

# Oneida County Sewer District



Consent Order Compliance

SSO Mitigation Plan Overview

July 22, 2010

Consulting Team

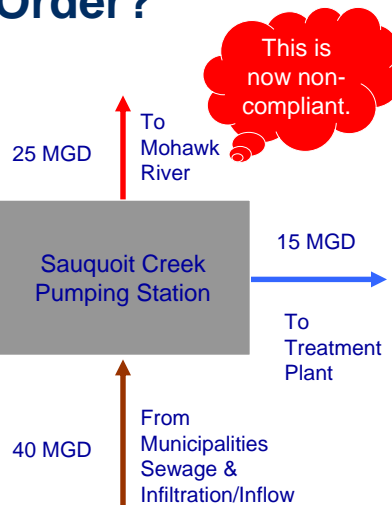
Shumaker Consulting Engineering  
Stearns & Wheler/GHD  
Brown and Caldwell  
Environmental Capital LLC  
Paige Group

**Anthony J. Picente Jr.**  
Oneida County Executive

Oneida County Department  
of Water Quality and  
Water Pollution Control

Steven Devan, PE,  
Commissioner

## Why is the County under a Consent Order?



This is now non-compliant.

# Oneida County Sewer District

- Established in 1960's
- 15 municipalities
  - 9 municipalities within the Sauquoit Creek Pump Station sewer shed
- Consolidated WWTP
- Interceptor Sewers and Pump Station

**Oneida County Sewer District Member Municipalities:**

- Village of Clayville
- Town of New Hartford
- Town of Schuyler\*
- Town of Deerfield
- Village of New Hartford
- City of Utica
- Town of Frankfort\*
- Village of New York Mills
- Town of Whitestown
- Village of Holland Patent\*
- Village of Oriskany
- Village of Whitesboro
- Town of Marcy
- Town of Paris
- Village of Yorkville

\* by intermunicipal agreement

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## Progress Toward Compliance

*Every Consent Order deadline met*

- SSO Mitigation Plan
- Engineering Reports and Assessments (8)
- Community-based Steering Committee
- Interim Sewer Rehab Projects
- Environmental Benefit Project
- GPS Sewer Mapping
- Hardware/Software Purchases
- Progress Meetings with NYSDEC (Region 6 and Central Office)

(Before)
05.18.2010
(After)

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# SSO Mitigation Plan

## Completed Field Work – Manhole Inspections

- 1,800 +/- inspected
- MACP\* standards utilized
- Leading indicator of pipe condition

\*Manhole Assessment and Certification Program



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# SSO Mitigation Plan

## Completed Field Work – Manhole Video Inspection



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# SSO Mitigation Plan

## Completed Field Work – Smoke Testing

### Smoke Testing Locations–

- New York Mills (V)
- Yorkville (V)
- New Hartford (T,V)
- Oriskany (V)
- Whitestown (T)
- Whitesboro (V)
- Clayville (V)

Smoke Testing Quantity–  
521,000 feet (99 miles)



# SSO Mitigation Plan

## Completed Field Work – CCTV Televising

### CCTV Locations:

#### Villages:

- Oriskany
- New York Mills
- New Hartford
- Whitesboro
- Yorkville

#### Towns:

- New Hartford
- Paris
- Whitestown

CCTV Quantity–  
231,000 feet (44 miles)



# SSO Mitigation Plan

## Completed Field Work-Private Property Inspection Pilot Program

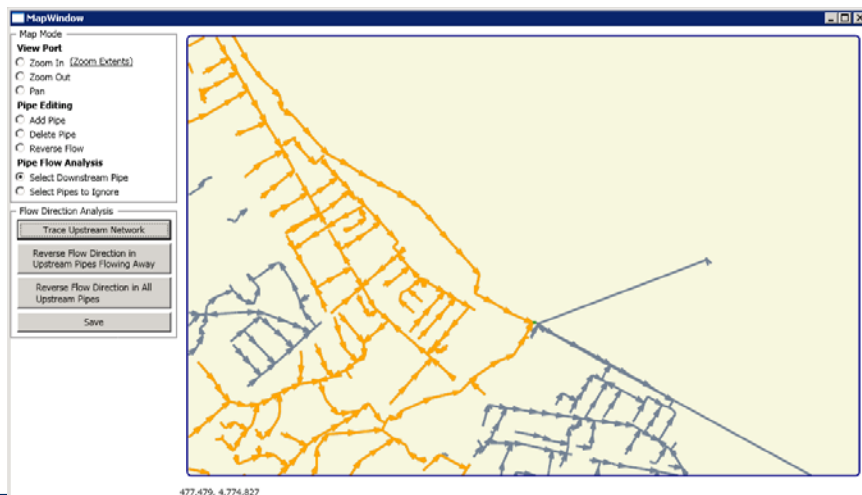
- Small sewershed in the Village of Whitesboro
- Sump pumps, roof leaders, foundation drains, area drains, etc...
- Approximately 55 properties in sewershed
- Pilot program will form basis of future programs



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# SSO Mitigation Plan

## Completed Work-Calibrated Hydrologic/Hydraulic Model



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## SSO Mitigation Plan – Findings

- Every community in the District was flow monitored
- Flow monitoring shows problems are occurring basin-wide
- Problems are systemic – every meter showed immediate reaction to a rainfall event
- CCTV, smoke testing, and dye testing confirm direct/indirect surface water connections
- Sections of deteriorated sewers exist system-wide
- Consistent with 50+ year old sewer infrastructure

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## SSO Mitigation Plan

### Program Approach

**“Fix the Problem vs. Treat the Symptom”**

- Sewer Rehabilitation
  - Manhole Rehabilitation
  - Sewer Rehabilitation
  - Private Property Corrections
- Pumping Station and Treatment Plant Upgrade
- Goal:
  - 50% Reduction in Infiltration & Inflow
  - 10 MGD Upgrade to Pumping Station and Treatment Plant

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## SSO Mitigation Plan

**Estimated Project Costs: \$158 Million**

Phase	Description	Budget Estimate (2008)
1	Sanitary Sewer Collection System – Manhole Rehabilitation	\$ 5,000,000
2	Sanitary Sewer Collection System – Sewer Rehabilitation/Replacement	\$37,000,000
3	Sanitary Sewer Collection System – Sewer Rehabilitation/Replacement	\$30,000,000
4	Private Property I/I Reduction	\$ 7,000,000
5	Sauquoit Creek Pumping Station and Force main upgrades	\$31,000,000
6	Water Pollution Control plant Upgrades	\$48,000,000
		<b>\$158,000,000</b>

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## SSO Mitigation Plan

**Collection System Repairs: \$79 Million**

Sewer System Owner	Preliminary Cost Projection by Sewer System Owner (Collection System)
Oneida County Sewer District	\$7,100,000
Village of Clayville	\$1,600,000
Town of New Hartford	\$26,000,000
Village of New Hartford	\$5,600,000
Village of New York Mills	\$8,500,000
Village of Oriskany	\$5,400,000
Town of Paris	\$4,000,000
Village of Whitesboro	\$6,700,000
Town of Whitestown	\$7,900,000
Village of Yorkville	\$6,200,000
<b>Preliminary Budget Estimate</b>	<b>\$79,000,000</b>

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## SSO Mitigation Plan

### System Upgrades \$79 Million

- **Provides capacity improvements to:**
  - Sauquoit Creek Pumping Station
  - Force main
  - Water Pollution Control Plant

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## SSO Mitigation Plan

### Financing Initiatives

#### Continuous Funding Search

- CWSRF - 2010 Annual List - \$25.8 million
  - Multi-year List - \$132.2 million
- USDA Rural Development – PED pending NYSEFC package
- “Green” infrastructure – submitted but no award
- Water Quality Improvement grant – October 2009
  - 10 project applications; \$50 million potential
  - Waiting for notification

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# SSO Mitigation Plan Implementation

## Program Approach

- Short-Term            Wastewater collection system rehabilitation/investigation, Detailed evaluation of the SCPS/Forcemain/WPCP
- Intermediate-Term    Continued collection system rehabilitation, SCPS/Forcemain/WPCP capacity improvements
- Long-Term            Perpetual care (CMOM)

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# SSO Mitigation Plan Implementation

## Program Approach (cont.)

- Financing            NYSEFC commitment  
USDA and other preferential financing programs
- Reporting            Annual Progress Reports  
Annual Work Plans  
Regular meetings with NYSDEC Regional staff
- Schedule            Modifies SSO mitigation date to 2020

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# SSO Mitigation Plan Implementation

## 2010/2011 Work Plan

### •Construction

- Easement access/clearing
- Manhole rehabilitation (600+/-)
- High priority sewer inflow repairs

### •Investigations

- CCTV – 75 +/- miles (balance in 2012)
- Dye testing – known inflow locations (per smoke testing)
- Manhole inspections (1,700+/- w/balance in 2012)

### •Engineering

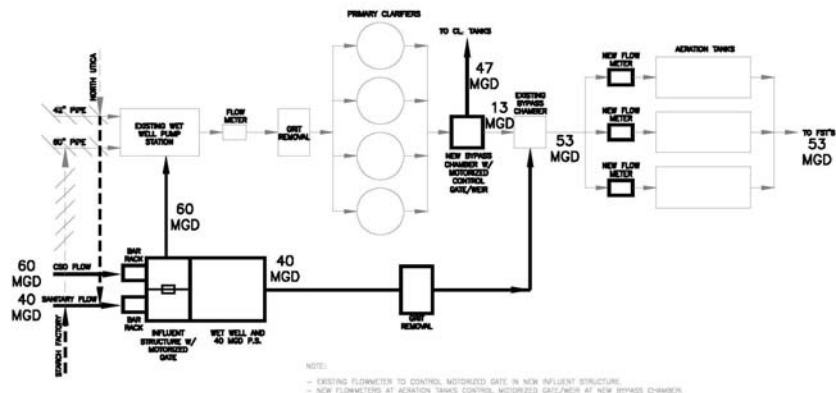
- Initiate the SCPS and WPCP detailed capacity analyses
- Data analysis of the current year investigations
- CMOM – develop framework for sewer ordinance
- Private property I/I inspection program development (requires buy-in from local elected officials)
- Preparation of 2011 Project Status report and 2012 Work Plan for NYSDEC

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# SSO Mitigation Plan Implementation

## Coordination with City of Utica LTCP

CSO/WET WEATHER TREATMENT  
INFLUENT FLOWS  $\approx$  100 MGD



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# Questions