



April 7, 2022

Molly Bebak, EIT
Assistant Engineer, Division of Water
270 Michigan Ave.
Buffalo, NY 14203

Re: 2780 Long Road, Grand Island, NY DSCA update.

Dear Molly:

The purpose of this letter is to provide an update on the above-mentioned project as it relates to the Downstream Capacity Analysis (DSCA) that was approved in 2017 compared to what is currently being proposed, and ultimately obtain confirmation that the NYSDEC does not require any additional information.

Project History

2017 APPROVED DSCA (COMPLETED BY C&S ENGINEERS, INC.)

The “Engineer’s Report for the Town of Grand Island Sanitary Sewer System & Force Main” prepared by C&S Engineers, Inc., in 2017 was submitted and approved by the NYSDEC on September 5, 2017 (see attachment 1 approval letter). The design flow was estimated at a total of 97,700 gpd based on the hydraulic loading rates from the “NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems,,2014. The breakdown of projected wastewater flow taken from the previously approved DSCA was as follows:

2017 DSCA APPROVED DESIGN FLOWS		
General Office	548,856 sf x 0.1gpd/sf x 0.8	= 43,900 gpd
Light Industrial	50 employees x 15 gpd/employee x 0.8	= 600 gpd
Future Residential	100 lots x 3.5 beds x 110 gpd/bed x 0.8	= 30,800 gpd
Hotel	110 gpd/unit x 205 units x 0.8	= 18,000 gpd
	50 seats x 35 gpd/seat x 2 rooms x 0.8	= 2,800 gpd
	205 pool guests x 10 gpd/guest x 0.8	= 1,600 gpd
Design Flow		= 97,700 gpd

Note: 0.8 multiplier for high efficiency fixtures (NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems)

Pump Station (Existing Conditions)

A pump station was proposed, approved, and constructed to accommodate the estimated flows outlined in the approved 2017 DSCA. The constructed private pump station is located approximately 130 feet south of Long Road and within the development Site. This is a duplex Smith & Loveless suction lift pump station (Model 4B2D), which has a 6-inch diameter DR-21 HDPE force main. The force main runs from the pump station through the project development area to Bedell Road, continues along Bedell Road where it ultimately connects into the Town 30-inch diameter interceptor sewer. Currently the pump station provides sanitary sewer conveyance/service for only the hotel estimated within the approved DSCA.

2022 Development Proposal

The 2022 proposal includes the development of a 1,080,308-sf warehouse/distribution facility with 101 loading docks, 383 trailer parking stalls, and 1,292 parking spaces to support the operation. This proposal maintains the same development parcel (2780 Long Road) and area (145.4 acres). The anticipated full build out of the project is by the end of 2024.

The updated sewer flow calculations listed below includes the refined proposal, the hotel, and future residential, all to be connected to the pumpstation and force main mentioned under “Pump Station (Existing Conditions)” in this letter.

The flow calculations for the warehouse/distribution facility are based on the number of total proposed parking spaces, and loading docks at 15 gpd/space and dock (referenced as 15 gpd/employee in the NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems).

The flow calculations for the future residential portion of the project, which includes a potential 100 residential lots, is consistent with the previous approved DSCA to maintain a conservative approach. It should be noted however, that with the presences of wetlands on the residentially zoned portion of the site, it is only possible to construct a maximum of 20 single family homes/lots.

2022 DEVELOPMENT PROPOSAL DESIGN FLOWS		
Warehouse/Distribution	1,292 spaces x 15gpd/space x 0.8	= 15,504 gpd
	101 loading docks x 15gpd/dock x 0.8	1,212 gpd
Future Residential	100 lots x 3.5 beds x 110 gpd/bed x 0.8	= 30,800 gpd
Hotel	110 gpd/unit x 205 units x 0.8	= 18,000 gpd
	50 seats x 35 gpd/seat x 2 rooms x 0.8	= 2,800 gpd
	205 pool guests x 10 gpd/guest x 0.8	= 1,600 gpd
Design Flow		= 69,916 gpd

Note: 0.8 multiplier for high efficiency fixtures (NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems)

2017 vs 2022 Development Comparison

The Table below compares the approved 2017 DSCA flows to the refined 2022 development proposal, and concludes that there is excess capacity in the sewer pump station, force main, and downstream interceptor as a result of the refined 2022 proposal.

COMPARISION		
Proposal		Flows (gpd)
2017 DSCA Approved Design Flows	=	97,700
2022 Development Proposal Design Flows	=	69,916
Reduction In Flow	=	27,784

In addition to the information above, our office has had conversations with town staff who have indicated that there have been no significant developments affecting the capacity of the existing pump stations, force main, or interceptor sewer warranting further study from that which was already approved under the 2017 DSCA.

As result of the information contained within this letter and attachments, we respectfully request that the previously approved 2017 downstream capacity analysis be sufficient for the 2022 refined proposal on the bases of the capacity of the previously constructed pump station. Please confirm that no additional information is required to move forward with the project.

If you have any questions, please contact me at mnewcomb@passero.com or at (585) 325-1000.

Sincerely,



Matthew Newcomb
Project Manager

Enclosures
cc: File