

**SANITARY SEWER COLLECTION SYSTEM
QUARTERLY PROGRESS REPORT
2ND QUARTER – 2013
ONEIDA COUNTY SEWER DISTRICT**

NYSDEC Consent Order R620060823-67



Prepared for

Oneida County Department of Water Quality
& Water Pollution Control

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July 24, 2013



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Syracuse, NY



Utica, NY

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1.0 INTRODUCTION

1.1 HISTORICAL BACKGROUND

The Oneida County Sewer District (District) was formed in 1965 through an act by the former Oneida County Board of Supervisors. It is administered by Oneida County through the Oneida County Department of Water Quality and Water Pollution Control (WQ&WPC) which is responsible for the operation of the District's facilities and personnel. District facilities include 45 miles of interceptor sewers, the Sauquoit Creek and the Barnes Avenue Pumping Station, and the Water Pollution Control Plant. The District services 15 municipalities, nine of which are within the Sauquoit Creek Pumping Station (SCPS) Basin. These municipalities own and operate their own collection systems.

1.2 CONSENT ORDER

The New York State Department of Environmental Conservation (NYSDEC) and Oneida County (County) entered into a Consent Order (No. R620060823-67) due to sanitary sewer overflows (SSO) at the SCPS. In addition to the required mitigation of those SSOs, the Consent Order, with an effective date of December 12, 2011, requires the submission of Quarterly Progress Reports. The intent of this Quarterly Progress Report is to summarize the work that has been undertaken by the County between April 1, 2013 and June 30, 2013 (2nd quarter of 2013) in support of the Consent Order compliance requirements.

2.0 ENGINEERING INVESTIGATIONS AND EVALUATIONS

During the 2nd quarter of 2013, the County completed the following tasks related to engineering investigations and evaluations.

2.1 COLLECTION SYSTEM

2.1.1 Manhole Inspections

There were no manhole inspections completed during the 2nd quarter of 2013.

2.1.2 Sanitary Sewer Televising

There are approximately 216 miles of sanitary sewer within the SCPS basin (30 miles of District interceptor sewer plus 186 miles of municipal sewer). The County has contracted with a firm (National Water Main Cleaning Co.) to perform closed circuit televising (CCTV) of these sanitary sewers. CCTV of the municipal sewers was completed during the spring of 2013. Televising data was collected electronically in the field using the nationally standardized Pipe Assessment and Certification Program (PACP) and incorporated into the County's data management software.

During the 2nd quarter of 2013, no new televising of municipal sewers was completed, although some re-televising was done to improve data quality. The focus of the CCTV project during the 2nd quarter was on data cleanup and delivery and QA/QC of previously completed televising. Including interceptor sewers, approximately 170 cumulative miles of sewer have been televised through the end of the 1st quarter 2013.

2.1.3 Dye Testing

There was no dye testing performed during the 2nd quarter of 2013.

2.2 WATER POLLUTION CONTROL PLANT

During the 2nd quarter of 2013, the Consultant Team began preliminary design on the solids handling upgrades that were recommended in a report titled "Water Pollution Control Plant and Sauquoit Creek Pump Station Evaluation", and an addendum to that report that were approved by NYSDEC during the 4th quarter of 2012. In addition, 2 meetings were held with the County, WPCP operations staff, and Consultant Team members to discuss preliminary design elements as they relate to plant operations, and to provide a status update on the project.

2.3 SAUQUOIT CREEK PUMP STATION/FORCE MAIN

During the 2nd quarter of 2013, the Consultant Team began preliminary design on the pump station and force main upgrades that were recommended in a report titled "Water Pollution Control Plant and Sauquoit Creek Pump Station Evaluation", and an addendum to that report that were approved by NYSDEC during the 4th quarter of 2012.

Specifically, aerial photogrammetry control points were surveyed, ground survey was completed at critical locations, and base mapping compilation was completed. In addition, 2 meetings were held with the County, SCPS operations staff, and Consultant Team members to discuss preliminary design elements and to provide a status update on the project.

3.0 MANAGEMENT PROGRAMS

3.1 COMPUTERIZED MANAGEMENT AND MAINTENANCE SYSTEM

The County purchased a Computerized Management and Maintenance System (CMMS) software system (Lucity – formerly GBA Master Series) in 2009. This software is used to manage the sewer system data (mapping, inspections, etc.) obtained to date by the County. At the same time that the software was acquired, the County invested in computer hardware upgrades to support the CMMS system. The County’s GIS Coordinator manages the system.

During the 2nd quarter of 2013, the County continued to utilize the CMMS for tracking and documenting sewer rehabilitation work, and for verifying installed quantities on Contractor payment applications. The County also continued to make software and hardware improvements, including upgrading to ArcGIS Server 10.1, SQL Server 2012, and Lucity version 7.5.

3.2 FLOW MONITORING PROGRAM

A proposed flow monitoring program was developed during the 1st quarter of 2012 and submitted on March 27, 2012 to NYSDEC in accordance with Schedule A – Section B.1 of the Consent Order. NYSDEC provided written approval of the program on August 24, 2012. During the 2nd quarter of 2013, the County continued to work with DASNY to finalize the funding request (\$950,000) for the capital equipment procurement portion of the program. Additionally, the County continued work on a draft bid specification for the procurement of flow monitoring equipment and services, in anticipation of the award of funding.

3.3 PRIVATE PROPERTY I/I REDUCTION PROGRAM

During the 2nd quarter of 2012, a proposed outline of a program to address private property I/I (PPII) sources from the sanitary sewer system in the SCPS basin was prepared in accordance with Schedule A – Section B.2 of the Consent Order. A document titled “Preliminary Planning Document – Private Property Inflow and Infiltration Reduction Program” was submitted to NYSDEC on June 29, 2012 for review and comment. The County, working through the Steering Committee, has created a working group of appropriate PPII-oriented community representatives to map out a phased implementation plan. During the 2nd quarter of 2013, the County met with the working group and Consultant Team members twice to begin implementation of the program.

In addition to the work discussed above, the consultant team completed the following tasks:

- Developed a PPII website (www.rippleeffectocsd.org) and brochure to help educate the public about PPII
- Developed and distributed a municipal questionnaire to collect data on PPII source locations/problem areas
- Developed and distributed a municipal survey to collect data on current education and outreach efforts regarding PPII
- Facilitated discussions on potential resident concerns with private property inspections
- Facilitated discussions of potential “pilot program” locations within communities

3.4 CAPACITY, MANAGEMENT, OPERATIONS AND MAINTENANCE PROGRAM

During the 2nd quarter of 2012, a proposed outline for a Capacity, Management, Operations, and Maintenance (CMOM) Program that includes the Satellite Municipalities within the SCPS basin was prepared in accordance with Schedule A – Section B.3 of the Consent Order. Submission of a document titled “Preliminary Planning Document – Proposed CMOM Framework – Sauquoit Creek Pumping Station Basin Communities” was submitted to NYSDEC on June 29, 2012 for review and comment. The County, working through the Steering Committee, has created a working group of appropriate CMOM-oriented community representatives to map out a phased implementation plan. Program implementation began during the 2nd quarter of 2013. The County met twice

with the working group and Consultant Team members to develop design and construction standards, as well as an initial set of standard operating guidelines specific to sanitary sewer system operation and maintenance.

In support of the working group's activities, the consultant team assembled existing municipal design and construction standards, researched and assembled other communities' design and construction standards, contacted working group representatives regarding meetings and goals, and began assembling standard operating guidelines for discussion and consideration by the working group.

4.0 SCHEDULE/MILESTONE DATES

4.1 APPROVED SCHEDULE

The following table represents the approved schedule as defined by the Consent Order (note that there were no changes to this schedule during the 2nd quarter of 2013):

Description	Consent Order, Schedule "A" Date
<u>Engineering Investigations, and Evaluations</u>	
Dye Testing and Storm Sewer Report	June 30, 2012
Manhole Evaluation Report – Phase II	June 30, 2012
SCPS Evaluation Report	August 31, 2012
WPCP Evaluation Report	August 31, 2012
Treatment System Supplement (Report)	60 days after approval of WPCP Evaluation Report
Sewer CCTV Inspection Report – Phase II	April 30, 2013
Sewer CCTV Inspection Report – Phase III	April 30, 2014
Collection System Supplement (Report)	May 31, 2014
<u>Management Programs</u>	
Flow Monitoring Program	March 31, 2012
Private Property I/I Reduction Program	June 30, 2012
CMOM Program	June 30, 2012
PPII Reduction Program Implementation	May 31, 2013
CMOM Implementation	May 31, 2013
Asset Management Plan	December 31, 2021
<u>Remedial Measures</u>	
Semi-Permanent Alternative-Construction	December 31, 2016
SSO Mitigation-Consent Order Compliance	December 31, 2021
<u>Reporting</u>	
Annual Work Plan	January 31, annually
Quarterly Progress Report	Quarterly

4.2 MILESTONES

During the 2nd quarter of 2013, the following milestone dates were met:

- Private Property I/I Reduction Program (PPII) implementation began May 16, 2013 with the formation of the PPII Working Group, and the first meeting of that group.
- CMOM Program implementation began May 16, 2013 with the formation of the CMOM Working Group, and the first meeting of that group.
- “Sauquoit Creek Pumping Station Basin Sewer Television Inspection Report-Phase II” was submitted to NYSDEC on April 25, 2013.

5.0 SEWER REHABILITATION

Design and construction for initial projects is being financed under CWSRF Project No. C6-6070-08-00. Projects are tracked by contract number. The following is a status update of the current sewer rehabilitation contracts.

5.1 CONTRACT 2 – SANITARY SEWER MANHOLE REHABILITATION – PHASE 2

After a short winter shutdown, Green Mountain Pipeline Services (GMPS) and their sub-contractor resumed work during the end of the 1st quarter of 2013. Due to favorable pricing afforded by GMPS bid prices, a construction change order was executed between the County and GMPS on September 4, 2012 that added 336 manholes to the original contract of 942 manholes. The completion date was extended through June 2013 in order to complete the additional work. Including the change order, this project will rehabilitate approximately 1,278 sanitary sewer manholes. As of June 30, 2013 manhole rehabilitation work was substantially complete, and only punch list and project closeout items remain.

5.2 CONTRACT 3 – SANITARY SEWER MAINLINE REHABILITATION – PHASE 1

The County's Contractor, Insituform Technologies, LLC (ITI) mobilized and began work in mid-October 2012. Work includes approximately 13 miles of sewer rehabilitation using cured in place pipe (CIPP) lining, open cut repairs, sewer joint grouting, CIPP short liners, and lateral grouting. During the 2nd quarter of 2013, all of the work was completed. Only project closeout items remain to be completed.

5.3 CONTRACT 4 – SEWER SEPARATION – CLINTON/HENDERSON STREET, NY MILLS

Substantial completion on this project was achieved during the 4th quarter of 2012. Work included the separation of a short section of combined sewer, reconnection of sanitary laterals, and conversion of an abandoned sanitary sewer to a storm sewer, with construction of a short extension of storm sewer, with an outfall to Sauquoit Creek through Pietryka Park in the Village of New York Mills.

The project resulted in the removal of approximately 264,000 gallons per day (measured) of wet weather flow from the sanitary sewer system at a final contract cost of \$162,938. As of the end of the 2nd quarter of 2013, punch list items, mostly related to site restoration were completed and only project closeout items remain.

5.4 CONTRACT 5 – SEWER SPOT REPAIRS – PHASE 1

During the 2nd quarter of 2013, Plans, Specifications, and a Basis of Design Report were approved by NYSDEC and NYSEFC. On June 13, 2013 the project was advertised for bid with a July 11, 2013 bid opening. Planned work includes storm sewer and sanitary sewer repairs for the purpose of removing inflow (both direct and indirect) sources from the sanitary sewer system in locations determined from the results of prior dye testing. Repairs are planned for approximately 15 separate locations throughout the SCPS tributary area. In addition, the project has been expanded to include the replacement of four sanitary sewer manholes and the lining of four pipe segments utilizing an ultra-violet light cured CIPP (UV-CIPP) process. The four pipe segments were identified to be lined under Contract 3, but due to access limitations in the upstream manholes, lining was not able to be completed. UV-CIPP was selected at these four locations as a small-scale demonstration project in order to evaluate an alternate lining process. Work is anticipated to be performed during the 3rd and 4th quarters of 2013.

5.5 CONTRACT 6 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 2

During the 2nd quarter of 2013, design was completed and construction documents were developed and finalized for Contract 6. Work under Contract 6 includes approximately 15 miles of sewer rehabilitation using cured in place pipe (CIPP) lining, open cut repairs, sewer joint grouting, CIPP short liners, and lateral grouting. On June 28, 2013, Plans, Specifications, and a Basis of Design Report were submitted to NYSDEC and NYSEFC for approval. A 3rd quarter 2013 project bid date is anticipated, with construction work beginning during fall 2013.

In addition to work identified to be completed under the base bid of Contract 6, two municipalities anticipate taking advantage of the County's bidding process to obtain bid prices for additional work to be completed using local funding sources. Specifically, the Town of New Hartford is proposing to complete comprehensive sewer rehabilitation in flow basin NHD-22 at an estimated cost of \$350,000 and the City of Utica is proposing to add approximately 3,500 feet of 18-inch and 24-inch CIPP lining in order to structurally rehabilitate a sanitary sewer under Genesee Street at an estimated cost of \$500,000.

6.0 ASSESSMENT OF REHABILITATION EFFECTIVENESS

During the 2nd quarter of 2013, there was no mechanism (flow monitoring) in place to measure the effectiveness of sewer rehabilitation. See Section 3.2, above for a discussion of the status of flow monitoring. However, visual observations of the construction activities associated with Construction Contracts 2 and 3 note obvious removals of I/I sources. Additionally, and as noted in Section 5.3, approximately 264,000 gpd of measured inflow and infiltration is being removed continually through the new outfall at Sauquoit Creek constructed under Contract 4.

7.0 COMPLETED CAPITAL PROJECTS/FACILITY UPGRADES

During the 2nd quarter of 2013, there were no capital projects or facility upgrades completed, although current sewer rehabilitation construction projects are nearing completion . As noted in Sections 5.1, 5.2, 5.3, and 5.4, the work associated with the current rehabilitation contracts is mostly complete, with the exception of minor work required under each contract.

8.0 I/I OFFSET PROJECTS/NEW FLOWS

During the 2nd quarter of 2013, the following additions and subtractions to the I/I Offset Credit Bank were recorded by the County. All amounts are reported in gallons per day (gpd), after the application of the 5:1 offset ratio.

Community	Starting Balance	Credits Added	Credits Used	Ending Balance
Town of New Hartford	17,166	0	3307 Mohawk Street (350.000-3-40.2)	320
			45 Overland Drive	320
			53 Cherrywood Blvd.	320
			57 Cherrywood Blvd.	320
			8216 Route 5	96
			9 Dogwood Lane	320
			47 Overland Drive	320
Town of Paris	1,927	0	0	1,927
Town of Whitestown	5,037	0	0	5,037
Village of Clayville	0	0	0	0
Village of New Hartford	17,434	0	0	17,434
Village of New York Mills	62,166	0	0	62,166
Village of Oriskany	1,243	0	0	1,243
Village of Whitesboro	16,345	0	0	16,345
Village of Yorkville	316	0	0	316
Totals	121,634	0	2,016	119,618

9.0 KEY PERSONNEL CHANGES

Key personnel changes, as they relate to the SSO Mitigation/Consent Order compliance project, is interpreted to be those staff members, whose addition to or deletion from the project would be viewed by the County to either add resources, or be a detriment to progress. Project staff includes County, satellite community, and consultant team personnel. The following is a summary of changes.

9.1 COUNTY STAFF

During the 2nd quarter of 2013, there were no changes of key personnel to report.

9.2 SATELLITE COMMUNITY STAFF

During the 2nd quarter of 2013, there were no changes of key personnel to report.

9.3 CONSULTANT TEAM STAFF

During the 2nd quarter of 2013, there were no changes of key personnel to report.

10.0 ADMINISTRATIVE ITEMS

10.1 WORK AUTHORIZATIONS

During the 2nd quarter of 2013, the following Work Orders were submitted to the County for review and were subsequently approved:

- WO24-Water Pollution Control Plant Upgrade and Expansion, Solids Handling Upgrades-Preliminary Design
- WO25-Sewer Rehabilitation-FY 2013 Engineering Services
- WO26-Sauquoit Creek Pumping Station Upgrade and New Forcemain-Preliminary Design
- WO27-CMOM Program Implementation-Phase 1
- WO28-Community Outreach
- WO29-Private Property I/I Reduction Program Implementation-Phase 1
- WO30-Program Administration-FY 2013
- WO31-Water Pollution Control Plant Upgrade and Expansion-Sewage Sludge Incinerator Source Emission Testing

10.2 FUNDING APPLICATIONS

The following is a status summary of current funding activities:

10.2.1 Phase 5a – Pump Station and Forcemain Upgrades – Design and Permitting (CWSRF No. C6-6070-08-02)-\$3 Million

The financing application has been advanced through NYSEFC. A closing on the short-term financing occurred in June 2013.

10.2.2 WPCP Upgrade and Expansion, Solids Handling Upgrades-Preliminary Design (CWSRF No. C6-6070-08-06)-\$35 Million

The Oneida County Board of Legislators approved the financing/bond authorization for this funding on March 13, 2013. Financing through NYSEFC will occur, with a closing on short term financing anticipated for October 2013.

10.2.3 DASNY-Economic Development Assistance Program

Oneida County continues to work with DASNY on the release of the \$950,000 grant for the acquisition and installation of District-wide flow metering equipment. Funds are anticipated to be available by Fall 2013 pending final authorization by the NYS Senate and NYS Budget Office.