

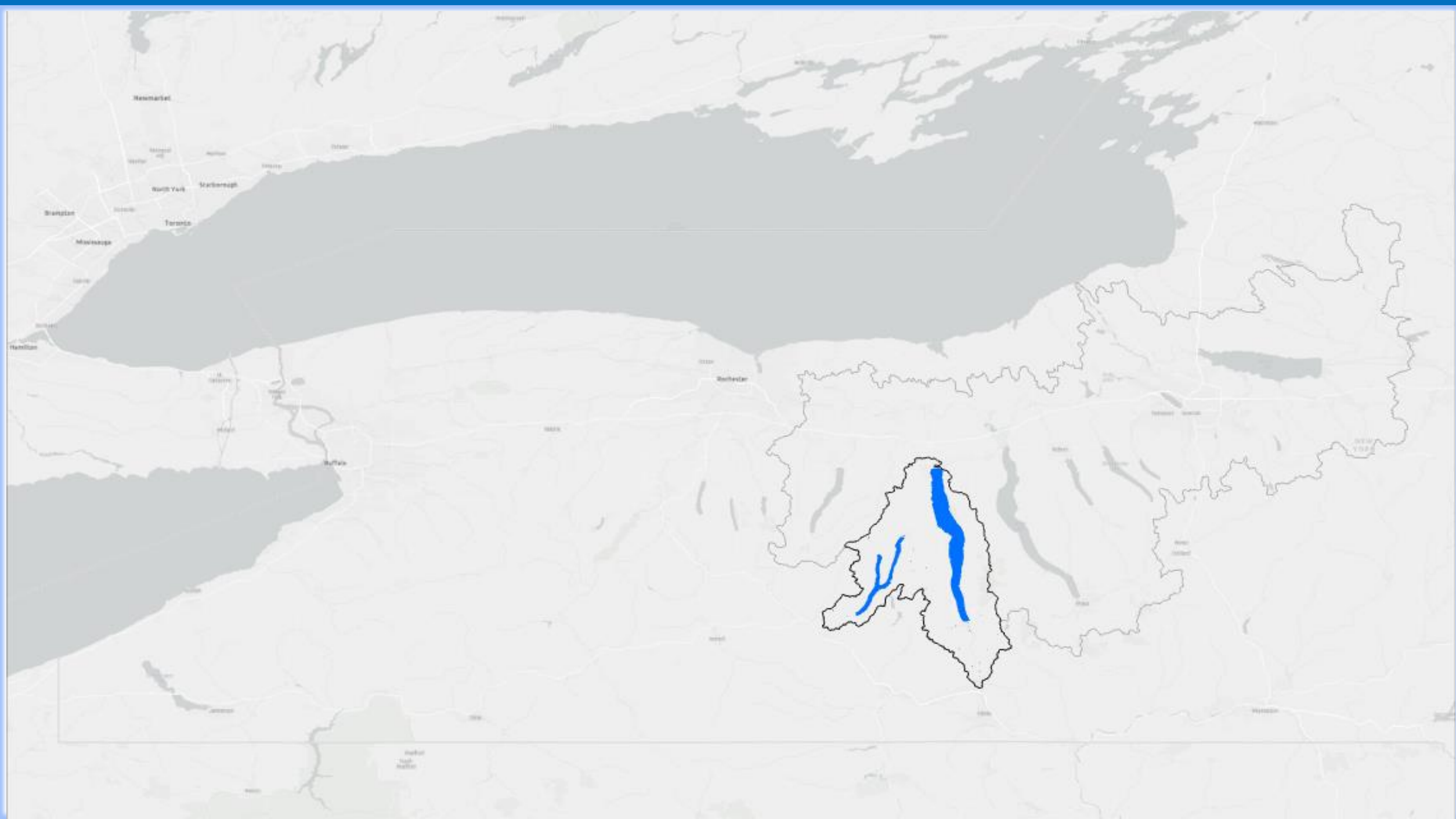
Seneca-Keuka Watershed
Oswego River-Lake Ontario

Novel Approaches to Achieving Agricultural WQ Goals

Ian Smith, SWIO
GLCSNRP Dialogues

August 21st 2024





The Numbers

➤ Land Use

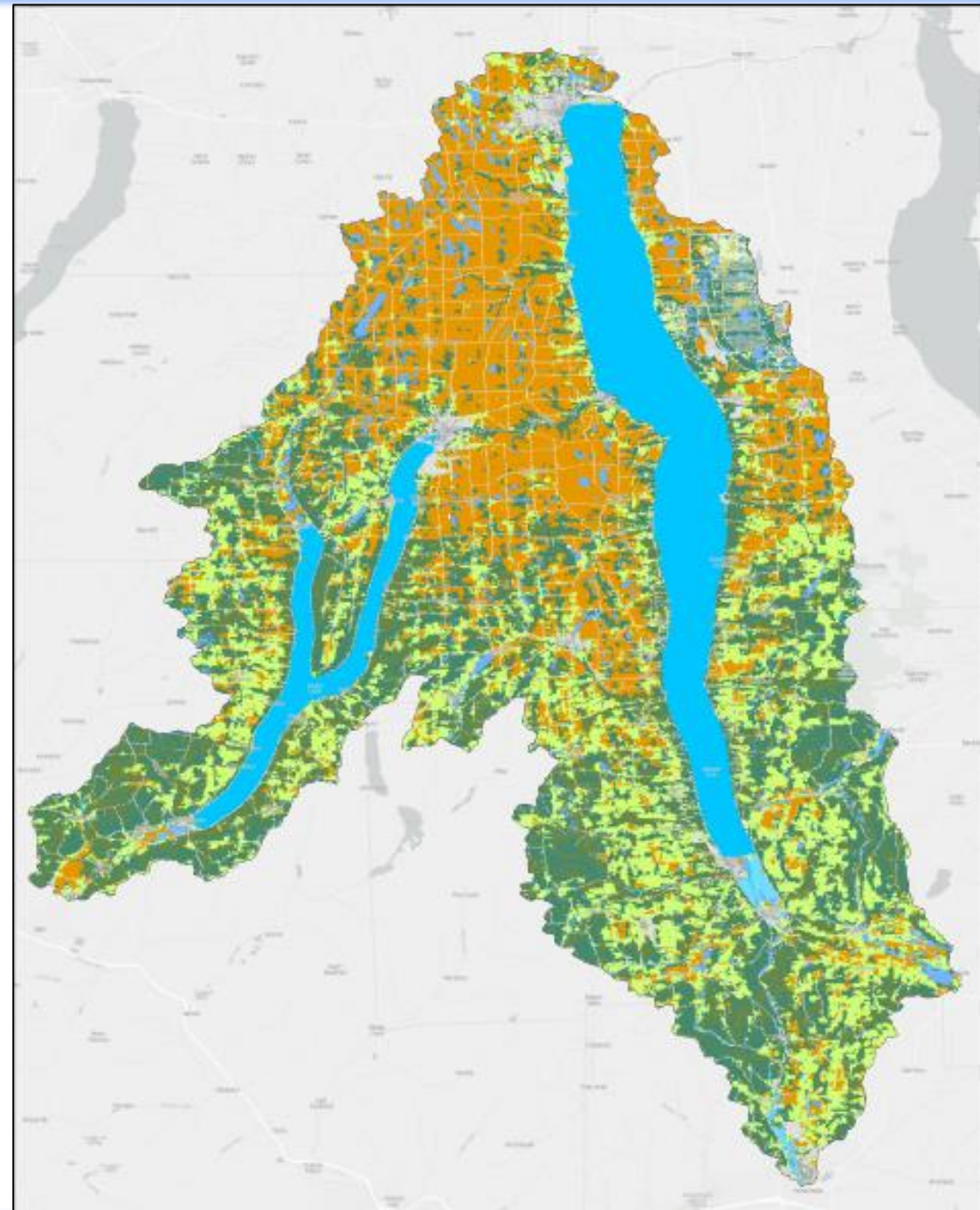
- 46% Agriculture
- 37% Forest
- 7% Developed
- 6% scrubland
- 4% Wetland

➤ Geology

- High Point 639m
- Low Point 115m
- Soil type B & C Northern End
- Soil Type D Southern End

➤ People

- Approximately 50,000
- Public water supply for 25,000
- Private water supply for 7,500



The Challenges

➤ Physical Problems

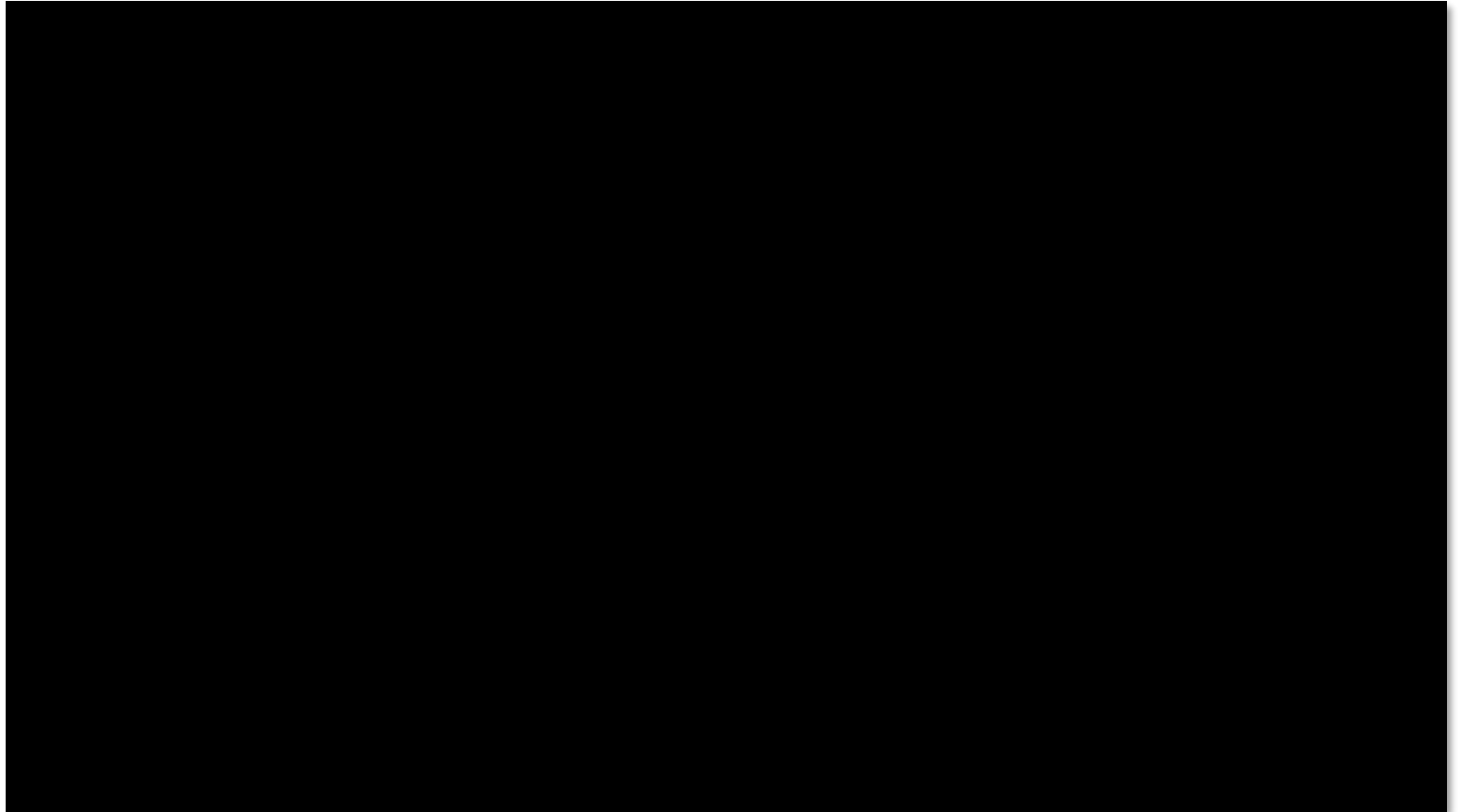
- Flooding
- Erosion
- Heat*

➤ Biological Problems

- Harmful Algal Blooms
- Terrestrial/Aquatic invasive species
- Ecological shifts
- Tourists

➤ Chemical Problems

- Nutrients and sediment
- Salt
- Emerging contaminants

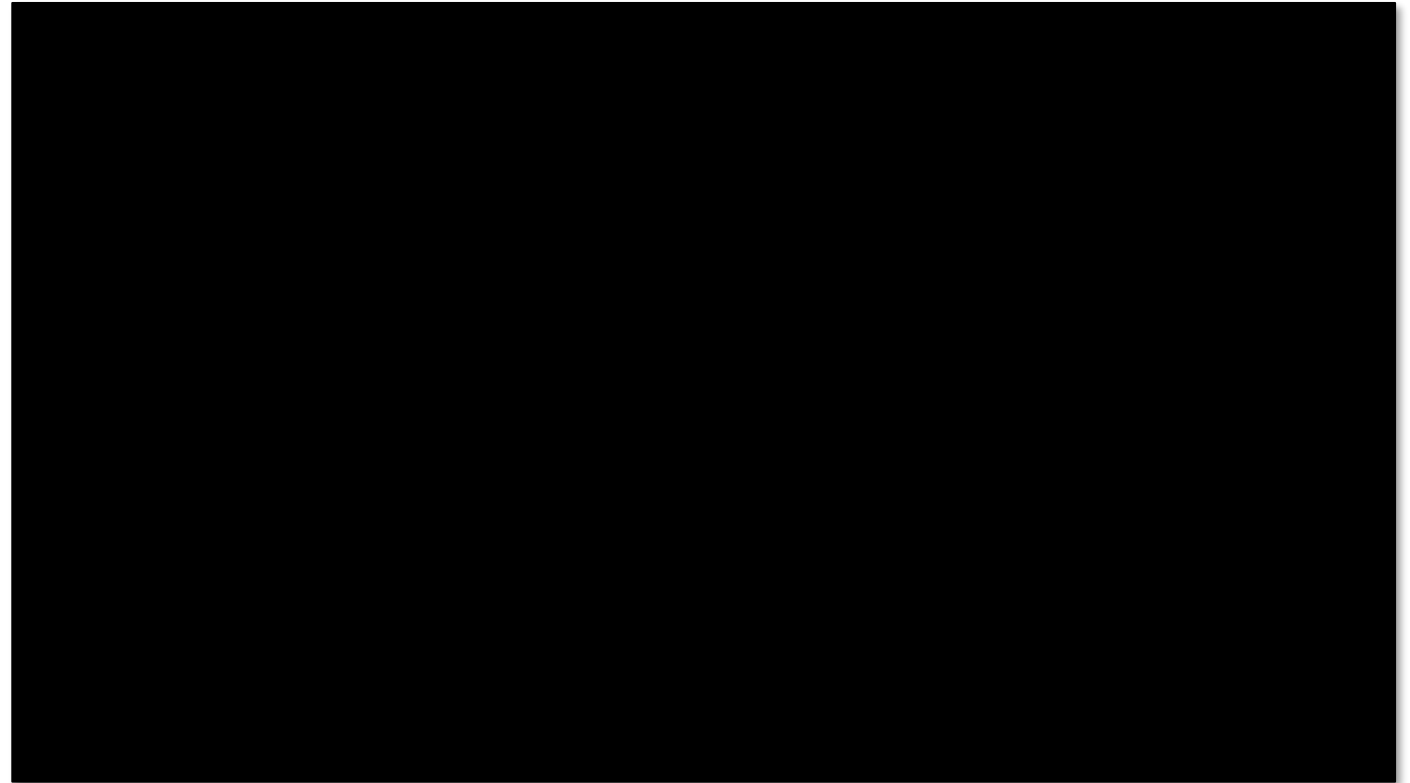


Payment for Ecosystem Services

- Funded Through GLC's *Conservation Kick*
- 20K Project
 - 1:1 GLC and Geneva (+SWCD)
 - Dispersed 10 year payment



Producer/Consumer Driven Markets



<https://www.youtube.com/@newyorkwines/featured>

1. To promote the use of practices that reduce reliance on on-farm inputs



What does sustainability look like?

2. To build, regenerate and conserve healthy soils



What does sustainability look like?

3. To protect surrounding reservoirs and waterways from pollution



Market Data

	All US regular wine drinkers	Generations			
		Gen Z	Millennials	Gen X	Boomers +
		(21-24)	(25-39)	(40-54)	(55+)
<i>sample size=</i>	2,000	154	601	470	775
I would not be willing to pay more	26%	14%	11%	22%	43%
Up to \$1 more	10%	8%	7%	10%	13%
\$1.00 to \$1.99 more	14%	20%	13%	13%	14%
\$2.00 to \$2.99 more	18%	25%	20%	19%	14%
\$3.00 to \$3.99 more	11%	13%	17%	10%	7%
\$4.00 to \$4.99 more	7%	5%	11%	8%	3%
\$5 or more	14%	14%	20%	16%	8%
Average Extra Value	\$3.0	\$2.9	\$3.3	\$3.1	\$2.5

Data Source: Wine Intelligence, consumer focus groups, April 2019

Sustainable is the next thing... like before it was soy then almond milk, now oat milk... before it was organic, now it's sustainable." – Age 25-39

Model Expansion Opportunity?

➤ Cover Crop Beer

- Sorghum
- Winter Wheat
- Winter Rye
- Buckwheat



Cheers to Seneca Lake PURE Brew Week!



July 27 — Aug 4

Drink PURE Pils!

Each PURE Pils sale supports Seneca Lake Pure Waters.

Take a trip around the lake to get a cold refreshing PURE Pils before it's gone! Seneca Lake Pure Brew Week supports the Seneca Lake Pure Waters.

Pure Waters' mission is to preserve and protect Seneca Lake water quality. We believe the health of our lake is a shared responsibility of residents and tourists alike.

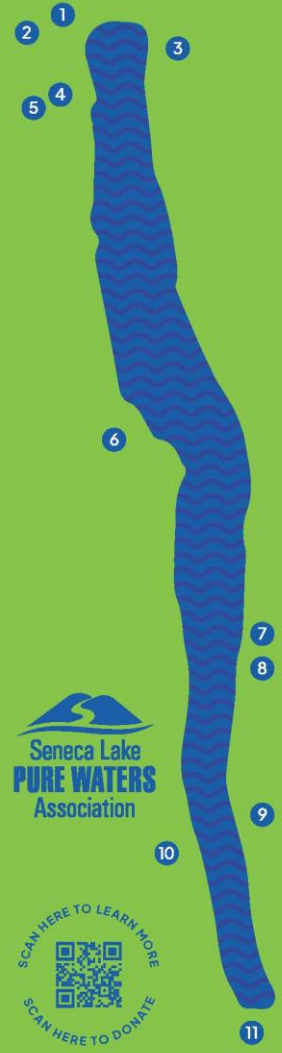


Seneca Lake
PURE WATERS
Association

SCAN HERE TO LEARN MORE



SCAN HERE TO DONATE



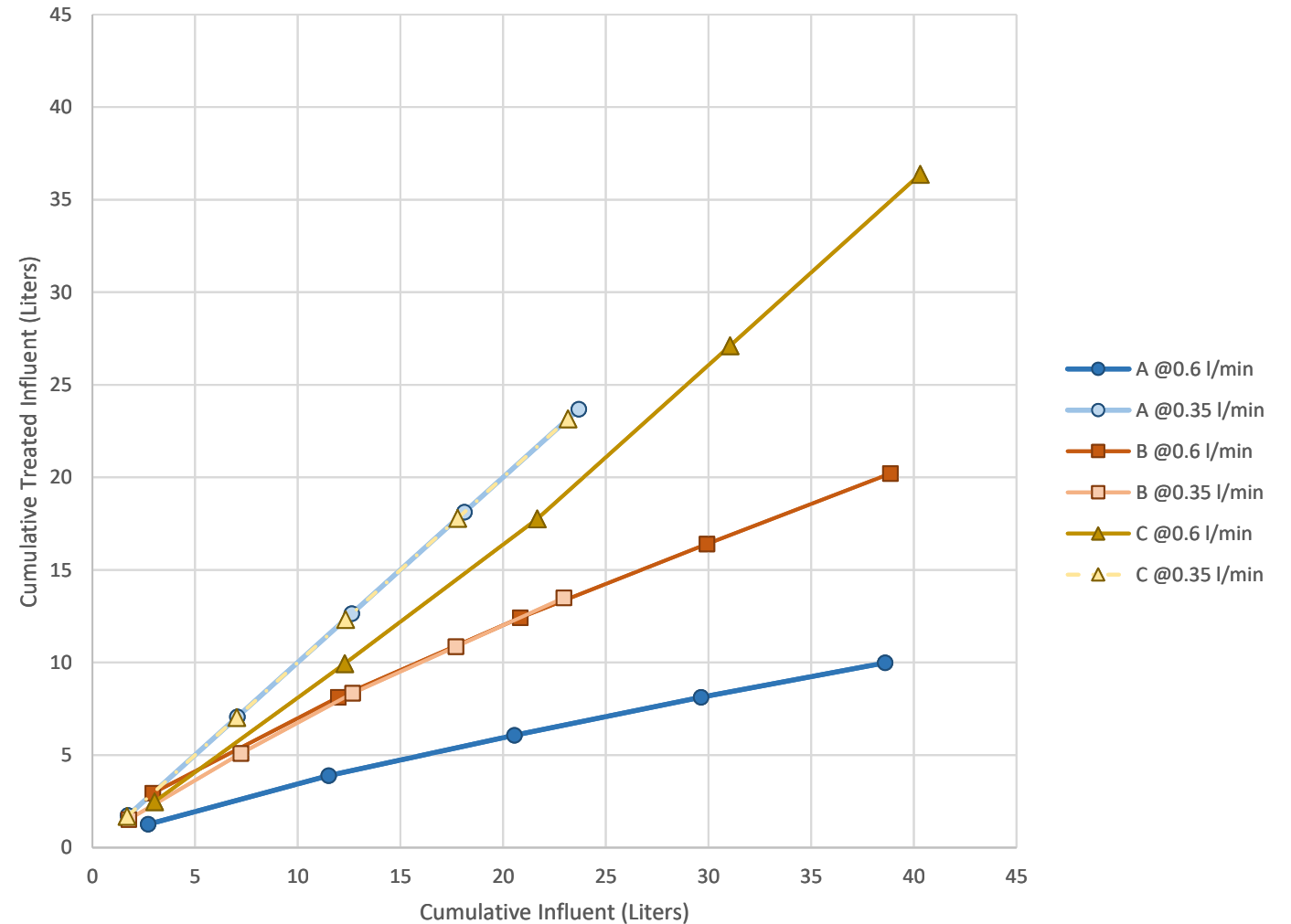
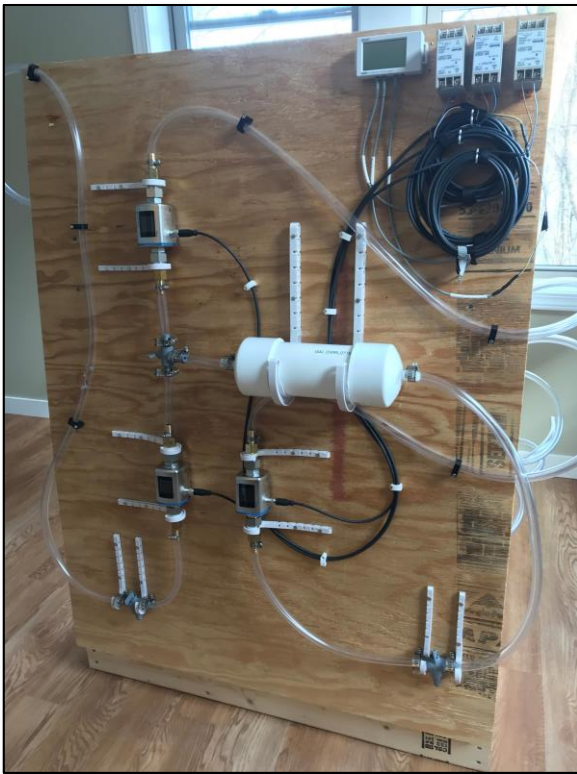
Sustainable Active Management

- Accept the truth
 - 1) Loss is inevitable
 - 2) Supply is unstable
 - 3) Passive systems are a myth
- Capture lost/leaving P efficiently
- Reapplication in a form readily plant available
- No co-constituents of concerns



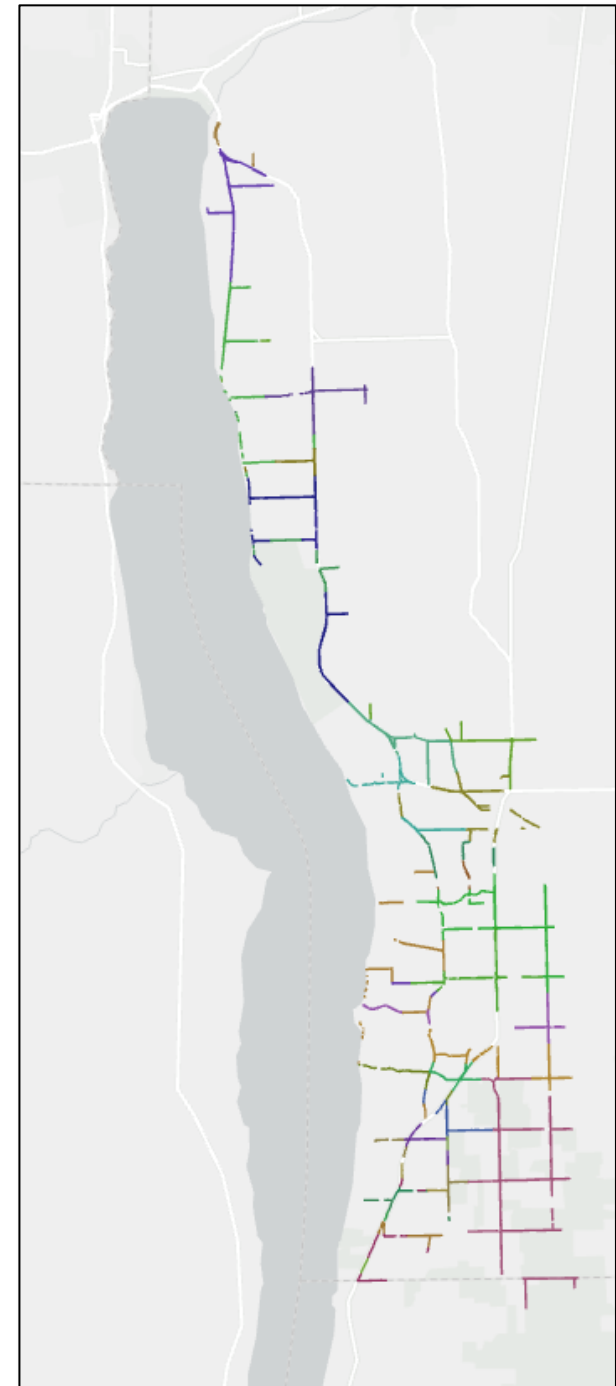
Biochar as a P Sorber

- Laboratory Tests
 - Variable Flow Rates
 - Variable Concentrations
 - Variable Permeability/Particle



Biochar as a P Sorber

- Laboratory Tests
 - Variable Flow Rates
 - Variable Concentrations
 - Variable Permeability/Particle
- Field Tests
 - In-field drainage
 - Adjacent roadsides
 - Growth effects*



NRCS BMPs Funded by GLC

- 3047 Acres Cover Crop
- 800 Feet Diversion
- 8700 Ft² Grassed Waterway
- 1545 Ft² Lined Waterway
- 41 Acres Mulching
- 1586 Ft WASCOB

Thank You!

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