DECEMBER 2020

Seneca-Keuka Watershed Partnership

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Note from the lake specialists:

As we move through fall and into winter most lakes go through a period of pronounced change. During the summer months a lake will become stratified and as the upper layer cools in late fall, it will ultimately become denser than the layer below at which point the upper and lower layers begin to mix or "turnover". This process is critically important as it distributes oxygen and

process is critically important as it distributes oxygen and nutrients throughout the water column and in turn allows aquatic life to survive. Once winter is upon us differences among lakes become increasingly pronounced with the most obvious being between those that ice-over and those that do not. For those that do, ice-over eliminates the exchange of oxygen from the atmosphere and blocks out sunlight thus eliminating most photosynthetic activity. At this point oxygen levels in the lake begin to decline. Decline too far and the consequences are obviously grim. Here on Keuka and Seneca lakes these seasonal variations are less pronounced as the lakes' immense size and depth limit the severity of turnover and freezing. Instead, winter is a period of reset and renewal as biological processes slow down and dissolved oxygen levels rise due to cold water holding more oxygen than warm water. So, if you enjoy crystal clear waters and an air of stillness, you might find a winter's day out on the water surprisingly rejuvenating for both the Lake and yourself alike.

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Watershed Planning

In order to sustain our watershed, much of it will depend on planning and applying actions to maintain and continue to improve, protect, and preserve our watershed.



9E Action Notice

As we enter a new year, we enter the next phase in developing the Seneca-Keuka Watershed Nine Element Plan (9E). Thus far the project team has been building stakeholder networks and answering the questions:

Where are we now? Where are we heading? Where do we want to get to?

As we move into 2021 we will have developed the tools to begin answering the final and most challenging question in this planning process:

How do we get to where we want to be?

The watershed model will provide a quantitative framework to evaluate impacts of various restoration and protection measures. However, a 9E Plan is a community-driven effort. For the plan to be successful, ideas for what's

desirable and acceptable to watershed residents, farms, businesses, and municipalities will come from the community. Therefore, over the next several months we will be looking for direct input on projects that you want to see implemented around the watershed. Whether it is a capital construction project, a planning project or an educational project... as long as it is tangentially related to improving water quality, we will want to make sure it is incorporated into the 9E Plan. At this point we just want to set the stage but in the March newsletter we will share a project template that you can discuss with your peers and capture project ideas. You will also be able to share your thoughts at our next public outreach session. Stay tuned!





Seneca-Keuka Watershed Partnership

Watershed Planning

In order to sustain our watershed, much of it will depend on planning and applying actions to maintain and continue to improve, protect, and preserve our watershed.

Exploring the Guyanoga Valley

By George Frantz

Set off in the northwest corner of the Seneca-Keuka watershed, the Guyanoga Valley is a landscape that is unique in a region of unique landscapes. Named for the Seneca Nation Chief Guyanoga, who was known as a friend of George Washington, the valley was settled early in the post-Revolutionary War. A map of the region by Augustus Porter in 1794 shows a sawmill and structures in the vicinity of present day Branchport, as well as a road northeastward to Geneva, and a road following Sugar Creek northward before striking northwest to "Canadargua." There are still a number of homes dating to the first few decades of the 19th century in the



Valley today, including the distinctive Yatesville United Methodist Church still clearly visible from CR 29/Guyanoga Road as one drives south through the agrarian landscape. Sugar Creek flows from its headwaters in the Town of Potter southward just over 10 miles to empty into Keuka Lake at Branchport. It is the largest tributary of Keuka draining an area of about 36 sq. miles. From the standpoint of water, Sugar Creek and the Guyanoga Valley are also significant due to the intensive agriculture at its headwaters, but also the extensive complex of wetlands in the lower half of the valley. In addition to contributing to water quality in Sugar Creek,



according to the NYS DEC, these wetland areas are habitat for rare plants and animals. The wooded slopes of the valley steepen as you approach Keuka Lake, and hidden beneath the forest canopy (on private lands) are several glens. Recently a portion of Big Gully on the west side of the valley was donated to the Finger Lakes Land Trust to be protected for future generations, as the Botsford Nature Preserve. If you want to explore the lesser known parts of the Seneca-Keuka watershed, and enjoy some unique scenery, head off to the Guyanoga Valley.

Finger Lakes Land Trust

Learn about what the Finger Lakes Land Trust has been working on to protect our natural resources throughout the watershed.

Land Trust Opens New Botsford Nature Preserve in Keuka Lake Watershed By the Finger Lakes Land Trust

The Finger Lakes Land Trust formally opened its 26-acre Botsford Nature Preserve in the town of Jerusalem, Yates County. The preserve is a gift from Jerusalem residents Art and Kay Wilder who donated the land in 2019, and is named for Art's maternal grandmother's family who originally owned the land as part of their farm. The property contains a half mile of frontage on Big Gully Creek—a tributary to Keuka Lake that has carved a three mile long gorge. A 0.3-mile hiking trail guides visitors to the gorge from a new parking area off Hemlock Rd.

Located just north of Branchport, the preserve features streamside



woodlands and open meadows that are reclaiming an area used as a gravel mine until 2003. It is one of the last two parcels associated with the farm that had been in the Wilder family for 150 years. Art and Kay hold fond memories of family outings to the gully and they chose to ensure the future of this very special place through their donation to the Land Trust.

A hike to Big Gully yields glimpses of scenic waterfalls, towering shale cliffs, and mature hemlock and hardwood trees. The flat beds of shale are punctuated by glacial "erratics"—boulders deposited by the last glacial advance. It's a fascinating walk that is possible at the height of summer when the creek level is low. For a trail map, directions, and more information, visit filt.org/botsford.

The preserve is open during daylight hours for quiet, unobtrusive nature observation and low impact recreational activities such as walking, hiking, and snowshoeing. Please stay on the trail to minimize disturbance of native plants and wildlife, and to avoid hazards.

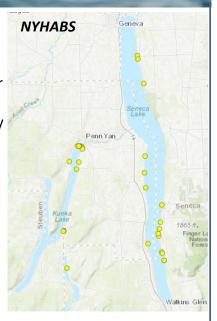


Lake Monitoring

Monitoring lake conditions is crucial to identifying the problems and figuring out a solution. Keeping up to date with the science of our water quality is essential.

HABs Monitoring on Keuka Lake & 2020 Summary

Harmful Algal Blooms (HABs) have become an increasingly familiar presence across the Finger Lakes in the last decade. In response, significant state and local efforts have been initiated to try and understand the mechanisms responsible for their proliferation and to protect the public from the toxic impacts associated with them. Examples of this include the volunteer monitoring programs driven by local lake associations such as the Seneca Lake Pure Waters Association's (SLPWA) Seneca Lake HAB Shoreline Surveillance Program highlighted in the previous issue. Although the oligotrophic nature of Keuka Lake may have protected it from HABs for a little longer than neighboring Seneca Lake, by 2017 HABs had been observed and confirmed on all 11 Finger Lakes including Keuka Lake. With HABs reported once again in 2018, the Keuka Lake Association (KLA) established its own HABs monitoring program in 2019 based on the SLPWA and Canandaigua Lake models. Fortuitously, NYS Department of Environmental Conservation also launched its "NYHABS" GIS reporting platform in 2019 that allows users to see the location of reported blooms across the entire state.



Establishing such a program is always a logistical challenge and only possible thanks to shoreline monitoring volunteers. Through the KLA newsletter, email blasts and word of mouth, the organization was able to recruit over 30 volunteers in its very first year. Once volunteers were trained on how to identify and report them, each volunteer was assigned to one of 42 zones located around the lake. Volunteers were instructed to walk or paddle along the shoreline at a frequency of at least once per week and in the event of a HAB sighting, the volunteer would collect a sample for analysis by Finger Lakes Institute (FLI). Upon confirmation, KLA was able to send out a notice via its own webpage, email and the NYHABs system to warn any potential lake users of the threat. Volunteer datasets such as these are a valuable management resource as they can reveal patterns in blooms. For Seneca, this sequence includes very few reports in August, then big spikes just after Labor Day. While Keuka data follows a similar pattern, KLA's program has reported a couple blooms in early July in its initial years. These early blooms have been isolated to the eastern branch of Keuka Lake and have been followed by a month of non-reports. However, 2020 broke the mold. Through the June to October monitoring period, only 15 confirmed blooms were reported on Seneca and 12 on Keuka (though 17 are expected to have occurred on Keuka with 5 not confirmable due to picture quality issues) in 2020. Despite increases in volunteer size, coverage area and duration, these numbers were significantly below those reported in 2019; 89 for Seneca and 24 for Keuka. Blooms were also less geographically widespread than in previous years with Keuka blooms found only in the eastern branch and Seneca blooms overwhelmingly in the southern half of the lake (particularly along the southeastern shore). A common question this year has been: why so few HABs? The truth is, HABs – particularly in lower nutrient lakes such as the Finger Lakes (Honeoye excluded) – are a relatively new occurrence. As such, our understanding of the mechanism(s) responsible for their occurrence is still evolving. Research completed thus far suggests phosphorous concentrations, dreissenid mussel abundance, increasing water temperature, and even a north-south orientation are all positively correlated with HABs occurrences. Perhaps the lack of precipitation this summer limited runoff and nutrient availability. Perhaps nutrient availability was limited by an overall drop in primary production or by limited exchange between lake sediments and the upper water column. Maybe volunteers simply weren't in the right place at the right time. At this point we cannot definitively say why, but rather just be grateful that it was a quiet year. Remember... know it, AVOID it, report it.

Water Treatment

Focusing on how we can treat the water prior to entering the lake is essential for the future quality of our waterways.

In the last issue we highlighted work being done in the village of Dundee to improve the wastewater treatment plant (WWTP). In this issue we'll look at the recently completed WWTP serving the villages of Watkins Glen and Montour Falls. Like all mechanical systems, WWTPs are subject to wear and tear that can lead to their failure if not maintained and/or improved. After decades of being in service, even the best managed plants will reach their useful end. Around 8 years ago, Watkins Glen officials were faced with this reality; invest in upgrades that would keep the system limping along or bite the proverbial financial bullet and pursue a complete replacement. As luck would have it, the neighboring village of Montour Falls was weighing what to do with its own aging plant around the same time. This presented a unique opportunity to leverage the financial and technical capacity of both municipalities to pursue a joint venture. Rather than replace ageing systems the two municipalities opted to construct a



brand new WWTP that would service both communities. Construction of a new plant does not come cheap of course. After some cost saving engineering design changes were implemented, the final project cost came in at \$30 million dollars. Fortunately, the municipalities were able to obtain \$10 million in NYS Department of Environmental Conservation and Environmental Facilities Corporation grant funds, plus over \$18 million in zero and low interest loans through the Clean Water State Revolving Fund. To help ease the burden of community members, the new plant was designed with additional capacity which could allow for expansion of the service area to the nearby villages of Odessa and Burdett, and/or open up opportunities for new industries to move into the area. With financing, design, and permits all in place, thanks to the combined efforts of engineering design firms Larson Group and Barton & Loguidice, construction on the new plant commenced in 2019 across the canal from Watkins Glen High School. In June of 2020 the plant was finally brought online. The new plant uses a combination of biological and ultraviolet treatment systems which eliminates the need for chlorine as is typical in older systems. This technology has yielded significant improvements in the quality of water being discharged. Historic water quality sampling conducted by the Seneca Lake Pure Waters Association found that discharge from the old Montour Falls WWTP reduced the overall water quality of the canal downstream of the plant. The opposite is actually true of the new plant. Phosphorous, nitrogen, suspended solids and E. Coli concentrations are all typically lower in the WWTP plant discharge than in the canal. Since it takes a bit of time to optimize finicky biological-based treatments, we can expect further improvements down the line once the operators dialin the system. While water treatment is the primary focus and role of any WWTP, construction of the new plant offered up additional benefits. For example, the old Watkins Glen WWTP occupied prime real estate along the Seneca Lake waterfront. After feedback from area residents, the village is now looking to demo the old plant and convert the land into a mixed commercial and recreational space. As a secondary benefit, the location of the new plant also opened up the opportunity to further develop a loop trail along the perimeter of the Catharine Creek Wildlife Management Area and Warren W. Clute Memorial Park. It certainly didn't come cheap but this joint venture by the Villages of Montour Falls and Watkins Glen has positioned both Villages for success



down the road while helping preserve Seneca Lake. A major "Thank You" to all the village and county officials, operators, engineers and many others who made this project possible.

Agricultural Projects

Ag in the Seneca & Keuka Lake Watersheds is extremely diverse and active. Ag Best Management Practices continue to evolve throughout the watershed.

Erosion Control Project in Seneca County

The Seneca County Soil & Water Conservation District completed an erosion control project in a crop field that was receiving large quantities of flow from a road culvert resulting in cropland erosion and soil loss. A Surface Inlet and berm were installed to collect low flow runoff from the road culvert. Large runoff events will run around the berm through an emergency spillway (not shown) and down a Grassed Waterway. A Grassed Waterway is a shaped or graded vegetated channel that conveys stormwater at a non-erosive velocity through cropland to a stable outlet.





Voices from the Lake

Highlighting people that spend an incredible amount of time and effort to protect and preserve our watershed.

Halfman Receives Inaugural Finger Lakes Watershed Citizen's Award By Bethany Snyder

The Finger Lakes Regional Watershed Alliance (FLRWA) honored Professor of Environmental Studies John Halfman with its new Citizen Award, given to individuals who contribute significantly to the alliance's cause of protecting the water quality of the Finger Lakes.

A ceremony was held at the Finger Lakes Welcome Center gazebo overlooking Seneca Lake and hosted by FLRWA President



Margie Creamer, representative of Otisco Lake. Past FLRWA President and representative of Honeoye Lake Don Cook noted that the award was developed "to honor people who have given their time and energy to improve the water quality of the Finger Lakes ... very creative, talented, hardworking people."

After Cook presented Halfman with the engraved plaque, FLRWA representative for Seneca Lake and Vice President of Water Quality for the Seneca Lake Pure Waters Association Dan Corbett thanked Halfman for teaching "not just students, but all of us about the issues of Seneca Lake" and for playing a key role in the



current watershed management plan. "You hear the term 'standing on the shoulders of those that came before you," Corbett said. "John's still here, but we're still standing on his shoulders."

Lisa Cleckner, director of the Finger Lakes Institute, noted that Halfman has "engaged and taught hundreds of Hobart and William Smith (HWS) Colleges' students about the lakes through research missions on our vessels as well as in our laboratories." She explained that because Halfman publishes his data

and research as open source, it is "widely disseminated and can be used by people trying to make decisions about how to best protect our waters," noting that seeking and sharing information about the Finger Lakes with managers, government agencies and citizens is one of the goals of the Finger Lakes Institute. Cleckner then thanked Halfman "for his scientific contributions as well as his mentorship of HWS students and Finger Lakes citizens alike."

The ceremony concluded with remarks from Halfman. "I collect a lot of data and try to interpret it the best I can," he said. "Some of those interpretations have changed over the years — most of the changes are influenced by my students. They say 'No, Halfman, you're wrong.' And sometimes they're right, which is good. That's the way science should really go."

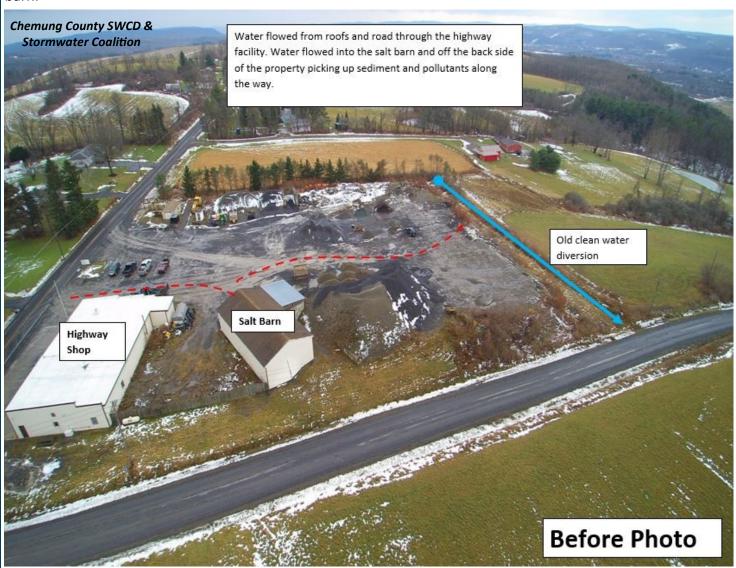
Halfman joined the Hobart and William Smith faculty in 1994. He helped establish the Finger Lakes Institute, which is dedicated to the promotion of environmental research and education about the Finger Lakes and surrounding environments.

Soil & Water Highlights

Each quarterly newsletter will feature a local Soil & Water Conservation District and one of their recent projects that is helping to improve our watershed.

Chemung County Soil & Water Conservation District Stormwater Project

The Chemung County Soil & Water Conservation District (SWCD), in cooperation with the Chemung County Stormwater Coalition, assisted the Town of Veteran with a water quality project utilizing Finger Lakes - Lake Ontario Watershed Protection Alliance (FLLOWPA) funds. The Town of Veteran Highway barns sit at the headwaters of Catherine Creek which flows to Seneca Lake. The highway facility had been experiencing drainage issues where runoff from the road and from roofs were flowing through the parking areas and stockpile staging areas picking up sediment and pollutants. The water would either flow to the salt barn or off site to a road ditch. Over time the problem was worsening where water was constantly standing in the salt barn.

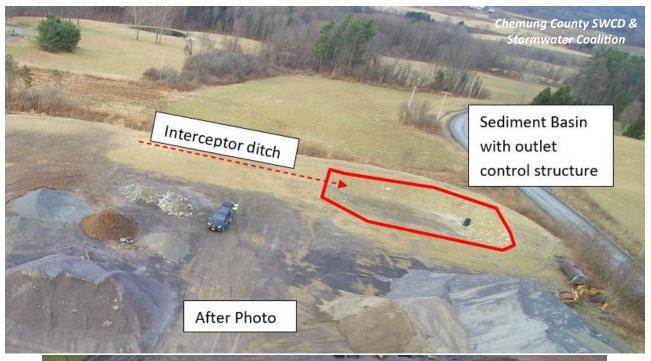


The Chemung County SWCD and the Chemung County Stormwater Coalition evaluated the situation and decided to keep clean water clean and to capture all other surface runoff for treatment. A clean water diversion was constructed to collect and convey clean roof water from the site without mixing



Soil & Water Highlights Continued...

with sediment or salt. A sediment basin was constructed to intercept the remainder of surface runoff where sediments and pollutants would be captured. At this time both practices have been functioning as designed for almost a year.







Community Outreach

Each and every person can make an impact on our waterways. Learn how local organizations are working with our communities to improve our watershed.

Community Clean-Up at the Finger Lakes National Forest

On September 19th, Finger Lakes National Forest, Lucky Hare Brewing and Seneca Watershed Intermunicipal Organization (SWIO) partnered for the second annual Finger Lakes National Forest community cleanup event. After a hearty welcome from Lucky Hare Manager Jenn Clark, the 52 volunteers were split up across 3 tasks: trash cleanup, trail building and kiosk construction and painting. Trash cleanup had been the primary focus in year one, and despite removing over one ton of trash and 100+ tires that first year, there was no shortage of

rubbish to target in year two. "We've seen an incredible amount of user pressure on the forest this summer" says United States Forest Service (USFS) recreation technician Matt Kautz. Public outdoor spaces have been a haven for those looking for a refuge from COVID-19, but visitors may not always practice the "leave no trace" philosophy. Fortunately, volunteers were up to the task once again and had no problem filling yet another dumpster. The USFS, through an agreement with the Finger Lakes Trail Conference, was also able to obtain supplies to replace worn out sections of boardwalk along a popular section of the Interloken Trail south of Teeter Pond. Approximately twenty volunteers pulled up the worn out or broken synthetic sections then hauled in pressure treated lumber to replace them. With a few professional carpenters amongst them, volunteers were able to replace nearly ½ a mile of boardwalk in a single push. With so many volunteers showing up this year, a final small handful were able to help finish the installation of two trailhead kiosks located along Burnt Hill Road. Newly installed to help guide visitors along less



traveled trails in the south end of the forest, the kiosks were in need of some painting/sealing ahead of the coming winter. A group of eager volunteers had the epiphany that perhaps painting was a more enjoyable task than carrying heavy wet lumber back and forth along a muddy trail and made short work of the kiosks. With the day's work complete, volunteers returned to Lucky Hare for a free pint of beer and pint glass. "It's an opportunity to give something back to our public lands and community" says Clark. With COVID-19 already restricting the capacity of USFS staff, they were extremely grateful for the help. "With our unit being amongst



the smallest in the National Forest network, the time and energy provided by the volunteers helps us accomplish something that would otherwise take us multiple days if not weeks to finish", says USFS wildlife biologist Greg Flood. "We're enormously grateful to the volunteers, Lucky Hare and SWIO for making this happen!" So what's in store for year three? Who knows, but we're already looking into future opportunities. Invasive species removal, tree plantings, another 100 tires... as the volunteer force continues to expand so do our ambitions. In the meantime, keep the 3rd Saturday in September open on your 2021 calendar and consider coming out to give a little something back to one of our watershed's greatest public resources.

Did You Know?

Learn more about the geology of our watershed.

Geology Facts By George Frantz

A drumlin is an elongated hill in the shape of an "inverted spoon" or a "half-buried egg" formed by glacial ice acting on underlying unconsolidated till or ground moraine.

An esker is a long, narrow winding ridge of gravel and other sediment deposited by meltwater from a retreating glacier or ice sheet. There are a few around the Seneca and Keuka Watershed region, one in the woods off of Route 13 in the Town of Newfield.



Stream capture, also called river piracy, can occur when glacial action causes changes in topography that are extensive to divert the course of a stream or river into a watershed. There are a number of examples in the Finger Lakes region, a well-known one being Salmon Creek in Tompkins and Cayuga County. Prior to the Ice Age when the ancient Cayuga River flowed south as part of the Susquehanna River system, it was a tributary of that river. With the gouging out of the Cayuga lake basin, the filling of the inlet valley with glacial till and the ultimate retreat of the glacial front, Salmon Creek was "captured" to flow northward toward Lake Ontario.

The book <u>The Finger Lakes Region: Its Origin and Nature</u> by O.D. von Engeln is a classic in the area of Ice Age glaciation and its effects on geology and topography. It is a great read.

Below is a U.S. Geological Survey map showing Ice-Age created stream capture/piracy in the Keuka, Seneca, and Cayuga watersheds:





Industry Input

Many of the businesses within the watershed are here because of the lakes. Each newsletter will feature a local industry that is impacted by our lakes.

Lakefront Real Estate Market Report from Finger Lakes Premier Properties

The year of 2020 is one of extremes, and for the Finger Lakes' lakefront real estate market, this may be a

massive understatement.

Never before has there been such demand, the number of quick and uncommon sales, and the pure rush for homeowners to sell now to take full advantage of the

extreme seller's market.

For everyone, the first quarter going into the second was rough as the state shut down to avoid massive spread of the pandemic. On April 1, 2020, the Empire State Development Agency deemed specific real estate brokerage activities essential. The real estate market was



officially reopened and there was an instant rush of prospective buyers looking for lakefront homes in the Finger Lakes Region. In fact, the lakefront sales team at Finger Lakes Premier Properties (FLPP) has seen a 167% increase in buyer inquiries specifically looking for lakefront property in the Finger Lakes. This interest in Finger Lakes waterfront homes was evident by the pure volume of calls to the company's real estate team and the views on the lakefront real estate section of FingerLakesPremierProperties.com.

Inquiries to Sales in Quarter 2

The Finger Lakes Region saw a year-over-year 40% increase in lakefront sales volume, 13% increase in the number of lake homes sold, and an impressive 23% increase in the average price all in quarter two of 2020. Despite lakefront listings selling faster and at higher average prices, homeowners were less likely to list their home with summer approaching and their need for a private waterfront location to isolate. As the summer moved in, so did more lakefront renters within the Finger Lakes who expressed urgent interest in owning a piece of Finger Lakes shoreline.

Vacation Rental Trends

From March through May, the outlook for any business in the travel industry looked grim. However, the Finger Lakes Region proved to be a preferred destination as the economy reopened and the sentiment for travel remained extremely high. Privately owned vacation rentals became the preferred form of safe accommodations with an immediate surge in demand the last week of May, continuing through the fall. This past summer FLPP saw a 65% increase in demand for lakefront vacation rentals across the region. By the end of July, there was no availability and a growing list of wishful travelers added to their cancelation notification list. If one traveler had to cancel their lakeside vacation, there were a dozen more ready to rebook that property within minutes. This demand continued through the remainder of the summer and elongated the travel season with increased bookings throughout the fall.

Industry Input continued...

Quarter 3 Finger Lakes Lakefront Real Estate Market Report: January 1 – September 30, 2020

Despite the lack of new listings in 2020, the sales volume for the region as a whole increase by 15%. In the third

FLPP Lakes	Year	Total Sales Volume	Lakefront Homes Sold	Average Days on Market	Average Sale Price
ALL LAKES	2020	\$100,220,928	185	72	\$541,735
	2019	\$87,396,893	193	67	\$452,834
		15%	4%	7%	20%
KEUKA LAKE	2020	\$30,185,900	50	54	\$603,718
	2019	\$27,378,400	50	82	\$547,568
		9%	1 0%	34%	10%
SENECA LAKE	2020	\$11,128,900	26	66	\$428,035
	2019	\$13,980,000	36	56	\$388,333
		20%	28%	18%	10%

quarter, our Lakefront Real Estate Team experienced a frenzy of eager buyers. A single new listing would have multiple showings on the first day, cash offers, buyers putting in offers sight unseen, and a range of atypical offers resulting in new listings selling within

days. So how is it that the Average Days on Market increased? Likely due to inventory that has been on the market, even since 2019, selling. Everything is selling.

Keuka Lake & Seneca Lake Trends

Keuka Lake is traditionally one of the most sought out lakes for both real estate and vacation rentals. The size, family vacation traditions, the superb water quality, and the growing wine industry all contribute to this lake's success. For FLPP, this lake has the highest concentration of short-term rentals and books more nights than the other lakes. From the stats above, these trends are translating into listed homes selling faster and for top dollar. A buyer knows their offers need to be fast and competitive in order for them to secure their own shoreline of Keuka Lake. Seneca Lake did not come close to seeing a surge in sales activity this year. The size and quality of this lake afford many homeowners private, spacious lots; two characteristics that are especially important during a pandemic year. Therefore, homeowners were less likely to list their homes, and many of the homes that did sell had been on the market for some time. In the vacation rental space this lake is increasing in traveler demand. The rising culinary scene in Geneva, the recent investments to the iconic Watkins Glen State Park, and the creativity of surrounding wineries and breweries adapting to COVID-safe beverage experiences will all attribute to lakefront home values to continue to increase along this lake. Both vacationers and buyers see the value that the Finger Lakes provide.

Finger Lakes Trends

The reduction in the number of lakefront homes sold this year does not surprise the FLPP real estate team. With COVID-19, the use of Finger Lakes waterfront homes was at an all-time high and homeowners were less willing to sell their piece of shoreline. This year, owners were more likely to use the property for self-quarantine, extended family vacations, or to take advantage of the vacation rental demand.

The lakefront homeowners who are taking advantage of the market are receiving top dollar for the value of their home. With mortgage rates also at a historic low, buyers feel more motivated than ever to make a competitive offer within their price range. Typically, this time of year we start to see the real estate market slow down. Summer is behind us, lake homes are being closed for the winter months, and neither buying nor selling are immediate goals to achieve. However, 2020 is the exception. With each new listing, FLPP receives more inquiries from buyers who are ready now to purchase to have a home secured for 2021. We do not see this slowing down this year or even into the spring of next year. But if 2020 has taught us anything, it is that nothing can be predicted.

Municipal Voices

This section focuses on different municipalities and their role in protecting the water quality of the Seneca-Keuka Watershed. Learn about what the City of Geneva has done to make this goal a reality.

City of Geneva Resource Recovery Park

In early 2021, the City of Geneva will be opening a state-of-the-art resource recovery facility to the public. This facility will be a municipal transfer station with on-site organic waste management. The facility was funded by waste management grants and it will play a huge role in managing organic waste materials. However, the biggest value comes from the byproducts from the organics recycling process. The process is a passive composting process called vermicomposting. The byproducts are a granular soil amendment and a liquid extract. These two products have a balance of macro and micro nutrients as well as having a diverse soil food web. They can be characterized as "soil probiotics" or other terms to signify they provide value that will increase over time.

This project was the dream of a local company, Closed Loop Systems (CLS), which operates a large-scale vermicomposting facility 10 miles from Geneva. The idea was for CLS to form a public/private partnership in order to improve the way Geneva has its waste handled. The CLS method of vermicomposting maximizes soil carbon sequestration and the biodiversity of soil microbes. These two things are paramount in replenishing topsoil.



Globally, modern practices have eroded or degraded over 50% of the topsoil. We see one effect of this with nutrient runoff into freshwater lakes. This topsoil and these microbes are key for holding and filtering water so that stormwater is clean. The vermicompost products that will come from the City of Geneva facility will be marketed to local groups who are working on green infrastructure projects. CLS was founded to "close the loop" on resource usage. With this project, CLS will be taking a problem, organic waste, and turning it into a solution that will improve soil health and protect our freshwater. CLS is actively looking for other collaborators who are interesting in developing a vermicomposting project. CLS works with municipal, agricultural, industrial, and institutional clients to build customized solutions. CLS was able to secure funding for the City's facility from Ontario County and NYSDEC. These combined grant funds (approx. \$400,000) are enough to build the facility and to get the project going. Once the project is built, CLS will manage the facility at no cost to the city. CLS will manage all incoming materials and work with haulers and educate the public to ensure a clean waste stream.

The facility will be run to ensure that City of Geneva residents and businesses can save money and help the environment. The collaboration between CLS and the City of Geneva has many benefits. First of all, CLS is able to manage the facility as part of a network of other facilities, increasing efficiency and lowering costs. Second, CLS is actively working with Cornell, State University of New York (SUNY) College of Environmental Science and Forestry (ESF), Rochester Institute of Technology (RIT), and other regional partners to ensure that they can continue to innovate and optimize the process. Lastly, CLS is actively marketing vermicomposting soil and liquid products around the Finger Lakes region, and this will ensure a market and a consistent revenue stream. The key for any organic waste management facility is that it needs to be both financially and environmentally sustainable. The City of Geneva and CLS believe this unique partnership will ensure the long term viability of the resource recovery facility.

Partnership Organizations

Learn about our partner organizations and how they are helping with the 9 Element
Plan for the Seneca-Keuka Watershed.

Finger Lakes Watershed Hub Update

The Finger Lakes Watershed Hub is a group of New York State Department of Environmental Conservation (NYSDEC) scientists and professionals dedicated to protecting and revitalizing the Finger Lakes. The Hub, created in 2017, is a Section of the Bureau of Water Assessment and Management (BWAM) in the Division of Water (DOW) that focuses on watershed and water quality issues in the Finger Lakes region and is based out of NYSDEC's regional office in Syracuse. The Hub continues to work with residents, citizen scientists, lake associations, watershed groups, and governmental agencies in the region. There are a variety of monitoring and management efforts underway in the Seneca-Keuka basin.

Watershed Planning: The Hub is working with the Seneca-Keuka Watershed Partnership on developing a 9 Element Plan

for both watersheds. To learn more about Clean Water Plans click here.



<u>HABs Surveillance</u>: Staff continue to support the Keuka Lake Association and the Seneca Lake Pure Waters Association on their Harmful Algal Bloom (HAB) Surveillance Program. In 2019, DEC debuted a new HABs reporting system called <u>NYHABS</u>, a GIS-based platform available to the public which shows active and archived blooms statewide.

<u>Advanced Water Quality Monitoring</u>: As part of Governor Cuomo's HABs Initiative, water quality sensors were installed on Seneca Lake in 2020 for the third year in a row. Real-time and historic water quality data can be accessed <u>here</u>. The NYSDEC and United States Geological Service (USGS) are working together to analyze the large amount of data collected under this program to learn more about factors that lead to HABs.

<u>Citizen Science</u>: Staff continue to assist in implementing DEC's Citizen Statewide Lake Assessment Program (CSLAP) on all the Finger Lakes, including Seneca and Keuka Lakes. CSLAP is a partnership between NYSDEC, NYS Federation of Lake Associations and lake associations/residents who help monitor and collect critical lake data. Results from CSLAP efforts in 2017 and 2018 have been published in a Finger Lakes Regional Water Quality Report and is available here.

<u>Winter Water Quality Monitoring</u>: In April 2020, the Hub finished the last round of a three-year pilot program: Winter Sampling on the Finger Lakes. Winter sampling fills an important data gap for understanding lake systems and supports modeling efforts for the 9 Element Plan.

<u>Tributary Water Quality Monitoring</u>: As part of the Governor's HABs Initiative and through traditional NYSDEC monitoring programs, numerous tributaries to Seneca and Keuka Lakes have been sampled to find out more about the biology and water chemistry which helps them assess the health and water quality of these watersheds.

The Hub looks forward to continuing to work with the Seneca-Keuka Watershed Partnership and local communities on monitoring and protecting these lakes. We hope you and your loved ones are staying safe and healthy.



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