

Hallocks Mill Sewer District Extension Project Status Update – 6/11/2018

Project Background:

The Hallocks Mill Sewer District (HMSD) was established as a sewer service area to provide for municipal wastewater needs for the Yorktown Heights hamlet and surrounding areas. Portions of the district were initially sewered with the intention that all areas within the district would eventually be sewered.

Collected wastewater is treated at the Yorktown Heights Water Pollution Control Plant, located at 2200 Greenwood Street. The treated plant wastewater is discharged into the Hallocks Mill Brook, which flows to the Muscote River and ultimately to the New Croton reservoir, part of the New York City Croton Watershed.

- Plant capacity (SPDES discharge permit): 1.5 million gallons per day
- Current flow rate: 1.2 million gallons per day
- Available capacity: approximately 300,000 gallons per day

Back in 2010 the Town retained Stearns & Wheler (now GHD) to perform an engineering evaluation to determine the infrastructure requirements and budget costs for a system expansion to service all unsewered parcels in the HMSD. The report included the following summary:

- Approximate number of tax parcels in the Sewer District: 5,200
- Connected/ability to connect parcels in HMSD: 3,600 (approximate)
- Undevelopable parcels: 200
- Unsewered parcels: 1,400

Planned Improvements & Work Completed to Date:

The Stearns & Wheler/GHD report completed in 2010 included a breakdown of all the unsewered parcels organized by sub-area. In 2017 the Town retained GHD to prepare an engineering & schematic design report for a project that would construct new sewer infrastructure to make sewers available to some of the unsewered parcels within the HMSD. The current study area includes approximately 660 parcels, designated as (1) Birch Street Sub-Area, 340 parcels; (2) Broadview Sub-Area, 50 parcels; (3) Carolina Road Sub-Area, 25 parcels, (4) Ridge Street Sub-Area, 175 parcels; (5) Sparkle Lake Sub-Area, 69 parcels; and (6) Sunrise Street Sub-Area, 26 parcels.

The feasibility study prepared by GHD Consulting Services included the following tasks:

- Obtain topographical survey information using aerial surveys, ground surveys and Westchester County data along the proposed sewer extension route.
- Perform ten (10) soil borings to evaluate the geotechnical conditions.
- Identify any wetlands, watercourses or other environmental features that will need to be protected during the work.
- Conduct a condition assessment of the Crystal Lake Pumping Station.
- Prepare a schematic design report to include: summary of topographic and geotechnical existing conditions, conceptual layout of Birch Street subarea, Sunrise Street subarea and Sparkle Lake subarea sewer extension including preliminary layout and sizing, service connection standards, condition assessment of Crystal Lake Pump Station and summary of recommended improvements with conceptual layout plans.

- Cost estimate for the recommended improvement plan
- Assist the Town with SEQR documentation
- Meet with the Town and representatives of NYSDEC to review the planned project and to identify the steps that will be needed for an eventual increase in the permitted discharge limit (current capacity for new hookups is 300,000 gallons versus 450,000 gallons needed to connect all parcels in study area).

Cost and Funding:

The Town has received preliminary approval for \$10 million of funding from the Northern Westchester Watershed Committee and Westchester County for build-out of the Hallocks Mill Sewer District.

The full cost to build out the HMSD as per the Engineering Report prepared by GHD is in the range of \$34-40 million depending on whether the project is undertaken as one large project or several smaller ones and also dependent on the amount of rock excavation that may be needed (which will be determined during detailed design when a more comprehensive subsurface exploration is done).

A phased approach to construction is recommended for the following reasons:

1. One large project will be cost prohibitive unless additional outside funding sources are identified, i.e. another grant award from NYCDEP or New York State.
2. The wastewater treatment plant does not have adequate capacity to handle the increase in flow from all 670 parcels in the study area, i.e. an increase in the SPDES permit issued by NYSDEC will be needed.
3. A prior modeling study performed by GHD identified restrictive sewers in the collection system that will need to be addressed prior to increasing flows.
4. The current engineering study performed by GHD has identified additional restrictive sewers that will need to be addressed in some of the sewer extension areas.
5. There are some long standing operational issues in the collection system that were the subject of a prior Notice of Violation from NYSDEC that must be addressed, i.e. excessive grease in the system, sections of pipe that are back-pitched or have bellies, resulting in frequent sewer back-ups.
6. The work in the Sunrise Street sub-area will require an upgrade to the Crystal Lake Pump Station. Note: this pump station is out-dated and is reaching the end of its useful life, hence a full rehabilitation is recommended prior to bringing in new sewer connections.

Recommended Approach

A technical evaluation performed by the Engineering Department considered the above issues and also looked at the various environmental issues and costs identified by GHD. Based on our analysis, we recommend prioritizing the sewer extension project as follows:

1. Birch Street Sub-Area (340 parcels)
2. Sparkle Lake Sub-Area (69 parcels)
3. Sunrise Street Sub-Area (26 parcels)
4. Ridge Street Sub-Area (175 parcels)
5. Broadview Sub-Area (50 parcels)
6. Carolina Road Sub-Area (25 parcels)

Recommended Next Steps

With the Town Board's consent, we would like to move forward as follows:

Task 1: Complete planning for the HMSD extension project

- Work with GHD to complete the Final Engineering Report
- Complete the SEQRA process for the planned improvements
- Work with Westchester County officials to finalize the Inter-Municipal Agreement that will enable the Town to receive their \$10 million funding allocation
- Work with the Town's bond counsel on a Phase 1 project that will meet the required threshold for cost to the benefitted parcel owners

Task 2: Apply for additional funding opportunities

- This project could potentially qualify for funding under a recently announced Water Quality Improvement Program administered by New York State, applications due 7/27/18
- The East of Hudson Watershed Corp, of which Yorktown is a member, has had preliminary discussions with NYCDEP regarding a new funding round for sewer improvement projects
- The Westchester County Planning Dept has leftover funds from the 1997 Memorandum of Agreement with NYCDEP that the Town may potentially benefit from

Task 3: Continue addressing issues and deficiencies in the collection system

- The Town has a CMOM (Capacity, Management Operations and Maintenance Plan) that needs to be further developed; a multi-step program to (1) perform pipeline cleaning and video inspection; (2) smoke testing of sewer lines that will help us identify illegal hook-ups; (3) manhole flow monitoring to identify areas with infiltration and inflow; and (4) prioritization of future collection system improvements.
- Undertake a rehabilitation program for the next group of pump stations: Mohansic, Salem and Farmwalk
- Utilize the Town geographic information system (GIS) and work order management system to create better infrastructure mapping, track emergency calls and improve maintenance planning.
- Perform a facility study of the wastewater treatment plant to continue with automation upgrades and to identify processes that might need to be improved prior to the Town receiving approval for an increase in the SPDES discharge permit.

Task 4: Other issues to be addressed

- Due to various omissions and inconsistencies in the sewer revenue funds, undertake a Rate Study to ensure the charges for HMSD rate payers and lateral operation districts are treated fairly and consistently, i.e. residential vs commercial, type of rates charged and amount of funds raised.
- The emergency generator that powers the Microfiltration Building failed during the March storm and requires major repair or replacement. We are currently working on how to best address this issue for the long term reliable operation of the WWTP. The NYCDEP is aware of the generator problem as some of the cost will fall under the O&M agreement.