

J. Utilities

This chapter of the Draft Environmental Impact Statement (“DEIS”) will review the potential for impacts on the City’s existing utility infrastructure, such as potable water, sanitary sewage disposal and waste disposal services. The proposed action is not anticipated to result in the any direct impacts, as the project would not result in the physical alteration or displacement of any existing utilities, other than an upgrade of the existing sanitary pump station. Therefore, this chapter will concentrate on the potential for indirect effects, which might result from increases in population which creates additional demand on utility services.

1. Existing Conditions

a) Water Services

The City of Glen Cove distributes its water supply through the Glen Cove Water Department (“GCWD”). According to the GCWD and available data, the City provides water to approximately 27,000 residents, as well as an additional 15,000 daily water consumers who either work or visit the City. Water for the City is provided from the Magothy aquifer, part of Long Island’s groundwater system. The City operates five wells (Duck Pond Road #30 and Duck Pond Road #31, Nancy Court, Kelly Street, and Seaman Road) located on four separate well fields located throughout the community. The GCWD treats the water supply before it enters the distribution system. In addition, the City maintains three interconnections with neighboring villages: Jericho Water District; Aquarion Water (Sea Cliff); and Locust Valley Water District.

According to the Glen Cove Director of Public Works, the City can deliver 9.0 million gallons of water per day (MGD). The current average water demand on the system is 5.1 MGD, the peak maximum daily demand is 7.5 MGD, and peak hour demand is 9.6 MGD. Current City fire flow requirements for planning purposes are 3,500 gallons per minute (gpm) (5.0 MGD). Therefore, for analysis purposes, the City’s existing design flow (maximum daily flow plus fire flow) is 12.5 MGD. If the industrial uses that have recently closed (e.g., Konica, Photocircuits, and Pall Corp.) were reactivated with similar operations, the City would not be able to meet its water demand in the event of loss of one well pump.

In 2004, the City completed several upgrades to their water plant and distribution system. Improvements included piping and valve upgrades of their distribution system, fire hydrant replacement, instrumentation and controls, and continuation of their water meter replacement program to allow for more efficient computerized meter reading and automated billing. The City is also in the process of conducting additional studies related to water quality within the area.

According to the Glen Cove Director of Public Works, the City currently has sufficient well capacity to meet maximum day demand in the event that one major well goes out of

service. However, since the City is just meeting this requirement; there is no excess well capacity for future growth, or to meet the demand if the recently closed large industrial uses were reactivated with similar operations. The Director of Public Works has indicated that, with the increased water demand resulting from the proposed Glen Isle project and various other proposed developments in the City, there will not be sufficient well capacity to meet future maximum demand in the event that one major well is out of service. If a water supply system does not have sufficient well capacity to allow for the loss of a major well pump, it may need to consider imposing water use restrictions or, if possible, obtain water from a neighboring supplier if a well is lost during the summer peak pumping period. The City has begun to study improving its water infrastructure to accommodate the increased water demand resulting from future growth in the City.

The project area itself is primarily vacant, surrounded by existing industrial and commercial uses within the remaining portions of the MW-3 District. The existing water usage within the project area is minimal, as there are very few industrial facilities still operational in the area. The Draft Generic Environmental Impact Statement (DGEIS) prepared in 1998 to assess the potential impacts of the MW-3 District rezoning estimated that existing uses in the project area and surrounding industrial facilities used 24,281 gallons of water per day. As the majority of uses within the project area have not substantially changed since that time, it is assumed that water levels within the project area have also not substantially changed. As such, existing water usage levels within the project area represent a very small percentage of water uses for the entire City of Glen Cove.

b) Sanitary Disposal Services

Nassau County currently maintains a 5.5 MGD tertiary wastewater treatment plant, known as the Glen Cove Wastewater Treatment Plant (GCWWTP), located off of Morris Avenue on the south side of Glen Cove Creek, as well as an extensive sewer collection system with 15 sanitary pumping stations distributed throughout the City's service area. This infrastructure was originally owned and maintained by the City of Glen Cove, but maintenance was recently transferred to Nassau County and property transfer/ownership is nearly complete.

Originally constructed in the 1920's, the plant has undergone multiple upgrades and system overhauls (1980 and 2002). The UV disinfection system was completed in 2006 and minor improvements were completed in 2008.

The plant has a permitted and design capacity of 5.5 MGD. The average daily flow (2006) was 3.5 MGD and the peak hourly flow (2006) was 4.5 MGD. The plant has been experiencing recent annual decreases in flow, primarily due to the closure of several industrial facilities (Photocircuits and Konica). The plant achieves a high rate of removal for BOD, TSS and nitrogen. The plant also contains a secondary treatment facility with capabilities for two-stage nitrification, as well as an active sludge-nitrification facility.

The 1998 DGEIS estimated that existing uses within the project area and surrounding industrial and commercial uses discharge approximately 24,281 gallons per day, well below the plant's 5.5 million gallons per day design capacity. As the majority of uses within the project area have not substantially changed since that time, it is assumed that wastewater flows have also not substantially changed.

The existing sanitary pumping station, located near the existing Angler's Club facility, pumps wastewater generated by portion of the Glen Cove community north of Glen Cove Creek under the creek and to the plant. According to information provided by the City's engineering consultant, Nassau County has begun a study of all of the existing pumping stations and infrastructure within the City of Glen Cove to ascertain the condition and determine if improvements need to be made to these facilities. It was reported by Nassau County Department of Public Works personnel that there is no capacity in the existing pumping station or force mains to handle any additional flow.

c) Electric, Gas and Telecommunications Services

National Grid/LIPA provide gas and electric services to this area of Glen Cove while telephone and cable services are provided by Verizon and Cablevision, respectively. These utilities are present in varying degrees within existing adjacent streets (Charles Street, Herb Hill Road, Dickson Street and Garvies Point Road).

2. Potential Impacts

This subsection of the DEIS reviews the potential impacts of the proposed development on the City's utility services.

a) Water Services

Total water utilization estimates for the proposed development reflect projected average daily demand utilization. Preliminary estimates indicate that at full completion, the proposed development would require an increase of approximately 662,000 gallons per day ("GPD") of potable water over the project area's existing levels. The calculations and assumptions are provided in **Appendix M**. Average daily water demand estimates were calculated based on the Nassau County Department of Health "Manual of On-Site Sewage Disposal", plus 10 percent for water demand. Since there is not a specific standard for calculating average daily water demands, one can utilize typical sanitary sewerage average daily demands and apply these rates to water usage in order to estimate water demands. It is expected that these demands could be significantly reduced by utilization of water-saving plumbing fixtures, which will be incorporated into the design of this project. However, for the purposes of this study, the more conservative values are being utilized. These values have been approved by the City of Glen Cove Director of Public Works for use in the planning of the development.

The majority of the buildings within the proposed development will be fully sprinklered and all will be designed in accordance with National Fire Protection Association (NFPA) and Insurance Services Office (ISO) requirements. Installation of sprinklers in buildings reduces the Needed Fire Flow (NFF) required when compared with non-sprinklered buildings. For planning purposes, the fire flow required for sprinklered buildings should range between 150 gpm and 1,600 gpm (*AWWA M31*), well below the City's 3,500 gpm base fire flow demand. Utilizing the proposed average daily potable water demand for the Glen Isle development of 0.662 MGD and a conservative fire flow of 3,500 gpm (5.0 MGD), the total design flow for the proposed development is estimated to be 5.662 MGD. Specific fire flow demands will be calculated for each building as the design progresses and the option(s) for addressing the City's water system infrastructure issues are defined.

This projected increase in water consumption would not be expected to have a significant adverse impact on water services, assuming that the City proceeds with its current plans to expand water pumping capacity. As described above, there is a growing need to increase water capacity to provide a safeguard in the event a well goes out of service.

According to the Director of Public Works, the City is considering several options to address the water system capacity issues, including adding a second well at the Kelly Street well site and conveyance systems improvements in various locations within the City. The Carney Street well site and Duck Pond well site, which were originally considered for potential sites for a new well, will likely be considered non-viable options due to potential environmental / contamination issues. The City is only in the initial planning stages of their water system improvements study, but the Applicant will cooperate with the City in the City's evaluation of viable options for a water source improvement plan that will address the City's current and future needs.

Several practices would be employed as part of the project in order to provide "green" techniques, which would impact water usage. These include collection of rainwater for irrigation use and groundwater recharge, as well as roof gardens on the larger residential buildings (see **Section III.C Water Resources** for a detailed discussion).

Fire hydrants will be located within and adjacent to the site in accordance with the City of Glen Cove Fire Chief's recommendations. As shown on the Utility Plans, which are part of the Master Site Plan Drawings included with the DEIS, the proposed locations conform with the Fire Chief's initial spacing recommendation of 500 feet between hydrants.

b) Sanitary Disposal Services

Total sanitary disposal service estimates for the proposed development were calculated based upon Nassau County Standards (Nassau County Manual of On-Site Sewage

Disposal, dated September 1, 1983). Refer to **Appendix M** for the calculations and assumptions.

Utilizing the conservative average daily sewage demand of 507,000 for the proposed development and adding this to the existing 3.8 million gallons per day currently processed by the County's treatment plant, would still produce levels significantly below the plant's rated capacity of 5.5 MGD. Therefore, at this time no significant adverse impacts related to sanitary disposal services are anticipated as a result of the proposed development.

Several options are being considered by the County for increasing the capacity of the existing pumping station and force mains located on the north side of Glen Cove Creek. Those options include, but are not limited to:

1. Upgrade the existing pumping station and force mains to include the proposed project's flow.
2. Install a separate pumping station and force main(s) to convey the flow from the proposed development and possible future development of the balance of the MW-3 district to the GCWWTP.
3. Install a new pumping station and force main(s) incorporating both existing flows from this area of the City and the proposed development flow.

Since the County has just recently taken over maintenance of the Glen Cove sanitary sewerage systems, they are still studying the existing infrastructure and are not currently in a position to determine which of these may be the preferred option for the conveyance of sanitary flow from the development to the GCWWTP. Regardless of the option that is ultimately selected by the County to address the reported pumping station and force main capacity issue, if new or additional force mains are required, they will be installed by either a jack and bore method or by directional drilling. Other than jacking and receiving pits which would be located behind the bulkhead on either side of the creek, these methods do not require open cut or trenching to install the force mains, therefore, there would be no impact to the creek as part of this work.

c) Gas, Electric and Telecommunications Services

Initial meetings/discussions with the various utility companies have commenced to obtain information on each utility company's current infrastructure capacity within the redevelopment area, obtain authorization/willingness to serve letters and obtain preliminary design parameters. Each utility company has provided authorization letters stating their willingness to provide service to the proposed project (see **Appendix M**).

Each respective utility company will coordinate their capacity upgrade requirements to coincide with planned construction activities in the redevelopment area. All services will be provided within the existing street systems surrounding the development; service lines will not be routed through the Garvies Point Preserve.

With proper design and coordination with the above utility companies, the project's electric, gas and telecommunications requirements can be readily addressed.

d) Boat and Pet Waste

Vessels mooring at the proposed marina would utilize portable pump out boats for sewage pumpouts. Language will be included in slip leasing agreements promoting the use of pumpout facilities. Portable pump out boats eliminate improper use of stationary pumpout units and avoids sewer line plugging (a common problem with high strength waste such as that from boats).

Pet waste stations consisting of free-standing pedestal mounted boxes with refuse bags and trash receptacles will be strategically located along the public areas / esplanade to allow for proper disposal of pet waste.

3. Mitigation Measures

As demonstrated above, the proposed development would not impact sanitary disposal. Regarding water services, the City has begun to study improving its water infrastructure to accommodate the increased water demand resulting from its desired future growth and various proposed developments in the City, including the proposed action. The Applicant will cooperate with the City in the City's evaluation of viable options for a water source improvement plan that will address the City's current and future needs. As the providers have indicated an ability to service the site, no mitigation measures are proposed in relation to gas, electric and telecommunications services. The use of pump-out boats and pet waste stations have been proposed to allow for proper disposal of boat and pet waste. No additional mitigation is proposed.