



**ONEIDA COUNTY DEPARTMENT OF
WATER QUALITY & WATER POLLUTION CONTROL**

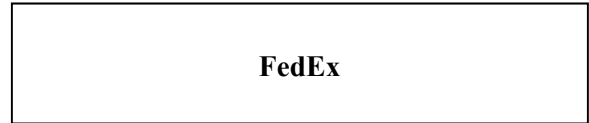
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Anthony J. Picente, Jr.
County Executive

Steven P. Devan, P.E.
Commissioner

January 29, 2020

Gregg Townsend, P.E.
Regional Engineer
NYS Department of Environmental Conservation
317 Washington Street
Watertown, NY 13601



Carol Lamb-Lafay, P.E.
Director – Bureau of Water Permits
Division of Water
NYS Department of Environmental Conservation
625 Broadway, 4th Floor
Albany, NY 12233

Re: Oneida County Sewer District
Quarterly Progress Report – 4th Quarter 2019

Consent Order No. R6-20060823-67

Dear Mr. Townsend and Ms. Lamb-Lafay:

On behalf of Oneida County, I am providing for your review and comment Oneida County's Quarterly Progress Report for the 4th Quarter – 2019 as required per Section XIII – Reporting Requirements of the Consent Order. This document summarizes the status and progress of work completed between October 1, 2019 and December 31, 2019 in support of Consent Order compliance requirements.

Please feel free to contact me should you have any questions or need additional information.

Sincerely,

**THE ONEIDA COUNTY DEPARTMENT OF
WATER QUALITY & WATER POLLUTION CONTROL**

Steven P. Devan, P.E.
Commissioner

Enclosure: Quarterly Progress Report – 4th Quarter 2019

cc: Anthony J. Picente, Jr. – Oneida County Executive
Peter M. Rayhill, Esq. – Oneida County Attorney
Karl E. Schrantz, P.E. – OBG, Part of Ramboll
Howard LeFever, P.E. – GHD Consulting Services, Inc.
John Story, P.E. – GHD Consulting Services, Inc.
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David Rarick, P.E. – NYSDEC
Michael O'Neil, P.E. – NYSEFC

**SANITARY SEWER COLLECTION SYSTEM
QUARTERLY PROGRESS REPORT
4TH QUARTER – 2019
ONEIDA COUNTY SEWER DISTRICT**

NYSDEC Consent Order R620060823-67



Prepared for

Oneida County Department of Water Quality
& Water Pollution Control

Steven P. Devan, P.E., Commissioner
51 Leland Avenue
Utica, NY 13502

January 29, 2020



Cazenovia, NY



Syracuse, NY



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Utica, NY

**Sanitary Sewer Collection System
Quarterly Progress Report
4th Quarter - 2019
Oneida County Sewer District
NYSDEC Consent Order R620060823-67**

Prepared for:

**Oneida County Department of Water Quality &
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January 29, 2020



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Table 5.1 4Q 2019

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 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 October 1, 2019 and December 31, 2019 (4th Quarter of 2019) in support of the Consent Order compliance requirements.

2.0 ENGINEERING INVESTIGATIONS AND EVALUATIONS

During the 4th Quarter of 2019, 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 4th Quarter of 2019.

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 4th Quarter 2019, no additional televising was performed. Including the original CCTV contract, and subsequent CMOM and rehabilitation related CCTV, a total of approximately 195-miles of sewer, or 90% 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 4th Quarter 2019.

2.2 TREATMENT FACILITIES

Investigations, evaluations, and designs have been completed. Upgrades and new construction associated with the WPCP, SCPS, and New Force Main are in various stages of construction. Table 2.1 summarizes how the work has been segregated, and the status of 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 2-16).

2.2.1 October 31 Flood Event

On October 31, 2019, an intense rainfall event caused widespread flooding in the Mohawk Valley. The rain gauge at the WPCP recorded 3.75 inches of rain, with a peak intensity of over 3 inches per hour. An inflatable plug was installed at the new 42-inch opening to the Influent Building. The open excavation outside the Influent Building filled with stormwater, and the plug gave way. The Influent Building was flooded nearly to the first floor level. Major equipment impacted by the flood included the submersible pumps, manually operated slide gates, an overhead crane motor, magnetic flowmeters, HVAC ductwork, lighting, and electrical conduit. The Motor Control Centers and Variable Frequency Drives are installed at the first floor level and were not impacted by the flood. As the pump station had not been started up or commissioned at the time of the flood, the relevant equipment manufacturers visited the site to recommend corrective actions. The electrical contractor replaced lighting, conduits, and wiring. The pumps did not require major rehabilitation as they are designed to operate

under submerged conditions. The on-site engineering team is working with the contractors, equipment suppliers, and the Owner to ensure all damage is corrected prior to official start-up and commissioning activities. A new sluice gate was installed at the 42-inch diameter opening, thereby eliminating the need for the temporary inflatable plug and providing a more permanent means of preventing flooding into the Influent Building.

The flood event was particularly intense within the Sauquoit Creek drainage basin. As a result, there was extensive flooding along Sauquoit Creek including stream bank failures. Sections of the Sauquoit Creek Interceptor Sewer were damaged, which included pipe exposures within the creek that caused debris and creek water to enter the sewer. Teams of County personnel walked the interceptor sewer route, documented the damage, and engaged a contractor to begin emergency repairs. The most critical repairs are ongoing and will continue in to the 1st Quarter of 2020.

Table 2.1

**Oneida County Sewer District
Summary of Contracts 4Q 2019**

Water Pollution Control Plant and Sauquoit Creek Pumping Station/Force Main

Contract No.	Title of Contract	Components of System Addressed	Status of Design	Status of NYSDEC Review	Status of other Agency Reviews	Estimated Advertisement	Estimated ⁽¹⁾ Construction Start	Construction Progress	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 was added to Contract 2 by addendum on May 25, 2016.			
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	Approved	n/a	Advertised April 4, 2016	Notice to Proceed September 27, 2016	Construction is substantially complete and all equipment is on-line. The Contractor, Owner, and Engineer are addressing some minor operational/startup issues.	April 2019
3A	Electrical Equipment Pre-Purchase (Digester 15kV)	Pre-purchase of major electrical components such as switch gears, transformers, and supporting power distribution equipment.	Final	n/a	n/a	April 2017	Equipment delivery October 2017	Equipment has been installed and tested. Training has been provided to the Owner.	N/A
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.	Final	Approved	Approved	Advertised December 15, 2017	July 2018	Approximately 18,500 ft of new force main installed (including 9,000 ft +/- on piles); SECA Underground completed caisson shaft, microtunnelling to advance in Q1 2020; CSX jack/bore redesign (due to encountered obstruction) completed, jack/bore installation to occur in Jan 2020, continuation of 36-inch pipe testing; duct bank relocation completed to allow 36-inch connection to Grit building (connection in Jan 2020); clean up after 10/31/2019 flood.	March 2021
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.	Final	Approved	n/a	November 2016	July 2017	<u>Note - Site and buildings impacted by 7/1/2017, 1/24/2019, and 10/31/2019 ice jam/flooding events;</u> <u>New Screenings Building:</u> Facility is generally operational (building access/security pending); new emergency generator fully operational; fiber optic duct bank installed (SCADA/communication with WPCP fully functional); continued de-bugging of the Huber WAP system; paving completed; punch list items pending. <u>Existing Pumping Station Building:</u> Electrical, HVAC, and plumbing renovations complete minus punch list items. interior pipe, wall, and floor painting completed; Pump 2 rotating assembly replaced; continued de-bugging of the pump VFD system SCADA is fully functional.	November 2019 (final completion is behind schedule due to damage/delays from flooding events and construction related items)

Table 2.1

Oneida County Sewer District

Summary of Contracts 4Q 2019

Water Pollution Control Plant and Sauquoit Creek Pumping Station/Force Main

Contract No.	Title of Contract	Components of System Addressed	Status of Design	Status of NYSDEC Review	Status of other Agency Reviews	Estimated Advertisement	Estimated ⁽¹⁾ Construction Start	Construction Progress	Estimated Construction Complete
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%	n/a	n/a	September 2020	December 2020	Draft "Long Term Right of Entry" permit application has been prepared for site access via service road under NYS Route 8/12 bridge. Under review for Q1 submission. Late Q2 2020 design start anticipated.	December 2021
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.	Final	Approved	Pending National Grid approval, Stage A submitted in February 2016	March 2017	September 2017	<p><u>Influent Building:</u> Building is nearly complete. New pumps and 2 bar screens are set in place. Installation of new interior piping, HVAC systems, plumbing, and electrical is nearly complete. Pump and screen startup anticipated in January 2020. Repairs ongoing to mitigate flooding damage that occurred on October 31, 2019.</p> <p><u>Combined Influent Building:</u> Refurbishment of building and equipment is in progress. Two new bar screens have been set in place and startup has been completed. Installation of new interior piping, HVAC systems, plumbing, and electrical is ongoing. Additional work on gates and pumps is pending.</p> <p><u>Grit Removal:</u> Grit buildings No. 2 and 3 are nearly complete. Grit pumps and vortex grit removal trays are set in place and some clean water testing has been conducted. Interior piping, HVAC, plumbing, and electrical work ongoing. Refurbishment of Grit Building No. 1 is nearly complete. Functional testing of grit washing equipment has been completed for 1 of 2 units.</p> <p><u>Administration Building:</u> Significant rehabilitation of the building is complete, and the building has been officially re-occupied.</p> <p><u>Electrical:</u> New receiving structure/tower for 46kV equipment installed and energized by the utility. New pre-fabricated Switchgear Building and Generator Buildings are installed and functional testing has been completed. Grounding grid complete. New generator fuel system and controls are installed.</p>	May 2020

Table 2.1

**Oneida County Sewer District
Summary of Contracts 4Q 2019**

Water Pollution Control Plant and Sauquoit Creek Pumping Station/Force Main

Contract No.	Title of Contract	Components of System Addressed	Status of Design	Status of NYSDEC Review	Status of other Agency Reviews	Estimated Advertisement	Estimated ⁽¹⁾ Construction Start	Construction Progress	Estimated Construction Complete
7	WPCP Primary Treatment Upgrade/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.	Final	Submitted December 9, 2016	n/a	Advertised November 28, 2017	May 2018	<p><u>HRD</u>: Excavation, pile driving, and concrete tank and backfill complete for HRD tank. Slide gate, flushing gates, and baffle wall installation complete. Majority of electrical conduit work and lighting complete.</p> <p><u>Primary Settling Tanks No. 1 and 2</u>: Demolition of existing tanks complete. Excavation and pile driving for new tanks complete. Concrete slab, deck, stairwell, and wall work complete for equipment gallery area and tanks. Electrical conduit work for Electrical and Control Rooms ongoing.</p> <p>Process mechanical chain and flight work, fiberglass launders, primary sludge pumps, primary channel blowers installation complete for Tank 1 and ongoing for Tank 2. Slide gate installation complete. HVAC curbs complete and ductwork complete.</p> <p><u>Disinfection Building</u>: Fire alarm replaced. Building roof replaced. Electrical conduit work ongoing. Yard piping from building to HRD tank complete.</p> <p><u>Administration and Operations Building</u>: Demolition of one existing primary sludge degritting unit complete. Installation of new primary sludge and primary scum piping, grit classifier, and scum concentrator ongoing.</p> <p><u>Aeration Tank Distribution Structure</u>: Relocation of yard piping complete. Concrete filled steel piles have been completed, Concrete base slab is installed, and several concrete wall installation is ongoing.</p>	December 2021
8	WPCP Secondary Treatment Process Upgrades	Replacement of existing blowers with more efficient units; refurbishment of the existing Blower Building including upgrades to electrical, HVAC, plumbing and structural systems; refurbishment of existing Aeration Tanks including replacement of existing diffusers and structural upgrades, refurbishment of existing Final Settling Tanks including replacement of existing clarifier mechanisms and structural upgrades; new Asset Management Building; upgrades to site wide civil infrastructure including stormwater, fencing and gates; revisions to site electrical system including demolition of existing substation.	Final (Pending Additional Scope)	Submitted February 2019	n/a	Estimated September 2020 (Pending additional program funding)	Estimated January 2021	n/a	March 2023

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 to identify defects and develop rehabilitation methodologies.

3.1.1 Asset Management

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. In accordance with Schedule C, Section B.4 of the Consent Order, the Consultant Team developed a proposed asset management program for the Department of Water Quality and Water Pollution Control. Under a previous authorization, the Engineering Team assisted the County with the process of receiving proposals for a new CMMS. Several candidate vendors provided demonstrations of their systems. Based on the proposals and demonstrations received, the "Sprocket" CMMS system by Dematic is the preferred software application for the WPCP. Barton and Loguidice, D.P.C was subcontracted by GHD (Consultant Team) and has started to customize the software for County use.

3.2 FLOW MONITORING PROGRAM AND HYDRAULIC MODEL

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 the 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, and three are used to monitor flow in the City of Utica's combined sewers to aid in hydraulic model calibration and confirmation. There are 44 meters located in the Sauquoit Creek Pump Station (SCPS) drainage basin, and 14 meters located outside the SCPS basin. Additionally, three new flow meters were installed in the Starch Factory interceptor basin in late December 2019. The flow meters and rain gauges have been consistently collecting flow data since their installation.

Flow metering 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.

Information on 2018-2019 data was included in the 1st Quarter 2019 Progress report.

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 the 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.

An engineering Work Order for continuation of the PPII program was submitted to the County in the 4th Quarter of 2019. Planning among the Consultant Team regarding the 2020 program elements is ongoing.

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 the 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.

Fats, Oils, and Grease (FOG) Program: The OCSD and Oneida County Department of Health (OCDOH) are collaborating on the implementation of the Fats, Oils, and Grease (FOG) program. Inspections of Food Service Establishments (FSEs) continued in 4Q 2019. To date, a total of 225 FSEs have been visited. Initial visits are primarily for educational purposes, informing owners of the FOG program and best management practices (BMP). Inspectors also verify that proper plumbing fixtures are in place, and that FSEs follow the local and County sewer use ordinance in not releasing fat-laden wash water or cooking oils to the sanitary sewer system. Inspectors look for evidence that FSEs are utilizing BMPs, tracking grease trap maintenance, and keeping grease hauling records. Inspectors have found varying levels of FOG compliance, but most have been reportedly receptive to learning about the program and willing to allow inspection of existing facilities. In some cases, follow-up visits are made to ensure action on non-compliance. Facility characteristics, inspection details, and compliance status on each FSE is collected and tracked. In the future, the data will be entered in the County CMMS (Lucity), so that it can be linked with the growing collection system database.

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 4th Quarter of 2019):

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	Complete, Approved August 24, 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	In development
<u>Remedial Measures</u>		
Semi-Permanent Alternative-Construction	December 31, 2016	Modified Consent Order effective 6/28/18 removed the requirement for construction of the semi- permanent alternative.
SSO Mitigation-Consent Order Compliance	December 31, 2021	In progress
<u>Reporting</u>		
Annual Work Plan	January 31, Annually	Submitted annually
Quarterly Progress Report	Quarterly	Submitted quarterly

Note: I/I – Inflow and Infiltration

4.2 MILESTONES

During the 4th Quarter of 2019, the following milestone dates were met:

- Continuing to make progress toward compliance milestones.

4.3 MODIFIED ORDER – JUNE 28, 2018

Description	Consent Order, Schedule "A" Date	Status
Remedial Measures		
Contract 10 – Sanitary Sewer Mainline Rehabilitation Phase V – Whitesboro (V), Whitestown (T) – Completion	August 31, 2018	Certificate of Compliance submitted to NYSDEC August 30, 2018.
Contract 12 – Sanitary Sewer Mainline Rehabilitation Phase VII – Yorkville (V) – Completion	July 31, 2019	Certificate of Compliance submitted to NYSDEC June 28, 2019.
Contract 13 – Sanitary Sewer Mainline Rehabilitation Phase VIII – New Hartford (T) – Completion	August 31, 2018	Certificate of Compliance submitted to NYSDEC August 30, 2018.
Contract 14 – Sanitary Sewer Mainline Rehabilitation Phase IX – New Hartford (T) – Completion	December 31, 2018	Certificate of Compliance submitted to NYSDEC December 21, 2018.
Contract 16 – Sanitary Sewer Mainline Rehabilitation Phase X –Whitestown (T) – Completion	July 31, 2019	Certificate of Compliance submitted to NYSDEC June 28, 2019.

5.0 SEWER REHABILITATION

Sewer rehabilitation work financed under CWSRF Project No. C6-6070-08-00, C6-6070-08-10, and C6-6071-02-00 continued to progress. Projects are being tracked by contract number. The rehabilitation contracts are being undertaken in order to reduce the amount of inflow and infiltration entering the system due to defects in interceptor sewers, mainline sewers, lateral connections and manhole structures. Work under these sewer rehabilitation contracts typically includes: a mix of cured-in-place-pipe (CIPP) lining; pipe joint and lateral grouting; open cut repairs; spot repairs; manhole repairs/replacement; and supplemental CCTV inspections. The status and details of the rehabilitation contracts to date are presented in Table 5.1. Required work per the Consent Order is essentially complete, and any remaining open contracts are going through the administrative closeout process. The Engineering Team continues to review available data and looks for additional sewer rehabilitation opportunities.

Table 5.1

**Oneida County Sewer District
Summary of Contracts 4Q 2019**

Sewer Rehabilitation Contracts

Contract No.*	Title of Contract	Project Location/Description	CWSRF Project No.	Status of Design	Status of DEC/EFC/COUNTY Review	Miles of Rehabilitation ⁽²⁾	Estimated I/I Reduction (gal/day)	Current Contract Amount ⁽¹⁾	Contractor	Contract Status
2	Sanitary Sewer Manhole Rehabilitation - Phase 2	<u>District-wide</u> : Rehabilitation of approximately 1,278 sanitary sewer manholes.	C6-6070-08-00	Final	Approved	47	5,411,910	\$ 1,529,131.73	Green Mountain Pipeline Services	Project Complete; Closed Out
3	Sanitary Sewer Mainline Rehabilitation - Phase 1	<u>Villages of New York Mills, Oriskany, New Hartford, Whitesboro, and Yorkville; Towns of New Hartford and Whitestown</u>	C6-6070-08-00	Final	Approved	13	1,503,360	\$ 1,916,428.54	Insituform	Project Complete; Closed Out
4	Sewer Separation - Clinton/Henderson Street, NY Mills	<u>NY Mills</u> : Storm/Sanitary sewer separation.	C6-6070-08-00	Final	Approved	2	264,000	\$ 155,007.51	JJ Lane Construction	Project Complete; Closed Out
5	Sewer Repairs and Rehabilitation	<u>Villages of Whitesboro, New Hartford, Yorkville, New York Mills</u> : Storm/Sanitary sewer repairs and rehabilitation; manhole replacement and UV-CIPP lining.	C6-6070-08-00	Final	Approved	1	120,000	\$ 411,841.66	Central Paving	Project Complete; Closed Out
6	Sanitary Sewer Mainline Rehabilitation - Phase 2	<u>Villages of New Hartford and Clayville; Towns of New Hartford and Paris; City of Utica</u>	C6-6070-08-00	Final	Approved	15	1,130,000	\$ 2,086,525.00	Green Mountain Pipeline Services	Project Complete; Closed out
7	Sanitary Sewer Mainline Rehabilitation - Phase 3	<u>Towns of New Hartford and Whitestown: Glenhaven area (HHI-1 and WHN-31), the area west of the Whitesboro Parkway School and south of Clinton Street area (WHN-33), and Kellogg Road area (NHD-18)</u>	C6-6070-08-00	Final	Approved	13	630,000	\$ 2,060,644.00	Green Mountain Pipeline Services	Project Complete; Closed out
8	Sanitary Sewer Mainline Rehabilitation - Phase 4	<u>Town of New Hartford: Paris Road area (NHD-23)</u>	C6-6070-08-00	Final	Approved	14	249,000	\$ 1,143,410.78	National Water Main Cleaning Co.	Project Complete: Closed Out
10	Sanitary Sewer Mainline Rehabilitation - Phase 5	<u>Town of Whitestown and Village of Whitesboro: Area west of Henderson St., north of Mud Creek, south of Clinton St. and east of Clinton Rd; and areas of V. of Whitesboro that have not been previously rehabbed.</u>	C6-6070-08-10	Final	Approved	17	1,120,000	\$ 3,429,370.00	Green Mountain Pipeline Services	Project Complete; Closed Out

Table 5.1

**Oneida County Sewer District
Summary of Contracts 4Q 2019
Sewer Rehabilitation Contracts**

Contract No.*	Title of Contract	Project Location/Description	CWSRF Project No.	Status of Design	Status of DEC/EFC/COUNTY Review	Miles of Rehabilitation ⁽²⁾	Estimated I/I Reduction (gal/day)	Current Contract Amount ⁽¹⁾	Contractor	Contract Status
11	Sanitary Sewer Mainline Rehabilitation - Phase 6	<u>Town of New Hartford/Hamlet of Washington Mills:</u> Chapman Rd, Higby Rd., and Mohawk St. as well as side streets in Town of New Hartford (NHD-20).	C6-6070-08-10	Final	Approved	7	260,640	\$ 632,029.26	National Water Main Cleaning Co.	Project Complete; Closed Out
12 ⁽³⁾	Sewer Rehabilitation Project	<u>Village of Yorkville:</u> Areas of the Village not previously rehabbed (YKV-1).	C6-6071-02-00	Final	Approved	11	824,832	\$ 3,552,280.00	National Water Main Cleaning Co.	Construction complete. Closeout documentation pending.
13	Sanitary Sewer Mainline Rehabilitation - Phase 8	<u>Town of New Hartford:</u> Residential subdivisions along Routes 12B and Merritt Place, situated south of Route 5B and Seneca Turnpike, and north of Sherrill Brook Park (NHD-6).	C6-6070-08-10	Final	Approved	5	280,000	\$ 802,838.50	National Water Main Cleaning Co.	Project Complete; Closed Out
14	Sanitary Sewer Mainline Rehabilitation - Phase 9	<u>Town of New Hartford:</u> Commercial district along Seneca Turnpike surrounding Sangertown Square Shopping Mall, south to a residential area situated between Seneca Turnpike and Clinton Rd., and a small residential area south of Clinton Rd. along Merritt Place (NHD-9).	C6-6070-08-10	Final	Approved	7	360,000	\$ 995,407.25	National Water Main Cleaning Co.	Construction complete. Closeout documentation pending.
16	Sanitary Sewer Mainline Rehabilitation - Phase 10	<u>Town of Whitestown:</u> Residential area along Westmoreland Rd. and West St., south of the NYS Thruway, and north of Clinton Rd. (WHN-34, WHN-35, WHN-12 & WHN-36).	C6-6070-08-10	Final	Approved	3	270,000	\$ 386,042.00	National Water Main Cleaning Co.	Construction complete. Closeout documentation pending.

* - Contract 9 - Flow Monitoring Contract

(1) - Values are subject to change upon submission of final contractor close-out documentation. Some entries are contract bid amounts and will be updated when project closes out.

(2)- In order to estimate the manhole repairs in equivalent miles, the following calculation was used:

In the April 2012, Engineering Report, Sauquoit Creek Pumping Station Basin – Phase I-Mainline Pipe Rehabilitation – Contract No. 3, the length of line to be rehabilitated was 13-miles, and the corresponding flow to be removed is 1,503,360 gal/day, which calculates to 116,000 gpd/mile. Using the same 116,000 gpd/mile figure for Contract No. 2, an estimated 5,411,910 gal/day divided by 116,000 gpd/mile, is equivalent to 47-miles of rehabilitated sewers.

(3) - Formerly Contract 12 - Sanitary Sewer Mainline Rehabilitation - Phase 7. Financed by the Village of Yorkville.

BOLD - Value represents the Engineers estimate

6.0 ASSESSMENT OF REHABILITATION EFFECTIVENESS

See Section 3.2 above for a discussion of the status of flow monitoring and hydraulic model update. 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 estimated reductions in I/I for each rehabilitation contract are shown in Table 5.1.

7.0 COMPLETED CAPITAL PROJECTS/FACILITY UPGRADES

Status of all capital projects and facility upgrades is provided in Table 2.1 and Table 5.1.

8.0 I/I OFFSET PROJECTS/NEW FLOWS

During the 4th Quarter of 2019, new 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	1,853,667	0	Meadows Senior Living 2, 4310 Middle Settlement Rd. 328.000-2-64, 65.1	12,240	1,841,427
Town of Paris	253,064	0		0	253,064
Town of Whitestown	1,054,274	0		0	1,054,274
Village of Clayville	59,069	0		0	59,069
Village of New Hartford	278,004	0	115 Genesee St (329.014-1-9)	857	277,147
Village of New York Mills	166,523	0		0	166,523
Village of Oriskany	103,466	0		0	103,466
Village of Whitesboro	1,083,599	0		0	1,083,599
Village of Yorkville	159,082	0		0	159,082
Oneida County Business Park	43,027	0		0	43,027
Oneida County Sewer District	24,710	0		0	24,710
Totals	5,078,485	0		13,097	5,065,388

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 4th Quarter of 2019, there were no changes of key personnel to report.

9.2 SATELLITE COMMUNITY STAFF

During the 4th Quarter of 2019, there were no changes of key personnel to report.

9.3 CONSULTANT TEAM STAFF

During the 4th Quarter of 2019, Amy Mowers, Environmental Scientist and Licensed Wastewater Operator (Class 3A) with OBG, left the Project Team to become the Chief Wastewater Treatment Plant Operator for the Village of Dolgeville, NY. Her duties related to process start-up/commissioning and wastewater operations support/training have been further transitioned to current team members including Peter Bearkland (Project Manager – Commissioning) and John Saraceni (WW Operator 4A – Operations Support/Training).

10.0 ADMINISTRATIVE ITEMS

10.1 WORK AUTHORIZATIONS

Work authorizations were not issued during 4th Quarter 2019.

10.2 PROJECT FINANCING

The following listing is from the CWSRF 2020 DRAFT Intended Use Plan (IUP), issued in July 2019, and includes financings 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	⁽¹⁾ \$10,078,438 (includes \$4M Principal Forgiveness)
C6-6070-08-10 (Balance of unexpended funds from Original C6-6070-08-00 financing)	I/I CORR [9 CONTRIBUTING COMMUNITIES] Phase 1 and 2a	⁽¹⁾ \$11,721,562
C6-6070-08-01 (Multi-year)	I/I CORR [SSO - 9 Contributing Communities] Phase 2b, 3, 4, 5, & 6	\$15,000,000
C6-6070-08-02 (Long-term financed)	FM, PS REHAB [DESIGN AND PERMITTING PHASE] Phase 5a	⁽¹⁾ \$2,524,071
C6-6070-08-03 (Multi-year)	I/I CORR [SSO Phase 4]	\$7,663,000
C6-6070-08-04 (Annual List - Short-term financed)	FM Rehab, PS Rehab [CONSTRUCTION PHASE] Phases 5b	⁽¹⁾ \$97,000,000
	FM Rehab, PS Rehab [CONSTRUCTION PHASE] Phase 5b	⁽¹⁾ \$15,000,000
	Water Infrastructure Grant	⁽¹⁾ \$5,000,000
C6-6070-08-05 (Annual List)	STP UP (Phases 6A)	\$80,000,000
C6-6070-08-15	STP UP (Phase 6B)	\$120,000,000
C6-6070-08-06 (Long-term financed)	STP UP [SOLIDS HANDLING SYSTEMS DESIGN AND CONSTRUCTION]	⁽¹⁾ \$35,000,000

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

10.2.1 FM Rehab, PS Rehab Construction Phase [Phase 5b] C6-6070-08-04

This financing was converted to Long Term Financing in May 2019.

10.2.2 STP Upgrades [Phase 6A] CWSRF No. C6-6070-08-05 - \$80 Million

Closing on this Short-term Financing (\$80M) occurred in May 2019.

10.2.3 STP Upgrades [Phase 6B] C6-6070-08-15 - \$120 Million

Closing on this financing is dependent on cashflow projections, but is anticipated to be in the 3rd quarter of 2020.