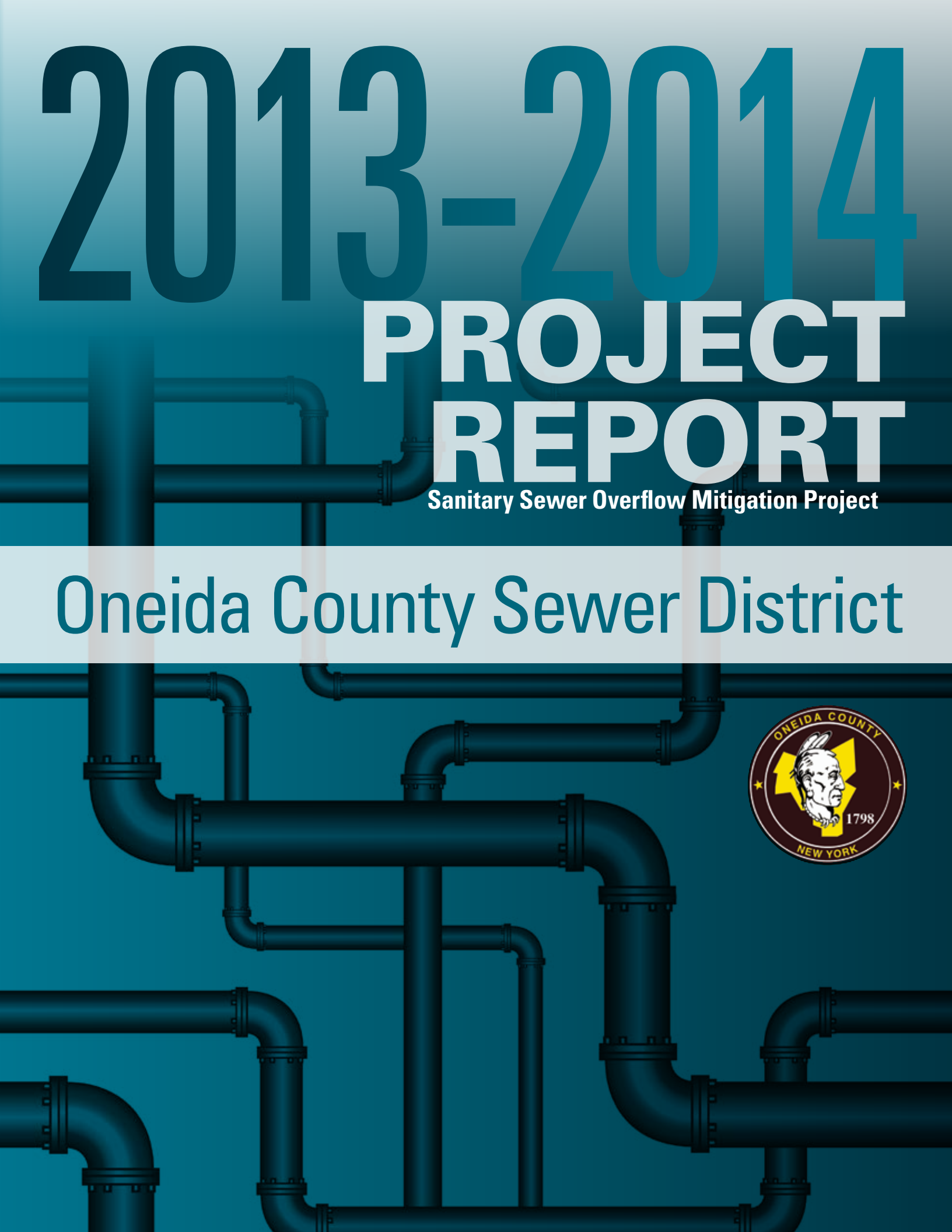
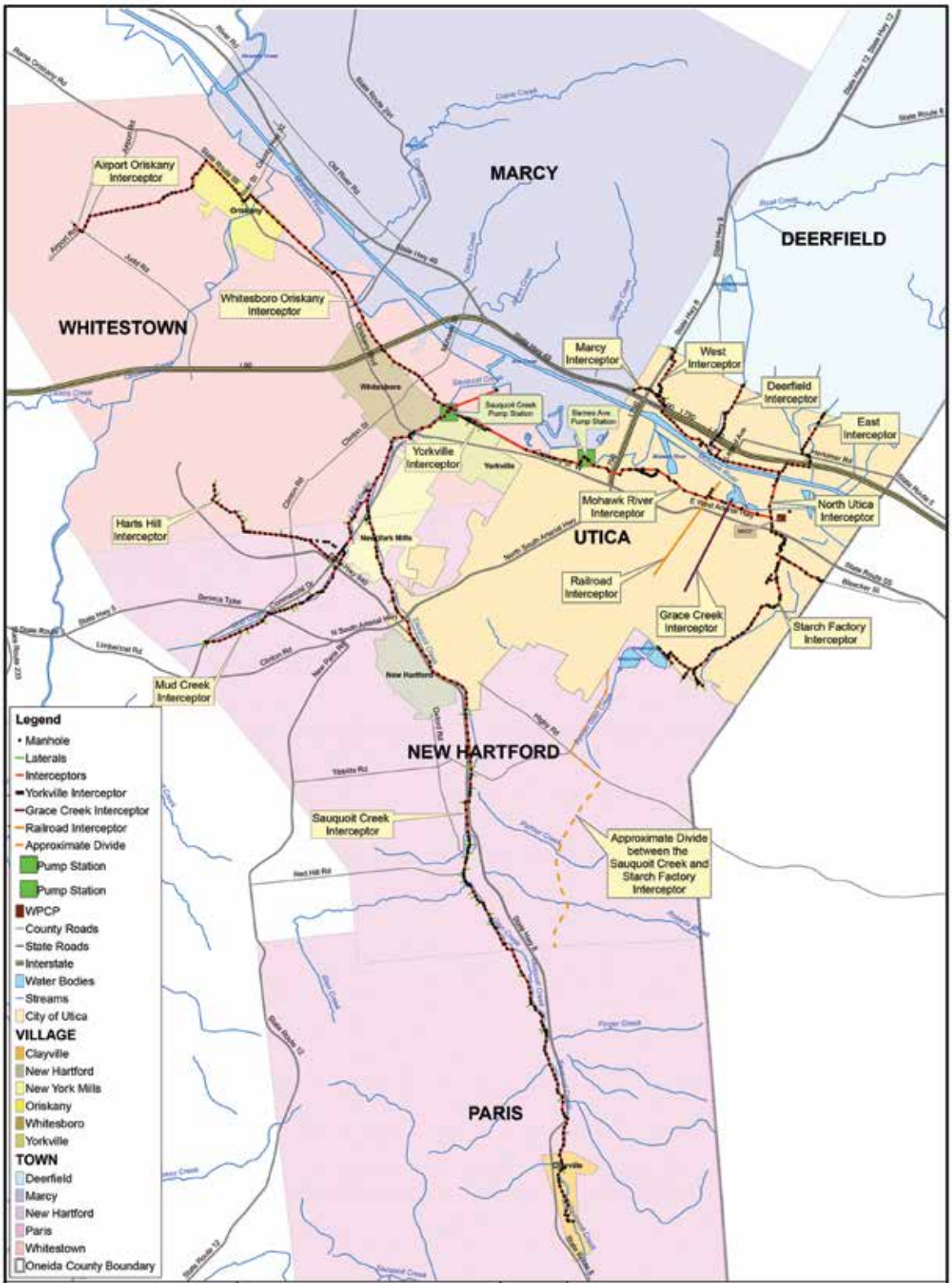
2013-2014 PROJECT REPORT

Sanitary Sewer Overflow Mitigation Project

Oneida County Sewer District



Oneida County Sewer District Service Area



Dear Residents and Community Leaders:

Since its inception, the Oneida County Sanitary Sewer District Overflow Mitigation Project has been a model example of how collaboration can help us all achieve a common goal. This project is vital to restoring and maintaining our aging conveyance system. I'm proud to share with you that our work together helped make 2013 a year of significant project achievement.

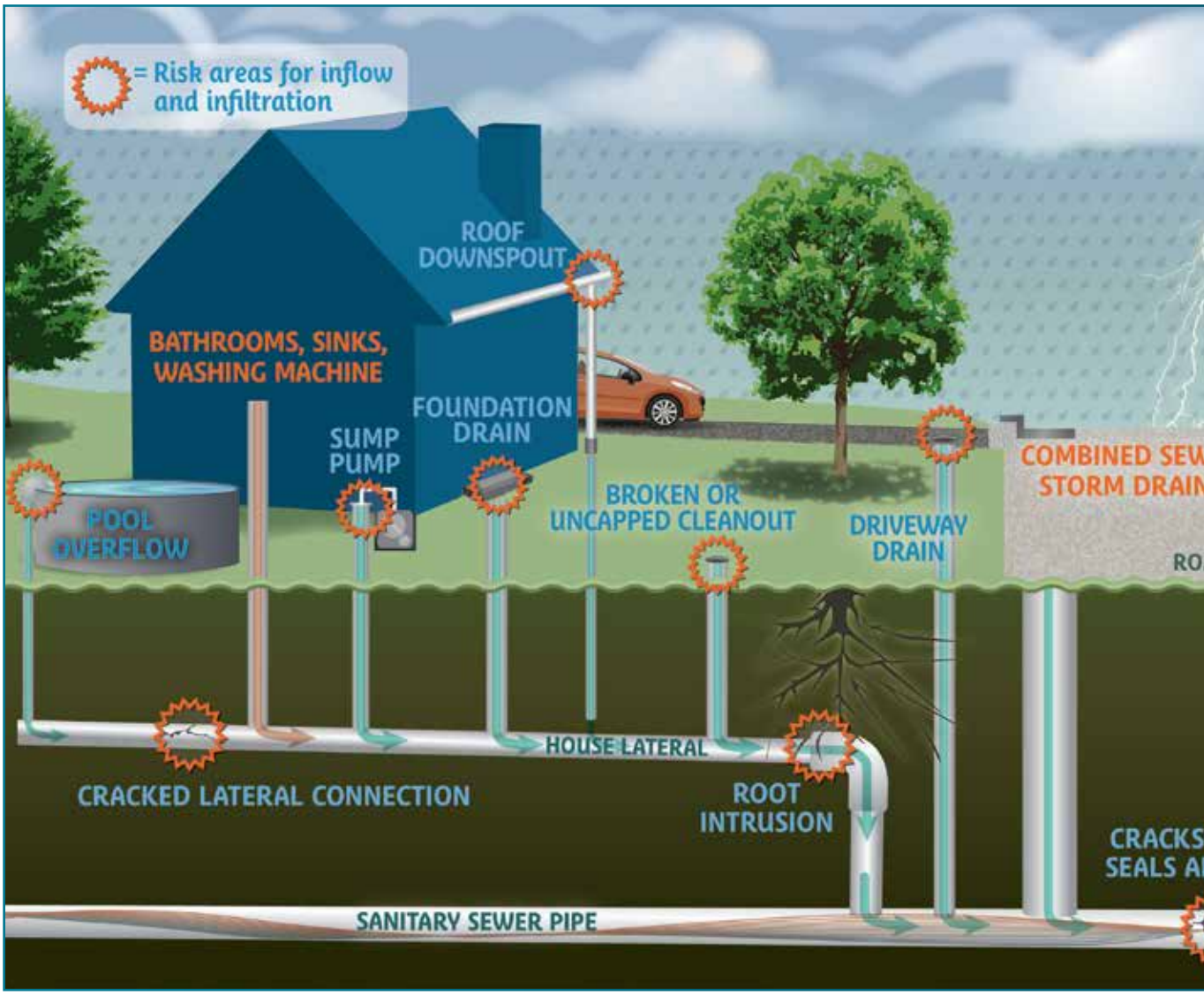
Thanks to the strong leadership and invaluable input of the project Steering Committee, several milestones were achieved as we successfully transitioned into the implementation of community-based initiatives and continued with rehabilitation and repair construction.

In addition to the oversight of the Steering Committee, two working groups separately have made significant progress on the development of Private Property Inflow and Infiltration, and Capacity, Management, Operation and Maintenance programs. These working groups have focused on the specific needs and design of each community and the implementation of those designs.

Finally, the County has continued collaborative discussions with representatives from the New York State Department of Environmental Conservation and other State leaders. From the beginning, we have sought to protect residents and business owners from shouldering the responsibility of unfunded mandates. To that end, we are committed to continuing our investigations into identifying and securing alternate project funding sources.

As we look ahead to 2014, I ask you to continue your work and support of this project. Together, we can accomplish the repairs and rehabilitation of another element of our critical infrastructure that will bring us closer to re-establishing the Mohawk River as a resource to be enjoyed by current and future generations.

Anthony J. Picente Jr.
County Executive
Oneida County

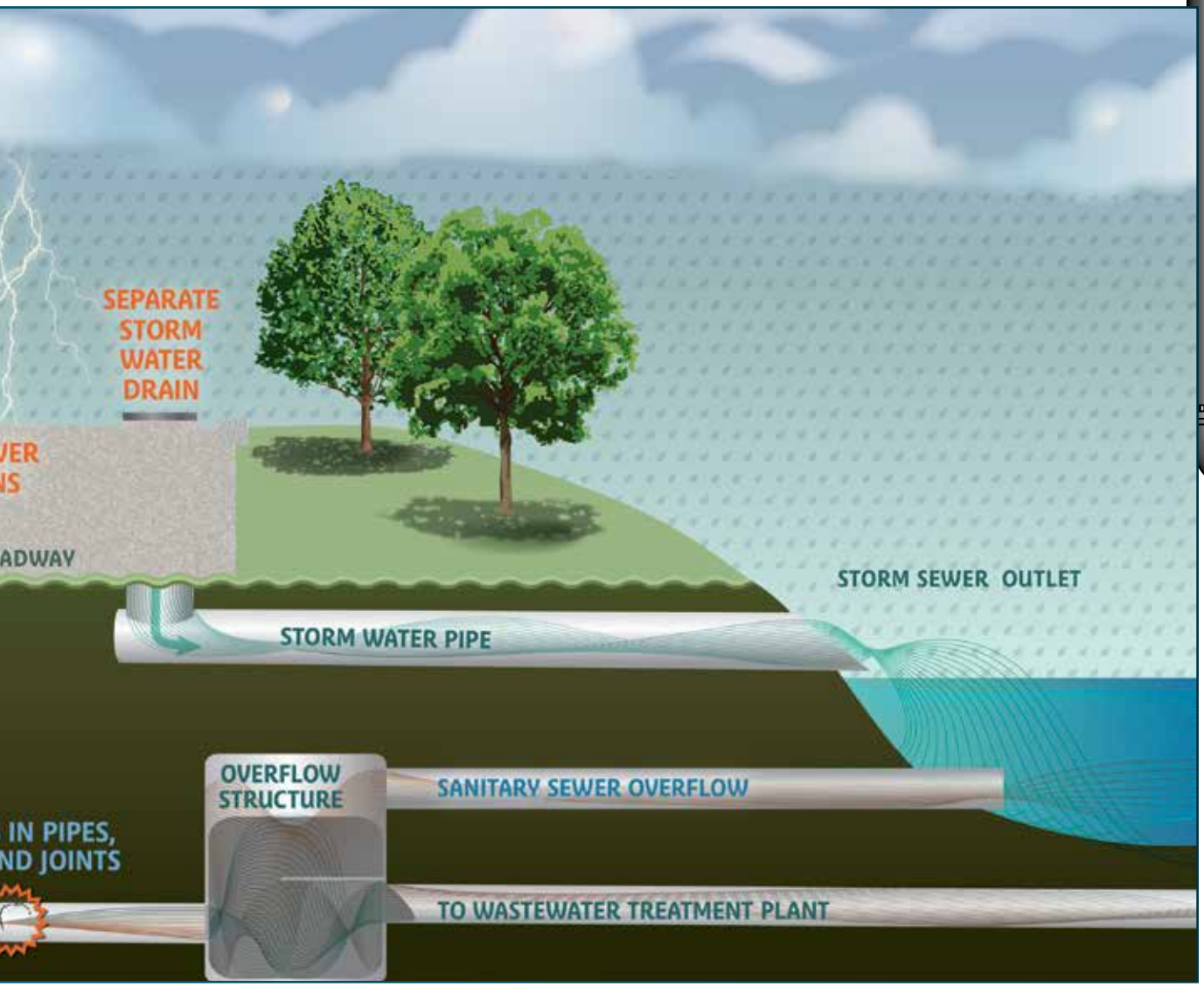


The Issue

During very heavy rainfalls or rapid snowmelts, runoff water enters the Oneida County Sewer District (OCSD) sanitary sewer system through cracks, damaged lateral pipes, and improper system connections.

This influx of clean water mixes with sewage, significantly increasing the volume that needs to be treated at our Water Pollution Control Plant. As a result, the system is pushed beyond capacity and the excess overflows into the Mohawk River.

By discharging diluted raw sewage into the Mohawk River, we are potentially damaging the natural ecosystem and limiting our future generations' ability to enjoy the resource that helped develop the Mohawk Valley. In addition to impacting this local asset, if these overflows are not reduced, Oneida County faces harsh fines that would place a severe burden on local residents and hinder future regional economic development.



The Solution

Initiated in 2007, the OCSD Sanitary Sewer Overflow Mitigation Project is a multi-year initiative that is designed to reduce these sanitary sewer overflows. With the guidance of a Steering Committee composed of representatives from each city, town, and village within the district, the project is comprised of three major components that will reduce overflows:

- Performing engineering investigations to determine sanitary sewer problems, repairs and upgrades
- Identifying funding to enable repairs
- Completing sewer system repairs and upgrades to reduce infiltration and inflow (I/I), and increasing pumping and treatment capacity

Significant progress has been made in 2013 in each of these tasks. The following is a summary of these achievements.

Inflow – Stormwater that enters the sanitary sewer system through improper connections, like roof leaders and sump pumps.

Infiltration – Stormwater that enters the sanitary sewer system through cracks in aged or damaged lateral pipes.

Construction Progress

Contract 2: Manhole Rehabilitation

Status: Complete

Location: District-wide

Scope: One major source of I/I is the physical condition of manholes throughout the District. In an effort to keep stormwater and groundwater from entering the sanitary sewer system, approximately 1,300 manholes were repaired. Work included cementitious lining, drilling and grouting, frame and cover sealing and/or replacement, and other techniques to prevent water from leaking in. Manholes will be re-inspected in 2014.

Municipality	Number of Manholes
Clayville	40
New Hartford (T)	322
New Hartford (V)	90
New York Mills	180
Oneida County Business Park	39
Oneida County Sewer District	70
Oriskany	97
Paris	151
Whitesboro	109
Whitestown	66
Yorkville	104
TOTAL	**1,268**

Contract 3: Sewer Rehabilitation Phase I

Status: Complete

Location: Various locations across New Hartford, New York Mills, Oriskany, Whitesboro, Whitestown, and Yorkville

Scope: Approximately 13 miles of pipe received a new, jointless sewer pipe lining that minimizes root and water infiltration, improves flow, and provides for a more structurally-sound pipe without the cost and inconvenience of excavation. This work provides a more cost-efficient and resident-friendly means of replacing those existing sewer lines.

Communication with residents during this process was extremely successful, with the use of delivered notices and frequently updated information at www.SewerRepairOCSD.org.

Contract 4: Clinton Street Sewer Separation (2012)

Status: Complete

Location: Clinton Street/Henderson Street area in the Village of New York Mills

Scope: Small projects can make a big difference and this project is a perfect example of that. This project took a couple of weeks to construct in October 2012 and focused on a small portion in the Clinton Street/Henderson Street area in the Village of New York Mills. This neighborhood suffered from backups during heavy rain and snow melt. An abandoned sewer that was still conveying significant groundwater and stormwater into the village sanitary sewer system was disconnected, disinfected, and rerouted to a new storm sewer that was constructed through Pietryka Park.

Contract 5: Sewer Repairs and Rehabilitation

Status: In progress

Location: Various locations across New Hartford, New York Mills, Whitesboro, and Yorkville

Scope: This project began in the fall of 2013, and continues to focus on 19 locations identified through dye testing and closed-circuit televising. Work includes repairs on storm/sanitary sewer crossings, abandoned direct connections, and manholes and pipe linings.

Contract 6: Sewer Rehabilitation Phase II

Status: In progress

Location: Various locations across the towns and villages of New Hartford, New York Mills, Paris, Clayville, and Whitestown

Scope: As a continuation of the work completed in Contract 3, approximately 15 miles of additional pipe are undergoing work to receive a new, jointless sewer pipe, along with other sewer rehabilitation methods.

Sewer lining.

Contract 7: Mainline Sewer Rehabilitation – Whitestown

Status: In progress

Location: Areas in the Town of Whitestown and Town of New Hartford

Scope: About 13 miles of sewer will be CIPP lined, grouted (pipe and lateral), and spot repaired in selected areas.

Contract 8: Mainline Sewer Rehabilitation – New Hartford

Status: Preliminary design

Location: Likely in the Town of New Hartford

Scope: This contract will cover roughly 15 miles of CIPP lining, pipe grouting, lateral grouting, lateral lining, and spot repairs in selected areas.

Contract 9: Flow Monitoring

Status: In progress

Location: District-wide

Scope: Approximately 65 flow meters and a number of rain gauges will be installed to monitor the system during wet and dry weather conditions.

Water Pollution Control Plant

The OCSD Water Pollution Control Plant is nearly 45 years old. Despite ongoing maintenance, the facility is in need of significant upgrades in order to meet the evolving needs of the region, including meeting newly enacted New York State Department of Environmental Conservation (DEC) regulations in effect in March 2016. In 2013, plans commenced to rehabilitate, upgrade, and expand this facility.

The first phase of work, projected at $35 million – or $9.50 per quarter for the average single-family home – accounts for project design and construction of major upgrades to the sludge-handling portion of the plant.

The end product of this project will address the District-wide issues of:

- Sauquoit Creek Basin Sanitary Sewer Overflows (SSO)
- Utica's long-term control plan Combined Sewer Overflow (CSO) treatment
- Replacement of aging sewage treatment plant infrastructure
- Sewage treatment plant capacity

This vital project will not only update the aging structure, but it will also increase the facility's capacity.

This project follows the plan and schedule that was submitted to the DEC in August 2012 and approved November 28, 2012.

In 2014, the final engineering design for the expansion of the solids handling and disposal systems will be completed and the first phase of the project will be publically bid for construction. In addition, the preliminary engineering work will begin on the remainder of the plant expansion and upgrades.

Sauquoit Creek Pump Station/Force Main

The Sauquoit Creek Pump Station (SCPS) has the capacity to pump 15 million gallons per day (mgd). This amount is more than sufficient to pump the average daily usage for this basin – roughly 5 mgd based on domestic water consumption. However, during heavy rains and snowmelts, the station is overwhelmed by more than 35 mgd causing the excess sewage to overflow. As a result, a combination of stormwater removal and facility modifications are necessary.

During 2013, the preliminary design on the pump station, including a new screening facility and generator, and force main upgrades, was completed. In addition, the Temporary Wetlands Impact Permit Application was submitted to NYSDEC for soil-boring activities.

In 2014, the final designs will be completed, including: new influent screening building with new screens, washer compactors, and isolation gates; a new emergency generator; upgrades to electrical, controls, and HVAC equipment; and a new second force main from the SCPS to the Water Pollution Control Plant with flow meters and control vaults.

Steering Committee Achievements

The Steering Committee, consisting of representatives from each District municipality, has provided invaluable project input since 2007. Working together with OCSD staff and an engineering consultant team, this group has helped guide an extensive engineering study and the development of a New York State Department of Environmental Conservation-approved plan.

The Steering Committee's 2013-2014 goal has been to develop two critical community-based initiatives: Private Property Inflow and Infiltration (I/I) and Capacity, Management, Operation, and Maintenance (CMOM).

To accomplish this goal, the Steering Committee has broken into two working groups. Each OCSD municipality chief elected official was involved in the selection of his or her community's working group representative. Participants were selected based on their thorough understanding of the technical aspects of the wastewater collection system and community needs.

CMOM Working Group

The CMOM working group provides municipal-level, hands-on feedback and guidance in developing a comprehensive district-wide CMOM program that will be adopted at the County and municipal level.

Together, this group has developed an initial plan that ensures the long-term maintenance of our sewer systems, including the following program elements:

- Standardized Design and Construction Standards
- CMOM Standard Operating Guidelines
- Plan Review Procedures
- Fats, Oil and Grease Program

Development of the CMOM Program will continue on a yearly basis.

Private Property I/I Working Group

The Private Property I/I working group is continuing to establish a plan and supporting materials to create awareness among individual property owners as to how they can do their part in reducing wet weather flows into the sanitary sewer system and, ultimately, the Mohawk River.

This comprehensive Private Property I/I Reduction Program includes three phases:

Phase 1 – Public Education and Voluntary Compliance

Phase 2 – Inspections and Documentation

Phase 3 – Financing Programs and Targeted Removals

Oneida County
ocgov.net
New York

Oneida County Sewer District
Mitigation Project Bulletin

The Oneida County Sewer District (OCSD) Sanitary Sewer Overflow Mitigation Project is comprised of three major components: performing engineering investigations to determine sewer problems, repairs and upgrades; identifying funding to enable repairs; and completing sewer system repairs and upgrades to reduce infiltration and inflow (I/I) and overflows. These three steps will move the community forward in the interest of repairing the sewer infrastructure for economic development and growth.

Inflow and Infiltration (I/I)

Infiltration occurs when clean ground water enters the sewer system through cracks in pipes, leaky joints or deteriorated manholes.

Inflow occurs when clean water from heavy rains or snowmelts is purposely introduced into the sewer system. Possible sources include sump pump connections, roof downspouts, and yard and driveway drains.

The Problem

I/I is a problem because it requires unnecessary sanitary treatment, which raises sewer treatment costs for the community. Even more, when too much water enters the sewers, the system can become overwhelmed and untreated overflows contribute to contamination of the Mohawk River.

Preventing the Issue

According to engineering studies, as much as 50% of the I/I problem can be removed if individual owners take action at their properties. There are many ways for home and business owners to prevent excess water from entering the sewer system. While the OCSD is working on a plan to help residents identify specific ways they can contribute to the solution, there are some easy and low-cost projects that residents can do now to help.

Disconnect Your Roof Leader

Disconnecting your roof leader (or downspout) from the sewer system is a relatively easy job. With just a few simple steps, you can keep that extra water out of the system. For information, talk with the experts at your local hardware/home improvement store.

Rain Barrel

Capture the water that used to drain into the sewer system from your roof leader by using a rain barrel. Some of the things you can do with the water from a rain barrel include:

- Easily fill watering cans
- Water gardens, lawns and hanging plants
- Wash cars or pets

Rain Gardens

It's not only aesthetically pleasing – the simple steps to building your own rain garden also help prevent runoff from entering the sewer system. For additional help and advice, visit the home and garden section of your local home improvement store.

Sources of potential inflow and infiltration

Learn more:

Oneida County
ocgov.net
New York

Oneida County Sewer District
Mitigation Project Bulletin

The OCSD Sanitary Sewer Overflow Mitigation Project is comprised of three major components: performing engineering investigations to determine sanitary sewer problems, repairs and upgrades; identifying funding to enable repairs; and completing sewer system repairs and upgrades to reduce infiltration and inflow (I/I) and overflows. These three steps will move the community forward in the interest of repairing the sanitary sewer infrastructure for economic development and growth.

Despite severe flooding issues this summer, the Oneida County Sewer District has continued to keep projects on track and construction is progressing.

Upcoming Projects

Sewer Repairs and Rehabilitation (Contract 5)

Location: Various locations across New Hartford, New York Mills, Whitesboro, and Yorkville.
Estimated Timeframe: To begin in the late summer.
Scope: This project will focus on 19 locations – identified through dye testing and closed circuit televising. Work will include repairs on storm/sanitary sewer crossings, abandoned direct connections, and manholes and pipe linings.

Sewer Rehabilitation Phase II (Contract 6)

Location: Various locations across New Hartford (town and village), New York Mills, Whitesboro, Paris and Clayville.
Estimated Timeframe: To begin in the fall.
Scope: Approximately 15 miles of pipe will be rehabilitated. Rehabilitation methods include the installation of a new, jointless sewer pipe that minimizes root and water infiltration, improves flow, and provides for a more structurally-sound pipe, sewer pipe joint testing and sealing, and lateral connection rehabilitation without the cost and inconvenience of excavation.

Completed Projects

Manhole Rehabilitation (Contract 2)

Location: Throughout the District.
Scope: About 1,300 manholes were repaired – including cementitious lining, drilling and grouting, frame and cover sealing and/or replacement, and other techniques – to prevent water from leaking in.

Sewer Rehabilitation Phase I (Contract 3)

Location: Various locations across New Hartford, New York Mills, Oriskany, Whitesboro, Whitestown, and Yorkville.
Scope: Approximately 13 miles of pipe have received a new, jointless sewer pipe similar to the upcoming second phase of this project.

Clinton Street Sewer Separation (Contract 4)

Location: Clinton Street/Henderson Street area in the Village of New York Mills.
Scope: In an area that suffered from severe sewer surcharging and backups during heavy rain and snow melt, an abandoned sewer was found to be still conveying significant groundwater and stormwater into the village sanitary system. This sewer was disconnected, disinfected, and rerouted to a new storm sewer that was constructed through Pietryka Park.

Cured-in-place pipe lining—steam curing process, Oriskany, NY.

Steven P. Devan, P.E., *Commissioner*
Department of Water Pollution and Water Quality Control

Learn more: Contact **cmanion@paigegroup.com** to schedule a briefing for your municipality's board. For more news and reports, visit **www.ocgov.net/oneida/wpc.**

Steering Committee Members

Steering Committee

- Robert Palmieri, Mayor, City of Utica
- Bruce Brodsky, Oneida County
- Harvey Yando, Oneida County
- Scott Mahardy, Supervisor, Town of Deerfield
- Peggy Boshart, Town of Deerfield
- Joseph Kinney, Supervisor, Town of Frankfort
- George Bianchi, Deputy Supervisor, Town of Frankfort
- Brian Scala, Supervisor, Town of Marcy
- Brendon Candella, Town of Marcy
- Carson Sorrell, Town of Marcy
- Patrick Tyksinski, Supervisor, Town of New Hartford
- Scot Owens, Town of New Hartford
- Mary Lou McEnroy, Supervisor, Town of Paris
- Jim Hogel, Town of Paris
- Kenneth Dodge, Supervisor, Town of Schuyler
- Anthony Lucenti, Town of Schuyler
- Charles Gibbs II, Supervisor, Town of Whitestown
- Bill Schmitt, Town of Whitestown
- Terry Dote, Mayor, Village of Clayville
- Mike Steiger, Village of Clayville
- Michael Bennison, Mayor, Village of Holland Patent
- Peter Gaige, Village of Holland Patent
- Donald Ryan, Mayor, Village of New Hartford
- John Bialek, Mayor, Village of New York Mills
- George Majka, Village of New York Mills
- Joseph Urban, Village of New York Mills
- Don Rothdiener, Mayor, Village of Oriskany
- Chris Burtch, Village of Oriskany
- Raymond Daviau, Jr., Mayor, Village of Whitesboro
- Patrick O'Connor, Village of Whitesboro
- Anthony Leone, Jr., Mayor, Village of Yorkville
- Kenneth Schaaf, Village of Yorkville

CMOM Working Group

- Deb Day, City of Utica
- Sam Arcuri, Town of Deerfield
- Ronald Testa, Town of Frankfort
- Rich Quigley, Town of Marcy
- Chris Moran, Town of New Hartford
- Tony Cardillo, Town of Paris
- Joe Inglis, Town of Paris
- Don Sroka, Town of Schuyler
- Sal Granato, Town of Whitestown and Village of Yorkville
- Scott Barron, Village of Clayville
- Ben West, Village of Holland Patent
- Tim Hughes, Village of New Hartford
- Joseph Cotrupe, Jr., Village of New York Mills
- Mick O'Connor, Village of Oriskany
- Chuck Tritten, Village of Whitesboro

PPII Working Group

- Deb Day, City of Utica
- Sam Arcuri, Town of Deerfield
- John Rota, Town of Frankfort
- Rich Quigley, Town of Marcy
- Rick Sherman, Town of New Hartford
- Gina Lamonte, Town of Paris
- Robert VanDusen, Town of Schuyler
- Phil Husted, Town of Whitestown
- Carla Bostick, Village of Clayville
- Mike Hyrb, Village of Clayville
- Ken Cutler, Village of Holland Patent
- Don Bathke, Village of New Hartford
- Dave Neary, Villages of New York Mills and Whitesboro
- George Farley, Villages of Oriskany and Yorkville

Public Outreach

Public outreach is a critical element of this project and a process that occurs in multiple formats, such as face-to-face; facilitated group discussions and presentations; media relations; printed and digital materials; communications bulletins, etc.

The following is a list of 2013-2014 Steering Committee and Working Group facilitated meetings.

- January 10, 2013: Full Steering Committee
- May 16: CMOM Working Group
- May 21: PPII Working Group
- June 13: CMOM Working Group
- June 25: PPII Working Group
- July 25: CMOM Working Group
- September 4: PPII Working Group
- September 5: CMOM Working Group
- October 29: Chief elected representatives and working group members
- October 31: CMOM Working Group
- December 12: CMOM Working Group

OPERATION Ripple Effect™
Reroute Reclaim Recharge

- January 16, 2014: CMOM Working Group
- January 23: PPII Working Group
- March 13: Full Steering Committee
- June 3: PPII Working Group
- June 5: Public Outreach Committee
- June 12: CMOM Working Group

Several significant milestones for public outreach were achieved in 2013-2014.

- SewerRepairOCSD.org (Temporary): Development of a temporary construction-specific website helped to communicate a frequently changing work schedule to homeowners; used while the full project website was developed.
- SewerRehabOCSD.org: Development of a comprehensive website that includes project information for municipalities, Steering Committee members and the public.
- Private Property I/I Public Information Campaign: Operation Ripple Effect is the campaign that was developed to be used in educational materials and all publicly available information as a positive call to action. The following are just a few examples of how this campaign has been executed:
  - RippleEffectOCSD.org: A consumer-focused website that brings private property I/I reduction to a more manageable and achievable level.
  - Brochures: Two versions of an educational brochure were produced and distributed.
  - Animation: A consumer-friendly animation was developed to visually depict the sources of private property I/I, as well as what homeowners can do to help reduce their contributions.
  - Additional content including a template letter and newsletter articles were shared for use at the municipal level.
- Business Partnerships: Several local businesses agreed to post consumer-friendly displays and provide brochures to customers.
- Presentations: A number of public education presentations were given to groups, including the League of Women Voters; Oneida-Herkimer Solid Waste Authority, Cornell Cooperative Extension and Oneida County Soil and Water staff; and residents of New Hartford's Sherrill Lane and Schuyler.
- Media: A project press release was distributed with direct media followup.
- Sewer Bill Mailing: An educational insert was included in water bills District-wide, explaining project details to homeowners.
- Public Information Bulletins: Regular communications with project updates and education.

sewerrehabocsd.org