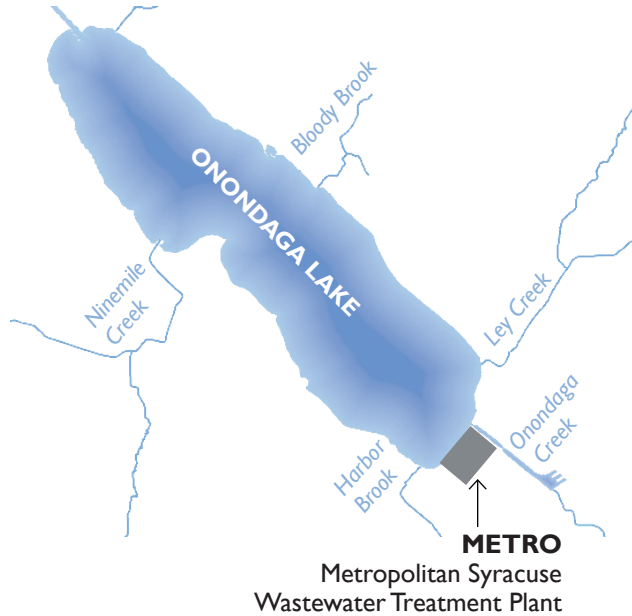


21st Century Infrastructure for a Cleaner Onondaga Lake

Once considered among the most polluted lakes in the nation, Onondaga Lake has made a dramatic recovery over the past decade. The recovery is a result of concerted efforts of local and state officials, environmental engineers and scientists, and community leaders (partners).



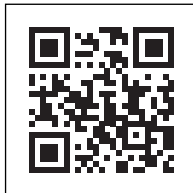
Onondaga County is recognized by USEPA as a model green infrastructure community. Further improvements to the wastewater collection and treatment system are underway to prepare for extreme storm events, which are becoming more common.



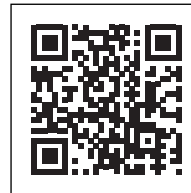
MORE INFORMATION

Learn more on the web:

savetherain.us

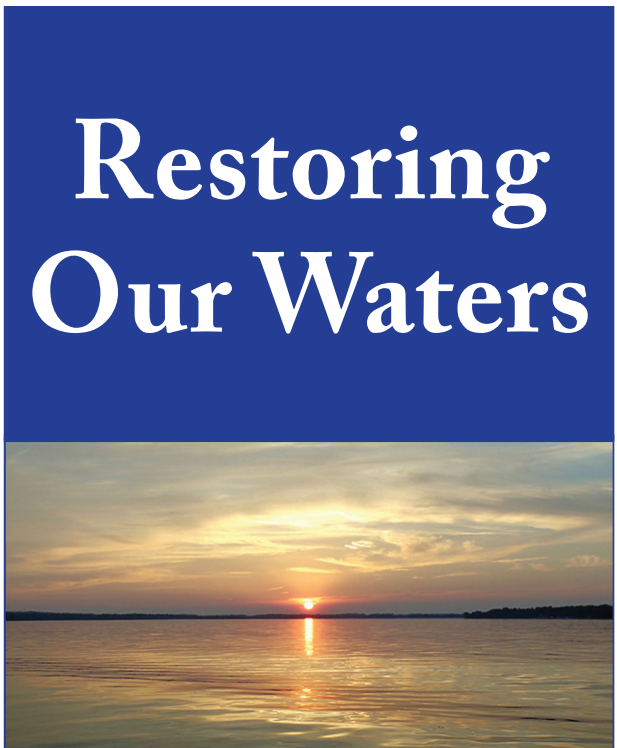


www.ongov.net/wep



September 2017

Photo credits: NYSDEC images, creativecommons.org/licenses/by-nc-nd/2.0



Restoring Our Waters

Investments in **wastewater** and **stormwater** infrastructure have spurred Onondaga Lake's **recovery**.

Now our community is **reconnecting** with the lake.



J. Ryan McMahon II
County Executive

Tom Rhoads, P.E.
Commissioner

STORMWATER Innovative Management

Like many older cities, portions of Syracuse are served by combined sewers, single pipes directing stormwater and sewage to Metro, the city's main wastewater treatment plant. During wet weather, runoff can overwhelm pipe capacity, causing overflows to nearby streams.

High flows also place a burden on Metro's ability to fully treat water entering the plant. The quality of Metro's discharge affects the quality of the lake.

Onondaga County's Save the Rain program is meeting this challenge with a multi-pronged approach:

- Install **green infrastructure** to reduce the amount of stormwater entering sewers.
- Build **gray infrastructure** to store runoff and prevent overflows.
- Separate storm sewers to maximize pipe capacity.
- Encourage neighborhoods to pick up litter that can clog storm drains or overflow into the receiving waters.

Save the Rain **CONNECT** **DROPS** **BLOCK** LITTER



Sunnycrest's rain garden diverts rainwater to the soil, reducing the volume of water entering storm sewers.

WASTEWATER State-of-the-Art Treatment

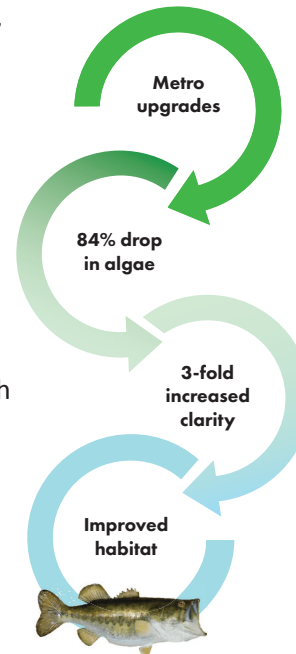
To restore the lake, advanced treatment processes were completed at the Metropolitan Syracuse Wastewater Treatment Plant (Metro), and the plant's capacity was expanded.



Metro serves about 245,000 residents, as well as commercial and industrial users.

The Metro upgrades targeted two pollutants, **phosphorus** and **ammonia**, which are present in the Metro discharge. Excessive phosphorus feeds algal blooms, which can make Onondaga Lake waters green and cloudy, reduce oxygen in the deep waters, and restrict fish habitat. High ammonia levels can harm sensitive animals such as larval fish.

The results: an **80% reduction in phosphorus** and a **98% reduction in ammonia** leaving Metro.



ONONDAGA LAKE Dramatic Improvements

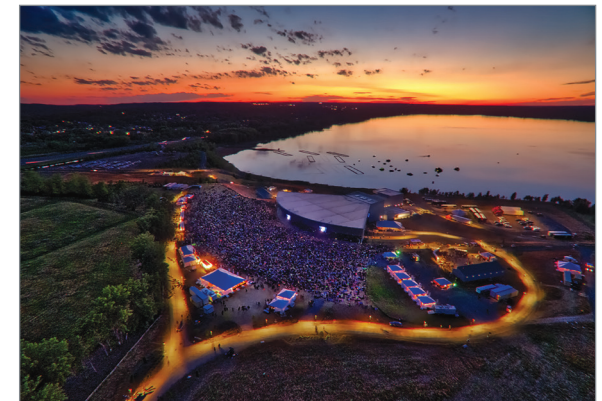
Onondaga Lake responded rapidly to the reductions in ammonia and phosphorus from Metro. Water quality conditions are now comparable with other regional lakes.

Water clarity has improved, algal blooms are rare, and water quality conditions now support a robust aquatic community.

Over 53 species of fish are found in the lake. Water quality meets regulatory limits for swimming in the northern region of the lake.



New facilities, such as the Lakeview Amphitheater, recreational trails, public boat launch, and other creative initiatives, are helping our community **reconnect with Onondaga Lake**.



Lakeview Amphitheater, an outdoor event complex on the lake's western shore, opened in 2015.