

2020 LAKE OSCAWANA DISTRICT NEWSLETTER

Newsletter
2020 Vol. 4

Lake Oscawana Management Advisory Commission

Kathleen McLaughlin (chair), Jeff Coren, Steven David, Judy Dronzek, Ellen Friedman, John Lafata, Alan Paley, Sam Oliverio, Supervisor, Town Board Liaison: Jackie Annabi, District Clerk: Judy Travis

Visit the LOMAC website for more information about our Lake:
<http://www.putnamvalley.com/LOMAC> • Facebook page: LOMAC

LOMAC will hold its annual meeting for Lake Oscawana Tax District residents on Saturday, November 7th at 11:00 a.m., at which there will be a discussion of the Management Plan by the lake consultant from NEAR. The Management Plan is available on line at <http://www.putnamvalley.com/lomac/> LOMAC encourages District residents to read the Plan and to join us in a discussion of the future of our Lake.

Due to the Covid-19 pandemic, the meeting will be held via a Zoom video conference. In order to participate in the meeting you must register by sending an email to the email address at the end of this newsletter indicating your name, your address, your intent to participate and the email address or telephone number you will use to access the meeting. You will receive a confirmation email with instructions on how to join the meeting.

If due to mail delays, you receive this newsletter after November 7th, please note that the presentation will be videotaped. It will be posted at a later date on the LOMAC page on the Town website (under boards and committees).

PRESERVING LAKE OSCAWANA – WE'RE ALL IN THIS TOGETHER

The Lake Oscawana Aquatic Plant Growth Control District was established in 1987 by a referendum approved by a majority of District residents. The District is administered by the Putnam Valley Town Board. The District is funded through the collection of taxes from four tax tiers, based on the location of the property which has deeded access to Lake Oscawana.

Following the formation of the District, the Town Board established the Lake Oscawana Management Advisory Commission (LOMAC), which consists of seven District residents appointed by the Town Board. LOMAC advises the Town Board regarding matters pertaining to Lake Oscawana, including the evaluation of lake and watershed management techniques and projects to address aquatic plant growth and water quality, harvester operations, as well as the District budget. LOMAC also seeks grant funding and works together with the lake consultant, Northeast Aquatic Research (NEAR) to address the preservation of Lake Oscawana.

Under New York State environmental laws, a lake is considered "impaired", when its water quality adversely affects its use as a recreational waterbody. Lake Oscawana was added to the NYSDEC waterbodies list as impaired due to the presence of excessive quantities of nitrogen and phosphorus, nutrients, which are the primary contributors to increased aquatic plant and algae growth. The U.S. Environmental Protection Agency (EPA) as well as the NYS Department of Environmental Conservation (DEC) encourage lake communities to develop a watershed plan to help protect and restore water quality.

After a three-year effort, LOMAC, in collaboration with NEAR, has developed a new management plan to address aquatic weed control and preserve water quality in Lake Oscawana. The Putnam Valley Town Board recently adopted the lake management Plan. The Plan encompasses a combination of three reports, water quality monitoring, a watershed based management plan, and an aquatic plant management plan that form the foundation for the future of our lake.

A large part of the Plan focuses on new watershed management recommendations, including proposed stormwater improvement projects and joint efforts with the Town and residents. The watershed of Lake Oscawana is defined as all the land and water which drains into the lake, approximately 2600 acres. The actions we take on our properties in the watershed can have a direct impact on the lake.

What is watershed management?

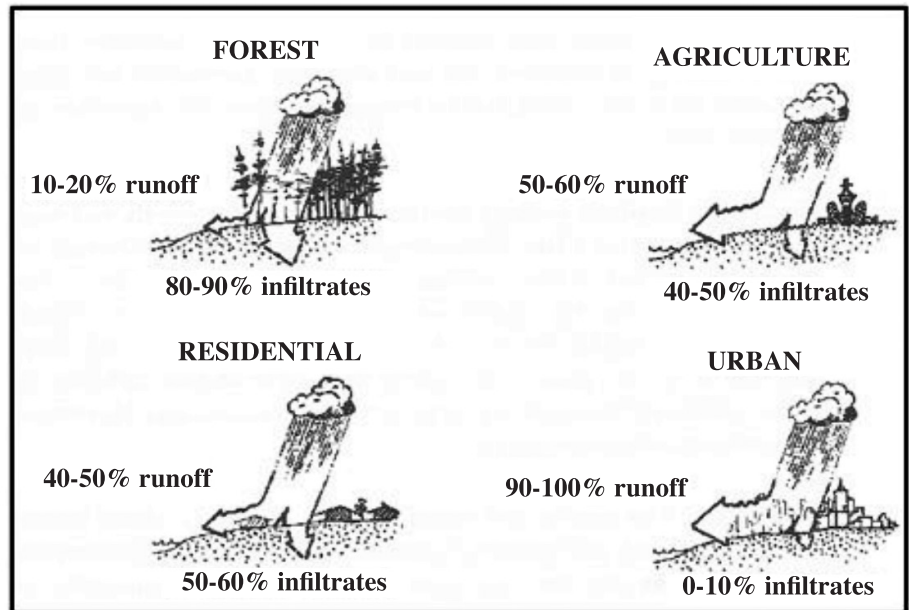
Why does stormwater threaten Lake Oscawana water quality?

When rainwater falls onto a street, walkway, or roof, it accumulates and is concentrated as 'runoff.' In a forest, the rainwater would hit the ground and be absorbed by plants and the soil. Stormwater 'runoff' is what happens when the natural path of water is interrupted by human development. As rainwater hits impermeable surfaces, including the roads, our driveways, our roofs, etc. it picks up dust, soil particles, excessive nutrients, and sometimes oil or car fluids. Accumulated water also gains speed as flows are concentrated and rerouted, which may lead to unnecessary erosion issues.

Consider how roads and properties have been historically designed to prevent flooding and standing water in heavy rainfall. This is why, prior to the last ten years, home, driveway, and road construction focused on channeling water into pipes or drainage ditches – to get the water 'away' as quickly as possible. But in this case, 'away' simply means that the water flows untreated into the lake.

Another issue to consider is the concept of non point source pollution, which simply means that excess nutrients (nitrogen & phosphorus that stimulate algae blooms) come from many many small sources, instead of just a few large point sources, like a community wastewater system or a large discharge pipe.

The concept of stormwater 'runoff' is not just limited to completely impenetrable structures. Classic lawns are also part of the problem. It may be hard to believe, but typical short-cut grass lawns do not have the same infiltration abilities that forests do. Buffer zones of dense vegetation, including tall grasses or wildflowers, close to the lake are encouraged as they have the ability to trap and filter high-nutrient runoff from uphill properties. While they do not replace the benefits of native forest and shrublands, they are better than short-cut grass all the way to the shore. These "no-mow" buffer zones help limit the use of fertilizers and can be managed more like a beautiful boarder garden. They also serve as Geese deterrents so it's a win-win scenario for homeowners and the lake.



LAKE MANAGEMENT IS A CONSTANT, ONGOING PROCESS FOR THE ENTIRE COMMUNITY

Everyone loves to live close to water, but with that pleasure, homeowners also have a responsibility to acknowledge that living near to or along the lake shore means that your home inevitably has an impact on water quality.

Lake Oscawana still has a considerable amount of forested area in its watershed, including undeveloped sections along the northwest shoreline. However, the high-density residential development along most of the shoreline does negatively impact overall water quality. The tight network of homes and roads near the lake, albeit not directly on shore, also impact water quality.

How to reduce stormwater runoff and minimize your property's nutrient footprint:

Protect the Lake – Soak Up the Rain!

1. Limit impervious surfaces and/or install permeable pavement, which can soak up 80- 100% of rain and filter out pollutants in runoff.
2. Secure eroding or exposed soil by growing wildflowers or shrubs.
3. Retain and recycle rainwater by redirecting downspouts into rain barrels or directly into a garden. Plants will take up water and filter out pollutants.
4. Keep as many trees and natural shrubs as possible – trees stabilize soil and plant roots help water percolate into the ground.
5. Utilize best management practices for controlling stormwater flow, like grassed swales or shoreline vegetated buffer strips.
6. Reduce nutrient runoff from your property. Do not use fertilizers (or use very sparingly, only after soil tests have been performed on your lawn or gardens).
7. Don't rake leaves into the lake! Instead, consider either bagging them and disposing of them with your garbage, or composting them for use in your home garden where those nutrients will help your flowers, herbs, and native plants grow rather than help algae grow in the lake.
8. Clean up pet waste in your yard or along the road.
9. Educate yourself with the ample resources provided by the Environmental Protection Agency and state Departments of Environmental Conservation.

<https://www.epa.gov/nutrientpollution>

<https://www.epa.gov/soakuptherain>

WHAT YOU NEED TO DO TO REDUCE NUTRIENTS ENTERING THE LAKE – IT'S THE LAW SEPTIC PUMP-OUT REQUIRED FOR ALL PROPERTIES

The owner of each lot within the Lake Oscawana Watershed and the Lake Oscawana District, which contains one or more septic systems, shall have their systems pumped, cleaned and inspected by a licensed septic contractor at least once every three years.

Upon completion of a septic system pump-out and inspection, each lot owner shall, within 30 days following such pump-out, provide the Town Code Enforcement Officer with a paid receipt from the septic contractor. Duplicate copies of the receipt(s) shall be maintained on site by the lot owner.

Lake Oscawana - Specific Water Quality Monitoring

The five district beaches on Lake Oscawana are tested by the Putnam County Health Dept to determine if conditions are or are not safe for swimming – i.e. fecal coliform and E. coli testing in the swim area. When necessary, this beach testing is expanded to Cyanobacteria (harmful bluegreen algae) sampling and/or cyanotoxin testing. Such tests are designed to inform public health officials of risk for human exposure to pathogenic bacteria. But this type of beach testing is not nearly enough for long-term lake management decisions.

Lake Oscawana - Specific Water Quality Monitoring

A scientific monitoring program can provide verifiable information to give our community early warning signs and the ability to track change over time. Our community learned the benefits of a long-term water quality monitoring in the 1990s. At that time, Lake Oscawana had experienced several lake-wide algae bloom scares and significant issues with invasive aquatic plant growth.

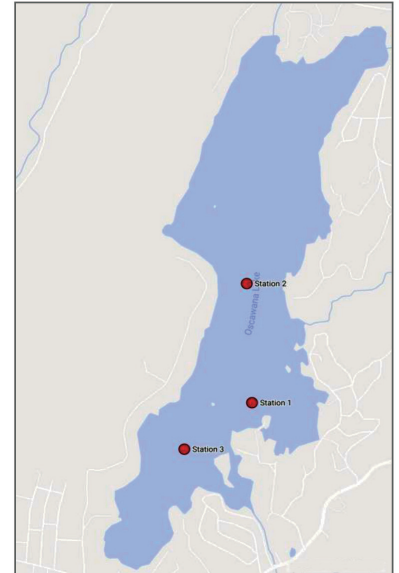
Our Oscawana water quality monitoring program has three stations. Each station is measured for monthly changes in **water clarity, top-to-bottom dissolved oxygen and temperature, and nutrients** (phosphorus and nitrogen – the root cause of overly abundant cyanobacteria). The deepest area of the lake, at Station 1, is also monitored for algae and zooplankton. Samples are also collected from the seven streams that enter the lake, to track disturbances in the lake's watershed.

Overall, this monitoring program has afforded the Town of Putnam Valley and LOMAC the ability to lead a successful lake management program for over thirty years. For more information, or to view a detailed analysis of the lake water quality data, please see the Lake Oscawana Management Plan and the 2019 Monitoring Report posted on the Town website:

<http://www.putnamvalley.com/lomac/>

Oscawana Water Quality Monitoring

- Three in-lake monitoring stations
- Water clarity
- Top-bottom temperature
- Top-bottom dissolved oxygen
- Nutrients (nitrogen & phosphorus)
- Algae & zooplankton
- Seven inlet streams - nutrients



Aquatic Plant Management at Oscawana: Past, Present, Future

Lake Oscawana has a long history of using the aquatic weed-cutting/harvesting machine. This machine cuts both native species and invasive Eurasian milfoil plants so that swimmers and boaters can enjoy the lake without getting tangled in the mess of surface plants. Unfortunately, there were issues with getting the needed repairs for the harvester in 2020, due to the COVID19 pandemic and disrupted business material supply chains for metal work. The Town and LOMAC worked diligently to sub-contract with a company with a mechanical harvester to control aquatic plants. However, the Town did not receive adequate proposals from vendors.

While it was unfortunate that plant control this summer was stymied, one silver lining is that 2020 was the first year that NEAR and LOMAC was able to assess the interim success of the Grass carp, which were stocked in 2016, without the activity of competing plant control by the harvester. Aquatic plant surveys from 2016-2019 found it very difficult to assess whether the plant control was resulting from the weed-harvester or from the Grass carp. However, because the harvester did not operate in 2020, the 2020 aquatic plant survey showed that the Grass carp have had impacts on low-growing native species, like Robbin's pondweed, but not significant impacts on invasive Eurasian milfoil. The 2020 survey indicated that there is still substantial native and invasive plant growth in the absence of active mechanical harvesting. This conclusion and newly calculated plant acreages and species densities guided the Town to apply for an additional Grass carp stocking permit for 2021 from the NY Department of Environmental Conservation. That effort would increase the number of plant-eating Grass carp in the lake and, if approved, it will improve overall plant control.

While the Town and LOMAC work towards getting future mechanical harvesting efforts underway, it is also important to note that the Town is looking into additional plant control technologies for the future. Plant control options are being explored for specific areas, such as district beaches and shallow coves.