



Board of Water Commissioners

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The Manhasset-Lakeville Water District serves all of Manhasset and Lake Success and portions of New Hyde Park, North Hills, and Great Neck

Munsey Park Elevated Water Storage Tank Replacement

from Paul Schrader, MLWD Superintendent

As Superintendent of the Manhasset-Lakeville Water District, a licensed professional engineer, and a New York State Department of Health certified water treatment plant operator, I am in responsible-charge of the Water District's day-to-day operations that provide safe, reliable potable water service to all Water District residents, which is crucial to the health and safety of the communities we serve.

The District covers portions of the Town of North Hempstead along with all or portions of the following Villages: Plandome Manor, Plandome Heights, Flower Hill, Munsey Park, North Hills, New Hyde Park, Lake Success, Great Neck Plaza, Russell Gardens, and Thomaston. We also provide water by contract to the Village of Plandome.

Water: We drink it, bathe in it, flush the toilet with it, maintain our landscapes and fight fires with it.

uninterrupted. Imagine not being able to flush your toilet for ten days during another Sandy-like event!

What makes our system withstand power outages is our elevated storage tanks. When power is lost, our pumps turn off. Water in the elevated tanks then falls by gravity into the distribution system to supply water while we work to bring our back-up power supplies on line, and until regular power is finally restored.

The elevated tanks are also critical for fire protection and for sanitary concerns. When there is a fire or a main break, large quantities of water must be available instantaneously. Without elevated tanks, the pressure drop during a main break or fire fighting could be so dramatic that negative pressure in the water mains could suck tainted water into the distribution system and threaten the safety of our supply.

What makes our system withstand power outages is our elevated storage tanks—supplying water to you through gravity.

Humanity depends upon it, but water is often taken for granted. You open the faucet and water appears, every time, all you want, for less than a penny per gallon. This does not happen through magic.

A safe and reliable potable water supply happens because of sound planning and engineering. The coordinated operation of all of our system components enables your Water District to provide reliable uninterrupted water supply.

Our water system is comprised of wells, treatment plants, ground storage tanks, elevated storage tanks, transmission water mains, and distribution water mains. Our Supervisory Control and Data Acquisition (SCADA) network provides 24 hour remote monitoring of the water system.

Over the past twenty years, the District has developed, implemented and updated an ongoing capital improvement program for your supply system. This work has included new wells, elevated tank maintenance, rehabilitating pumping stations, hydrant replacements, and miles of water main replacements and extensions.

This year our improvement program includes the replacement of our elevated storage tank located in Munsey Park.

Our elevated storage tanks are critical to our ability to provide water service during power outages. Have you ever lost electric power? Cable TV? Phone service? Now, try to recall the last time you lost your water service. Through winter storms, Superstorm Sandy, and the great black-out of August 2003, your water service was

Elevated storage also regulates pressure throughout the entire distribution system. The water levels in our elevated tanks rise and fall with system demand. During peak demand when so many sprinklers are on, water from the elevated tanks falls into the system. As the sprinklers turn off, the water rises back into the tank. During this cycle our large pumps turn on to meet the demand and then off as

The Elevated Advantage

An elevated water storage tank has the following advantages over a ground storage tank and booster pump station.

- Instantaneous Emergency Water supply for Fire Fighting and Water Main Breaks
- Systemwide Pressure Stabilization and Surge Relief
- Increased Operational Flexibility & Efficiency
- Gravity Powered Emergency Supply
- Decreased Power Costs

Elevated storage provides clear advantages to the operation of the Manhasset-Lakeville Water District's System, which are simply not available with ground storage. The District has recognized the inherent importance of the Munsey Park Elevated Tank as a critical piece of our water system's infrastructure and has therefore resolved that it must be replaced.



the demand eases. The tanks cushion the effects of the pumps coming on and off, preventing large pressure fluctuations.

None of those benefits of elevated storage can be replicated as effectively with ground storage and booster pumps. Ground storage/booster pumps will result in additional power costs because the water has to be double pumped, once into the tank and once out. The water supplied by the pumps will not be instantaneous when circumstances call for it. There are multiple points of failure in a booster station: pumps break, electrical and computer controls, power supply, backup power supply. Booster pumps cannot provide the equivalent operational storage and pressure control function.

There are approximately a dozen homes that abut our Munsey Park elevated tank site. Since 1929, that site has housed the elevated tank. Understandably, those

neighbors would love to see the existing tank come down and not be replaced. Some have suggested converting the site to ground storage.

We understand that elimination of the tank could provide obvious aesthetic improvement for those neighbors. However, the ground storage facility would likely be more intrusive for those neighbors abutting the facility. What was stored above tree tops would now be visible at ground level (Health Department regulations prohibit underground storage structures). These would be industrial-looking buildings with increased noise due to pumps and generators.

To consider what ground storage might look like is misleading and an academic exercise because **ultimately, ground storage does not provide the level of safety and reliability of elevated water tanks. desired functionality.**

Before



In closing, eliminating elevated storage or replacing it with ground storage is simply not feasible.

The Water District Board of Commissioners, who you've elected to run the District, and your Superintendent, along with our consulting engineers, cannot neglect our duty to do the right thing for the District.

We cannot in good conscience accept the inferior design of ground storage/booster pumps to address aesthetic concerns. It is a design that denies all 43,000 District inhabitants the significant benefits of elevated storage. Engineers have recognized the central of gravity for water systems for centuries. Gravity was integral to the two greatest water systems ever contemplated by man, the Roman Empire's and New York City's aqueduct systems.

Our elevated storage provides foolproof instantaneous emergency and operational storage through the use of gravity, without any power or operational costs. While technological advances in many areas have radically changed our lives for the better, we have yet to improve upon gravity in the context of water supply.

The community is now weighing the benefits of elevated storage against its visual impact.

As you consider the options, please take a moment to recognize the significant benefits of maintaining elevated water storage as have been described herewith.

Rendering of Replacement Tank



Infrastructure Upgrade News

Automated Meter Reading System

The Manhasset-Lakeville Water District will be switching to an automated meter reading system, AMI, over the next several years. Existing touch pad meters will be retrofit with radios capable of transmitting meter readings to a base station and ultimately to our main office. Older meters will need to be replaced in their entirety. Ultimately the program will increase our efficiency and eliminate the need to enter onto your property for meter reading. The program is set to begin this year and run through 2017. By the end of 2017, each of approximately 10,500 water meters in our District will be radio capable.

The radios transmit at a Radio Frequency (RF), a strength similar to other household devices such as radios, TV's, and garage doors openers. Cell phones emit 250 times more RF than that of the meter radios. Actual transmission is less than one second per day.

Installation

The District will be contracting out the installation of the meters and radios. All installers will have completed training and background checks and will have identification, wear identifiable uniforms, and drive marked vehicles. Customers will be contacted in advance to schedule replacement/installation. There is no charge to the customer.