St. Lawrence County Environmental Management Council
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Draft

MEETING MINUTES
May 15, 2019
2nd - Floor Conference Room, Public Safety Complex
49½ Court Street, Canton, New York

Action items in bold italics / Motions underlined.

1. **Call to Order:** Secretary Pat Whalen called the meeting to order at 6:05 PM.

2. **Roll Call, Determination of Quorum:** A quorum was not established until Catherine Bennett arrived during Roy Horst's Presentation.
   Members present: Aaron Barrigar; Catherine Bennett; Jennifer Berbrich; Richard Marshall; Sue Rau; Tiernan Smith; Rod Tozzi; Brian Washburn and Pat Whalen, *Secretary*.
   Members absent: Joseph Brant, *Chair*; Ryan Burkum; Erica Leonard; Don O'Shea, *Vice Chair*; Lance Rudiger and Nicole Terminelli, *BOL Liaison*.
   Guest(s): Lee Willbanks and Roy Horst.
   Staff: Matilda Larson.

   Whalen welcomed Horst to tonight's meeting.

3. **Hearings, Comments from the Public.** Roy Horst, Professor Emeritus from SUNY Potsdam introduced himself and began his presentation on bears by explaining bears do not actually hibernate as traditionally thought. Instead, bears do not lose consciousness as they den for the winter, but enter into dormancy or "winter sleep" which coincides with the delayed implantation of embryos. Horst noted per the NYS Department of Environmental Conservation, the black bear population in New York is healthy, and said 100 bears were taken by hunters in St. Lawrence County last year, the highest of any county in the State. Horst then shared two stories of previous bear encounters.

   
   Range of black bears, *Ursus americana*

   Horst reviewed the types of bear species and their geographic locations, and discussed the sub-categories of carnivores as two groups: caniforms (dog-like; bears belong in this group) and feliforms (cat-like).

Horst returned to his discussion on the reproductive cycle of bears and said delayed implantation is intended to allow for the delivery of cubs to coincide with the end of hibernation as bears exit their dens.

Horst's slideshow depicted various types of black bears in North America, and discussed the variety and geographic distribution of bears from around the world.

One slide depicted the Gobi bear of the Gobi Desert, and said it is likely extinct as only nine remained in 2009. Horst also discussed China's panda program and the renting of pandas to zoos for $10,000 annually, and discussed sports hunting for polar bears in Canada for $10,000 per hunting permit.

Whalen and the members of the Board thanked Horst for his presentation.

Whalen called for a five-minute recess at 7:40 pm.

The meeting reconvened at 7:45 pm.

4. **Acceptance of Order of Business, Items for New Business, and Items for Unfinished Business**: Adopted by consensus.

5. **Approval of the April 17, 2019 EMC Meeting Minutes**: On a motion by Smith (Marshall), the April 17, 2019 EMC Meeting Minutes were approved.

6. **Report by Representative of the Board of Legislators.** None.

7. **Reports by EMC Members on Conversations with County Legislators:**
   - Washburn reported that he contacted Denesha.

8. **Report of the Committees:**
   a. **Executive Committee**: No meeting; no report.
   b. **Conservation of Resources Committee (CRC)**:
      i. Marshall reported there were two showings of the movie "Plastic Paradise: The Great Pacific Garbage Patch," but the Board may not be able to schedule future showings as a commercial version of the film from the movie producer may be required. See attached report.
   c. **Environment + Economy Committee (E+E):**
      i. Tozzi highlighted Farm Bureau President David Fisher's recent presentation to the EMC and discussed inviting a small or medium-sized, and/or organic dairy farm operator as a presenter at a future meeting. See attached report.

d. **Invasive Species Committee (ISC).**
   i. Larson reported for Tenbusch that the EAB Task Force attended a joint Earth Day – Arbor Day planting event in Ogdensburg on April 26th, and an EAB presentation to the County Highway Association was removed from their agenda as there were too many agenda items. See attached report.

e. **Watershed Management Committee (WMC)**.
   i. Washburn said the preparation of St. Lawrence River Watershed Management Plan covering eight counties is underway, and a second stakeholder meeting for the County's Shoreline Resiliency project was held in Chippewa Bay with seven persons in attendance. Washburn said the County anticipates a final report by the end of June. See attached report.

9. **Report of the Staff:** Larson reported Tenbusch set up EMC displays at two local events in April: the Sustainability Fair on April 6th at SUNY Potsdam, and the Green Living Fair on April 20th at SUNY Canton.

10. **Unfinished Business:** None.

11. **New Business:** Whalen said he and Paul Hetzler planted a tree at Massena Central School in memory of Andy Soutar. A discussion ensued about obtaining a quote for members of the Board to purchase and install an at-grade monument commemorating the tree planting in Andy's memory. Whalen said he would find out how much a monument would cost.

12. **Announcements:**
    a. Bennett said her farm was hosting a Potato Planting Palooza on May 25th, and distributed invitations to those present.
    b. Larson said Tenbusch is seeking volunteers to assist with the Household Hazardous Waste collection event will be held on Saturday, May 18th from 9 AM to 1 PM at the Human Services Complex (80 SH 310, Canton). Rau, Whalen, Marshall and Washburn said they would volunteer. A suggestion was made to arrive between 8:30 and 8:45 am.

13. **Message to the Board of Legislators:** St. Lawrence County is important habitat for black bears; "Watch out for bears."

14. **Adjournment:** A motion was made by Smith (Tozzi) to adjourn. The meeting adjourned by consensus at 8:10 PM.

Respectfully submitted:

Patrick Whalen

Secretary

Minutes prepared by M. Larson

St. Lawrence County Environmental Management Council
Conservation of Resources Committee Meeting
Wednesday May 8, 2019

Purpose of the ***Conservation of Resources Committee.***

- "Conservation" can mean "saving" or "effective/efficient/wise use".
  - Thus, "conservation of resources" might include topic areas including solid waste management; household hazardous waste management; recycling; energy efficiency; wise use of natural resources of St Lawrence County
- Conservation might also mean "preservation", as in preservation of endangered/ rare/ significant flora (plants) or fauna (animals/creatures).

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Present: Jennifer Berbrich; Erica Leonard; Rick Marshall. J. Tenbusch attended as staff.

The meeting began at 4:47 PM.

Item 1: Review Report of Last Meeting. The report of the last committee meeting was reviewed, briefly. No comments were made.

Item 2: Community Showings of the film "Plastic Paradise".

- J. Tenbusch reported that there have been two showings of the film "Plastic Paradise: The Great Pacific Garbage Patch". For these showings, the DVD for "Plastic Paradise" had been borrowed from a local library.
  - The first showing was held in Canton in March; approx. 15 people attended.
  - The second showing was held in Heuvelton in April; approx. 13 people attended.
  - Discussion at both showings was spirited; people really seemed to be motivated to make changes in their lives to reduce/eliminate plastics.
- Tenbusch reported that he attempted to purchase a DVD of the film, so that future showings wouldn't be subject to availability from the library.
  - He was informed by the film's director and by the distributor that showings of the film in the manner that the EMC has done, and would like to continue, would not be possible if a "private use" copy of the film is purchased. A "commercial use" copy is much more expensive.
    - The distributor offered to work with the EMC to make a commercial copy of the DVD available to the EMC at a reduced priced; Tenbusch will follow up.

Item 3: Trashpresso.

- In the email announcement for this Committee meeting, Tenbusch had included a Web URL for Trashpresso (https://www.nationalgeographic.com/magazine/2018/06/genius-arthur-huang-plastic-waste-planet-trashpresso/). Several Committee members have looked at the article included on the Web site, or had watched the introductory video. They expressed enthusiasm if we can bring this Trashpresso to St. Lawrence County for a demonstration.
    - There was general discussion about what might be the best way to do this. The Committee agreed that it makes sense to invite Larry Legault, SLC Solid Waste Operations Manager, to sit in on the next CRC meeting.
        - Tenbusch will discuss this with Legault, and invite him to the next Committee meeting.
        - It is recognized that we may need to change the time of the Committee meeting in order to accommodate Legault's work schedule.

The meeting was adjourned at 5:35 PM.

The next meeting of the CRC will be held on Wednesday June 12th at 4:45 PM.

St. Lawrence County
Environmental Management Council
Environment + Economy Committee Meeting
Monday, May 6, 2019

Purpose of the Environment + Economy Committee.

- To explore the relationship and interactions of the environmental resources of St. Lawrence County with the local and regional economy.
- To reach out to individuals, business, and organizations involved in the use of natural resources in an economic capacity and to learn from these individuals and organizations about the challenges and opportunities in their endeavors.
- To act as the interface between business, residents, and lawmakers of St. Lawrence County with regards to the role of natural resources in the economy, with an emphasis on sustainable use.

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Meeting started at 5:02 PM. **Present:** Ryan Burkum, Chair; Rod Tozzi. J. Tenbusch attended as staff. .

Item 1: Review Presentation by David Fisher to EMC at their meeting in April.

- Immediate impressions included:
  - Mr. Fisher had seemed guarded in his comments. That was to be expected since he was not sure of his audience.
  - It was felt that the EMC might want to ask Mr. Fisher back at some point to continue the conversation about agriculture in the County and the State.

- There was general discussion about farming, and about how people have such a wide variety of impressions about farming.
  - For example, during the EMC meeting, Mr. Fisher was asked if his cows were happy; he replied "Yes". Asked how he knows that, he stated that they receive the best of care, medical attention, feed, creature comforts, etc.; this is evidenced by the fact that his cows produce huge quantities of milk.
    - However, in response to another question, Mr. Fisher stated that his cows do not go outside.
  - As another example, Mr. Fisher had stated that one of his main concerns going forward will be the cost of labor. Yet, there is a bill in Albany to require farm workers to receive $15/hr. as a wage. Another effort is proceeding to allow farm workers to unionize.
    - Both of these issues were seen as polarizing.

- Additional discussions about farms/farming. The Committee felt that it might be important to hear from other sectors of the agriculture industry, including:
  - Cornell Cooperative Extension.
  - A small-to-medium-size farmer, who might not be subject to strict CAFO standards, but who might not benefit from economies of scale, or from coordination with ag experts from CCE and other institutions.
  - An alternative farmer. This might be an organic farm operation, or some other non-industrialized farm operation.

The meeting adjourned at 5:30 PM.

The next E+E Committee meeting will be held on Monday June 10th at 5:00 PM.

St. Lawrence County Environmental Management Council
Invasive Species Committee Meeting
Monday May 6th, 2019

Overview of the Invasive Species Committee.

- The Committee decided that the variety of "invasive species" topics is so large, that it might be best for this committee to work on specific areas.
  - Emerald Ash Borer
  - Eurasian Watermilfoil
  - Wild Parsnip
  - Others

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Meeting started at 1:03 PM.

Present: Don O'Shea, Chair. John Tenbusch attended as staff.

Item 1: Review Previous Meeting Report. No comments were made.

Item 2: ISC Projects for 2019:

- ***Fact Sheet re Wild Parsnip***. Tenbusch explained that the ISC has wanted to talk to local Highway Departments about the effectiveness of using roadside mowing to help control the spread of Wild Parsnip.
  - In recent months, information has been obtained from DEC and from SWCD that indicates that mowing might be more effective than previously thought.
  - Tenbusch had contacted Bill Dashnaw, who runs the Highway Superintendents Association, and gotten an invite to attend their meeting on May 8th to make a short presentation on the topic.
    - Unfortunately, that invitation was withdrawn because of the already too-large agenda for this meeting.
    - Dashnaw offered to distribute information if Tenbusch could provide an info sheet.
  - O'Shea agreed that the sheet was acceptable. Tenbusch will send it to Dashnaw.
  - See attached info sheet.

- ***Emerald Ash Borer*.**
  - Tenbusch reported that "Emerald Ash Borer Awareness Week" will be observed in NYS during the week of May19 – 25. O'Shea and Tenbusch discussed possible events to hold during the week.
    - They agreed that outreach table might be set up at Farmers Markets in Canton (May 21) and Potsdam (May 25) during that week. (Other Farmers Markets will not yet be operating.).

- ***Blue-Green Algae Blooms.***
  - Joe Brant, who works with NYS Dept. of Health, had sent out information about cyanotoxins; these materials are attached.
    o

  Brant will meet with the ISC at their June meeting to review/discuss these materials

Earth Day Project, April 6th.

- O'Shea and Tenbusch reviewed the events that occurred on the EMC Earth Day / Arbor Day event, Friday April 26th. These included:
  - Due to steady rain, attendees met at the Dobisky Center, rather than at Groulx Park. There was no tree planting.
  - Mayor Wayne Ashley read a dedication of the two trees that have been planted at Groulx Park to replace deteriorated ash trees that had been taken down in Fall 2018.
  - There were several presenters on the topic of dealing with Emerald Ash Borers.
  - The event concluded at approx. 11:30 AM

The meeting ended at 1:35 PM.

Next ISC meeting will be at 1:00 PM on Tuesday June 11th.

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Mowing: A Reasonable Alternative to Manage Wild Parsnip Along Roadsides

It is that time of year again; now that winter plowing is (almost!) finished, Town and County Highway Departments are starting to look at their next major task: mowing along roadsides. The **Environmental Management Council** would like to take this opportunity to let you know that you can control the spread of Wild Parsnip along your roadsides with relatively minor changes to mowing schedules.

Wild parsnip (*Pastinaca sativa*) is an invasive plant from Europe and Asia. It can be found growing in a broad range of habitats, especially disturbed areas along roadsides, and near playgrounds.

Wild parsnip is especially noxious because its sap can combine with sunlight to cause severe burns on exposed skin that has come into contact (pedestrians; highway workers; etc.). One recent report noted that wild parsnip was growing past the fence at a local ballfield. If anybody hit a home run, the kids who chased the ball were all at risk of severe burns. (See https://dec.ny.gov/animals/105364.html)

Typical methods of control of wild parsnip have involved use of herbicides, and mowing. The **Environmental Management Council** proposes that, by planning roadside mowing schedules, it may be possible to control, and over time to eradicate wild parsnip without having to use herbicides (except in very limited circumstance).

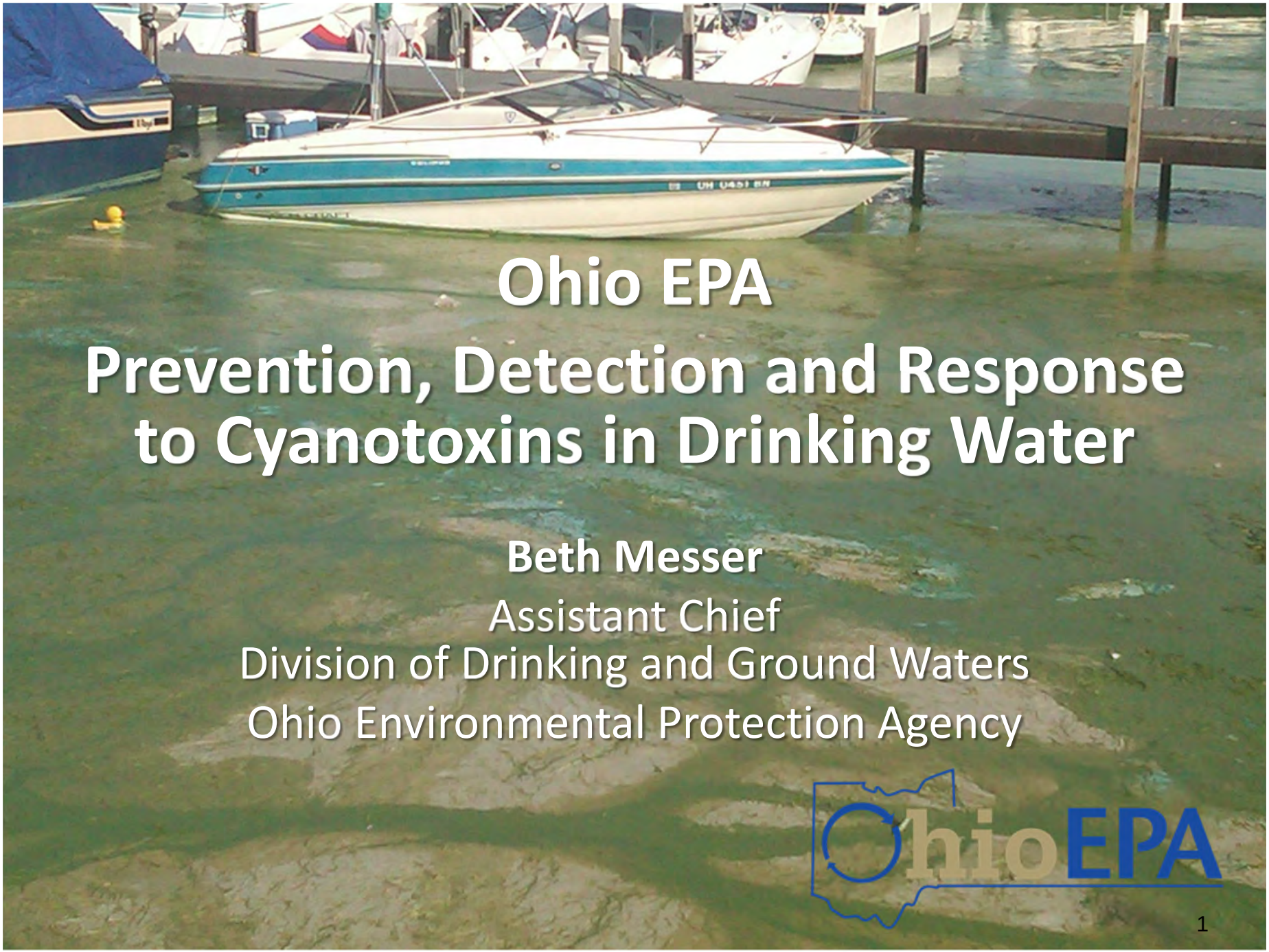
We notice that wild parsnip flowers along our roadsides in late June-early July. By mid-July into August those flowers create seeds that are easily dispersed by wind or other factors.

Mowing wild parsnip before July will prevent plants from seeding out, and prevent the spread of wild parsnip.

Though plants may re-sprout and re-flower, seed production will be greatly reduced.

Highway crews should take precautions to wear long sleeved shirts and long pants when mowing, in order that they don't get hit with wild parsnip sap while mowing. Rinsing off mowing equipment is also recommended.

EMC: Everybody Must Care!

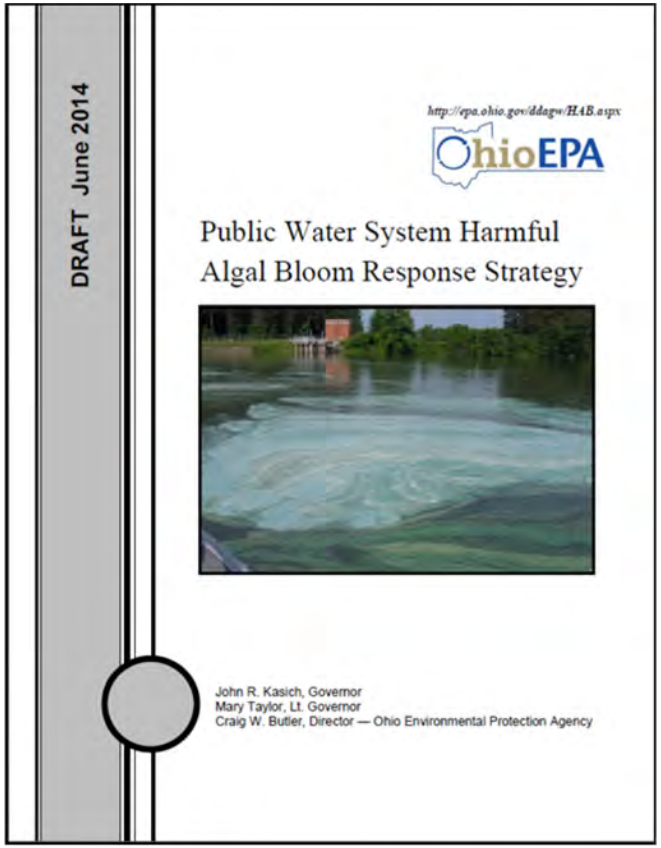


Ohio EPA
Prevention, Detection and Response to Cyanotoxins in Drinking Water

Beth Messer
Assistant Chief
Division of Drinking and Ground Waters
Ohio Environmental Protection Agency

Ohio Harmful Algal Bloom Response

- **Ohio EPA began Sampling for Cyanotoxins at Public Water Systems in 2010**
- **Collaborated with Ohio Department of Health and Ohio Department of Natural Resources to Develop State of Ohio HAB Response Strategy**
  - Developed in 2011, reviewed and revised annually
    - Sampling Frequency and Procedures,
    - Cyanotoxin Advisory Levels for:
      - Microcystins (total)
      - Cylindrospermopsin
      - Saxitoxins (total), and
      - Anatoxin-a
    - Public Notice Templates, and
    - HAB-related Contingency Planning Recommendations
  - **http://www.epa.ohio.gov/portals/28/documents/HAB/PWS-HAB-response.pdf**
  - Will revise based on U.S.EPA national health advisory guidance and lessons learned in 2014



OhioEPA

Cyanotoxin Sampling

- **Ohio EPA Sampling is Primarily Incident-Response Based**
- **Factors Considered:**
  - **Source Water Quality**: Phytoplankton, Phycocyanin, Chlorophyll-a, pH, Geosmin or MIB taste and odors
  - **Operational Issues:** Decreased filter run times and filter clogging, Increased chlorine demand
  - **Satellite & NASA Flight Data:** Remotely monitor bloom based on presence of pigments unique to cyanobacteria
  - **Algaecide Application:** At a minimum, sample following Ohio EPA pesticide permit requirements
- **Ohio EPA Encourages PWSs with a History of Persistent HABs to Voluntarily Monitor**
- **Sampling at Lake Erie Islands and Marblehead routinely in lieu of triggered – perhaps others in 2015**
- **Inland Lake Ambient Monitoring (Partner with Clean Water Act program)**

OhioEPA

Sampling Frequency & Analytical Method

- **Sampling Frequency:**
  - Weekly until toxins are <½ Ohio threshold for two consecutive weeks and bloom has dissipated.
  - If raw water microcystin concentrations are >5 ug/L, increase sampling and analysis to 3 times/week.
  - Finished water detections trigger repeat sampling & analysis within 24 hours. Ongoing sampling may include distribution sampling.
  - Need to reevaluate based on U.S. EPA H.A. Guidelines.

- **Analytical Method:** Ohio EPA utilizes the ELISA method for total microcystins (MC-ADDA), saxitoxin, and cylindrospermopsin and LC-MS/MS for anatoxin-a

OhioEPA

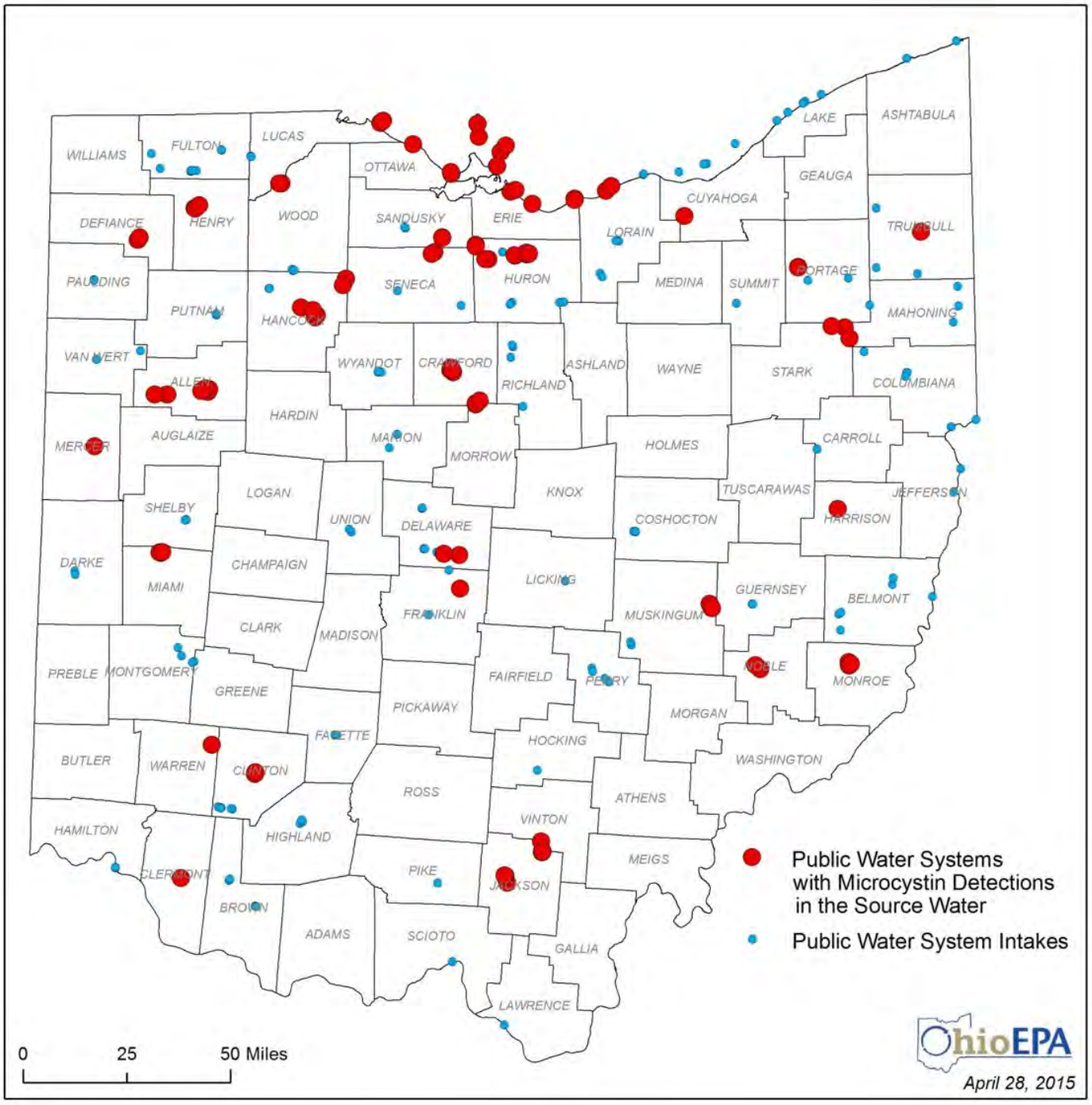
Public Water System Sampling Summary

- Ohio EPA has collected approximately 2,000 cyanotoxin samples at 56 water systems (almost 1/2 of all Ohio surface water supplies).
- Public water systems have voluntarily submitted results to Ohio EPA for over 1,000 cyanotoxin samples.
- Cyanotoxins detected in MAJORITY of source waters sampled.
- Five water systems had finished water detections >0.3 ug/L
- Two water systems exceeded 1.6 ug/L

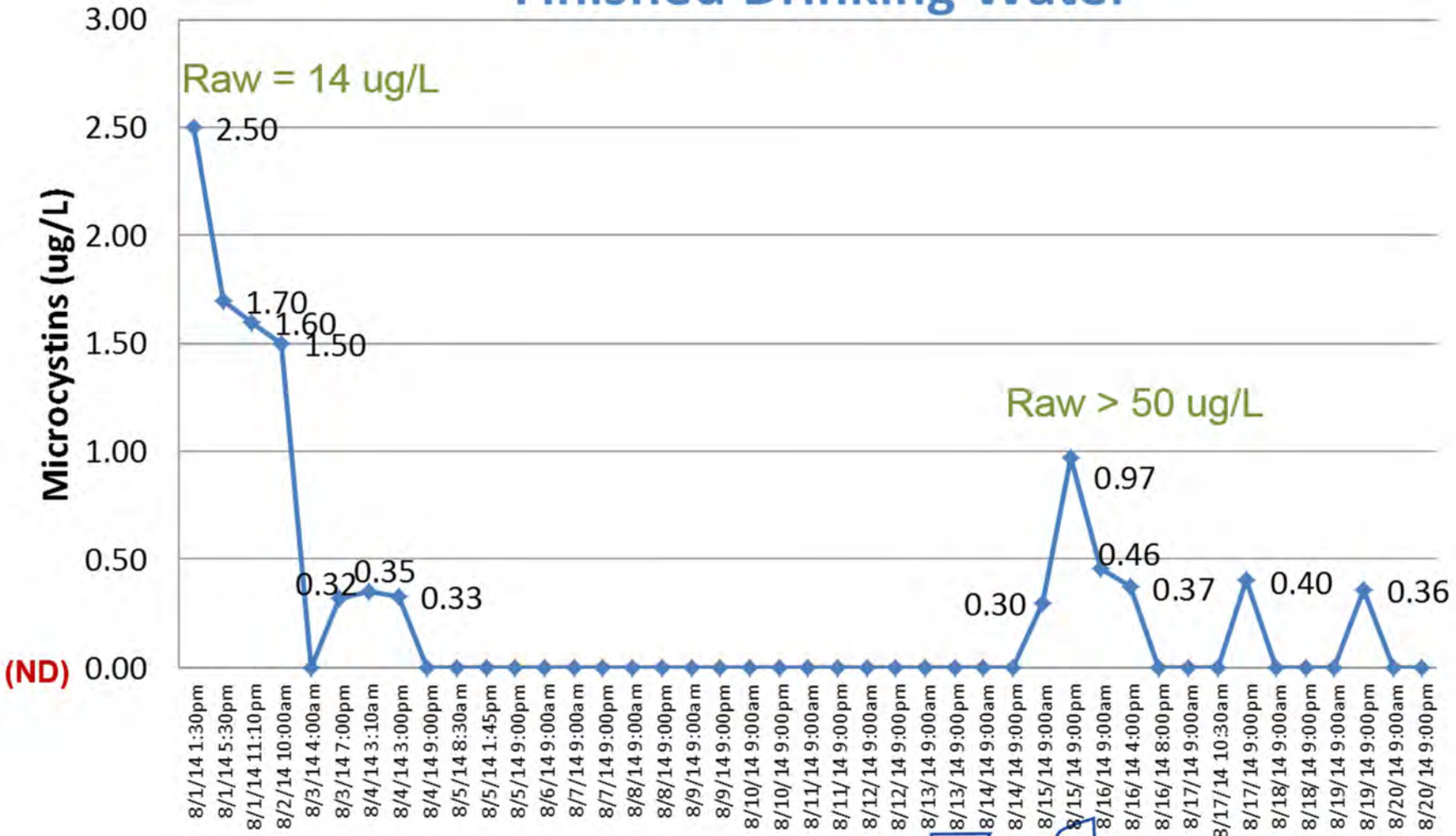
Public Notice is recommended if a health advisory level is exceeded, however, Director also has authority to issue public notice.

OhioEPA

Public Water Systems with Cyanotoxin Detections in their Source Water



Microcystins Concentrations in Toledo's Finished Drinking Water



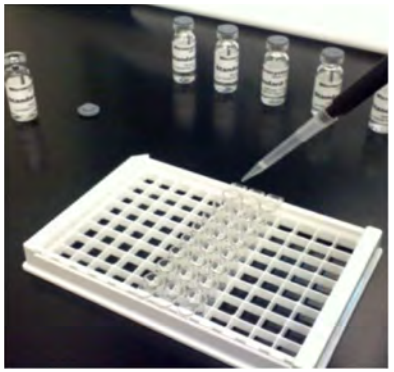
OhioEPA

ND= Not Detected (Concentration <0.25)

Data Source: Toledo PWS

Microcystins Testing - ELISA

- **Ohio EPA uses the Enzyme-Linked ImmunoSorbent Assay (ELISA) Microcystin-ADDA Method**
  - Measures Total Microcystins
    - (all congeners, based on ADDA)
  - Certified by USEPA (ETV Program)
  - Moderately sensitive (RL: 0.30ug/L)
  - Suitable for raw & finished water
  - Quick (four hours), useful for operational adjustments
  - Relatively inexpensive
  - Does not require high end equipment or expertise to run (can be used in water system lab)
  - Does not provide concentrations of specific Microcystin congeners
  - Is an indirect measure of toxin



Microcystin-ADDA ELISA SOP

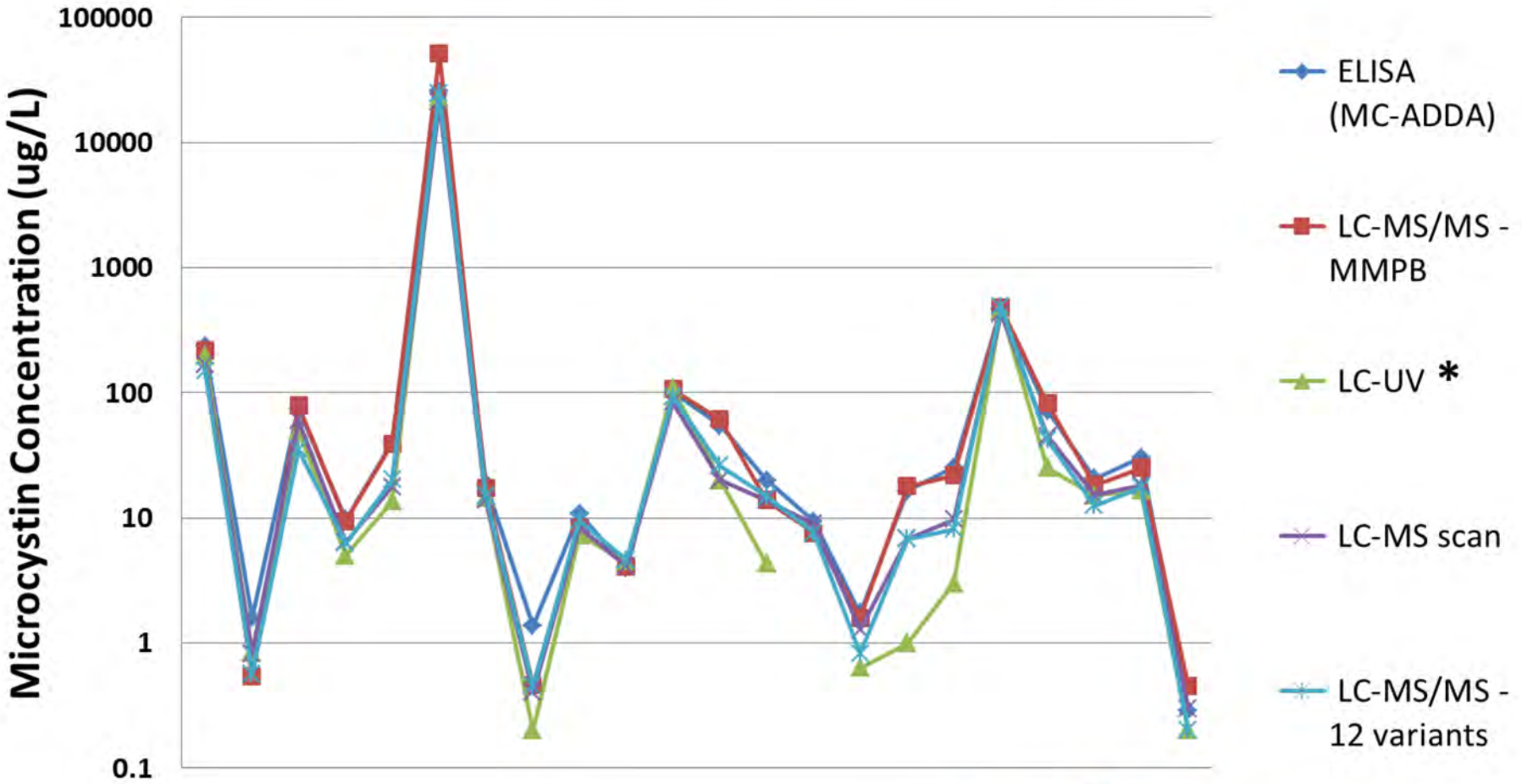
- Helps ensure consistent sample handling, preparation, and application of analytical method.
  - Finished water samples and treatment train samples that are subjected to an oxidant must be quenched upon collection.
- Labs must demonstrate they can achieve an acceptable level of precision and accuracy.
- Ohio EPA conducts site visits at labs preforming analysis.
- Considering Ohio EPA confirming finished water detections triggering an advisory

Analytical Method Comparison & Microcystin Congener Evaluation

- 11 Sites/22 Samples: 4 Up-ground Reservoirs, 2 In-stream Reservoirs, 2 Lake Erie locations, 2 Canal-feeder Lakes, and 1 River Source.
- Variety of Cyanobacteria Genera Represented
- Each Sample Analyzed Using 5 Separate Analytical Methods
- MC-LR was not the most common congener
- Confirmed ELISA results

OhioEPA

Results of Method Comparison



* LC-UV data presented does not include false-positives that were eliminated from total (Based on lack of confirmation with LC-MS methods).
Sample # 14 was non-detect using LC-UV.

OhioEPA

HAB Response Strategy Revisions

- Incorporate USEPA Health Advisory Guidance
- Determine Analytical Method and sampling and analytical protocols
- Apply 10 Health Advisory as “not to exceed”
- Initiating an advisory
  - Confirmation analysis and sampling
  - Allowing for treatment adjustments

HAB Response Strategy Revisions

- Removing an advisory
  - Defining the number and time between samples
  - Entry point or distribution
- Cyclical advisory level detections
- Messaging
  - Revising Public Notices
  - Clarifying Exposure pathways

Ohio EPA Preparation

- Hosting Multi-Agency Tabletop Exercises to Better Prepare for any Future Advisories.
- Expanding the early warning network.
- Requiring HAB Contingency Plans for Susceptible Public Water Systems.
- Collaborating with University and Federal Researchers on Treatment Technologies, Analysis Methods, Remote Sensing, Bloom Dynamics, and other Applied Sciences.
- Assisting with Revisions to Ohio AWWA Cyanotoxin Treatment White Paper.
- Participating in State and National HAB Workgroups.
- Assisting other States.

Technical Assistance, Training & Outreach

- Responded to over 700 requests for information related to HABs at public water systems
- Gave over 30 presentations on HAB impacts to water systems
- Present at the 2-day OSU Stone Lab HAB Workshop (since 2010)
- 5 Targeted meetings with PWSs in 2014
- Additional Meetings in 2015
- Targeted Outreach to Susceptible Systems

Algae ID and HAB Workshops Offered by OSU & Ohio EPA

- Held at Stone Lab Campus on Gibralter Island
- Geared to Water Supplies and Lake Managers
- August

http://stonelab.osu.edu/courses/noncredit/87/

OhioEPA

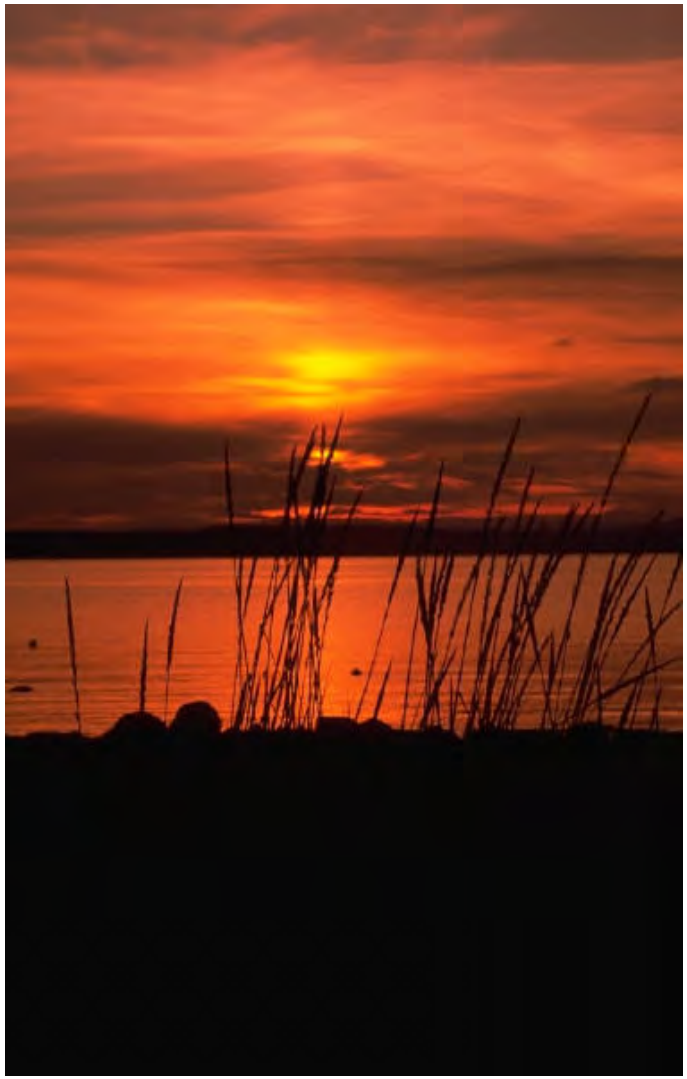
HAB Funding

- $1 million in grants to surface water public water systems to enhance their monitoring capacity for cyanotoxins and harmful algal blooms.
- $50 million in 0% interest rate loans to surface water public water systems for enhanced water treatment infrastructure components as well as back-up water sources.
- $100 million in 0% interest rate loans for equipment and facilities that reduce the levels of phosphorus and other nutrients.
- $1.25 million in grants for farmers to plant cover crops or install controlled drainage devices.
- OBOR $2 million in grants for applied research on harmful algal blooms.

OhioEPA

Thank You!

http://www.epa.ohio.gov/ddagw/HAB.aspx

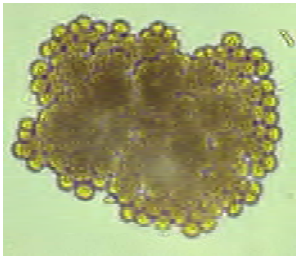


OhioEPA

Freshwater HABs=CyanoHABs

Anabaena

Microcystis

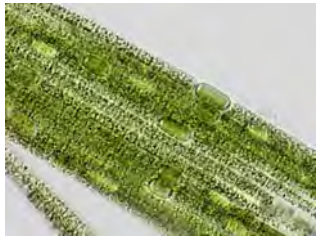


Toxins (LD50 = acute toxicityÅ)	Structure (number of variants)	Activity	Toxigenic genera
Hepatotoxins			
Microcystins (25 to ~ 1000)	Cyclic heptapeptides (71)	Hepatotoxic, protein phosphatase inhibition, membrane integrity and conductance disruption, tumour promoters	*Microcystis*[BCD], *Anabaena*[BCD], *Nostoc*[BC], *Planktothrix*[BCD], *Anabaenopsis*[B], *Hapalosiphon*[BC]
Nodularins (30 to 50)	Cyclic pentapeptides (9)	Hepatotoxic, protein phosphatase inhibition, membrane integrity and conductance disruption, tumour promoters, carcinogenic	*Nodularia*[BCD]
Cylindrospermopsins (200 to 2100)	Guanidine alkaloids (3)	Necrotic injury to liver (also to kidneys, spleen, lungs, intestine), protein synthesis inhibitor, genotoxic	*Cylindrospermopsis*[BC], *Aphanizomenon*[BC], *Anabaena*[C], *Raphidiopsis*[BC], *Umezakia*[B]
Neurotoxins			
Anatoxin-a (250)	Tropane-related alkaloids (5)	Postsynaptic, depolarising neuromuscular blockers	*Aphanizomenon*[B], *Anabaena*[BCD], *Raphidiopsis*[BC], *Oscillatoria*[BC], *Planktothrix*[BC], *Cylindrospermum*[B]
Anatoxin-a(S) (40)	Guanidine methyl phosphate ester (1)	Acetylcholinesterase inhibitor	*Anabaena*[BC]
Saxitoxins (10 to 30)	Carbamate alkaloids (20)	Sodium channel blockers	*Aphanizomenon*[BC], *Anabaena*[BC], *Planktothrix*[BC], *Cylindrospermopsis*[BC], *Lyngbya*[BC]
Dermatotoxins (irritants) and cytotoxins			
Lyngbyatoxin-a	Alkaloid (1)	Inflammatory agent, protein kinase C aktivator	*Lyngbya*[B], *Schizotrix*[B], *Oscillatoria*[B]
Aplysiatoxin	Alkaloids (2)	Inflammatory agents, protein kinase C aktivators	*Lyngbya*[B], *Schizotrix*[B], *Oscillatoria*[B]

https://quarrylifeproject.wordpress.com
http://www.plingfactory.de

Blaha et al. 2009

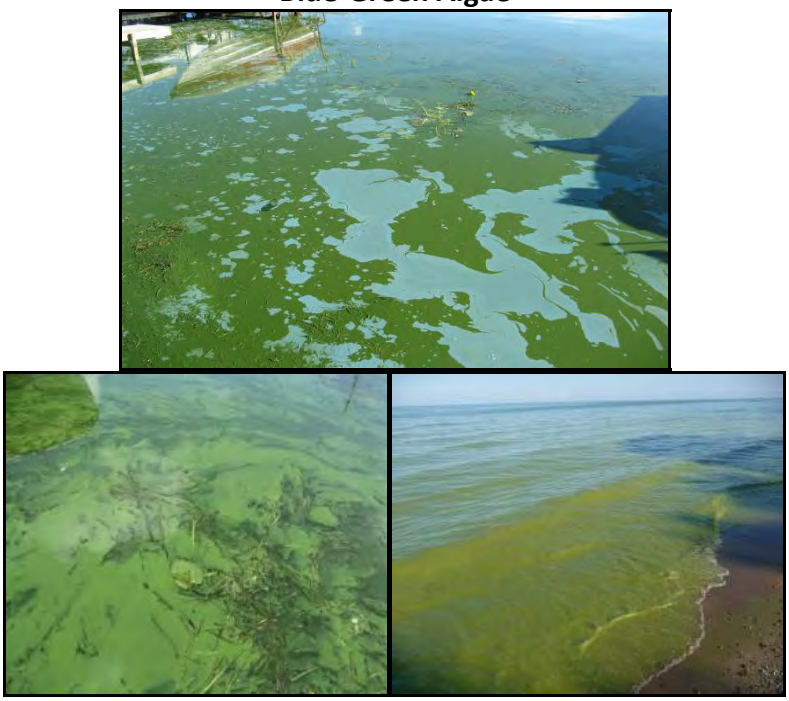
Aphanizomenon



Gloeotrichia

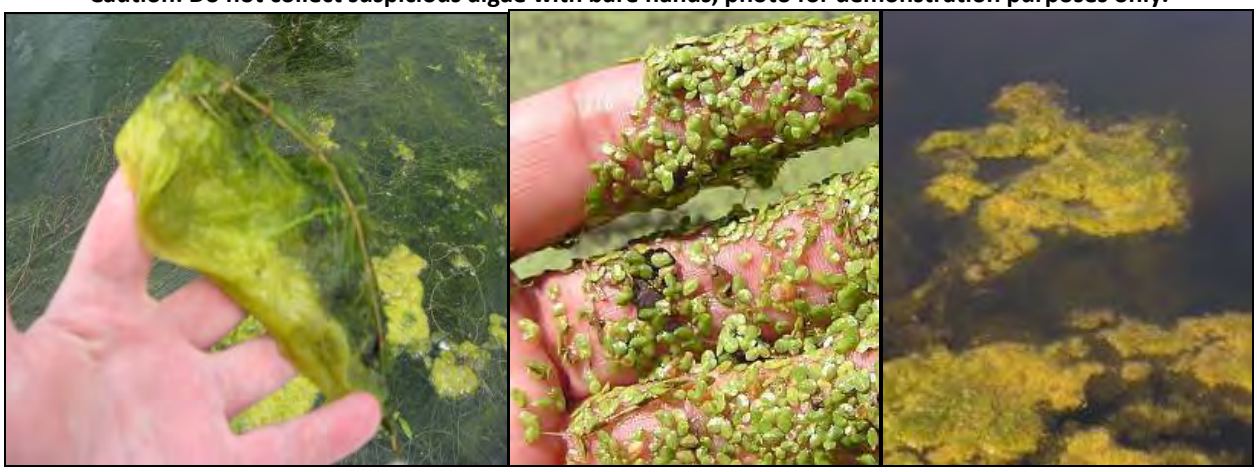
Photo References

Blue-Green Algae



<u>NOT</u> Blue-Green Algae

Caution: Do not collect suspicious algae with bare hands, photo for demonstration purposes only.



Monroe and Siy: Act Now To Stop Invasives

adirondackalmanack.com/2018/04/monroe-and-sly-act-now-to-stop-invasives.html

April 23, 2018

ADIRONDACK ALMANACK
Adirondack Explorer's Online News Journal

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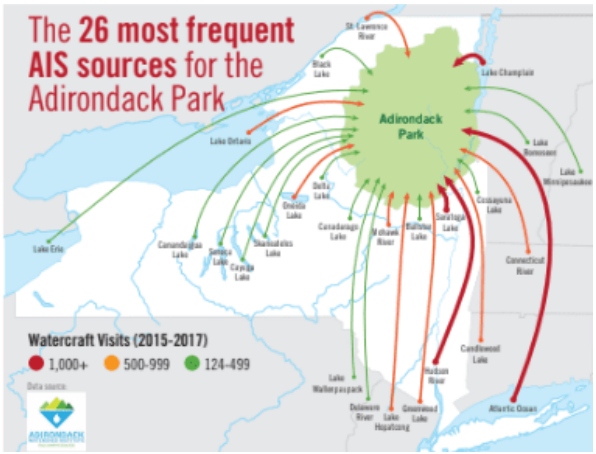
Monday, April 23, 2018

by Guest Contributor



No place in the state or nation is more vulnerable to aquatic invasive species (AIS) than the pristine waters of the Adirondacks. New York already has the highest number of non-native forest pests in the country and is adjacent to the continent's main gateway for the introduction and spread of aquatic invasives — the Great Lakes and St. Lawrence Seaway. As the map shows, the Adirondack Park is literally surrounded by waterways that harbor dozens of destructive species threatening the Park.

Our region has been largely spared to date thanks to elevation and water chemistry. Waters flow off the Adirondack dome and out of the region. From this high ground, the Adirondack Park exists as an island in a sea of invasive species. But that sea is rising, fast. More and more watercraft coming from AIS sources — within and outside New York — are bringing in unwanted species, breaching the region's natural defenses. Important steps are being taken to head off invasives, but not at the pace and scale required.

We need look no farther than the Great Lakes to appreciate the magnitude of the threat. In a shocking account of how invasive species have devastated the largest freshwater ecosystem on earth, *The Death and Life of the Great Lakes* by Dan Egan shows us the catastrophic impacts of AIS — and what the future of the Adirondacks could be unless we do everything possible to stop them.

This excerpt cites just two species, the "Junior Mint-sized" zebra and quagga mussels: "In less than 20 years the mussels went from novel find to the lakes' dominant species.

Sandy beaches still rim the lakes, but if Lake Michigan, for example, were drained it would now be possible to walk almost the entire 100 miles between Wisconsin and Michigan on a bed of trillions upon trillions of filter feeding quagga mussels." With no natural predators here, "the mussels have transformed the lakes into some of the clearest freshwater on the planet. But this is not a sign of a healthy lake; it's the sign of a lake having the life sucked out of it."

In the summer of 2016, quagga mussels were found by watercraft inspectors on a trailered boat coming from Lake Erie and preparing to launch in Lake Placid. This "catch" was hailed as a victory, a tribute to the Adirondack Watershed Institute's boat-inspection program sponsored by New York State (adkcleanboats.com). Hydrilla, a fast-growing invasive plant that chokes out native life, was caught last summer on a watercraft before launching into Upper Saranac Lake. Both of these species have invaded other New York waters, including the Finger Lakes. Other AIS already in the Adirondacks include the spiny waterflea, originating from ballast waters discharged by ships in the Great Lakes, where it has contributed to the demise of native fisheries. These are but a foreshadowing of the escalating threat.

Even as the state's largest coordinated program, the Adirondack AIS program is voluntary with limited regional coverage and hours of operation. Only Lake George has a mandatory boat-inspection program for all trailered boats, considered the strongest program of its kind in the eastern United States. The invasives threat is 24/7, and only through such rigorous measures can we stop them from ravaging the region and a recreation economy that depends on healthy waters.

Yet there is good news: latest surveys conducted last year by the Nature Conservancy's Adirondack Park Invasive Plant Program, show 75 percent of the lakes surveyed still remain invasives free. By contrast, the Great Lakes possess nearly two hundred invasive and non-native species, driving home the need for action now.

Winning the fight for the Adirondacks demands both defense and offense. This means coupling strong prevention programs—exemplified by the governor's inclusion of a state-of-the-art boat-inspection station at the new Welcome Center at Glens Falls on the Northway (I-87)—with preemptive actions that take the fight as close to the source of the problem as possible. Other states such as Idaho, Oregon, Montana, and Washington are employing pre-emptive inspection stations at their borders to protect waterways critical to their economies. We must follow their lead.

Effective preemption begins by using AIS data from the Adirondack Watershed Institute to identify priority source waters (shown on the map) from which invasives are entering the state or region. Using this information, we can then site mandatory inspection facilities at high-risk locations. "A Source Waters Compact" would call for active cooperation with representatives within and outside New York State. Its terms would focus on proactive measures to be taken at those source waters as the first line of protection before boaters travel to the region.

Building on their vital leadership in this now-or-never fight, Governor Andrew Cuomo and the state Department of Environmental Conservation can leverage diverse and growing public support across the state for stopping invasive species from destroying our waters. An executive order would enable rapid advance on this imperative.

Hope for bringing back the Great Lakes begins with "closing the door on future invasions." By doing the same here — and now — we can avoid having to suffer the death of the Adirondacks in order to save it.

Eric Siy is executive director of the Fund for Lake George.

Fred Monroe is executive director of the Adirondack Park Local Government Review Board.

Photo courtesy FUND for Lake George.

This piece was first published in Adirondack Explorer magazine.

Guest Contributor

The *Adirondack Almanack* publishes occasional guest essays from Adirondack residents, visitors, and those with a biding interest in the Adirondack Park.

Submissions should be directed to *Almanack* editor John Warren at adkalmanack@gmail.com.

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St. Lawrence County Environmental Management Council
Watershed Management Committee Meeting
Tuesday, May 7th, 2019

Overview of ***Watershed Management Committee.***

- This Committee has worked on a number of watershed questions/issues, including:
  - Development / promotion of riparian buffers
    - "No Mow Zones" / "Trees for Tribs"
  - Work with U.S.A. Corps of Engineers to bring **S**ediment **T**ransport **A**nalysis and **R**egional **T**raining to local colleges, high schools, etc.
  - Stenciling storm drains to read: "Don't Dump – Drains to River"

==========

Meeting started at 4:02 PM.

Present: J. Brant, Chair. Brian Washburn. J. Tenbusch attended as staff.

Item 1: Review Priority Projects.

- St. Lawrence River Watershed Revitalization Plan.
  - Tenbusch had just returned from a "Kick-Off" meeting for the SLR Revitalization Plan.
    - This planning process has been developed by the St. Lawrence River Watershed Project (SLRWP).
    - A grant was received by Franklin County SWCD in the amount of $225,000 in order to conduct this Revitalization Planning process.
    - Consultants have been hired. They include:
      - Liz Moran and Elizabeth Meyers, of Ecologic
      - James Rhea, of Anchor QEA
      - Matthew Biondolillo, of Rootz
  - See attached for a "Project Fact Sheet"; a simplified map of the St. Lawrence River watershed in NYS; and a chart showing conditions within Subwatersheds (at the HUC 10 level) of the overall Watershed.

- Shoreline Resilience Planning Project. Tenbusch reported that the consultants hired to conduct the Shoreline Resilience Planning Project are preparing for a second Stakeholder's Meeting on Wednesday May 8th. This meeting will be held at the Chippewa Bay Fish & Game Club.
  - At the Stakeholders Meeting, the consultants will present their findings and recommendations. Comments will then be incorporated into the final document.

At this point (4:20 PM), the meeting was adjourned, due to telephone connection issues.

The next meeting of the Watershed Management Committee will be held on Tuesday, June 11th, 2019 at 4:00 PM.

St. Lawrence River Watershed Revitalization Plan

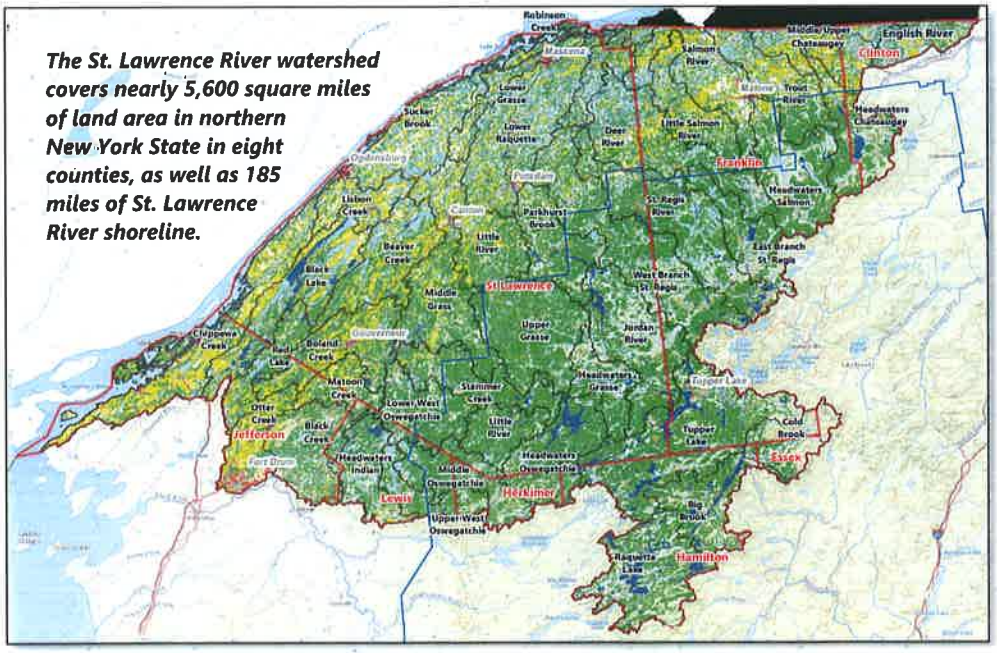
PROJECT FACT SHEET **DRAFT, MAY 2019**

The St. Lawrence River Watershed Project and the Franklin County Soil & Water Conservation District are developing the *St. Lawrence River Watershed Revitalization Plan* with support from the New York State Department of State's Local Waterfront Revitalization Program.

Watershed planning is a structured process of setting goals and objectives, characterizing existing conditions, and identifying actions to achieve a community's vision for a thriving and sustainable future. A Watershed Advisory Committee (WAC) has been established to ensure that the Revitalization Plan reflects the knowledge of organizations directly involved with the St. Lawrence River watershed. Public outreach will be an important part of the plan, and the project team will hold three public meetings to provide watershed residents with a chance to provide input, ask questions, and comment on the plan.

The watershed planning process gives communities in the watershed a chance to consider projects that could spark economic investment, natural resource protection, regional sustainability, and community revitalization. A key outcome will be identification of specific implementation projects that will help bring watershed revitalization goals to fruition.

When approved, the Plan will reflect community consensus and provide a clear direction for future initiatives, which in turn will strengthen funding applications to support these initiatives.



The St. Lawrence River watershed covers nearly 5,600 square miles of land area in northern New York State in eight counties, as well as 185 miles of St. Lawrence River shoreline.

PROJECT SCHEDULE

(ESTIMATED)

First WAC meeting	May 2019
Public meeting #1	Fall 2019
Public meeting #2	Spring 2020
Draft Plan	Aug. 2020
Public meeting #3	Fall 2020
Final Plan	Dec. 2020

LEAD AGENCY

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This fact sheet was prepared with funding provided by the New York State Department of State under Title 11 of the Environmental Protection Fund.

St. Lawrence River Watershed Project

NEW YORK STATE OF OPPORTUNITY. Department of State

EcoLogic Aquatic & Watershed Science Consultants

ANCHOR QEA

St. Lawrence River Watershed Area in NYS

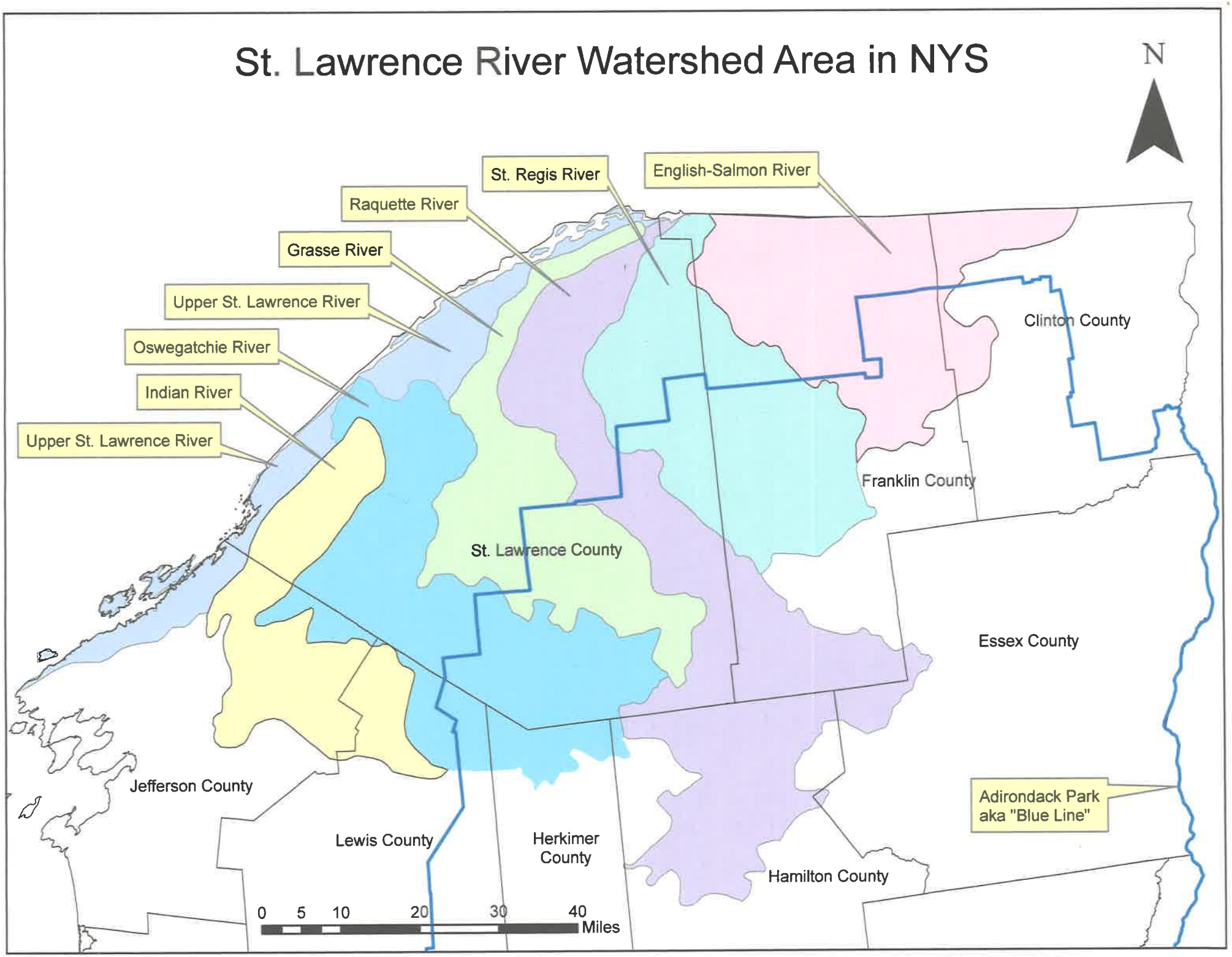

TABLE 1. Overview of St. Lawrence River Subwatersheds

Subwatershed	HUC10	Acres	Impaired Streams	Impacted Streams	Land Use[1]					Counties Encompassed	USGS Gage Active	Identified Pollutants for Impairment and/or Impact[2]																		
					% Agriculture	% Forested	%Urban	% Open Water	% Misc.			Pesticide	PCBs and/or PAHs	Dioxin	Algal Growth	Invasive/Weedy Vegetation	Water Availability	Pathogens	Phosphorus	Nitrogen	Silt/Sediment	Mercury	Zinc	Acid/Base (pH)	Oil/Grease	Dissolved Oxygen	Temperature	Chlorine	Aesthetics
Chateaugay/English Subbasin																														
Middle Chateaugay River	0415030805	81,663		●[3]	12.8	84.4	1.3	1.3	0.1	Clinton and Franklin																				
English River	0415030804	182,184			11.7	85.7	1.5	1.1	<0.1	Clinton																				
Trout River	0415030803	100,702			20.4	76.6	2.7	0.3	<0.1	Franklin																				
Upper Chateaugay River[1]	0415030802	83,091		●	33.3	63.5	2.8	0.3	<0.1	Clinton and Franklin																				
Headwaters Chateaugay River	0415030801	75,770	●	●	5.6	87.0	2.1	5.1	0.2	Franklin and Clinton												●								
Salmon River Subbasin																														
Salmon River	0415030703	97,144		●	28.0	65.2	5.3	1.4	<0.1	Franklin					●	●	●	●	●		●						●	●		
Little Salmon River	0415030702	64,127			24.9	71.8	2.1	1.2	0.1	Franklin	●																			
Headwaters Salmon River	0415030701	102,701	●	●	2.5	93.1	2.3	2.2	<0.1	Franklin					●	●					●				●					
St. Regis River Subbasin																														
St. Regis River	0415030604	183,982	●	●	4.8	89.4	1.6	4.2	<0.1	Franklin and St. Lawrence	●	●	●	●	●	●		●	●						●					
Deer River	0415030603	126,070	●		11.8	85.0	1.4	1.8	<0.1	Franklin and St. Lawrence									●						●					
West Branch St. Regis River	0415030602	172,649	●	●	3.5	93.2	1.0	2.4	<0.1	Franklin and St. Lawrence	●								●						●					
East Branch St. Regis River	0415030601	64,061	●	●	0.2	93.9	1.3	4.6	<0.1	Franklin												●			●					
Raquette River Subbasin																														
Lower Raquette River	0415030507	148,702	●		14.3	76.5	5.2	3.8	0.1	St. Lawrence	●	●	●	●				●	●	●					●			●		
Raquette/Parkhurst Brook	0415030506	78,000		●	3.0	90.6	1.5	4.7	0.2	St. Lawrence	●							●		●										
Raquette/Jordan River	0415030505	124,068	●		<0.1	92.7	0.5	5.9	0.8	Franklin and St. Lawrence	●											●								
Raquette/Tupper Lake	0415030504	203,778	●	●	0.1	87.4	1.5	11.0	<0.1	Franklin, St. Lawrence, and Hamilton								●				●		●						
Raquette/Big Brook	0415030503	74,103	●		<0.1	87.8	1.4	10.7	<0.1	Hamilton												●		●						
Cold River	0415030502	54,758	●		<0.1	98.1	<0.1	1.8	0.1	Franklin and Essex														●						
Raquette/Raquette Lake	0415030501	122,731	●	●	<0.1	87.5	0.9	11.5	<0.1	Hamilton												●		●						
Grasse River Subbasin																														
Lower Grasse River	0415030405	36,445	●		22.8	61.8	9.9	5.5	<0.1	St. Lawrence	●			●																
Middle Grasse River	0415030404	129,989		●	17.9	76.4	3.1	2.6	<0.1	St. Lawrence									●											
Little River	0415030403	63,870		●	16.0	79.9	2.7	1.3	<0.1	St. Lawrence									●	●	●									
Upper Grasse River	0415030402	125,453			<0.1	98.2	0.1	1.6	<0.1	St. Lawrence																				
Headwaters Grasse River	0415030401	49,341	●		<0.1	96.6	0.4	3.0	<0.1	St. Lawrence														●						

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Subwatershed	HUC10	Acres	Impaired Streams	Impacted Streams	Land Use[1]					Counties Encompassed	USGS Gage Active	Identified Pollutants for Impairment and/or Impact[2]																	
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Upper St. Lawrence Subbasin[4]																													
St. Lawrence/Robinson Creek	0415030103 (0415031002)	137,668	●		36.0	54.6	7.1	2.2	0.2	St. Lawrence		●	●	●			●												
St. Lawrence/Sucker Brook	0415030102 (0415031001)	96,835	●	●	28.8	63.6	5.1	2.4	<0.1	St. Lawrence		●	●	●			●		●	●	●								
St. Lawrence/Chippewa Creek	0415030101 (0415030901)	26,226	●	●	10.1	76.9	8.3	4.6	<0.1	St. Lawrence and Jefferson		●	●	●	●	●	●	●	●	●	●								
Oswegatchie River Subbasin																													
Oswegatchie/Lisbon Creek	0415030210	46,476		●	41.7	50.5	5.5	2.3	<0.1	St. Lawrence									●	●	●								
Oswegatchie/Beaver Creek	0415030209	93,935		●	24.4	70.3	3.1	2.2	<0.1	St. Lawrence				●	●				●	●						●			
Oswegatchie/Boland Creek	0415030208	90,632	●		26.8	64.3	4.1	4.1	0.8	St. Lawrence and Jefferson					●	●			●										
Matoon Creek	0415030207	40,825		●	21.1	75.0	2.5	1.2	0.2	St. Lawrence								●	●		●								
Oswegatchie/Stammer Creek	0415030206	73,590			2.2	92.5	1.0	4.2	<0.1	St. Lawrence	●																		
Lower West Branch Oswegatchie River	0415030205	71,216	●		1.5	94.3	1.1	3.1	<0.1	St. Lawrence and Lewis	●													●					
Upper West Branch Oswegatchie River	0415030204	42,930	●		0.1	97.9	0.2	1.8	<0.1	Lewis and Herkimer												●		●					
Middle Branch Oswegatchie River	0415030203	74,077	●		<0.1	97.2	<0.1	2.8	<0.1	Lewis and Herkimer														●					
Little River	0415030202	47,284	●[5]		0.2	93.8	1.2	4.5	0.3	St. Lawrence			●					●						●	●				●
Headwaters Oswegatchie River	0415030201	91,125	●		<0.1	89.9	<0.1	10.0	<0.1	St. Lawrence, Herkimer, and Hamilton												●		●					
Indian River Subbasin																													
Indian/Black Lake	0415030305	110,623	●	●	23.3	62.1	2.9	11.7	<0.1	St. Lawrence and Jefferson						●		●	●						●				
Indian/Red Lake	0415030304	47,670	●[6]		15.6	76.9	2.6	4.8	<0.1	St. Lawrence and Jefferson												●							
Indian/Otter Creek	0415030303	54,482		●	39.0	45.5	14.8	0.5	0.2	Jefferson									●		●								
Indian/Black Creek	0415030302	86,523		●	5.2	89.8	2.9	2.0	0.2	Jefferson									●		●								
Headwaters Indian River	0415030301	60,724	●	●	1.7	92.8	0.8	4.7	<0.1	Lewis						●							●						

Notes:
1. Land use distribution determined from National Land Cover Dataset 2011, downloaded from the Multi-Resolution Land Characteristics Consortium.
2. Identified pollutants are summarized from NYSDEC's watershed assessment. At times, the NYSDEC lists the identified pollutant as "nutrients" without specification. In these cases, both phosphorus and nitrogen are noted in the table. Further analysis is necessary to determine which nutrients are of most concern. Also, at times "priority organics" are identified without specification. In these cases, PCBs, PAHs, and dioxins are noted on the table, but further analyses are necessary to determine the pollutants of most concern.
3. Biological sampling indicates slight impacts, but no specific pollutant or contaminant sources have been identified.
4. USGS recently reclassified the HUCs in Upper St. Lawrence Sub-basin. The original (NYSDEC-indicated) HUCs are included and the new designations are show in parentheticals.
5. Metals (unspecified) inherent with iron mining operation identified
6. Nutrients (unspecified) from other sources.

HUC: Hydrologic Unit Code
NYSDEC: New York State Department of Conservation
PAH: polycyclic aromatic hydrocarbon
PCB: polychlorinated biphenyl
USGS: United States Geological Survey