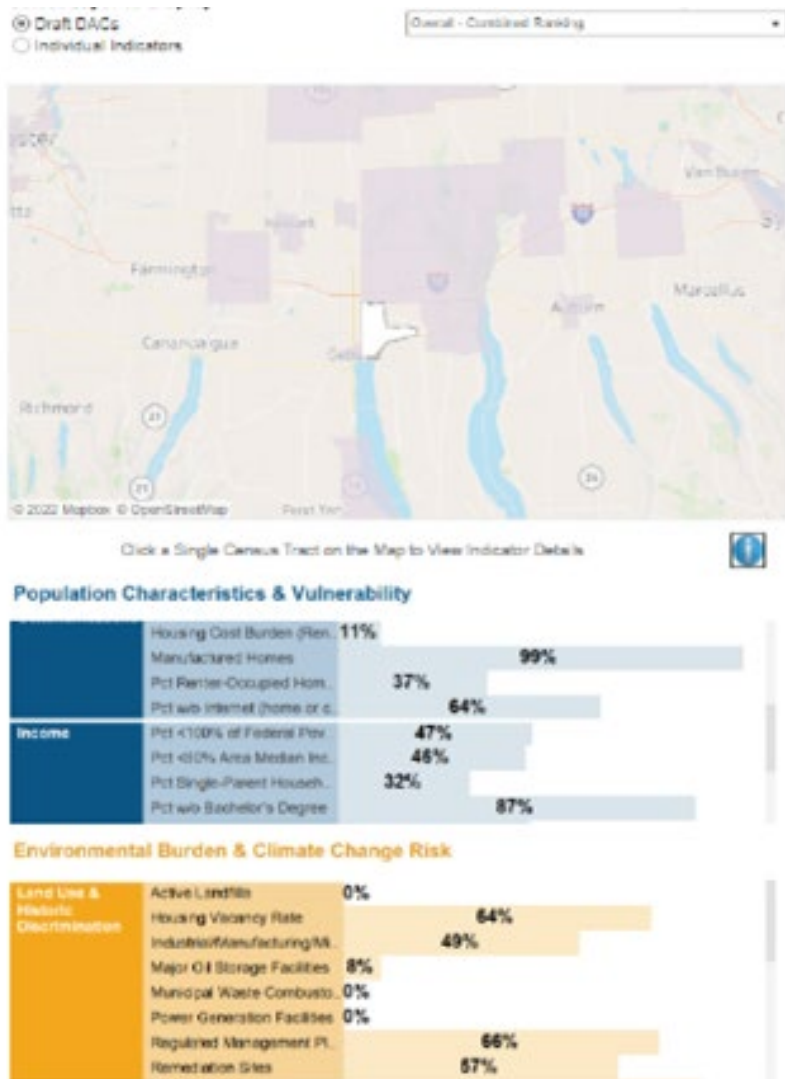


Climate Change in the Great Lakes



Climate Adaptation Knowledge Exchange

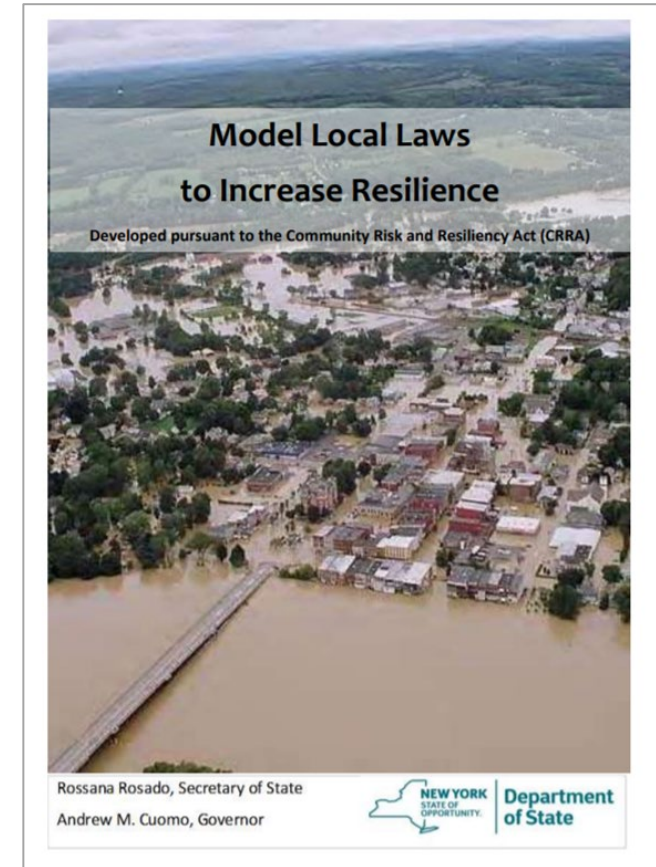
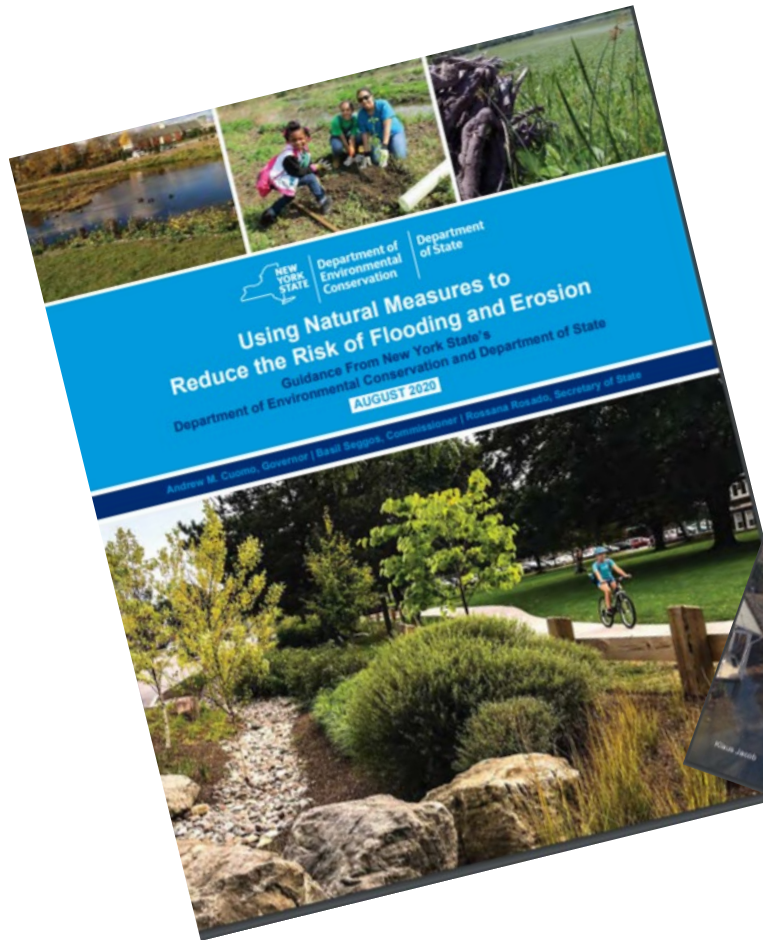
Climate Leadership and Community Protection Act (Climate Act)



Draft Scoping Plan includes:

- Adaptation and Resilience Recommendations
- Barriers and Opportunities for Disadvantaged Communities
- Draft Interactive Disadvantaged Communities Map

Community Risk & Resiliency Act



Natural Resilience Measures Guidance – examples from guidance

What Are Natural Resilience Measures?

Natural resilience measures are actions to conserve, restore, or mimic natural landforms (or features) and natural processes that reduce risk from flooding and erosion. They work with nature to reduce risk while providing other benefits, or co-benefits, to society, including cleaning our water and air, mitigating drought, and enhancing spaces for outdoor recreation.

Examples of NRM:

- Elevating or relocating structures
- Floodplain protection
- Wetland restoration
- Dune restoration
- Right sizing culverts
- Riparian/shoreline buffers
- Stormwater management using green infrastructure

SE Lake Ontario – Natural Resilience Measure Example



Village of Sodus Point
Sodus Point Dune Restoration

SE Lake Ontario- Natural Resilience Measures Example



Town of Sterling
McIntyre Rd
Culvert Right Sizing

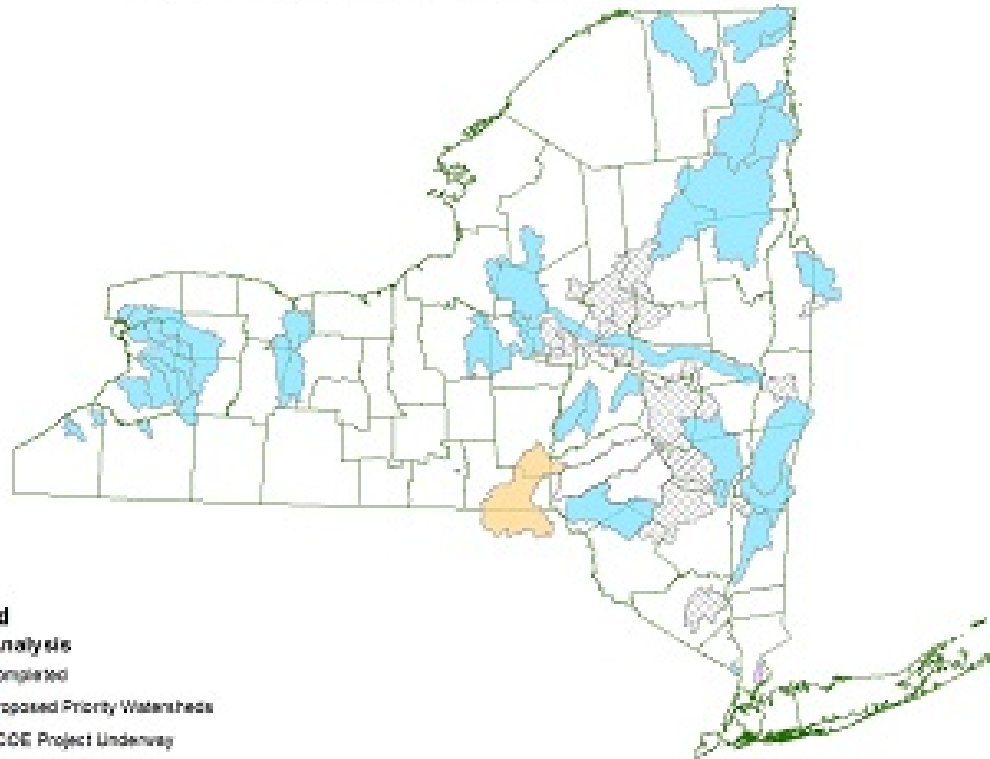
SE Lake Ontario- Natural Resilience Measures Examples



City of Syracuse
Save The Rain Program
Pass Arboretum rain garden

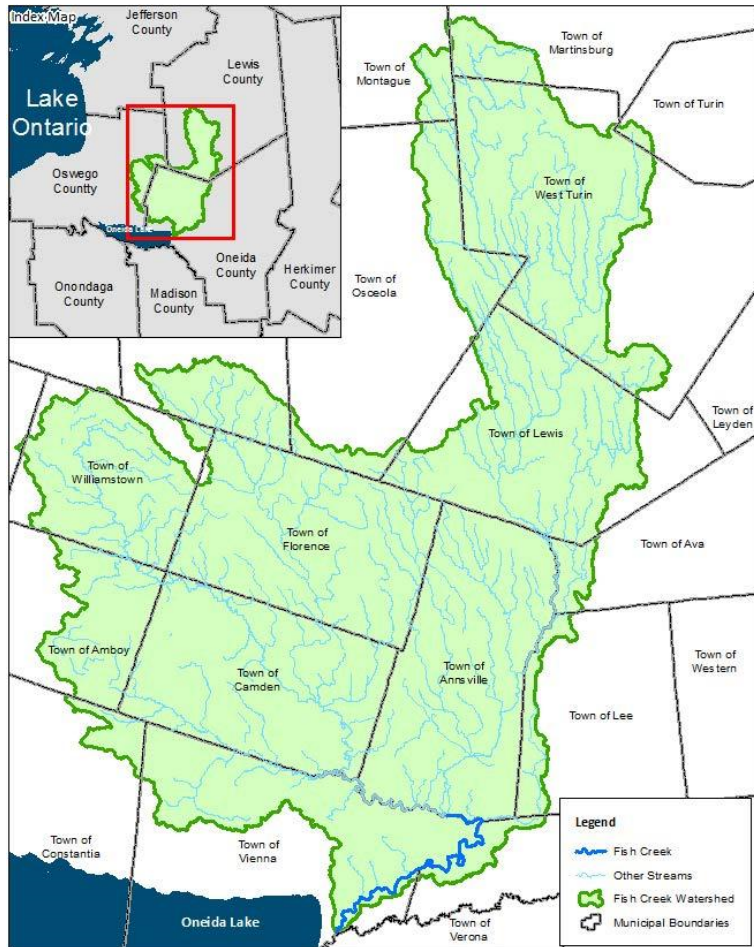
Resilient NY Flood Studies

Resilient NY Program
Proposed & Completed Priority Watersheds



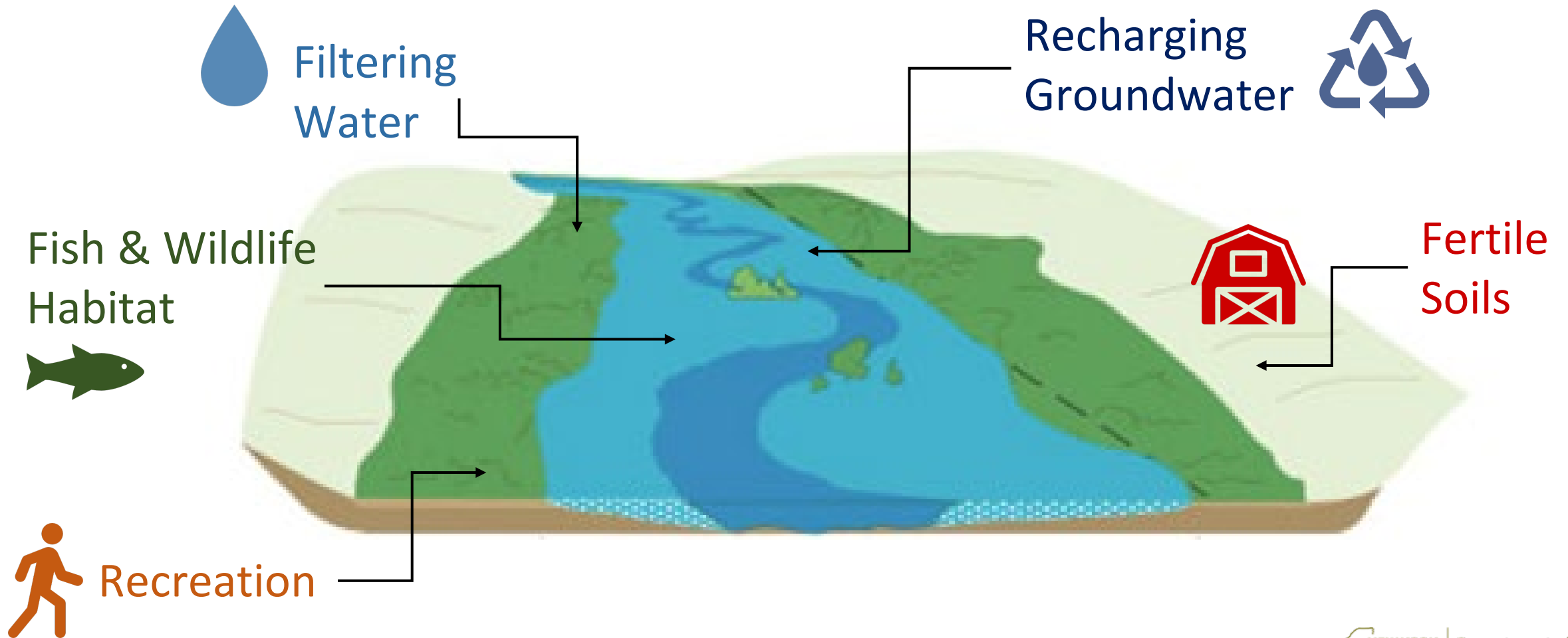
- Identify the causes of flooding in a watershed through hydraulic and hydrological modeling
- Recommend ecologically sustainable flood and ice jam hazard mitigation projects
- Integrate climate change science

Fish Creek Study



- Identifies high risk areas, such as the confluence with the Barge Canal where projects are needed
- Identifies mitigation alternatives, such as flood benches, culvert right sizing, area preservation, and intermunicipal floodplain ordinances
- Next steps include additional modeling and wetland investigations to further scope out projects

Benefits of Healthy Floodplains



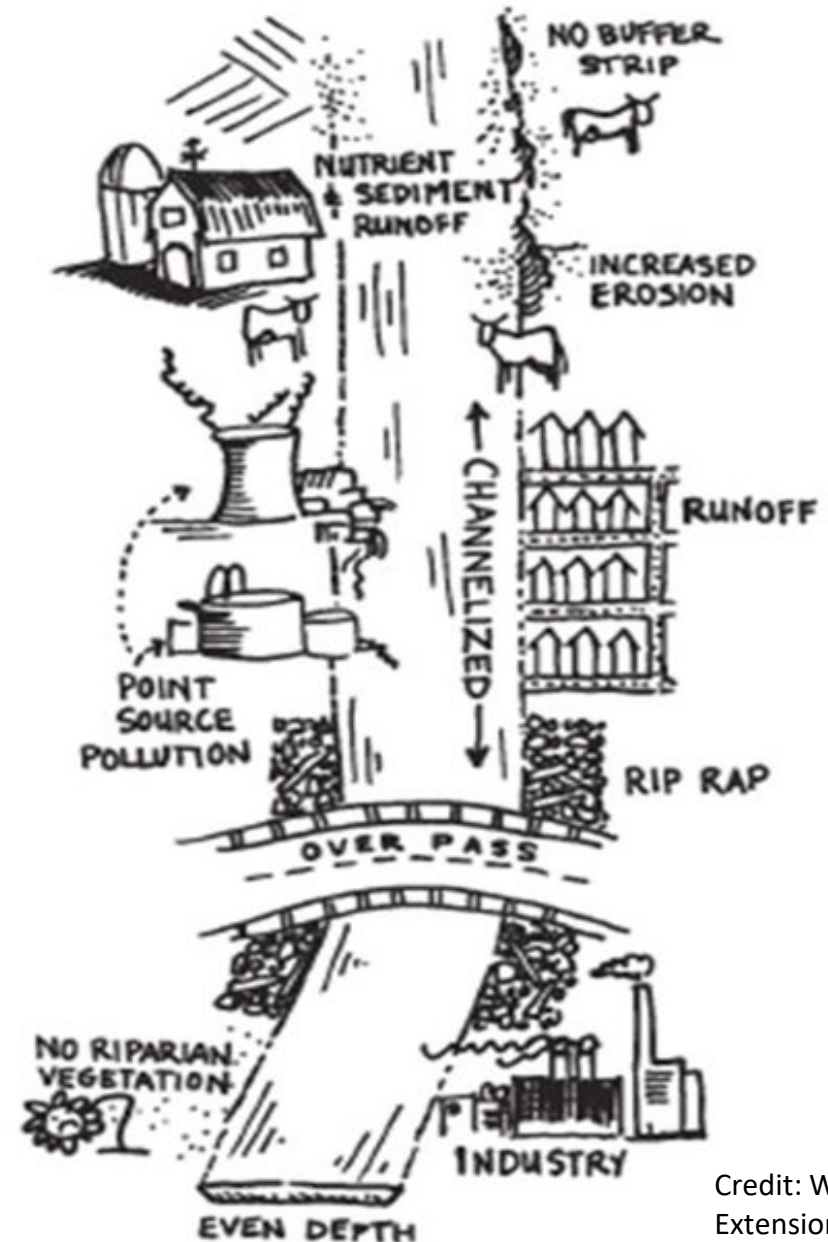
Activities that Impair Floodplain Benefits

Filling or Encroaching

Straightening/ Dredging /
Berming/Hardening

Removal of floodplain
vegetation

Incompatible land uses



Credit: WSU Whatcom County
Extension

Watershed Wisdom

- Avoid the floodplain! If you absolutely cannot (or it's too late), use “smart” nature-based solutions to restore natural functions.
- What you do in one place affects other upstream & downstream areas – don't transfer the problem elsewhere!
- These practices are scalable and transferable across communities.
- Engaging community members in stewardship experiences (like tree planting, and citizen science) can help promote long term maintenance and additional actions on private lands.

Funding Opportunities- see handout

Water Quality

- Water Quality Improvement Program
- Nonpoint Source Planning Grant
- Green Innovation Grant Program
- Great Lakes Restoration Initiative

Resilience / Flooding

- Bridge NY
- Climate Smart Communities
- FEMA
 - Building Resilient Infrastructure and Communities
 - Flood Mitigation Assistance Program
 - Hazard Mitigation Grant Program
- NRCS Emergency Watershed Protection Program

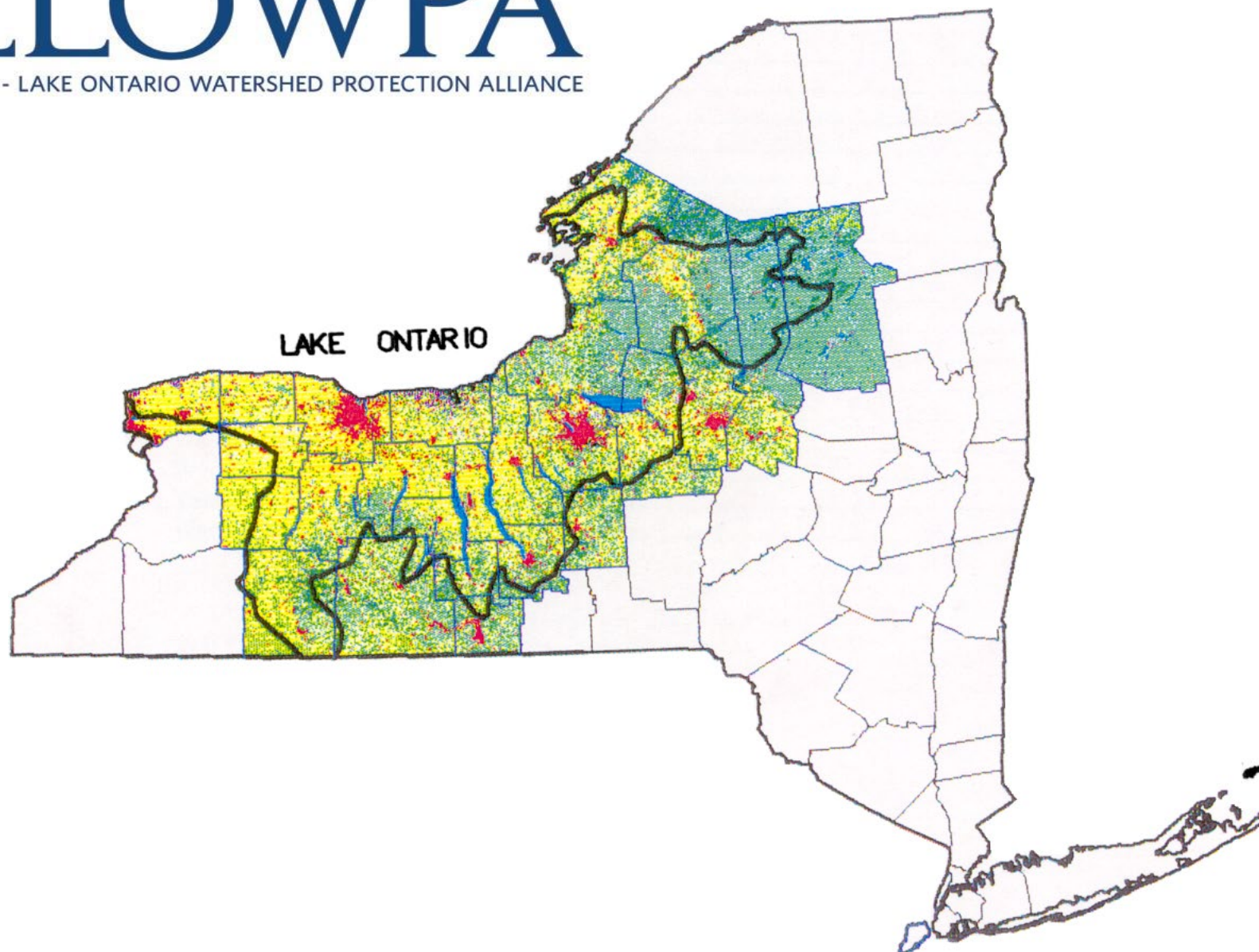
Others

- USACE Continuing Authorities Program (CAP)
- Clean Water State Revolving Fund



FLOWPA

FINGER LAKES - LAKE ONTARIO WATERSHED PROTECTION ALLIANCE



FOLLOWPA Membership

25 Lake Ontario Basin Counties

- Planning Departments
- Soil and Water Conservation Districts
- Health Departments
- Environmental Management Councils
- Water Quality Management Agencies

FOLLOWPA Programs

- Based on local needs
- Reinforce state and federal programs
- Address identified, site specific problems
- Create and capitalize on partnerships
- Multi-faceted, watershed based

FOLLOWPA Mission

To facilitate processes that encourage watershed partnerships and implementation of action plans to protect and enhance water quality based on:

- local needs assessments
- holistic approaches
- information exchange and public education
- measurable goals and milestones

“Get all the fish swimming in the same direction”



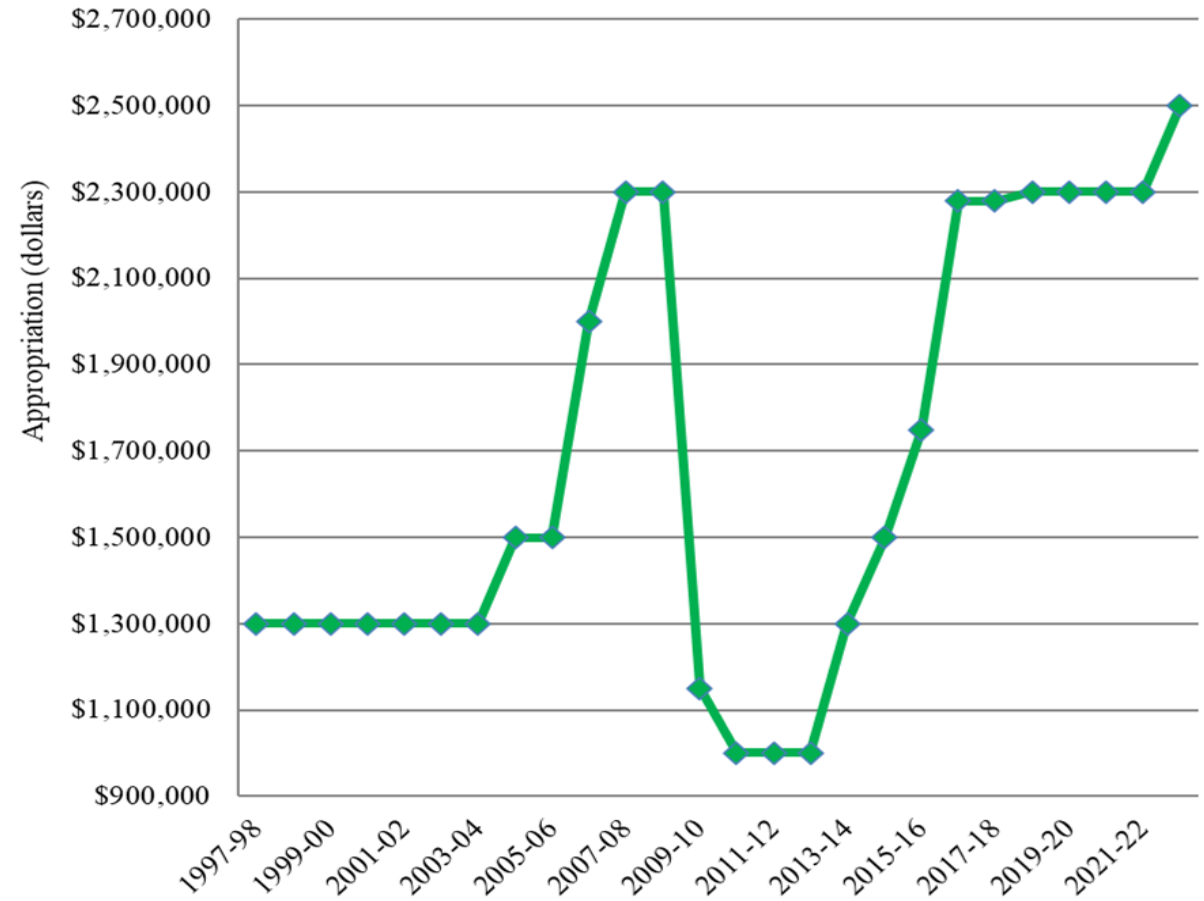
FLLOWPA Funding

Environmental Protection Fund since 1997

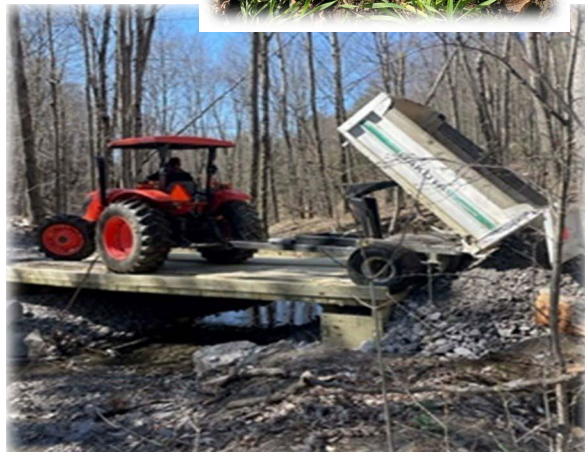
County water quality programs (96%)

- Nonpoint source pollution control & remediation
- Watershed research, planning, & monitoring
- Invasive species
- Public education and outreach

Coordination through WRB (4%)



Nonpoint Source Pollution Control and Remediation

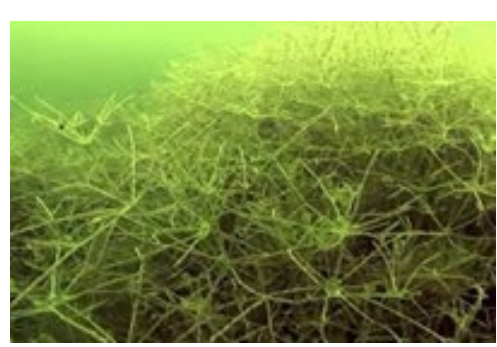
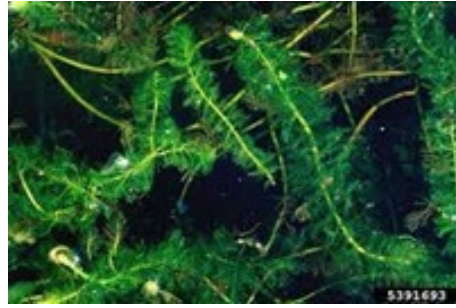




Watershed Planning and Monitoring

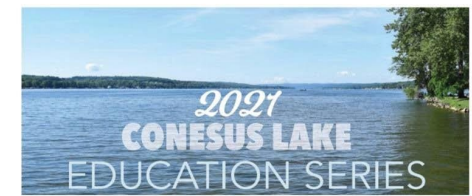
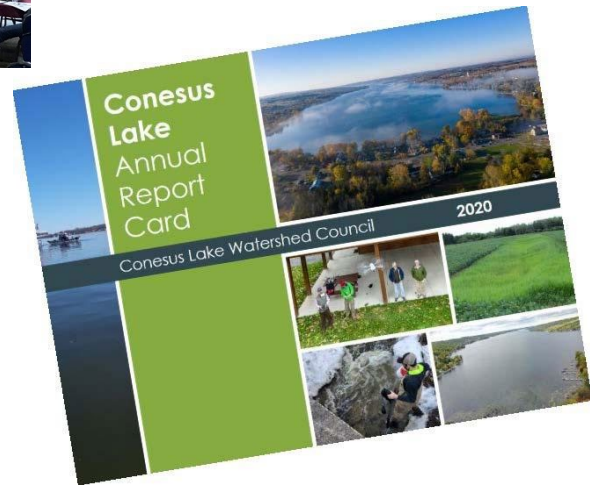


Invasive Species Control and Monitoring





Public Education and Outreach



You're invited to attend FREE monthly educational programs and lectures on a wide range of environmental and historical topics of interest and concern to residents and friends of the Conesus Lake watershed. All programs will be held online and/or at the Watershed Education Center at Vitale Park in Lakeville.

For updates on our 2021 schedule, scan the QR code below or visit our website: www.conesuslake.org/lake_community/wec.

Call (585) 346-6864 to register. We hope to see you at our next FREE program.



Date	TOPICS
January 13th	Soil Core Analysis of Livonia High School Wetlands
February 24th	Aquatic & Underwater Surveillance of Conesus Lake
March 17th	Amanda's Garden: Gardening with Native Plants
April 7th	Trains, Planes, and Boats 1874 to 1920's
May 5th	A Bird Walk of Our Conesus Lake Inlet
May 15th	Youth Planting Workshop
May 26th	Native American Storyteller
June 9th	Conesus Lake: How We Got Where We Are
June 23rd	Aquatic & Terrestrial Invasives
July 21st	Marine Patrol Activities including Sonar
August 11th	Trains, Planes and Boats Part 2 1990's to 1970
August 25th	Tric Safety
September 21st	The Health of Conesus Lake - CSLAP
October 27th	Cornell Cooperative Extension
November 10th	Macro Invertebrates
December 1st	SUNY Brockport Students - Project Updates

"An ounce of prevention is worth a pound of cure"- Benjamin Franklin

Use the QR code to see the latest WEC schedule for any updates
*This art was funded by the Finger Lakes Lake Ontario Watershed Protection Alliance through an appropriation from the New York State Environmental Protection Fund.

FLOWPA Partners



Great Lakes
RESTORATION



Find us on
Facebook

www.flowpa.org

We look forward to hearing from you!

Kristy LaManche

Program Coordinator

Finger Lakes – Lake Ontario Watershed Protection Alliance

Finger Lakes – Lake Ontario Watershed Protection Alliance

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