

**SANITARY SEWER COLLECTION SYSTEM
QUARTERLY PROGRESS REPORT
1ST QUARTER – 2016
ONEIDA COUNTY SEWER DISTRICT**

NYSDEC Consent Order R620060823-67



APRIL 29, 2016



Cazenovia, NY



Syracuse, NY



Utica, NY

**Sanitary Sewer Collection System
Quarterly Progress Report
1st Quarter - 2016
Oneida County Sewer District
NYSDEC Consent Order R620060823-67**

Prepared for:

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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 Pumping Station (SCPS), the Barnes Avenue Pumping Station, and the Water Pollution Control Plant (WPCP). The District services 15 municipalities, nine of which are within the SCPS Basin. These municipalities own and operate their own collection systems.

1.2 PURPOSE

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 SSO's, 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 January 1, 2016 and March 31, 2016 (1st Quarter of 2016) in support of the Consent Order compliance requirements.

2.0 ENGINEERING INVESTIGATIONS AND EVALUATIONS

During the 1st Quarter of 2016, the County completed the following tasks related to engineering investigations and evaluations.

2.1 COLLECTION SYSTEM

2.1.1 Manhole Inspections

The manhole inspection program was completed in 2012. There were no additional manhole inspections completed during the 1st Quarter of 2016.

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). In 2011, the County contracted with a firm (National Water Main Cleaning Co.) to perform closed circuit televising (CCTV) of these sanitary sewers. 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.

The 2011 initial televising contract, resulted in approximately 79%, or 171 miles of the 216 miles of sewers being televised. The remaining 21%, or 47 miles of sewers, were not inspected at that time due to heavy debris in quantities beyond the scope of the contractual cleaning effort; small diameter pipe inhibiting effective CCTV inspections; lack of easement access to manholes and sewers, and buried manholes. These obstacles are primarily maintenance related and are being addressed through the District-wide Capacity, Management, Operations, and Maintenance (CMOM) program currently in various stages of implementation. Efforts are being made to CCTV and inspect additional sewers as a component of current and future sewer rehabilitation contracts.

During the 1st Quarter 2016, no sewers were televised. Including the original CCTV contract, and subsequent CMOM and rehabilitation related CCTV, a total of approximately 176 miles of sewer, or 81% of the total sewers in the SCPS basin have been televised.

2.1.3 Dye Testing

The dye testing program was completed in 2012. There was no additional dye testing performed during 1st Q 2016.

2.2 TREATMENT FACILITIES

Most of the investigations and evaluations have been completed. The WPCP, SCPS and New Force Main are in various stages of design, review, and bidding. Table 2 summarizes how the work has been segregated and the status of the each of the various planned construction contracts. Note: Contract numbers identified for the work at the WPCP and the SCPS/Force Main (C-1 through C-8), do not correlate to the sanitary sewer rehabilitation contracts (Contracts 2-14).

The exception is a phosphorus evaluation currently being conducted to characterize the WPCP's influent and effluent phosphorus concentrations, and to evaluate phosphorus removal technologies. The study is expected to be complete during 3rd Quarter 2016, with a report and recommendations prepared during 4th Quarter 2016.

Table 2

Oneida County Sewer District Summary of Contracts								
Water Pollution Control Plant and Sauquoit Creek Pump Station/Force Main								
Contract No.	Title of Contract	Components of System Addressed	Status of Design	Status of DEC Review	Status of other Agency Reviews	Estimated Advertisement	Estimated Construction Start	Estimated Construction Complete
1	Incinerator No. 2 Demolition	Demolition of Incinerator No. 2	Final	Approved	n/a	Bidding occurred during 1Q 2016; however, due to the outcome of bids, the demolition will be incorporated into Contract 2.		
2	WPCP Solids Handling Upgrades	2 new egg-shaped digesters, 1 secondary digester w/ gas holding cover, new waste activated sludge pumps, refurbish 4 gravity thickeners, new stand-by lime stabilization system, 2 new belt filter presses	Final	Pending DEC approval, submitted in October 2015	n/a	Advertised April 5, 2016	September 2016	February 2018
3	Electrical Equipment Pre-Purchase	Pre-purchase of major electrical components such as switch gears, transformers, and supporting power distribution equipment	60%	n/a	Pending National Grid approval, submitted in February 2016	January 2017	June 2017	October 2018
4	Sauquoit Creek Force Main Upgrades	New 48-inch force main and rehabilitation of the existing force main, new flow metering and flow control vaults	90%	To be submitted 2Q 2016	Pending US Army Corps/DEC wetland permit, submitted October 2015	July 2016	November 2016	April 2018
5	Sauquoit Creek Pumping Station Upgrades	Replacement of existing pump station mechanical screen contained in a new screen building, 2 screenings washer/compactors and conveyor; replacement of existing standby generator capable of operating the station to pump peak flow during a power outage; electrical/HVAC upgrades; flow distribution structure at the WPCP	90%	To be submitted 2Q 2016		September 2016	January 2017	April 2018
5.1	Barnes Avenue Pumping Station Upgrades	Relocation of pumping station to south side of CSX Railroad right-of-way; new, smaller, sustainable pumping station sized to accommodate actual flow rates.	0%			February 2017	May 2017	January 2018
6	WPCP Headworks Upgrades	New screening facility and pump station dedicated to sanitary flows from North Utica & Starch Factory Creek Interceptors; repurpose existing raw waste building for combined flow from City of Utica; new grit removal facilities; remodeling of the administrative building including new laboratory, control room, offices, training room, etc.	60%			June 2017	October 2017	October 2019
7	WPCP Primary Treatment Upgrade/High Rate Disinfection	New rectangular primary settling tanks to replace existing circular tanks; new high rate disinfection system for wet weather combined sewer flows; new HRD outfall	60%			October 2017	February 2018	July 2021
8	WPCP Secondary Treatment Process Upgrades	Replacement of existing blowers with more efficient units, replacement of existing aeration tank diffusers, refurbishment of the existing final settling tanks	30%			November 2018	July 2019	July 2021

3.0 MANAGEMENT PROGRAMS

3.1 COMPUTERIZED MANAGEMENT AND MAINTENANCE SYSTEM

The County purchased a Computerized Management and Maintenance System (CMMS) software system (Lucity) 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. The County's geographic information system (GIS) coordinator manages the system.

The County continues to utilize the CMMS for tracking and documenting sewer rehabilitation work, and uploading and managing new PACP data provided by the County's CCTV and sewer rehabilitation contractors on a regular basis.

The Consultant Team utilizes the CMMS in support of the sanitary sewer rehabilitation design efforts as a means to identify defects and develop rehabilitation methodologies.

The County continues to maximize the use of its current CMMS software. At the same time, the County, with the assistance of the Consultant Team, continues to assess ways to optimize the CMMS with the long term expanded asset management needs for the wastewater system. As a result, the County has begun to explore potential alternative software. It is anticipated this research of alternative software systems will continue as opportunities become available.

3.2 FLOW MONITORING PROGRAM

The County worked closely with the Dormitory Authority of the State of New York (DASNY) to secure the \$950,000 Economic Development Assistance Program (EDAP) funding allocation to support the extensive flow monitoring program proposed by the County and approved by NYSDEC on August 24, 2012.

The EDAP funds were ultimately made available by DASNY to the County in March 2014. Procurement of the flow monitoring equipment was advertised on June 9, 2014. Contract was awarded on September 10, 2014 to ADS Environmental Services, LLC (ADS). ADS completed the installation of 63 flow meters and five rain gauges in 2015. Two of the meters were installed to monitor flow to the County's Barnes Ave Pumping Station. The other two are used to monitor flow in two of the City of Utica's combined sewers to aid in hydraulic model calibration and confirmation. All flow meters and rain gauges have been collecting flow data since their installation.

Preliminary reporting made available to the County by ADS indicates sanitary sewer rehabilitation, including manhole rehabilitation that has been completed to date may be having a positive effect on the amount of I/I entering the sanitary sewer system.

Raw flow monitoring data, consisting of 15-minute measurements of depth and velocity, are reviewed by ADS technicians who are able to assess the reliability of the data, and "scrub" out data that is deemed not accurate based on inconsistencies in the expected predictable relationship between depth, velocity, and rate of flow.

ADS technicians input the cleaned-up data into Sliicer, which is ADS' proprietary flow analyzing software. Sliicer enables the flow monitoring technician to define "typical" rain events for both summer and winter seasons, and analyze the rain event's effect on the flow in the sanitary sewer as measured by the flow monitors. This forms the basis of evaluating the quantity of Rain Derived I/I, or RDII.

A critical piece of information that is needed for the effective use of Sliicer, or any other wet-weather analysis tool, is rainfall. Based on the data collected by the rain gauge installed at the SCPS, 2015 was characterized by a lack of significant rainfall. A review of other rain gauges produced similar results. The majority of rain events at the SCPS during 2015 totaled less than a half-inch for the 1-day period measured from midnight to midnight on any given day. Only 4 days during 2015 exceeded one inch of rainfall and zero days reached the level of the 1-year, 1-day storm amount of 1.91", according to the Northeast Regional Climate Center (NRCC)

(<http://precip.eas.cornell.edu/>). Only one day, August 20, 2015 approached the 1-year, 1-day storm, with 1.87" of rainfall recorded for the period. Tabular rainfall data from the SCPS rain gauge, along with the Extreme Precipitation Tables from NRCC are included in Appendix A.

Despite the lack of appreciable rainfall during 2015, an attempt was made using Slicer to define the relationship between rainfall and flow in the sewers, also known as flow vs. rainfall, or Q vs. i. Q vs. i plots were developed for all flow monitors. Where flow monitors were installed in the same locations in 2008 as the current installations, a comparison of the slope of the Q vs. i plots can be made. The flatter the slope of the line, the less RDII is entering the sewer. A review of the Q vs. i plots indicates that some basins where comprehensive rehabilitation has been completed, such as NHD-18 and WHN-2, were less reactive to RDII in 2015 compared to 2008, before rehabilitation was completed. However, other basins where rehabilitation has not been completed, such as NHD-11, appear to show similar RDII reductions between 2008 and 2015. Hydrographs and Q vs. i plots for all flow meters are included in Appendix B.

The quantity of I/I removed as a result of sewer rehabilitation completed to date, and the quantity of future I/I removal are not able to be reliably predicted without the collection of more consistent, significant rainfall data. As the amount of rainfall data increases, the quality of the Q vs. i plots will improve, leading to more confidence in making these predictions.

3.3 PRIVATE PROPERTY INFLOW AND INFILTRATION REDUCTION PROGRAM

The document titled “Preliminary Planning Document – Private Property Inflow and Infiltration Reduction Program” was submitted to NYSDEC on June 29, 2012 as required by Schedule A - Section B.2 of the Consent Order. The County, working through the Steering Committee, created a working group of appropriate private property inflow and infiltration (PPII)-oriented community representatives to map out a phased implementation plan.

Conceptual design of a small pilot PPII reduction project in the Town of Paris was completed in the 4th Quarter of 2015. This conceptual design and a project estimate will be presented to the Town of Paris for review during the 2nd Quarter of 2016, and project financing will be sought.

3.4 CAPACITY, MANAGEMENT, OPERATIONS AND MAINTENANCE PROGRAM

The document titled “Preliminary Planning Document – Proposed CMOM Framework – Sauquoit Creek Pumping Station Basin Communities” was submitted to NYSDEC on June 29, 2012 as required by Schedule A – Section B.3 of the Consent Order. The County, working through the Steering Committee, created a working group of appropriate CMOM-oriented community representatives to map out a phased implementation plan.

During the 1st Quarter of 2016, planning for the 2016 CMOM Working Group activities was completed.

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 1st Quarter of 2016):

Description	Consent Order, Schedule “A” Date	Status
<u>Engineering Investigations and Evaluations</u>		
Dye Testing and Storm Sewer Report	June 30, 2012	Complete, Submitted June 29, 2012
Manhole Evaluation Report – Phase II	June 30, 2012	Complete, Submitted June 29, 2012
SCPS Evaluation Report	August 31, 2012	Complete, Approved November 28, 2012
WPCP Evaluation Report	August 31, 2012	Complete, Approved November 28, 2012
Treatment System Supplement (Report)	60 days after approval of WPCP Evaluation Report	Complete, Submitted January 25, 2013
Sewer CCTV Inspection Report – Phase II	April 30, 2013	Complete, Submitted April 25, 2013
Sewer CCTV Inspection Report – Phase III	April 30, 2014	Complete, Submitted April 29, 2014
Collection System Supplement (Report)	May 31, 2014 (extension granted to July 1, 2014)	Complete, Submitted June 30, 2014 Approved December 18, 2014
<u>Management Programs</u>		
Flow Monitoring Program	March 31, 2012	
Private Property I/I Reduction Program	June 30, 2012	Complete, Submitted June 29, 2012
CMOM Program	June 30, 2012	Complete, Submitted June 29, 2012
PPII Reduction Program Implementation	May 31, 2013	Began implementation in 4 th Quarter 2012
CMOM Implementation	May 31, 2013	Began implementation in 4 th Quarter 2012
Asset Management Plan	December 31, 2021	Pending
<u>Remedial Measures</u>		
Semi-Permanent Alternative-Construction	December 31, 2016	Final design and permitting
SSO Mitigation-Consent Order Compliance	December 31, 2021	In progress

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Description	Consent Order, Schedule “A” Date	Status
<u>Reporting</u>		
Annual Work Plan	January 31, annually	Completed annually. 2016 report submission approved March 8, 2016
Quarterly Progress Report	Quarterly	Submitted quarterly

Note: I/I – Inflow and Infiltration

4.2 MILESTONES

During the 1st Quarter of 2016, the following milestone dates were met:

- Continuing to make progress toward compliance milestones.
- No specific milestones defined/requested during the 1st Quarter of 2016.

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 COMPLETED SEWER REHABILITATION CONTRACTS

Contract No.	Contract Title	Contract Description
2	Sanitary Sewer Manhole Rehabilitation – Phase 2	Rehabilitation of approximately 1,278 sanitary sewer manholes throughout the District.
3	Sanitary Sewer Mainline Rehabilitation – Phase 1	Rehabilitation of approximately 13 miles of sanitary sewers within the villages of New York Mills, Oriskany, New Hartford, Whitesboro, and Yorkville and the towns of New Hartford and Whitestown.
4	Sewer Separation – Clinton/Henderson Street, NY Mills	Storm/Sanitary sewer separation.
5	Sewer Repairs and Rehabilitation	Storm/Sanitary sewer repairs and rehabilitation; manhole replacement and UV-CIPP lining.
6	Sanitary Sewer Mainline Rehabilitation – Phase 3	Rehabilitation of approximately 15 miles of sanitary sewer within the villages of New Hartford and Clayville, towns of New Hartford and Paris and the City of Utica.
7	Sanitary Sewer Mainline Rehabilitation – Phase 4	Rehabilitation of approximately 13 miles of sanitary sewer within the Towns of New Hartford and Whitestown.

5.2 CONTRACT 5 - SEWER REPAIRS AND REHABILITATION

With the exception of some limited lawn restoration work that will be done in spring 2016, the contractual work under Contract 5 has been completed.

5.3 CONTRACT 6 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 2

Contract 6 work is complete; it will be closed out in the 2nd Quarter of 2016 pending receipt and validation of post-rehabilitation CCTV data.

5.4 CONTRACT 7 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 3

Contract 7 is complete; it will be closed out in the 2nd Quarter of 2016, pending receipt and validation of post-rehabilitation CCTV data.

5.5 CONTRACT 8 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 4

Contract 8 was awarded to National Water Main Cleaning Company (NWMC) for \$1,305,997.25 on March 15, 2015. Contract 8 rehabilitation is within NHD-23 sewersheds in the Town of New Hartford, and consists of pipe grouting, lateral grouting, open cut, spot repairs, and a limited amount of full length CIPP lining. Contract 8 includes 13,700 LF of sanitary sewer CCTV followed by additional rehabilitation where necessary. A total of 14 miles of pipe in the Town of New Hartford will be rehabilitated under Contract 8. In addition to New York State Environmental Facilities Corporation (NYSEFC) funding for Contract 8, a portion of the work was planned to be funded directly by the Town of New Hartford through its sewer fund. During subsequent discussions with the

town, it has indicated it no longer has the funds available in its sewer fund for this work. The portion of Contract 8 that was set aside for the town has been added back in to the base bid by Change Order in the amount of \$219,039.

A Notice to Proceed was issued to NWMC on July 21, 2015 and construction began on July 28, 2015. Through the end of the 1st Quarter of 2016, work is approximately 95% complete. Work on Contract 8 is anticipated to continue through the 2nd Quarter of 2016.

5.6 CONTRACT 10 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 5

On September 9, 2015, the County awarded Contract 10 to Green Mountain Pipeline Services, Inc. (GMPS) for \$3,429,370. Execution of a construction contract between Oneida County and GMPS has been stalled due to protracted MWBE utilization plan coordination between GMPS and NYSEFC. Through the end of the 1st Q 2016, this item had not been resolved.

Contract 10 rehabilitation work will occur in the Town of Whitestown in sewershed WHN-32, and the Village of Whitesboro. WHN-32 is generally located west of Henderson Street, north of Mud Creek, south of Clinton Street and east of Clinton Road and contains approximately 7.1 miles of pipe. Approximately 10 miles of pipe will be rehabilitated in the Village of Whitesboro. Contract 10 consists of a mix of CIPP lining, pipe joint and lateral grouting, open cut repairs, spot repairs, and supplemental CCTV inspections.

It is anticipated that construction of Contract 10 will begin during the spring of 2016.

5.7 CONTRACT 11 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 6

On December 9, 2015, the County awarded Contract 11 to NWMC for \$760,755.

Contract 11 consists of a mix of pipe joint and lateral grouting, open cut repairs, CIPP spot liner repairs, and supplemental CCTV inspections. Contract 11 rehabilitation work is occurring in sewershed NHD-20. NHD-20 is generally located in the area of Chapman Road, Higby Road, Mohawk Street, and side streets in the Town of New Hartford and contains approximately 7.3 miles of pipe.

Contract 11 work started in January 2016.

5.8 CONTRACT 12 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 7

Design of Contract 12 - Sanitary Sewer Mainline Rehabilitation Phase 7 was progressed to 90% completion during the 1st Quarter of 2016.

Contract 12 rehabilitation work will occur in the Village of Yorkville (sewershed YKV-1), not previously rehabilitated under other contracts.

The Village of Yorkville intends to fund and undertake this project to repair, rehabilitate, replace, and/or reconstruct deteriorated sewers owned and operated by the village which are tributary to the Sauquoit Creek Pumping Station. Work will include manhole rehabilitation, sanitary sewer rehabilitation (CIPP, grouting, spot repairs, etc.), sanitary sewer replacement/reconstruction and stormwater system improvements to accommodate I/I removal. This work will supplement work previously financed by Oneida County.

The Village of Yorkville has submitted a Clean Water State Revolving Fund application and a New York State Water Infrastructure Grant application (CSO/SSO and Hardship categories).

Work will proceed upon receipt of project financing.

5.9 CONTRACT 13 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 8

Design of Contract 13 - Sanitary Sewer Mainline Rehabilitation Phase 8 began in the 1st Quarter of 2016 and is 90% complete.

Contract 13 rehabilitation work will occur in the Town of New Hartford within areas of sewershed NHD-6. NHD-6 is generally located within residential subdivisions along Routes 12B and Merritt Place, situated south of Route 5B and Seneca Turnpike, and north of Sherrill Brook Park. Contract 13 is similar in scope to previous rehabilitation contracts, but also includes easement improvements along Mud Creek Interceptor.

Contract 13 is expected to be bid in 2nd Quarter 2016.

5.10 CONTRACT 14 - SANITARY SEWER MAINLINE REHABILITATION – PHASE 9

Preliminary design of Contract 14 - Sanitary Sewer Mainline Rehabilitation, Phase 9 began in the 1st Quarter of 2016 and is expected to be finalized in 2nd Quarter 2016.

Contract 14 rehabilitation work is anticipated to occur in the Town of New Hartford within areas of sewershed NHD-9. NHD-9 is generally composed of the commercial district along Seneca Turnpike surrounding Sangertown Square Shopping Mall, south to a residential area situated between Seneca Turnpike and Clinton Road (bound easterly to the intersection of Seneca Turnpike/Clinton road and westerly to Miles Elementary School) and a small residential area south of Clinton Road along Merritt Place. Contract 14 is similar in scope to previous rehabilitation contracts.

Contract 14 is expected to be bid in 3rd Quarter 2016.

6.0 ASSESSMENT OF REHABILITATION EFFECTIVENESS

See Section 3.2 above for a discussion of the status of flow monitoring. Based on the completed work, and using estimated values of inflow and infiltration (I/I) removals provided in the Offset Plan and/or the approved Basis of Design engineering reports for the respective projects, the reductions in I/I are estimated to be:

Sewer Rehabilitation Contract	Estimated I/I Flow Removed (gpd)
Contract 2 – Sanitary Sewer Manhole Rehabilitation, Phase 2	5,411,910
Contract 3 – Sanitary Sewer Mainline Rehabilitation, Phase 1	1,503,360
Contract 4 – Sewer Separation – Clinton/Henderson St (NY Mills)	264,000
Contract 5 – Sewer Repairs and Rehabilitation	120,000
Contract 6 – Sanitary Sewer Mainline Rehabilitation Phase II	1,130,000
Contract 7 – Sanitary Sewer Mainline Rehabilitation Phase III	630,000
Contract 8 – Sanitary Sewer Mainline Rehabilitation Phase IV	249,000 (upon completion)
Contract 10 – Sanitary Sewer Mainline Rehabilitation Phase V (partially complete)	1,120,000 (upon completion)
Contract 11 – Sanitary Sewer Mainline Rehabilitation Phase VI (partially complete)	260,640 (upon completion)
Contract 12 – Sanitary Sewer Mainline Rehabilitation Phase VII (project expected to be bid in 3Q 2016)	824,832 (upon completion)
Contract 13 – Sanitary Sewer Mainline Rehabilitation Phase VIII (project expected to be bid in 2Q 2016)	280,000 (upon completion)

7.0 COMPLETED CAPITAL PROJECTS/FACILITY UPGRADES

Contract 2 – Sanitary Sewer Manhole Rehabilitation: Project was completed/closed in 2014.

Contract 3 – Mainline Sewer Rehabilitation – Phase 1: Project was completed/closed in June 2015.

Contract 4 – Clinton Street Sewer Separation- New York Mills: Project was completed/closed in November 2014.

The following projects are complete with respect to the rehabilitation components of construction. The County is in the process of administrative contractual closeout.

Contract 5 – Sewer Repairs and Rehabilitation

Contract 6 – Sanitary Sewer Mainline Rehabilitation – Phase 3

Contract 7 – Sanitary Sewer Mainline Rehabilitation – Phase 4

8.0 I/I OFFSET PROJECTS/NEW FLOWS

During the 1st Quarter of 2016, 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	Location	Credits Used	Ending Balance
Town of New Hartford	489,429		43 Overland Dr. Applewood	320	
			Florentine Bakery Sangertown Sq. (79 seats)	2,212	
			39 Cherrywood Blvd. Cherrywood	320	
			Core Greens, Grains & Broth 4517 Commercial Dr. (328.008-1-20)	2,520	
			Texas Roadhouse 4511 Commercial Dr. (328.008-1-20)	7,868	
			48 Overland Dr. Cherrywood	240	
			307 Gracie Place Applewood (328.001-2-1)	320	
			203 Jack's Way Applewood (328.000-2-1)	320	
			50 Cherrywood Blvd. Cherrywood	320	
			54 Overland Dr. Cherrywood	240	
			37 Cherrywood Blvd. Cherrywood	320	474,429
Town of Paris	96,680	0		0	96,680
Town of Whitestown	135,426	0		0	135,426
Village of Clayville	28,829	0		0	28,829
Village of New Hartford	59,510	0		0	59,510
Village of New York Mills	163,787	0		0	163,787

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Community	Starting Balance	Credits Added	Location	Credits Used	Ending Balance
Village of Oriskany	103,466	0		0	103,466
Village of Whitesboro	163,599	0		0	163,599
Village of Yorkville	160,282	0		0	160,282
Oneida County Business Park	43,027	0		0	43,027
Oneida County Sewer District	24,710	0		0	24,710
Totals	1,468,745	0		15,000	1,453,745

9.0 KEY PERSONNEL CHANGES

Key personnel changes, as they relate to the SSO Mitigation/Consent Order compliance project, are 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 1st Quarter of 2016, there were no changes of key personnel to report.

9.2 SATELLITE COMMUNITY STAFF

During the 1st Quarter of 2016, there were no changes of key personnel to report.

9.3 CONSULTANT TEAM STAFF

During the 1st Quarter of 2016, there were no changes of key personnel to report.

10.0 ADMINISTRATIVE ITEMS

10.1 WORK AUTHORIZATIONS

The following work orders were authorized during the 1st Quarter of 2016:

- Work Order 27 – Amendment 3 – CMOM Program Implementation – Phase 4 (FY 2016)
- Work Order 28 – Amendment 3 – Community Outreach (FY 2016)
- Work Order 29 – Amendment 3 – Private Property I/I Reduction Program – Phase 4 (FY 2016)
- Work Order 30 – Amendment 3 – Program Administration (FY 2016)
- Work Order 31 – Amendment 1 – WPCP Sewage Sludge Emission Testing – Post Modification Emission Testing

10.2 PROJECT FINANCING

The following listing is from the CWSRF 2016 Final Intended Use Plan (IUP), issued in November 2015 for the County:

CWSRF PROJECT #	PROJECT NAME	TOTAL IUP AMOUNT
C6-6070-08-00 (Long-term financed)	I/I CORR [9 CONTRIBUTING COMMUNITIES] Phase 1 and 2a	*\$10,078,438 (includes \$4M Principal Forgiveness)
C6-6070-08-10 (balance of unexpended funds from Original C6-6070-08-00 financing)	Planning, Design, and Construction of I/I Correction to Improve Mohawk River	\$11,586,562
C6-6070-08-01 (Multi-year)	I/I CORR [SSO - 9 Contributing Communities] Phase 2b-3	\$59,500,000
C6-6070-08-02 (Long-term financed)	FM, PS REHAB [DESIGN AND PERMITTING PHASE] Phase 5a	*\$2,524,071
C6-6070-08-03 (Multi-year)	I/I CORR [SSO] Phase 4	\$9,520,000
C6-6070-08-04 (Annual List - closing on STF pending)	Wastewater Improvements [CONSTRUCTION PHASE] Phases 5b and 6c	\$117,000,000
C6-6070-08-05 (Annual List)	STP UP (Phases 6a and 6d)	\$110,600,000
C6-6070-08-06 (Annual List - STF)	STP UP [SOLIDS HANDLING SYSTEMS DESIGN AND CONSTRUCTION]	\$35,000,000

* - CWSRF Project Financing has closed, is no longer listed in IUP, but reflect the amount Oneida County is now repaying.

10.2.1 Construction of the Sauquoit Creek Pump Station, New Force Main and WPCP Solids Handling Upgrades (CWSRF No. C6-6070-08-04)-\$117 Million

Financing has been approved by NYSEFC. Closing on the Short Term Financing is being coordinated with NYSEFC and will occur based on projected cash flow need.

Appendix A:

Rainfall Data

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	75.280 degrees West
Latitude	43.120 degrees North
Elevation	0 feet
Date/Time	Tue, 26 Apr 2016 10:09:11 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.42	0.52	0.69	0.86	1.06	1yr	0.74	0.95	1.21	1.48	1.79	2.15	2.47	1yr	1.91	2.37	2.82	3.43	4.06	1yr
2yr	0.33	0.50	0.62	0.82	1.03	1.28	2yr	0.89	1.14	1.45	1.75	2.08	2.47	2.76	2yr	2.18	2.65	3.14	3.81	4.42	2yr
5yr	0.39	0.61	0.76	1.02	1.31	1.62	5yr	1.13	1.44	1.84	2.20	2.59	3.01	3.39	5yr	2.66	3.26	3.82	4.52	5.22	5yr
10yr	0.45	0.70	0.89	1.20	1.57	1.95	10yr	1.35	1.70	2.21	2.62	3.05	3.50	3.97	10yr	3.10	3.82	4.42	5.15	5.93	10yr
25yr	0.54	0.86	1.09	1.50	1.99	2.48	25yr	1.72	2.14	2.80	3.29	3.78	4.27	4.89	25yr	3.78	4.70	5.38	6.11	7.01	25yr
50yr	0.61	0.98	1.26	1.77	2.38	2.98	50yr	2.06	2.54	3.37	3.92	4.46	4.97	5.73	50yr	4.40	5.51	6.23	6.96	7.97	50yr
100yr	0.71	1.15	1.48	2.10	2.86	3.56	100yr	2.47	3.03	4.02	4.65	5.24	5.79	6.71	100yr	5.13	6.45	7.23	7.94	9.06	100yr
200yr	0.82	1.34	1.74	2.49	3.43	4.28	200yr	2.96	3.60	4.81	5.53	6.17	6.75	7.86	200yr	5.97	7.56	8.39	9.05	10.29	200yr
500yr	1.01	1.65	2.16	3.13	4.37	5.44	500yr	3.77	4.55	6.09	6.93	7.64	8.26	9.70	500yr	7.31	9.33	10.22	10.76	12.19	500yr

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.22	0.34	0.41	0.56	0.68	0.79	1yr	0.59	0.78	0.93	1.22	1.49	1.78	2.17	1yr	1.58	2.08	2.64	3.14	3.76	1yr
2yr	0.31	0.49	0.60	0.81	1.00	1.14	2yr	0.86	1.11	1.26	1.56	1.90	2.38	2.67	2yr	2.11	2.57	3.06	3.73	4.32	2yr
5yr	0.35	0.55	0.68	0.93	1.19	1.33	5yr	1.02	1.30	1.48	1.83	2.20	2.80	3.14	5yr	2.48	3.02	3.57	4.27	4.95	5yr
10yr	0.38	0.59	0.73	1.02	1.32	1.47	10yr	1.14	1.44	1.67	2.05	2.46	3.14	3.53	10yr	2.78	3.39	3.98	4.73	5.45	10yr

25yr	0.43	0.66	0.82	1.17	1.54	1.67	25yr	1.33	1.64	1.93	2.36	2.83	3.65	4.09	25yr	3.23	3.94	4.60	5.41	6.15	25yr
50yr	0.47	0.71	0.88	1.27	1.71	1.84	50yr	1.48	1.79	2.17	2.63	3.15	4.09	4.57	50yr	3.62	4.40	5.14	6.02	6.73	50yr
100yr	0.51	0.77	0.96	1.39	1.90	2.10	100yr	1.64	2.05	2.42	2.91	3.51	4.60	5.10	100yr	4.07	4.90	5.75	6.68	7.34	100yr
200yr	0.54	0.82	1.04	1.50	2.10	2.32	200yr	1.81	2.27	2.70	3.21	3.91	5.18	5.71	200yr	4.58	5.49	6.42	7.44	8.04	200yr
500yr	0.66	0.98	1.26	1.82	2.60	2.65	500yr	2.24	2.59	3.11	3.62	4.51	6.06	6.60	500yr	5.37	6.35	7.42	8.59	9.05	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.31	0.48	0.58	0.79	0.97	1.12	1yr	0.83	1.09	1.25	1.55	1.83	2.31	2.69	1yr	2.04	2.59	3.05	3.68	4.33	1yr
2yr	0.35	0.54	0.66	0.89	1.10	1.24	2yr	0.95	1.22	1.37	1.70	2.04	2.58	2.89	2yr	2.28	2.78	3.25	3.92	4.58	2yr
5yr	0.43	0.66	0.82	1.13	1.44	1.61	5yr	1.24	1.57	1.76	2.19	2.65	3.27	3.65	5yr	2.89	3.51	4.09	4.77	5.50	5yr
10yr	0.51	0.79	0.98	1.37	1.77	1.97	10yr	1.53	1.93	2.17	2.69	3.23	3.94	4.40	10yr	3.49	4.24	4.87	5.54	6.39	10yr
25yr	0.66	1.01	1.25	1.79	2.36	2.62	25yr	2.03	2.56	2.87	3.54	4.20	5.08	5.66	25yr	4.49	5.45	6.16	6.75	7.79	25yr
50yr	0.80	1.22	1.52	2.19	2.95	3.25	50yr	2.54	3.18	3.54	4.38	5.13	6.13	6.85	50yr	5.42	6.59	7.35	7.85	9.06	50yr
100yr	0.98	1.48	1.86	2.68	3.68	4.03	100yr	3.17	3.94	4.38	5.41	6.28	7.42	8.30	100yr	6.56	7.98	8.78	9.11	10.53	100yr
200yr	1.19	1.80	2.28	3.29	4.60	5.01	200yr	3.97	4.90	5.42	6.70	7.68	8.97	10.04	200yr	7.94	9.66	10.50	10.58	12.24	200yr
500yr	1.53	2.27	2.92	4.25	6.04	6.68	500yr	5.21	6.53	7.21	8.91	10.03	11.52	12.95	500yr	10.19	12.45	13.30	12.89	14.93	500yr



Daily Tabular Report

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
2/2/2015						
2/3/2015				0.14		
2/4/2015				0.03		
2/5/2015						
2/6/2015				0.03		
2/7/2015				0.01		
2/8/2015						
2/9/2015						
2/10/2015						
2/11/2015				0.01		
2/12/2015						
2/13/2015						
2/14/2015						
2/15/2015						
2/16/2015						
2/17/2015						
2/18/2015						
2/19/2015						
2/20/2015						
2/21/2015						
2/22/2015						
2/23/2015						
2/24/2015						
2/25/2015						
2/26/2015						
2/27/2015						
2/28/2015						
3/1/2015						
3/2/2015						
3/3/2015						
3/4/2015						
3/5/2015						
3/6/2015						
3/7/2015						
3/8/2015						
3/9/2015				0.01		
3/10/2015				0.04		
3/11/2015						

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
3/12/2015						
3/13/2015						
3/14/2015				0.05		
3/15/2015					0.08	
3/16/2015						
3/17/2015				0.12		
3/18/2015						
3/19/2015						
3/20/2015				0.06		
3/21/2015					0.12	
3/22/2015						
3/23/2015						
3/24/2015						
3/25/2015				0.18		
3/26/2015					0.49	
3/27/2015				0.01		
3/28/2015						
3/29/2015						
3/30/2015				0.06		
3/31/2015						
4/1/2015						
4/2/2015				0.09		
4/3/2015					0.07	
4/4/2015					0.22	
4/5/2015						
4/6/2015						
4/7/2015						
4/8/2015				0.63		
4/9/2015					0.42	
4/10/2015				0.32		
4/11/2015						
4/12/2015						
4/13/2015				0.07		
4/14/2015					0.21	
4/15/2015						
4/16/2015				0.01		
4/17/2015					0.11	
4/18/2015						
4/19/2015						
4/20/2015				0.18		
4/21/2015					0.71	
4/22/2015				0.16		
4/23/2015					0.25	
4/24/2015						

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
4/25/2015						
4/26/2015						
4/27/2015						
4/28/2015						
4/29/2015						
4/30/2015						
5/1/2015						
5/2/2015						
5/3/2015						
5/4/2015						
5/5/2015						
5/6/2015						
5/7/2015						
5/8/2015						
5/9/2015						
5/10/2015					0.29	
5/11/2015					0.54	
5/12/2015					0.65	
5/13/2015					0.04	
5/14/2015						
5/15/2015						
5/16/2015					0.14	
5/17/2015						
5/18/2015					0.45	
5/19/2015					0.56	
5/20/2015						
5/21/2015						
5/22/2015						
5/23/2015						
5/24/2015						
5/25/2015						
5/26/2015						
5/27/2015					0.14	
5/28/2015					0.01	
5/29/2015						
5/30/2015					0.65	
5/31/2015					0.26	
6/1/2015					0.49	
6/2/2015					0.02	
6/3/2015						
6/4/2015						
6/5/2015					0.06	
6/6/2015					0.07	
6/7/2015						

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
6/8/2015					0.64	
6/9/2015					0.48	
6/10/2015					0.05	
6/11/2015					0.06	
6/12/2015					0.82	
6/13/2015						
6/14/2015					0.06	
6/15/2015					1.05	
6/16/2015					0.29	
6/17/2015						
6/18/2015						
6/19/2015					0.32	
6/20/2015					0.01	
6/21/2015					0.42	
6/22/2015						
6/23/2015					0.17	
6/24/2015						
6/25/2015					0.10	
6/26/2015						
6/27/2015					0.37	
6/28/2015					0.80	
6/29/2015					0.05	
6/30/2015					0.45	
7/1/2015					0.43	
7/2/2015						
7/3/2015						
7/4/2015						
7/5/2015						
7/6/2015						
7/7/2015					0.72	
7/8/2015					0.10	
7/9/2015					0.53	
7/10/2015						
7/11/2015						
7/12/2015						
7/13/2015						
7/14/2015					0.15	
7/15/2015						
7/16/2015						
7/17/2015					0.14	
7/18/2015					0.04	
7/19/2015					0.02	
7/20/2015					0.02	
7/21/2015						

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
7/22/2015						
7/23/2015						
7/24/2015						
7/25/2015				0.03		
7/26/2015				0.23		
7/27/2015						
7/28/2015						
7/29/2015						
7/30/2015				0.22		
7/31/2015				0.02		
8/1/2015						
8/2/2015						
8/3/2015				0.11		
8/4/2015				0.03		
8/5/2015						
8/6/2015						
8/7/2015						
8/8/2015						
8/9/2015						
8/10/2015						
8/11/2015				0.47		
8/12/2015						
8/13/2015				0.01		
8/14/2015				0.16		
8/15/2015						
8/16/2015						
8/17/2015						
8/18/2015						
8/19/2015						
8/20/2015				1.87		
8/21/2015				0.14		
8/22/2015						
8/23/2015						
8/24/2015						
8/25/2015						
8/26/2015						
8/27/2015				0.09		
8/28/2015						
8/29/2015						
8/30/2015						
8/31/2015						
9/1/2015						
9/2/2015						
9/3/2015						

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
9/4/2015						
9/5/2015						
9/6/2015						
9/7/2015						
9/8/2015						
9/9/2015						
9/10/2015						
9/11/2015						
9/12/2015		0.37				
9/13/2015		0.30				
9/14/2015		0.50				
9/15/2015		0.04				
9/16/2015						
9/17/2015						
9/18/2015						
9/19/2015		0.72				
9/20/2015		0.01				
9/21/2015						
9/22/2015						
9/23/2015						
9/24/2015						
9/25/2015						
9/26/2015						
9/27/2015						
9/28/2015		0.01				
9/29/2015		1.54				
9/30/2015		0.95				
10/1/2015						
10/2/2015						
10/3/2015						
10/4/2015						
10/5/2015						
10/6/2015						
10/7/2015						
10/8/2015						
10/9/2015		1.68				
10/10/2015						
10/11/2015						
10/12/2015						
10/13/2015		0.11				
10/14/2015		0.06				
10/15/2015		0.06				
10/16/2015		0.32				
10/17/2015		0.01				

Date	Rain (in)				
	Time	Min	Time	Max	Avg
10/18/2015					0.04
10/19/2015					
10/20/2015					0.14
10/21/2015					0.07
10/22/2015					0.18
10/23/2015					
10/24/2015					0.09
10/25/2015					0.77
10/26/2015					0.01
10/27/2015					
10/28/2015					0.65
10/29/2015					0.60
10/30/2015					0.02
10/31/2015					0.01
11/1/2015					0.31
11/2/2015					
11/3/2015					
11/4/2015					
11/5/2015					
11/6/2015					0.07
11/7/2015					
11/8/2015					0.09
11/9/2015					
11/10/2015					0.01
11/11/2015					0.16
11/12/2015					0.20
11/13/2015					0.01
11/14/2015					0.13
11/15/2015					
11/16/2015					
11/17/2015					
11/18/2015					
11/19/2015					0.19
11/20/2015					
11/21/2015					
11/22/2015					
11/23/2015					
11/24/2015					
11/25/2015					
11/26/2015					
11/27/2015					0.03
11/28/2015					0.15
11/29/2015					
11/30/2015					

Date	Rain (in)				
	Time	Min	Time	Max	Avg
12/1/2015					0.21
12/2/2015					0.98
12/3/2015					0.14
12/4/2015					0.01
12/5/2015					
12/6/2015					
12/7/2015					
12/8/2015					
12/9/2015					
12/10/2015					0.16
12/11/2015					
12/12/2015					
12/13/2015					
12/14/2015					0.51
12/15/2015					0.14
12/16/2015					
12/17/2015					0.47
12/18/2015					
12/19/2015					
12/20/2015					
12/21/2015					0.01
12/22/2015					1.19
12/23/2015					0.11
12/24/2015					0.02
12/25/2015					
12/26/2015					0.10
12/27/2015					1.07
12/28/2015					
12/29/2015					0.22
12/30/2015					0.69
12/31/2015					0.02
1/1/2016					0.04
1/2/2016					
1/3/2016					0.04
1/4/2016					
1/5/2016					
1/6/2016					
1/7/2016					
1/8/2016					
1/9/2016					0.04
1/10/2016					0.77
1/11/2016					
1/12/2016					
1/13/2016					0.01

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
1/14/2016					0.07	
1/15/2016					0.02	
1/16/2016					0.38	
1/17/2016					0.01	
1/18/2016						
1/19/2016						
1/20/2016					0.07	
1/21/2016						
1/22/2016						
1/23/2016						
1/24/2016						
1/25/2016						
1/26/2016					0.07	
1/27/2016						
1/28/2016						
1/29/2016					0.05	
1/30/2016					0.01	
1/31/2016						
2/1/2016						
2/2/2016						
2/3/2016					0.97	
2/4/2016						
2/5/2016						
2/6/2016						
2/7/2016						
2/8/2016						
2/9/2016						
2/10/2016					0.18	
2/11/2016						
2/12/2016					0.14	
2/13/2016						
2/14/2016						
2/15/2016						
2/16/2016					0.81	
2/17/2016					0.03	
2/18/2016					0.02	
2/19/2016						
2/20/2016					0.07	
2/21/2016					0.01	
2/22/2016						
2/23/2016						
2/24/2016					0.83	
2/25/2016					0.34	
2/26/2016					0.01	

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
2/27/2016					0.01	
2/28/2016						
2/29/2016					0.09	
3/1/2016						
3/2/2016					0.15	
3/3/2016						
3/4/2016						
3/5/2016						
3/6/2016						
3/7/2016						
3/8/2016						
3/9/2016					0.01	
3/10/2016					0.70	
3/11/2016					0.04	
3/12/2016						
3/13/2016						
3/14/2016					0.24	
3/15/2016						
3/16/2016					0.44	
3/17/2016					0.14	
3/18/2016					0.31	
3/19/2016						
3/20/2016						
3/21/2016						
3/22/2016					0.01	
3/23/2016					0.12	
3/24/2016					0.02	
3/25/2016					0.16	
3/26/2016						
3/27/2016						
3/28/2016					0.74	
3/29/2016					0.01	
3/30/2016						
3/31/2016					0.08	
4/1/2016					0.43	
4/2/2016					0.05	
4/3/2016					0.09	
4/4/2016						
4/5/2016					0.25	
4/6/2016						
4/7/2016					0.60	
4/8/2016					0.19	
4/9/2016						
4/10/2016						

Date	Rain (in)					
	Time	Min	Time	Max	Avg	Total
4/11/2016						0.94
4/12/2016						0.19
4/13/2016						
4/14/2016						
4/15/2016						
4/16/2016						
4/17/2016						
4/18/2016						
4/19/2016						
4/20/2016						
4/21/2016						
4/22/2016					0.03	
4/23/2016						
4/24/2016						
4/25/2016						
4/26/2016						0.11

Report Summary For The Period 2/2/2015 - 4/26/2016

	Rain (in)
Total	48.73
Avg	

Appendix B:

Flow Data













































































































































































































































