

Oneida County Sewer District



Consent Order Compliance

SSO Mitigation Plan Overview

July 22, 2010

Consulting Team

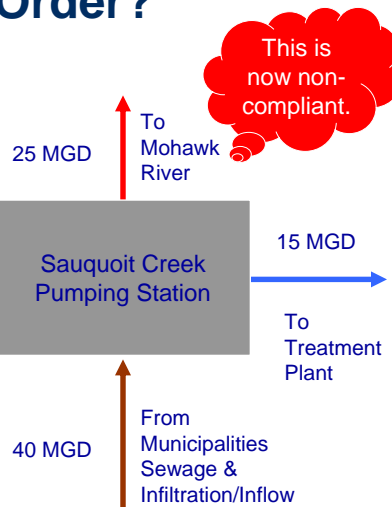
Shumaker Consulting Engineering
Stearns & Wheler/GHD
Brown and Caldwell
Environmental Capital LLC
Paige Group

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?



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

3

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) 02.18.2010 (After)



4

SSO Mitigation Plan

Completed Field Work – Manhole Inspections

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

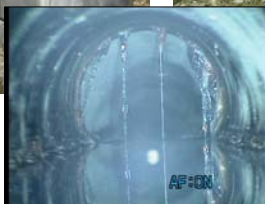
*Manhole Assessment and Certification Program



7

SSO Mitigation Plan

Completed Field Work – Manhole Video Inspection



8

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

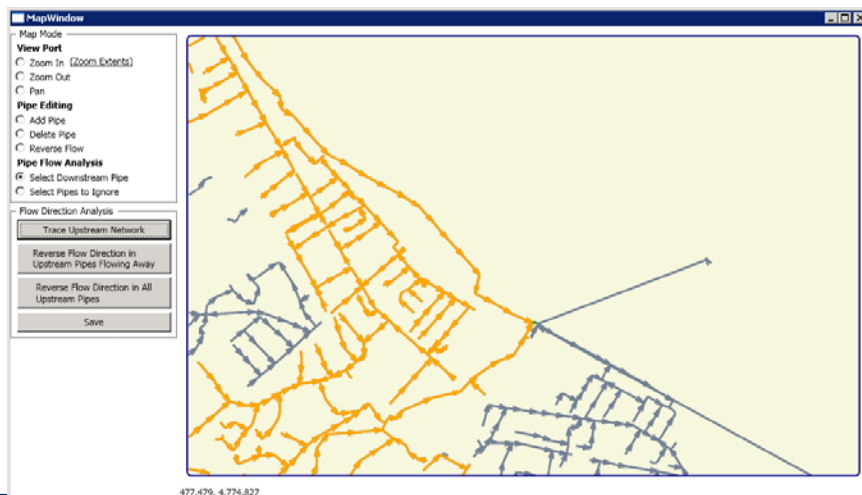
- Small sewershed in the Village of Whitesboro
- Sump pumps, roof leaders, foundation drains, area drains, etc...
- Approximately 55 properties in sewershed
- Pilot program will form basis of future programs



11

SSO Mitigation Plan

Completed Work-Calibrated Hydrologic/Hydraulic Model



12

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

13

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

14

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
		\$158,000,000

15

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
Preliminary Budget Estimate	\$79,000,000

16

SSO Mitigation Plan

System Upgrades \$79 Million

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

17

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

18

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)

19

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

20

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

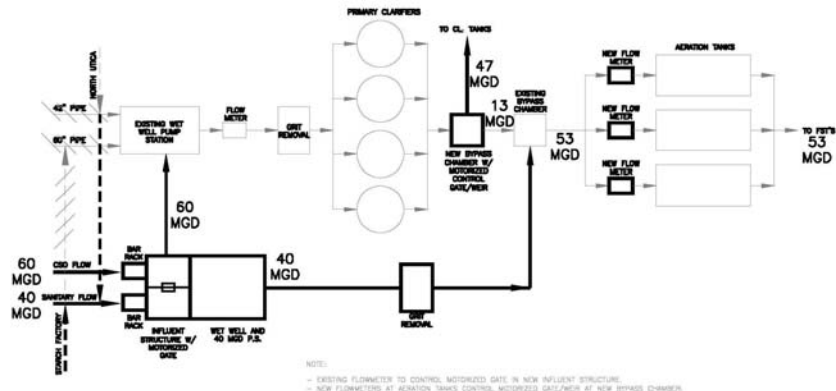
- Initiate the SCPS and WPCP detailed capacity analyses
- Data analysis of the current year investigations
- CMOM – develop framework for sewer ordinance
- Private property I/I inspection program development (requires buy-in from local elected officials)
- Preparation of 2011 Project Status report and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

21

SSO Mitigation Plan Implementation

Coordination with City of Utica LTCP

CSO/WET WEATHER TREATMENT
INFLUENT FLOWS \approx 100 MGD



22

Questions