ONEIDA COUNTY DEPARTMENT OF
WATER QUALITY & WATER POLLUTION CONTROL

51 Leland Ave, PO Box 442, Utica, NY 13503-0442
(315) 798-5656 wpc@ocgov.net FAX 724-9812

Anthony J. Picente, Jr.
County Executive

Karl E. Schrantz, P.E.
Commissioner

January 26, 2022

FedEx

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 2021

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 – 2021 as required per Section XIII – Reporting Requirements of the Consent Order. This document summarizes the status and progress of work completed between October 1, 2021 and December 31, 2021 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

Karl E. Schrantz, P.E.
Commissioner

Enclosure: Quarterly Progress Report –4th Quarter 2021

ecc: Anthony J. Picente, Jr. – Oneida County Executive
Peter M. Rayhill, Esq. – Oneida County Attorney
Colin Lautz, P.E. –Ramboll
Howard LeFever, P.E. – GHD Consulting Services Inc.
John Story, P.E. – GHD Consulting Services Inc.
Randall Young – NYSDEC
Matthew Duffany, P.E. – NYSDEC
Daniel Hayes - NYSDEC
Elizabeth Ricci, P.E. – NYSEFC

SANITARY SEWER COLLECTION SYSTEM
QUARTERLY PROGRESS REPORT
4TH QUARTER – 2021
ONEIDA COUNTY SEWER DISTRICT

NYSDEC Consent Order R620060823-67

Prepared for

Oneida County Department of Water Quality
& Water Pollution Control
Karl E. Schrantz, P.E., Commissioner
51 Leland Avenue
Utica, NY 13502

January 26, 2022

GHD
Syracuse, NY

Brown AND Caldwell
Syracuse, NY

RAMBOLL
Utica, NY

Sanitary Sewer Collection System Quarterly Progress Report 4th Quarter - 2021 Oneida County Sewer District NYSDEC Consent Order R620060823-67

Prepared for:

Oneida County Department of Water Quality & Water Pollution Control

Prepared by:

GHD Consulting Services Inc.
5788 Widewaters Pkwy
Syracuse, NY 13214

January 26, 2022

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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 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, 2021 and December 31, 2021 (4th Quarter of 2021) in support of the Consent Order compliance requirements.

In a letter dated June 16, 2021 to the NYSDEC, the County requested an extension of the SSO Mitigation Consent Order Compliance deadline to December 31, 2022. The basis for this request was to address project conditions beyond the control of the County, including program scheduling impacts due to the COVID-19 pandemic, numerous flooding events, and delays in completion of the new Sauquoit Creek Force Main construction due to unforeseen soil conditions. Through cooperative discussions with the NYSDEC, Modification No. 2 to the Consent Order was agreed upon, which included a one-year extension to December 31, 2022. The modification was executed by the NYSDEC on November 24, 2021.

2.0 ENGINEERING INVESTIGATIONS AND EVALUATIONS

During the 4th Quarter of 2021, 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 formal manhole inspections completed during the 4th Quarter of 2021.

During November and December of 2020, spot inspections along the lower elevation sections of the Sauquoit Creek Interceptor, Mud Creek Interceptor and the Starch Factory Interceptor were completed. The purpose of these inspections was to re-confirm the condition of the manholes and identify sources of infiltration and inflow (I/I). Damage from the October 31, 2019 flood event (as described below) was observed. Some low-lying manholes were also observed, and after further evaluations these low-lying manholes would only become submerged under severe flooding conditions. A couple manholes also showed signs of I/I. In general, the manholes and the pipe connections in the area of these spot inspections were in good condition.

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. 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.

During 2021, CCTV inspections were completed in the Town of New Hartford, Village of New Hartford, and Village of Yorkville as part of the Contract 17 Sewer Rehabilitation. No additional televising was completed during the 4th Quarter 2021.

2.1.3 Dye Testing

The dye testing program was completed in 2012. There was no additional dye testing performed during the 4th Quarter 2021.

2.1.4 Contract 17 Sewer Rehabilitation

The televising, along with limited smoke testing, conducted in the 2nd Quarter in the Town of New Hartford, Village of New Hartford and Village of Yorkville continued into the 3rd Quarter of 2021. Additionally, during the 3rd and 4th Quarters of 2021 the County's engineering consultants used the results of these sewer investigations to identify areas for potential rehabilitation (Contract 17) in the Village of Yorkville. In the 4th Quarter, the County's engineering consultants prepared maps for sewer rehabilitation work in the Village of Yorkville, met with staff from Yorkville, and identified the general scope of work for the rehabilitation work. The County will next review the scope of work with the Village to move forward with a design and construction project to be completed in 2022.

In July 2021, the County assisted communities in applying for Engineering Planning Grant (EPG) funding through New York State Environmental Facilities Corporation (EFC) for a study to identify and evaluate infrastructure improvements to reduce I/I in the above areas. The Villages of New Hartford and Yorkville received notice in December 2021that they were awarded an EPG in the amount $100,000 each to conduct additional sewer investigations to further refine rehabilitation projects. The EPG funding is independent from Oneida County sponsored work.

To further assist in refining sewer rehabilitation project scopes, the County purchased four level sensor devices (ADS ECHO™) that are easily installed in the manhole without the need for confined space entry. These level sensors were installed in select areas in the Town of New Hartford in the 4th Quarter to collect additional data, which is being used to help define the sewer rehabilitation project scope for the Town. Other additional flow metering and/or SSES investigations may also be considered in other areas based upon review of the flow metering data and mapping.

2.1.5 Additional Sewer Investigations Outside the SCPS Basin

With assistance from the County's Planning Department, the County examined the sewer mapping for the City of Utica to identify suspect cross-connections with the storm sewers tributary to the Starch Factory Creek Interceptor Sewer. The County provided the City of its findings and asked the City to further investigate these suspect cross-connections and develop a plan for mitigation. The City indicated it would follow up in 2022.

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 and/or new operation. 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 2-17 as listed on Table 5.1).

2.2.1 October 31, 2019 Flood Event

As reported previously, 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 on-site engineering team worked with the contractors, equipment suppliers, and the Owner to ensure all damage was corrected prior to official start-up and commissioning activities. The electrical contractor replaced lighting, conduits, and wiring. The pumps did not require major rehabilitation as they are designed to operate under submerged conditions. 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 identified corrective actions and repairs are now complete. All manufacturers have been onsite to inspect the repairs and have provided written certification that equipment is still under warranty. Startup of the four pumps and all three screens is complete. Additionally, the Combined Influent Building bypass is complete and the Combined Influent Building is online.

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 stream bank failures that resulted in pipe exposures within the creek that caused debris and creek water to enter the sewer. Nine interceptor sewer locations were identified as damaged along Sauquoit Creek plus one additional location at Nail Creek where a portion of the 30-

inch diameter Sauquoit Creek Force Main was exposed. The three most critical pipe exposures were repaired (Griffiths Place and Mill Street in the Town of Paris, and Oneida Street in Chadwicks/Town of New Hartford). Those repairs cost $392,312.30 of which FEMA has provided its reimbursement to the County. Of the remaining seven locations, the necessary permits have been obtained from the NYSDEC and U.S. Army Corps of Engineers for four sites; the U.S. Army Corps of Engineers stated that the projects are covered by their blanket water quality certification. The remaining three locations do not require such permits. NYSDEC regulations do not allow work to occur within Sauquoit Creek between October 1 and May 15 so construction at the remaining sites cannot proceed until late May 2022 at the earliest. Total cost of repairs to the remaining interceptor sewers and force main are expected to cost between $500,000 and $700,000. The County's engineering consultant assisted the County in developing Engineering Reports that the County has submitted to FEMA in support of the funding requests through the disaster recovery assistance program. The County continues to coordinate with FEMA regarding the disaster recovery assistance program.

The SCPS was also impacted by the October 31, 2019 flood event. The flooding of the sewer system due to the damages caused by the storm event carried gravel, rocks, debris, etc., through the Interceptor Sewers to the new Screening Building. Debris either become lodged in the screening/wash-press equipment or settled out in the influent channel creating significant labor effort to clean and repair. The Pumping Station flooded upwards of 12 to 14 feet of water on the drywell side. This impacted the pump instrumentation (temperature switches, vibration switches, etc.) that were mounted at the pumps. Heating and electrical equipment in the lower level was also submerged and damaged. In-kind instrumentation parts related to pump instrumentation/controls were replaced in May/June 2020. Exterior restoration (fine grading, seeding, mulching) related to the flood debris clean-up was generally completed during April/May 2020. Incurred cost to date for the completed repairs is $339,854.19. FEMA reimbursement for this completed work is pending. The County continues to explore options for further flood mitigation of pumping station equipment and the facility itself in coordination with the FEMA disaster recovery assistance program. An engineering report outlining completed repairs plus those necessary to enhance resiliency at the station was prepared and submitted to FEMA during the second quarter 2021 with the goal of obtaining funding for the work; however, FEMA will not be able to cover the cost for this mitigation work and alternate sources of funding will be needed. Mitigation to the Pumping Station (buildings and site) is estimated to cost between $700,000 and $1,000,000.

2.2.2 June 2, 2020 Grit Building No. 3 Submergence Event

On Friday, May 29th, 2020, both the north and south grit tanks at Grit Building No. 3 were empty. A valve on a "sparge water" line was inadvertently left open on the south tank, which eventually filled the tank. Once the south tank was filled, sparge water overflowed into the north tank. A drain valve was open on the north tank to allow rainwater to discharge to the building sump pump over the weekend. The sparge water from the north tank was conveyed through the drain valve onto the basement floor in Grit Building No. 3. During this time, the discharge gate downstream of the grit tanks was closed, leaving no path for the sparge water other than through the drain valve at the northern grit tank. The approximate flow rate of the sparge water was 20 gallons per minute (gpm). Sparge water was directed to the sump pit in the basement of Grit Building No. 3. The design intent was to drain the tanks through 3 grit pumps in lieu of through the sump pit/sump pump 1204. Sump pumps were not designed to sustain a flow of 20 gpm. The sparge water continuously ran until Monday, June 1, 2020 where the flow rate of sparge water unknowingly exceeded the sump pump performance capabilities (<20gpm). The water level continued to rise in the basement level until it reached the motor control center and shorted out electrical power to several pieces of equipment including the sump pump. Flood water crested at an elevation of 4'-7" above finished basement floor elevation, resulting in damage to the motor control center, network cabinet, control panels, grit pump motors, etc. Damaged equipment has been and generally includes the following:

- Replacement of (3) grit pumps and motors
- Removal of existing MCC and installation of new power distribution equipment
- Replacement of heat pumps
- Installation of new sump pumps and controls
- Replacement of fiber optic panel

Contractors reached out to the appropriate manufacturers/vendors to assess resulting damage from the flood event and provide a quotation for replacement/repair as necessary to maintain the manufacturer's warranty to be provided contractually. NEMA Guidance for Evaluating Water-Damaged Electrical Equipment was followed for assessment.

Construction work was completed during the 3rd Quarter of 2021 and Grit Building No. 3 is now operational. The table below reflects a summary of Contractor invoices that have been paid by the County for the damage that was incurred:

Contract No.	Contractor	Quotation
6A	C.O. Falter Construction Corp.	$30,575.46
6B	John W. Danforth Co.	$41,645.70
6C	O'Connell Electric Co., Inc.	$224,646.00
7C	Patricia Electric, Inc.	$27,831.15

The total cost of the required repairs was submitted to the County's insurance carrier with backup cost information. On November 20, 2020 a representative of the insurance carrier visited the site and observed the damage in Grit Building No. 3 with representatives of the County, Ramboll, and GHD. The County continues to pursue reimbursement through the insurance carrier.

3.0 MANAGEMENT PROGRAMS

3.1 COMPUTERIZED MANAGEMENT AND MAINTENANCE SYSTEM

The County purchased a Computerized Management and Maintenance System (CMMS) software system (Lucity – now a Central Square Technologies Company) 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.

During the 4th Quarter of 2020, the engineering team confirmed the location for new servers to host the CMMS system with the County's Information Technology (IT) Department personnel; however, due to COVID restrictions, the servers were not installed during 2020. In 2021, the Consultant Team recommended a cloud-based server for the CMMS system, citing advantages such as maintenance/upgrades would be performed automatically by Dematic, performance issues would be resolved by Dematic, and the system could be accessed from anywhere with a trusted internet connection. The County's IT Department was consulted and agreed with the cloud-based server as long as they are kept informed as the work progresses. The CMMS system is now being hosted in the Cloud.

The Asset Register for equipment being installed in Contracts C-2, C-5, C-6, C-7, and C-8 was developed in 2020. The Asset Register includes preventative maintenance tasks and frequency and will eventually be used to automatically generate work orders once the CMMS system is online.

The new "Asset Management Building" that will be constructed south of the existing Maintenance Garage was included in the Contract C-8 Bid Package that was awarded in February 2021 and issued the Notice to Proceed in May 2021. The Asset Management Building features a racked storage system for spare parts, an inventory control system, and an office for parts clerk. A portion of the new building has been designed to house the County's new vactor truck used for interceptor maintenance.

During the 4th Quarter of 2021, Barton & Loguidice and GHD performed the following:

- Presented a demo of Dematic Sprocket to County staff including mobile functionality
- Demo credentials were provided to County staff
- Combined task instructions for all Preventative Maintenance (PM) to be uploaded in Sprocket
- Continued updating missing Equipment Systems in import template

Next quarter, the final Equipment Systems will be created and a new import of assets and PM data will be uploaded into Dematic Sprocket by Barton & Loguidice. Once C-8 construction is completed, those assets and PM data will be uploaded.

The County, working with its consultant team, has prepared a Draft Asset Management Plan for compliance with the Consent Order and submitted the draft to the NYSDEC on Dec 22, 2021. It should be noted that the deadline extension of the Consent Order to December 31, 2022 includes delivery of the final Asset Management Plan. The Draft Asset Management Plan provides the current condition of major assets (those valued at $50,000 or more), and a risk analysis to document the consequence of failure. This plan will be used as a planning and budgeting tool for replacing major equipment over time. The CMMS system will be the day-to-day method for tracing preventative and reactive maintenance tasks and managing spare parts inventory.

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 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, and a contract was awarded on September 10, 2014 to ADS Environmental Services, LLC (ADS). ADS completed 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. The flow meters and rain gauges have been consistently collecting flow data since their installation. Three new flowmeters were installed within the collection system tributary to the Starch Factory Interceptor (outside of the SCPS Basin) in December 2019. The purpose of these meters was to isolate portions of the Starch Factory Interceptor basin so that areas of excess infiltration and inflow (I/I) could be identified. The data collected by these flowmeters is currently being analyzed. That said, preliminary results provided in the report by ADS indicate that the sewershed tributary to meter "Oneida_205" located within Proctor Park, appears to be contributing proportionally the most Rain Derived I/I (RDII) in the Starch Factory Interceptor area. The City of Utica plans to conduct their own additional flow monitoring in the Starch Factory Creek area in 2022. Additionally, the County and City of Utica held a meeting with ADS in the 4th quarter to review and discuss the current flow meter locations and consideration is being given to redeploying some flow meters to more strategic locations.

Flow metering data were made available to the County and its Consultant Team by ADS to evaluate the impact sanitary sewer rehabilitation, including manhole rehabilitation completed to date, may have on the amount of I/I entering the sanitary sewer system. Raw flow monitoring data, consisting of 5-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.

After the data has been verified and scrubbed, ADS technicians input the cleaned-up data into Sliicer, which is ADS' proprietary flow analyzing software. Sliicer enables the flow monitoring technician to automate identification of dry and wet weather days, define "typical" rain events for both summer and winter seasons, and analyze the rain event's effect on the flow in the sanitary sewer. This forms the basis of evaluating the quantity of RDII in large datasets.

The 2018 1st Quarter progress report presented the evaluation and findings of the hydraulic model calibrations, which were used to compare and evaluate the effectiveness of the I/I removal projects upstream of the SCPS. The 2019 1st Quarter progress report presented an update of the flow monitoring data and RDII analysis for summer 2018 and winter 2019 events. The 2020 1st Quarter progress report presented an update of the flow monitoring data and RDII analysis for summer 2019 and winter 2020 events, as well as comparison to historical

flow monitoring data. Flow monitoring data and information from the County's GIS system on the sewer rehabilitation work completed also were analyzed for each of the flow meters in the SCPS basin. The 2021 1st Quarter progress report provided an update of the flow monitoring data and RDII analysis for summer 2020 and winter 2021 events, as well as comparison to historical flow monitoring data. The 2021 1st Quarter progress report also examined historical rainfall and sanitary sewer overflows at the Sauquoit Creek Pump Station from 1999 to 2020. A noted decrease in annual overflow volumes over the period of 2017 to 2020 was observed, which is likely attributed to a combination of sewer rehabilitation work performed in the upstream service area and upgrades to the Sauquoit Creek Pump Station resulting in improved service.

Overall, the results of the evaluations presented in the 1st Quarter 2021 progress report indicated that the significant amount of sewer investigation and subsequent rehabilitation work completed to date has had a generally positive impact on I/I abatement and reducing sanitary sewer overflow volumes at the Sauquoit Creek Pump Station, although results may vary depending on the rainfall intensity and storm characteristics. Additionally, the new 42-inch force main from the Sauquoit Creek Pump Station put into service in April 2021 was designed to mitigate sanitary sewer overflow volumes since it will allow more flow to be pumped to the WPCP and treated. The 42-inch force main is now conveying peak flows up to 38 mgd to the WPCP. Although the overflow volumes at the Sauquoit Creek Pump Station have been significantly reduced and this trend continues, there still appears to be I/I entering the sewer system in a few select areas of the system. Rehabilitation work to date has consisted of cured-in-place-pipe (CIPP) lining, lateral joint grouting, pipe joint grouting, and manhole rehabilitation. These methods have the potential to eliminate infiltration and repair the structural integrity of the sewer main, but are limited to addressing mostly public side I/I sources. Further investigation is warranted to identify and address other sources of I/I, such as cross connections between storm and sanitary sewers and private side I/I (see Section 3.3). Based on the high I/I observed in certain areas of the collection system, additional sewer investigation has commenced in the areas of noted concern in Section 2.1.4. Continued sewer investigation and rehabilitation work is important to further I/I abatement, as well as help build excess capacity in the collection system for future growth. The combination of past and future sewer rehabilitation work and the new 42-inch force main from the Sauquoit Creek Pump Station are intended to mitigate the overflow at the SCPS according to the Consent Order.

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 approved by the County in the 1st Quarter of 2021. Planning among the Consultant Team regarding the 2021 program elements includes legal review of potential modifications to the County's Sewer Use Rules and Regulations and drafting policy documents relative to private property I/I. These efforts, specifically related to direct coordination/meetings with the Steering Committee, were on hold in 2020 due to the COVID-19 crisis, but resumed in 2021 with virtual meetings and electronic correspondence. A meeting was held with the Steering Committee on October 26, 2021 to present recent flow metering results and scattergraph analysis, inform the group of work completed to date and that there is still more I/I in the system that could be removed, and discuss potential future work on PPII. During the meeting, the County highlighted the success of the SCPS upgrades and new forcemain, as evidenced by reduced SSO volume to the Mohawk River since the forcemain was placed into service.

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. In the 4th Quarter 2021, no inspections of Food Service Establishments (FSEs) were performed as the lead person at the OCDOH working on the FOG program left the County in January 2020 and a replacement has not been hired (more details provided in Section 9.1). Additionally, the OCDOH priorities have been focused more on Covid vaccinations and testing in recent months. To date, a total of 225 FSEs have been visited. The OCDOH anticipates conducting limited FOG inspections of new and existing facilities later in 2022. 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 3rd Quarter of 2021). In a letter dated June 16, 2021 to the NYSDEC, the County requested an extension of the SSO Mitigation Consent Order Compliance deadline to December 31, 2022. On October 6, 2021, the County received a proposed Consent Order modification with the one-year extension from the NYSDEC.

Description	Consent Order, Schedule "A" Date	Status
Engineering Investigations and Evaluations		
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
Management Programs		
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 4th Quarter 2012
CMOM Implementation	May 31, 2013	Began implementation in 4th Quarter 2012
Asset Management Plan	December 31, 2022*	Draft submitted Dec. 22, 2021
Remedial Measures		
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, 2022*	In progress
Reporting		
Annual Work Plan	January 31, Annually	Submitted annually
Quarterly Progress Report	Quarterly	Submitted quarterly

Notes: *I/I – Inflow and Infiltration*

** County received Consent Order modification to extend deadline to December 31, 2022, including Asset Management Plan.*

4.2 MILESTONES

During the 4th Quarter of 2021, 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.

4.4 TEMPORARY (CONSTRUCTION PHASE) SPDES PERMIT LIMITS

During construction, the WPCP is operating under the provisions set forth in "SPDES Permit No. NY0025780, Interim Effluent Limits and Monitoring, R6-20060823-67-M1," as issued by the NYSDEC. These construction phase permit limits require a wet weather flow of 48 mgd through the WPCP prior to a combined sewer overflow upstream of the plant. The temporary limits were set to expire on December 31, 2021, concurrent with the original Consent Order deadline. In a letter dated December 22, 2020 to the NYSDEC, the County requested extension of the temporary construction phase permit limits through the completion of Contract C-8. The County requested and recently received a Consent Order modification to extend the deadline to December 31, 2022, and the construction phase limits also will be extended concurrent with the modified Consent Order.

Contract C-8 was awarded in February 2021 and the Notice to Proceed was issued in May 2021. Under this contract, the secondary treatment system are being upgraded with new blowers and diffusers at the three aeration basins, and new sludge/scum collection equipment in the eight final settling tanks. The project also includes new return activated sludge pumps and other associated enhancements. The upgrades associated with Contract C-8 are not required in order to achieve the peak flow capacity of 111 mgd and are therefore not part of the Consent Order. Contract C-8 is more focused on replacement of equipment that has reached the end of its useful service life. However, this contract will necessitate taking process tanks offline periodically. Specifically, the Contractor will be required to take one aeration basin out of service at a time to replace diffusers, air piping and valves, gates, etc. As the aeration basins will be out of service for periods of time, treatment may be impacted during construction. There is no feasible or practicable way to complete the aeration basin improvements without periods of limited capacity.

5.0 SEWER REHABILITATION

Active sewer rehabilitation work financed under CWSRF Project No. C6-6070-08-00, C6-6070-08-10, and C6-6071-02-00 are being administratively closed out. All projects have been tracked by contract number. The rehabilitation contracts were undertaken 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 included: 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. Information related to these sewer rehabilitation contracts is 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. A new contract, Contract 17 is being developed to address sewer rehabilitation in certain target areas, as discussed in Section 2.1.4. Construction is anticipated to begin in 2022.

6.0 ASSESSMENT OF REHABILITATION EFFECTIVENESS

See Section 3.2 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 2021, 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	1,813,324	0	405 Phil Circle (328.000-2-1) NH Permit #6086	320	1,812,444
			101 Woods Edge Dr (328.000-2-26) NH Permit #6087	240	
			30 Hosta Lane (Cherrywood) 328.000-2-26 NH Permit #6088	320	
		0		0	
Town of Paris	253,064	0		0	253,064
Town of Whitestown	1,053,254	0		0	1,053,254
Village of Clayville	59,069	0		0	59,069
Village of New Hartford	277,147	0		0	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	**5,036,265**	**0**		**880**	**5,035,385**

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

The County previously had a hiring freeze due to the COVID-19 crisis; however, they are now able to hire essential positions. That said, the Health Department has not yet been able to find a suitable replacement to fill the position that works on the FOG program and their recent focus has been more on Covid vaccinations and testing, leaving little to no time for the FOG program.

9.2 SATELLITE COMMUNITY STAFF

During the 4th Quarter of 2021, there were no changes of key personnel to report.

9.3 CONSULTANT TEAM STAFF

As noted in the 1st Quarter 2021 progress report, the "Program Manager" tasks previously performed by Ramboll are now being performed by John LaGorga and John Story of GHD, each of whom have been involved in the program since the planning stages and are familiar with the current construction contracts. There were no other changes in key consultant team staff during the 4th Quarter of 2021.

9.4 COVID-19 IMPACT

In March 2020, the COVID-19 crisis began affecting daily work routines for the County, Consultant Team and contractors. New York State Executive Orders (Order 202 and its amendments) for Essential Workers were followed. OCSD staff operated utilizing staggered work shifts in order to maintain social distancing and safe work conditions in efforts to minimize potential exposure to COVID-19 during Q-2 2020. Staffing returned to normal scheduling in Q-3 2020. The County had initiated a hiring freeze that remained in place throughout remainder of 2020 due to severe revenue shortfall related to the COVID-19 crisis; however, the County is now hiring essential positions. On June 15, 2021, the Governor lifted the State's COVID restrictions.

The Consultant Team continues to work on the project as necessary and in accordance with New York State and Oneida County Executive Orders combined with their own company guidance and modified procedures to maintain social distancing and safe work conditions. On-site staff was generally limited to key Construction Management, Construction Inspection, and Start-up/Commissioning personnel. Engineering/design personnel were working remotely per the Governor's Executive Order 2021; however, with the Governor lifting the COVID restrictions in June 2021, key engineering team members are now allowed onsite although some staff are still participating in meetings remotely.

As construction work also is considered essential to infrastructure, contractors continue to make progress on the various construction contracts and have implemented practices to maintain social distancing and safe work conditions. Some vendors, subcontractors, and their employees had expressed concern about working at the site during the COVID-19 pandemic, which has the potential for schedule impacts. This has created challenges related to some equipment start up and associated training.

Even with extensive safety protocols in place, three consultant staff members who work out of the on-site Engineering Field Office contracted the COVID-19 virus. Protocols were followed regarding quarantining and testing of all staff. The Field office was shut down for a period of time and a specialty contractor was brought in for a deep cleaning and sanitizing of the space. The three consultant staff members have since recovered.

10.0 ADMINISTRATIVE ITEMS

10.1 WORK AUTHORIZATIONS

There were no new work authorizations issued during the 4th Quarter of 2021.

10.2 PROJECT FINANCING

Table 10.1 below is from the Preliminary Engineering Report in Support of Project Financing, Amended March 11, 2020. The overall Consent Order compliance program is large in scope and magnitude. Phasing is required in order to implement the work in a reasonable and cost-effective manner. The following represents the project's current overall phasing plan and estimated budgets, including information in the 2021 CWSRF Intended Use Plan.

The County recently was awarded $1,250,000 in funding though the Green Innovation Grant Program (GIGP) for the two additional microturbines (energy efficiency measures) being installed under C-8, which has been added to Table 10.1.

Table 10.1: Project Phasing(1)

CWSRF PROJECT NO.	PHASE	CURRENT DESCRIPTION	CWSRF FINANCED AMOUNT
C6-6070-08-00	1	Sanitary Sewer Collection System – Sewer Rehabilitation/Replacement	$10,078,434 *Long Term Debt 2015* $4,000,000 *Principal Forgiveness*
C6-6070-08-01	2B & 3	Sanitary Sewer Collection System – Sewer Rehabilitation/Replacement	$15,000,000 2020 Multi-Year List
C6-6070-08-02		Sauquoit Creek Pumping Station and Force Main – Design and Permitting	$2,524,017 *Long Term Debt 2019*
C6-6070-08-03	4	Inflow/Infiltration Mitigation in Support of Private Property I/I Reduction	$7,664,000 Multi-Year List
C6-6070-08-04(2)	5B & 6C	Sauquoit Creek Pumping Station and Force Main Upgrades & Water Pollution Control Plant Upgrades (Construction of Solids Handling Upgrades not covered in Phase 6B, Construction of portions of the "Physical Condition" Upgrades)	$97,656,145.00 *Long Term Debt 2019* $5,000,000 WIIA Grant $1,000,000 ESD Grant $2,000,000 NYSERDA Grant
C6-6070-08-05	6A	Construction of the remainder of the Water Pollution Control Plant Upgrades not covered in Phases 5B, 6B, and 6C.	$55,000,000 *Long term financing 2020, pending* $5,000,000 Interest Free loan $20,000,000 WIIA Grant
C6-6070-08-06	6B	Water Pollution Control Plant Upgrades – Design Phase Services, Construction of Select Solids Handling Upgrades Phases)	$34,707,000 *Long Term Debt 2017*
C6-6070-08-10	1 & 2A	Sanitary Sewer Collection System (I/I) Correction (Balance from C6-6070-08-00)	$11,586,562 *Long Term Debt 2017*
C6-6070-08-11	2B & 3	Sanitary Sewer Collection System – Sewer Rehabilitation/Replacement (Balance from C6-6070-08-01)	$13,923,000 Multi-Year List

CWSRF PROJECT NO.	PHASE	CURRENT DESCRIPTION	CWSRF FINANCED AMOUNT
C6-6070-08-14	5B &6C	Balance from C6-6070-08-04.	$15,000,000 – Interest Free loan *Long Term Debt 2019*
C6-6070-08-15 (3)	6A	Construction of remainder of the Water Pollution Control Plant, Sauquoit Creek Pumping Station and Force Main upgrades, and Barnes Avenue Pumping Station Upgrades not financed in Phases 5B, 6B, and 6C. **(Balance from C6-6070-08-05).**	$80,000,000 (2019 Annual List) **$40,000,000** **(Additional Bonding Request – Amendment 3)**
C6-6070-08-17	6A	Help finance the two additional microturbines being installed under Contract C-8 (GIGP No. 1882).	$1,250,000 GIGP Grant

(1) Includes all project related financings, including those not related to this Bond Authorization (including its amendments).

(2) C6-6070-08-04 received an additional $5 million Water Infrastructure Grant.

(3) C6-6070-08-15 NYSEFC has included $120,000,000 in the draft 2020 IUP.

Table 2.1

Oneida County Sewer District

Summary of Contracts 4Q 2021

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.	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 installation is complete and operational.	March 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.	Final	Approved	Approved	Advertised December 15, 2017	July 2018	The 42-inch force main is in service and conveying peak flows up to 38 mgd. Rehab of the existing 30-inch force main began in Q2-2021 and is ongoing (CIPP).	June 30, 2022
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	Note - Site and buildings impacted by 7/1/2017, 1/24/2019, and 10/31/2019 ice jam/flooding events. New Screenings Building: Facility is generally operational (building access/security pending); new emergency generator fully operational; Huber replaced the WAP equipment with a new, modified system intended to improve drainage. Operational results of WAP are being monitored, although still not properly functioning per project specifications. Potential hot water system (for WAP) is being considered, design was completed for HW system. Owner is reviewing contractual remedies if the non-performance of the washer/compactor is not resolved. Most punch list items completed. Existing Pumping Station Building: Electrical, HVAC, and plumbing renovations complete minus minor punch list items.	Tentative agreement on Substantial Completion date of March 2021 for all 4 Prime Contractors with the exclusion of the washer compactors for C5-A.

Table 2.1

Oneida County Sewer District

Summary of Contracts 4Q 2021

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	Upgrading existing 1.5 mgd pump station to replace equipment that has reached the end of its useful service life. Installation of a new backup generator. Electrical, mechanical, and architectural upgrades to existing building. Service road improvements for better access to the station. New discharge piping configuration and interconnection to new and rehabilitated SCPS forcemains.	30%	n/a	n/a	July 2022	September 2022	The Basis of Design Report was approved by the EFC in the 3rd quarter; EFC financing was approved and GHD has commenced the final design.	July 2023
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	Approved	March 2017	September 2017	Influent Building: 4 new influent pumps and 3 mechanically cleaned bar screens are substantially complete. Combined Influent Building: Refurbishment of building and equipment (4 pumps, 3 screens) is complete. Grit Removal: Grit buildings No. 2 and 3 are substantially complete. Grit Building No. 3 was impacted by a flooding event on June 1, 2020; damaged equipment repairs/replacement are now complete, although the insurance claim is ongoing. Administration Building: Rehabilitation of the building is complete, and the building has been officially re-occupied. Electrical: New receiving structure/tower for 46kV equipment is installed and energized by National Grid. 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. Generator system is fully operational. All 4 prime contractors (General, HVAC, Electrical, and Plumbing) are working on addressing final punch list items.	February 2022

Table 2.1

Oneida County Sewer District

Summary of Contracts 4Q 2021

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	HRD: HRD tank work is is substantially complete and operational and all 4 prime contractors are addressing punch list items. Work change directive work in progress for HRD Sample pumps. Primary Settling Tanks No. 1 and 2: PSTs No. 1 and 2 are substantially complete and operational and all 4 prime contractors are addressing punch list items. Primary Settling Tanks No. 3 and 4: PSTs No. 3 and 4 are substantially complete and operational and all 4 prime contractors are addressing punch list items. Troubleshooting primary sludge pumps operation is ongoing. Disinfection Building: Disinfection Building is substantially complete and operational and all 4 prime contractors are addressing punch list items. Work change directive work in progress on HVAC upgrades. Administration and Operations Building: Admin and Ops Building is substantially complete and operational and all 4 prime contractors are addressing punch list items. Aeration Tank Distribution Structure: Aeration Tank Distribution Structure is substantially complete and operational. HRD Outfall Structure and Outfalls: HRD Outfall Structure and Outfalls is substantially complete and operational and all 4 prime contractors are addressing punch list items.	December 2021 (substantialy complete)
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	Approved	Approved	Advertised November 17, 2020	Notice to Proceed May 13, 2021	Blower Building: Demolition of existing blower Nos. 3 and 4 and existing RAS pump Nos. 5 -7 are complete. New blower installation is complete and associated piping installation is ongoing. Installation of Blower Building substation is in progress. Installation of electrical conduit is ongoing. Aeration Tank No. 3: Demolition of existing aeration system is complete. Installation of aeration piping, concrete repairs and railing installation are progressing. Installation of electrical conduit is ongoing. Final Settling Tanks: Installation of electrical conduit is ongoing. Administration and Operations Building: Demolition of Incinerator Nos. 1 and 3 is complete. Concrete floor infills are progressing. Asset Management Structure: Installation of pile foundatoins is ongoing.	Estimated June 2023

(1) - Estimated construction start = Notice to Proceed

Table 5.1

Oneida County Sewer District

Summary of Contracts 4Q 2021

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	District-wide: 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	Complete
3	Sanitary Sewer Mainline Rehabilitation - Phase 1	Villages of New York Mills, Oriskany, New Hartford, Whitesboro, and Yorkville; Towns of New Hartford and Whitestown	C6-6070-08-00	Final	Approved	13	1,503,360	$ 1,916,428.54	Insituform	Complete
4	Sewer Separation - Clinton/Henderson Street, NY Mills	NY Mills: Storm/Sanitary sewer separation.	C6-6070-08-00	Final	Approved	2	264,000	$ 155,007.51	JJ Lane Construction	Complete
5	Sewer Repairs and Rehabilitation	Villages of Whitesboro, New Hartford, Yorkville, New York Mills: 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	Complete
6	Sanitary Sewer Mainline Rehabilitation - Phase 2	Villages of New Hartford and Clayville; Towns of New Hartford and Paris; City of Utica	C6-6070-08-00	Final	Approved	15	1,130,000	$ 2,086,525.00	Green Mountain Pipeline Services	Complete
7	Sanitary Sewer Mainline Rehabilitation - Phase 3	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)	C6-6070-08-00	Final	Approved	13	630,000	$ 2,060,644.00	Green Mountain Pipeline Services	Complete
8	Sanitary Sewer Mainline Rehabilitation - Phase 4	Town of New Hartford: Paris Road area (NHD-23)	C6-6070-08-00	Final	Approved	14	249,000	$ 1,143,410.78	National Water Main Cleaning Co.	Complete
10	Sanitary Sewer Mainline Rehabilitation - Phase 5	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.	C6-6070-08-10	Final	Approved	17	1,120,000	$ 3,429,370.00	Green Mountain Pipeline Services	Complete

Table 5.1

Oneida County Sewer District

Summary of Contracts 4Q 2021

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	Town of New Hartford/Hamlet of Washington Mills: 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.	Complete
12[3]	Sewer Rehabilitation Project	Village of Yorkville: Areas of the Village not previously rehabbed (YKV-1).	C6-6071-02-00	Final	Approved	11	824,832	$ 3,420,966.19	National Water Main Cleaning Co.	Base Project Complete
13	Sanitary Sewer Mainline Rehabilitation - Phase 8	Town of New Hartford: 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.	Complete
14	Sanitary Sewer Mainline Rehabilitation - Phase 9	Town of New Hartford: 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.	Complete
16	Sanitary Sewer Mainline Rehabilitation - Phase 10	Town of Whitestown: 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.	Complete
17	Sewer Rehabilitation Project - Phase 11	Village of Yorkville Flow data, mapping, and SSES (smoke testing/CCTV) results were assessed to determine location(s) most appropriate for continued sewer system rehabilitation. Both sanitary and storm sewers will be lined. House laterals will be lined.	C6-6070-08-10	Preliminary	Tentative Submission Date - 2022	<1	To be determined from the assessment	$ 600,000.00	TBD	Tentative Bid Date - 2022

* - 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