

OPERATION *Ripple Effect*™

**SIMPLE STEPS: BIG BENEFITS
FOR THE MOHAWK RIVER**

ONEIDA COUNTY SEWER DISTRICT OVERFLOW MITIGATION PROJECT

2016 - 2017 Progress Report



TM



FROM THE **COUNTY EXECUTIVE**

In 2007, the New York State Department of Environmental Conservation (NYSDEC) issued a consent order on Oneida County that required the elimination of sanitary sewer overflows into the Mohawk River or face hefty fines. We knew we had to come up with a plan.

Our first actions were to organize a steering committee consisting of representatives from the 15 member municipalities, and begin engineering studies to determine the severity and source of the problem. The task was huge—rejuvenate our County’s wastewater system by repairing or replacing aging critical infrastructure, and at the same time find ways to remove storm and snow runoff so that we recovered capacity and weren’t needlessly treating clean water.

In the last decade, many milestones have been achieved. Today, there is significant work underway across the County, towns and villages in the District, much of it possible through more than \$117 million in County financing. This includes continued engineering investigations and evaluations of our sewer system, ongoing sewer rehabilitation work, and progress toward achieving compliance by reducing inflow and infiltration.

We’re also in the midst of an aggressive schedule of construction that will expand our treatment and conveyance capacities with major upgrades at our Water Pollution Control Plant (WPCP) and the Sauquoit Creek Pumping Station (SCPS).

That does not mean, however, that our work is over. We must meet the state’s consent order 2021 deadline or face significant fines in addition to the repair costs.

As we look toward our County’s future, we must be diligent in our work to rehabilitate this critical infrastructure for the benefit of our region and for future generations.

Anthony J. Picente Jr.
County Executive
Oneida County

FROM THE **COMMISSIONER**

JUST BECAUSE YOU DON'T SEE IT DOESN'T MEAN THERE'S NOT A PROBLEM.

The Oneida County Sewer District (OCSD) sanitary sewer system is unseen by most. It's made up of hundreds of miles of pipe that carry out a critical service—sewage disposal and treatment services for residents throughout 15 municipalities.

Those sewers—some 100 years old and more—are feeling their age. Extensive televising of the sewer pipe system has shown us that they're cracking and crumbling, settling and becoming disjointed or have become home to outside invaders, such as tree roots.

All of these issues cause sewage to leak out, groundwater to leak in, and can lead to blockages and backups that cause service disruptions for homes and businesses.

These pipes must be repaired – a process that the County started a decade ago and has resulted in the equivalent of more than 130 miles of repaired pipe. However, each municipality will ultimately need to complete the work.

In addition, residents must do their part by disconnecting improper connections, such as sump pumps and roof leaders, and properly disposing of non-biodegradable items in the trash versus down the drain.

Together, we must fix aging and failing sewers, upgrade our treatment and pumping facilities, and remove stormwater and household debris from the sanitary sewer system.

Our local sewer system is out of sight. Don't let it be out of mind.



Steven P. Devan, P.E.

Commissioner

Oneida County Department of Water Quality and Water Pollution Control





Steering Committee

ACHIEVEMENTS

For the last decade, Steering Committee members, consisting of representatives from each District municipality, have provided valuable system insights, data and project feedback to advance the Oneida County Sanitary Sewer Overflow Mitigation Project. The Steering Committee serves an essential role in decisions affecting systems operations, management and costs. In addition, working groups have helped guide two critical community-based initiatives: Capacity, Management, Operation and Maintenance (CMOM) and Private Property Inflow and Infiltration (PPIL).

A full steering committee meeting was organized in June 2017 to discuss the progress of construction at the WPCP, SCPS and on the active sanitary sewer rehabilitation projects. At this meeting, the Steering Committee requested the formation of a working group to begin discussions for potentially shared services with regard to ongoing CMOM. This group will be formed in 2018, along with another group to further assist in the implementation of the PPIL program.

MEMBERS

Scott Barron, Village of Clayville*
Carla Bostick, Village of Clayville*
Terry Dote, Mayor
Village of Clayville
Ernest Lamoree
Village of Clayville*
Mike Steiger, Village of Clayville
Sam Arcuri, Town of Deerfield*
Scott Mahardy, Supervisor
Town of Deerfield
Joseph Kinney, Supervisor
Town of Frankfort
John Rota, Town of Frankfort*
Ronald Testa, Town of Frankfort*
Michael Bennison, Mayor
Village of Holland Patent
Ken Cutler
Village of Holland Patent*
Ben West
Village of Holland Patent*
David Wilcox, Designee
Village of Holland Patent
Brendon Candella, Councilman
Town of Marcy
Richard Quigley, Town of Marcy*
Brian Scala, Supervisor
Town of Marcy
Chris Moran
Town of New Hartford*

Richard Sherman,
Highway Superintendent,
Town of New Hartford*
Patrick Tyksinski, Supervisor
Town of New Hartford
Don Bathke
Village of New Hartford
John Grygiel, Mayor
Village of New Hartford
Tim Hughes
Village of New Hartford*
Donald Ryan, Mayor
Village of New Hartford
John Bialek, Mayor
Village of New York Mills
Joseph Cotrupe Jr.
Village of New York Mills*
George Majka
Village of New York Mills
Dave Neary
Village of New York Mills*
Bruce Brodsky, Oneida County
Harvey Yando, Oneida County
Chris Burtch, Village of Oriskany
George Farley, Village of Oriskany*
Don Mullen, Deputy Highway
Commissioner, Village of Oriskany*
Don Rothdiener, Mayor
Village of Oriskany

Tony Cardillo, Town of Paris*
James Christian Jr., Supervisor
Town of Paris
Joe Inglis, Town of Paris*
Gina Lamonte, Town of Paris*
Kenneth Dodge, Supervisor
Town of Schuyler
Anthony Lucenti, Deputy
Supervisor, Town of Schuyler
Don Sroka, Town of Schuyler*
Robert VanDusen
Town of Schuyler*
Sal Granato,
Highway Superintendent,
Town of Whitestown*
Shaun Kaleta, Supervisor
Town of Whitestown
Deb Day, City of Utica*
Robert Palmieri, Mayor
City of Utica
Phil Husted, Town of Whitestown*
Bill Schmitt, Town of Whitestown
Patrick O'Connor, Mayor
Village of Whitesboro
Charles Tritten, Superintendent
Village of Whitesboro*
Michael Mahoney, Mayor
Village of Yorkville*

**Also serves on a working group.*





OPERATION Ripple Effect™

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SIMPLE STEPS: BIG BENEFITS FOR THE MOHAWK RIVER

Operation Ripple Effect™
*is an Oneida County
initiative that acts as a
guide to provide simple
steps to help keep the
Mohawk River clean.
This program highlights
how individual actions
add up to widespread
improvements for
the system.*

STATE OF OUR SYSTEM

Many people don't think about their sanitary sewer system until something goes wrong, like the shock of a sewage backup into their home or a disruption in service.

When it comes to the Oneida County Sewer District, we can't afford to forget about the real problems that exist just under our feet.

The OCSD sewage collection system is made up of hundreds of miles of pipe, plus facilities that deliver critical sewage disposal and treatment services to residents throughout 15 municipalities. Under perfect conditions, all of the pipes would be perfectly fitted and leak-free.

The reality is quite different.

PROBLEMS

Our sanitary sewer pipes are aging, with some well over 100 years old. Extensive televising has revealed the extent of their condition, which includes deterioration, cracks, settling and breaks from tree roots. All these issues cause sewage to leak out and ground water to infiltrate, which can lead to blockages and backups.

There are also problems that start at home, such as the improper disposal of fats, oils and grease. When we dispose of household materials like cooking oil, salad dressing or mayonnaise down the sink rather than recycling it at the Oneida County Solid Waste Authority, they can clog the system and create impassable blockages. In addition, materials such as flushable wipes can fortify these blockages and lead to costly and inconvenient repairs.



FATS, OILS AND GREASE INSPECTION PROGRAM

The OCSD and Oneida County Department of Health (OCDOH) have combined efforts to conduct inspections of foodservice establishments to assess fats, oils and grease (FOG) program compliance.

The FOG program is an OCSD initiative aimed at limiting the amount of FOG entering the sewer system. When improperly disposed of into the sanitary sewer system, FOG can build up and cause blockages and backups. FOG also decreases capacity for sewage during heavy rain events, thus contributing to overflows into the Mohawk River.

FOG inspections will be conducted in conjunction with OCDOH inspections that are regularly conducted at commercial foodservice establishments, including restaurants, school and meeting facilities with commercial kitchens, and more.

The goal of these inspections is to identify and document existing and/or potential sources of FOG that may enter the sanitary sewer system in foodservice facilities. The inspections will also assist in determining when facilities need to be brought into compliance.

Expansion of this program in 2018 will include an emphasis on educating foodservice facility owners and managers.



Best Management Practices TO HELP PREVENT SEWER OVERFLOWS & BACKUPS



✓ **DO**
✗ **DON'T**

Put oil and grease
in collection
containers.





OTHER PROGRESS TO DATE

Municipality	Number of Manholes Rehabilitated*	Miles of Pipe Rehabilitated*
Clayville	40	1.0
New Hartford (T)	337	16.3
New Hartford (V)	87	3.1
New York Mills	182	4.6
Oriskany	97	1.1
Paris	154	3.4
Whitesboro	109	1.7
Whitestown	76	9.8
Yorkville	104	2.5
Airport Business Park	39	0
OCSD (District-wide)	120	0
TOTALS	1,345	43.5

PROGRESS

◆ **Collection System:** We have made great progress in identifying issues in our collection system and determining reliable solutions. We've televised approximately 193 miles of sewer—89 percent of total sewers in the Sauquoit Creek Pumping Station basin—to ascertain their condition and determine necessary repairs. We've also rehabilitated or repaired 130 miles of pipe. Sewer work includes:

- ◆ The installation of new, jointless sewer lining within existing pipe that minimizes root intrusion and water infiltration improves flow and provides for a more structurally sound pipe.
- ◆ Spot repairs and grouting to repair minor defects.

◆ **Sauquoit Creek Pumping Station:** Work commenced in July 2017 on upgrades at the pumping station. This project will expand capacity to convey wastewater to the treatment plant and include a new 48-inch main and rehabilitation of the existing force main, replacement of the existing pumping station

mechanical screen with two redundant screens in a new screen building, new flow metering and flow control vaults, and more.

◆ **Water Pollution Control Plant:** The first phase of construction began in September 2016 on a five-year project to upgrade the more than 60-year-old Water Pollution Control Plant in Utica. To date, improvements have included upgrading biosolids handling technology and the installation of new anaerobic digesters.

- ◆ Anaerobic digesters will not only improve the treatment process but will also produce energy to offset the plant's usage.
- ◆ Additional upgrades are currently in various stages of design, review, bidding and construction.



MUNICIPAL PROGRESS: A YORKVILLE CASE STUDY

In 2016, the Village of Yorkville, with guidance from the County, sought to complete the remaining rehabilitation of its sanitary sewer system. The project, completed in December 2017, has utilized trenchless technologies to achieve manhole, sanitary sewer and stormwater sewer rehabilitation.

FUTURE

Collection system, Water Pollution Control Plant and Sauquoit Creek Pumping Station work will continue through 2018. As we near the 2021 consent order deadline, the responsibility will shift to municipalities to complete their share of the remaining rehabilitation.

With the help of the OCSD, the Village was awarded over \$1 million through a Clean Water Infrastructure grant for this project with zero percent financing. This helped reduce the financial burden on residents by about \$100 annually.



PUBLIC PARTICIPATION

Eliminating sanitary sewer overflows and ensuring the proper condition of our sewer system isn't solely the job of District municipalities. Homeowners, business owners and all residents in the District have a role to play.

Operation Ripple Effect™ is an Oneida County initiative that offers simple advice on how to keep the Mohawk River clean. Since its public launch in 2015, the program's educational materials and community outreach activities have expanded. Following are some of the recent program activities that are increasing community awareness of the benefits of rain barrels, rain gardens and other inflow/infiltration mediation measures.

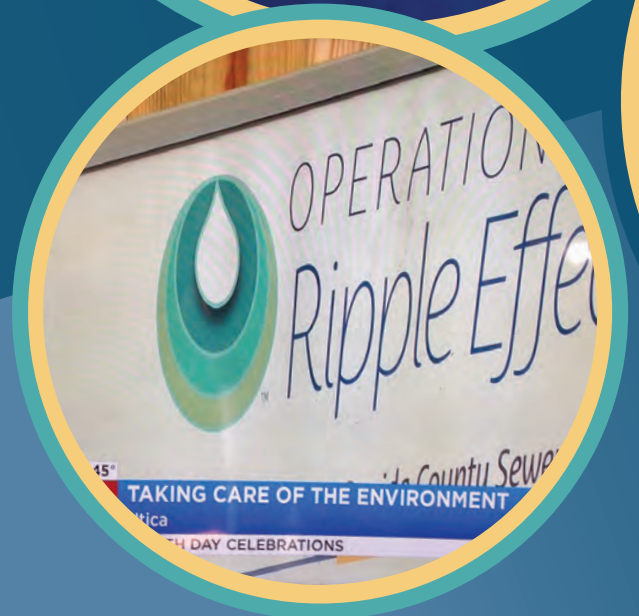
- ◆ **Home Builders & Remodelers of Mohawk Valley:** A public event hosted at Mohawk Valley Community College's Jorgensen Center reached an audience of more than 1,000 people.

- ◆ **Media and public relations:** Informative articles and feature stories appeared in local news media.

- ◆ **Public education events:** Informational booths were staffed at a number of events throughout the past year, including the Oneida-Herkimer Solid Waste Authority's Annual Earth Day Event, Oneida County Public Market and Dunham Public Library. These events reached a total of 9,668 individuals.

- ◆ **Educational displays:** Displays featuring information on rain barrels, rain gardens and Down the Drain were rotated in public locations through the member municipalities.

- ◆ **Mass communications:** More than 500 informational TV spots ran on WKTV and Time Warner Cable/Spectrum reaching a total viewership of 178,330 individuals in the Utica-Rome area. In addition, eight print ads were placed in the Observer-Dispatch newspaper from spring through the fall reaching 199,605 people.



SCHOOL EDUCATION PROGRAM: BECOME A MOHAWK RIVER CHAMPION

Research studies have found that attitudes toward the environment start developing at an early age and, once formed, do not change easily. Furthermore, children can in turn positively influence others, particularly adults at home.



In early 2017, the OCSD implemented “Become a Mohawk River Champion,” a school program that shows students how their families can really help reduce sanitary sewer overflows into the Mohawk River. The program encourages students to become a Mohawk River Champion with two learning modules: “Down the Drain” and “Rain Barrels and Rain Gardens.”

As of December 2017, the school program has reached more than 550 students at schools and libraries within New Hartford, New York Mills, Whitesboro, Marcy and Utica. The program will be offered

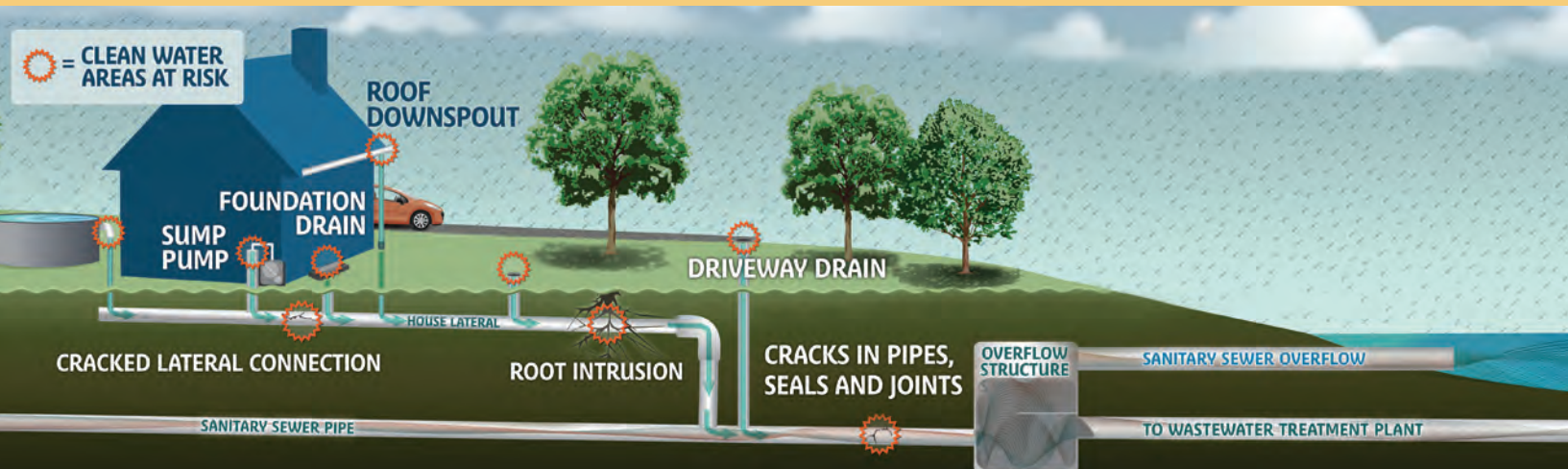
to all municipalities in the Oneida County Sewer District.

Teacher feedback has described the program as “eye-opening.” Not only do students learn what should or should not go down the drain but also how reusing stormwater can make a difference.

This program is more than just “something new” for children to learn in class. It is information they can learn, process, and take home to their families and friends. The more each person can contribute, the bigger the ripple effect. When it comes to saving the Mohawk River, every effort counts.

As of December 2017, the school program has reached more than 550 students at schools and libraries within New Hartford, New York Mills, Whitesboro, Marcy and Utica.

OCSD SANITARY SEWER OVERFLOW MITIGATION PROJECT





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