OPERATION
Ripple Effect ™

SIMPLE STEPS: BIG BENEFITS FOR THE MOHAWK RIVER

PROJECT BULLETIN

Normally, our sanitary sewer system has enough capacity to operate properly. But, when we get heavy rains or sudden snow melts, stormwater overwhelms the system and causes overflows into the Mohawk River. That stormwater runoff enters the sanitary sewer system from multiple sources, including deteriorated and damaged public sanitary sewers and private property connections, such as roof leaders and sump pumps.

Operation Ripple Effect is a program of the Oneida County Sewer District that asks residents, businesses, and municipalities to do their part to reduce overflows. Together, we can help keep the Mohawk River clean.
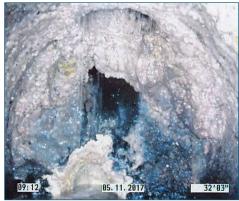
STATE OF OUR SYSTEM:
CONDITION OF OUR SEWER PIPES

Just because you don't see it doesn't mean there's not a problem.

Under our feet stretch miles of sewer pipes that carry wastewater from homes and business to be treated at the Water Pollution Control Plant. Those pipes are part of a critical system that helps maintain our quality of life.

But with some pipes 100 years and older, they're feeling their age. Continued televising throughout the nine municipalities within the Sauquoit Creek Basin has revealed several widespread issues:

• Cracks and Breaks
  A number of causes can lead to breakages in pipes that let groundwater in and sewage out:
  - Age
  - Ground settling
  - Poor connections from private laterals
  - Tree root intrusion

• Fats, Oils and Grease
  Buildup of fats, oils and grease (FOG) can lead to blockages, backups, and decreased system capacity.

When warm, FOG is typically in liquid form. However, once cooled, FOG hardens and decreases capacity of the sewage pipe. This can lead to backups into homes and onto streets.

The repairs have already come a long way. To date, Oneida County has fixed the equivalent of more than 100 miles of pipe through $25.8 million in New York State Environmental Facilities Corporation funding. This work has included manhole repairs and trenchless pipe rehabilitation. Rehabilitation using trenchless technologies is the most cost effective, least invasive method to restore aging infrastructure to like-new condition. Work is mainly performed in existing trenches/ pipes without any ground disturbance and includes cleaning, pipe repairs, grouting, and pipe lining. This work helps to:

• Prevent sewage overflows to the Mohawk River by increasing system capacity and reducing the amount of clean water from entering the system through aged pipes

• Keep sewage from leaking out of broken sewer pipes into the ground

• Avoid sewer collapses and sewage backups, which lead to service disruptions and expensive cleanups

Even with all of this progress, there are still many more miles of pipe to repair. Each of the Sauquoit Creek Basin communities has been provided two figures for budgeting purposes: an estimate including the projected costs to complete rehabilitation of the sanitary sewer pipes within their municipality, and the approximate yearly costs to conduct annual maintenance.

With the deadline of 2021 in sight, it remains critical that the OCSD, the project Steering Committee, and member municipalities continue to work together to ensure compliance with New York State Department of Environmental Conservation's Consent Order.

A sewer lateral (the pipe that connects a private home or business to the main sewer line in the street) intrudes into the main sewer line. This intrusion can cause debris to get caught, leading to blockages and backups into homes or onto the street.

Ground settling over time can cause sewer pipes to become disjointed, causing infiltration, blockages, and reduced pipe capacity.

Cracks and holes such as these in sewer pipes enable sewage to leak out and groundwater to infiltrate, leading to overflows during heavy rains and snow melts. This condition eventually leads to a pipe collapse.

Tree roots can grow into sewer pipes, causing cracks and blockages.

Sauquoit Creek Basin Communities:

• **Town of Whitestown**
  - Village of New York Mills
  - Village of Oriskany
  - Village of Whitesboro
  - Village of Yorkville

• **Town of New Hartford**
  - Village of New Hartford

• **Town of Paris**
  - Village of Clayville