

Executive Summary

Wastewater Treatment Plant Review and Remaining Capacity Study

Village of New Paltz Wastewater Treatment Facility
April 22, 2018 (Version 2)

This Wastewater Treatment Plant Review and Remaining Capacity Determination (Report) was conducted and prepared by the Village's Environmental Policy Board (EPB) at the request of the Village of New Paltz (Village). The purpose of this Report is to review available documents regarding the current level of utilization at the Village of New Paltz Wastewater Treatment Facility (Village Sewer Plant) compared to its design capacity. Further, available documentation and other information was reviewed to better identify what remaining capacity has already been allocated for use by the Village and what remaining capacity is available for consideration by the community.

The Report does not explore, determine or identify the capabilities, capacity or limitation of the sanitary sewer collection system. In addition, although this Report presents data and information necessary to assist in making growth and development decisions, the actual decisions and policies regarding the use of Village Sewer Plant capacity remains with the community of New Paltz.

The current design capacity for average day flow for the Village Sewer Plant is 1,500,000 gallons per day (gpd).

Flow data for 2013 and 2014 indicate that the average day flow at the Village Sewer Plant was 1,100,000 gpd when only the highest 6-months of flow in each year are considered.

Flow data for 2016 and 2017 indicate that the average day flow at the Village Sewer Plant was 1,100,000 gpd when only the highest 6-months of flow in each year are considered (same as the 2013 to 2014 time interval).

A review of the pollutant removal effectiveness was conducted for permit parameters such as pH, temperature, solids, BOD, Chlorine, Coliform bacteria, dissolved oxygen, ammonia and Nitrogen. All pollutant removal performance levels were generally and routinely within acceptable levels.

A review of peak instantaneous flows entering the treatment facility was conducted. Although high instantaneous peak flows were noted several times in response to wet weather events, pollutant removal performance levels did not show degradation as a result of these peak events.

A review of the frequency and occurrences of Sanitary Sewer Overflows (SSOs) was conducted. Although not at the Village Sewage Plant, the performance of the sanitary sewer collection system can also impact the ability to utilize available capacity. Repeated, chronic or unexplained SSOs can be a cause of DEC regulatory or enforcement action at a community.

These actions can result in prohibitions or hesitancy in utilizing capacity at treatment facilities until the collection system deficiencies can be addressed. The occurrences of SSO events in 2016, 2017 and early in 2018 were low (less than 5) and are lower than previous years.

Based on the review of the pollutant removal efficiencies, peak instantaneous flows and the occurrence of SSOs, no downward adjustment of the values of remaining design flow capacity at the Village Sewer Plant is necessary.

Therefore, the Remaining Design Flow Capacity (*gross remaining capacity*) is 400,000 gpd.

Allocations of capacity have already been made but are not yet reflected in the Village Sewer Plant flow data. Future flows are expected to be generated from the following types of sources:

1. Village properties which have current proposals pending before the New Paltz Planning Board and approved projects currently under construction or near construction.
2. Vacant parcels from within the Village of New Paltz as they are developed.
3. Allocations to the Town of New Paltz for existing or future District areas.
4. Possible future additional flows from SUNY

The current listing of existing projects either active or pending before the Village of New Paltz Planning Board was reviewed. Active or pending projects delineated in this category include Net Zero (Mulberry), The Ridge/Seakill (South Manheim) and the Steffens project (Elting Avenue).

The level of allocations that have been made to unimproved or under improved parcels and potential redevelopment projects in and adjacent to the Village that have not yet been approved by the Village, several sources were reviewed. Those parcels or projects included the following:

5 Hasbrouck Avenue ("The Pit")	110 Prospect Street (between Moriello and Millbrook)	Redevelopment (Net) - Box Factory Site	Redevelopment (Net) - Red Barn Gas Station
15 Millbrook Place (Kniffen)	21 Ann Street (northern-most parcel)	Redevelopment (Net) - Moxie Cupcakes	Redevelopment (Net) - Stewarts Site
Wooded area south of Southside Apartments	123 Main St (behind existing buildings)	Redevelopment (Net) - NAPA Building	Other Residential (buildable lots) and other redevelopment projects

Allocations that have been made to the Town of New Paltz for use in Districts outside of the Village include the Putt Road District, the Cherry Hill District, the proposed Ohioville (District 6) and the proposed Wildberry Lodge (District 7).

Allocations that have been made for the use of SUNY include the New Engineering Building, the New Academic Building, residence hall renovations and development of their adjacent 40 acres south of the their campus.

The Total Existing Allocations comprised of the combined potential, pending and approved allocations for wastewater loading to the Village Sewer Plant is then determined to be approximately 260,000 gallons per day representing approximately 826 new household equivalents (referred to in this report as an 'ERU' or 'Equivalent Residential Unit').

Therefore, the *net remaining capacity* at the Village Sewer Plant that has not already been allocated, committed or set-aside for use by Village, Town Districts or SUNY (calculated by subtracting the Total Existing Allocations from the Remaining Design Flow Capacity) is an estimated 140,000 gallons per day. This equals approximately 450 to 700 single family homes or their equivalent use.

RECOMMENDATIONS

Available capacity at the community's sewer plant is often relied upon as a primary indicator of a community's readiness for redevelopment and growth. Therefore, enhanced monitoring and awareness of this value is recommended. The following steps should be taken to best monitor and manage this community resource:

1. The Village should continue their aggressive effort in investigating and abating inflow and infiltration in the sanitary sewer collection system. The efforts should consider including Town District areas.
2. This Review and Report (an examination of the previous two years of data and an estimation of allocated and resulting unallocated capacity) should be repeated no later than the soonest of the following:
 - a. Two more years of data have been collected (full 2018 and 2019 monthly data will be available in early 2020)
 - b. More than 200 ERUs of *net remaining capacity* as presented as Unallocated Available Capacity has been allocated.
 - c. The Highest 6-month average day flow becomes more than 1,300,000 over any rolling 12-month period.
3. The Department of Public Works Superintendent should be charged with preparing semi-annual interim reports and provide a copy to the Mayor and Chair of the EPB by the end of the January and July of each year for the prior six months.