WaterAuthorityofGreatNeckNorth.com

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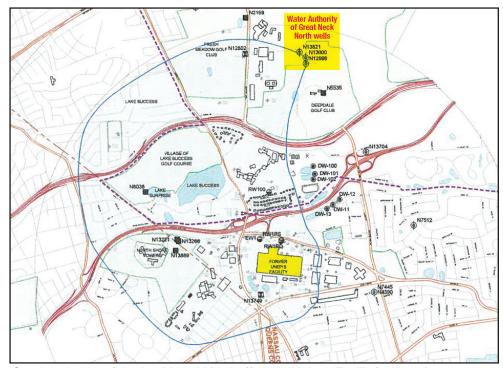
# Water Authority Staying Ahead of Plume

#### Air Strippers Needed to Meet Non-Detect Standard

In its continuing commitment to provide consumers with the finest quality drinking water and to protect and preserve the natural resource for use by future generations, the Water Authority of Great Neck North has reached an agreement with the Lockheed Martin Corporation to safely address groundwater contamination that originated from the old Unisys defense plant in Lake Success. Lockheed Martin became the legally responsible party for the plume when it took ownership of the property in 1996.

With extracting wells, owned and operated by Lockheed Martin, in place for more than a decade, the company has consented to also bear the cost for developing, operating and maintaining two air-stripping plants to treat the water from three wells at one of the Water Authority's well fields. The facilities will rid the drinking water of contaminants to a non-detect level, before it is released to the distribution system. Total costs could reach \$13 million over the agreement period of 30 years.

Lockheed will continue to operate the two groundwater treatment systems, which are effectively removing contamination from the groundwater up-gradient or south of the three water supply wells. To date, the systems have limited the migration of the plume by removing 54,000 pounds of volatile organic compounds from the groundwater, which represents approximately 60



Overhead view of the Lockheed Martin (former Unisys Facility) plume in 2009.

percent of the total contamination in the groundwater.

#### **Air-Stripping More Advanced**

In 2005, when it was determined that the Lockheed Martin remediation plants would not fully prevent the contamination from impacting the public drinking water wells, the Water Authority installed granular activated carbon (GAC) filters at that well field to remove contaminants from the drinking water. The project was funded by Lockheed Martin. Since then, the filters have needed to be changed more frequently, making the process both financially and operationally prohibitive. The GAC plant has been taken off-line and

replaced by the more efficient and effective air-stripping facilities.

#### **Next Steps**

The agreement awaits approval by the New York State Department of Health and New York State Department of Environmental Conservation, which will issue a Proposed Remedial Action Plan. At that time, the public comment period will begin, which will included a public meeting to inform and involve the community.

Contamination released into the ground more than 60 years ago is still detected today, threatening the purity of the drinking water supply. While it did

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## LOOKING BACK 75 YEARS

Early 1940s	Release of contamination from Unisys site
Mid 1970s	2 wells abandoned due to salt water intrusion
1996	Lockheed Martin purchases Unisys and became the responsible party for the toxic plume
1999	Water Authority develops well sites south of service area and pipes the water north to meet public drinking water demand and provide adequate fire protection
2002	Lockheed Martin installs first groundwater treatment system
2004	Lockheed Martin installs off-site groundwater treatment system
2005	Water Authority installs GAC treatment plant to remove VOCs detected in the drinking water as a result of the Unisys plume
2013	Water Authority works with neighboring district to reduce pumpage capacity at well sites to minimize possibility of salt water intrusion
2013	Water Authority enters into an agreement with Lockheed Martin to replace GAC filter system with two air stripping plants to remove VOCs from 3 wells to a non-detect level. Agreement awaits DEC approval.

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not cause the pollution, the Water Authority is responsible, under health department regulations, for delivering safe drinking water to consumers. Whether or not Lockheed Martin covers the costs, Water Authority officials are committed to introducing the airstripping towers to continue to meet their non-detect standard.

The equipment will allow the public water supplier to treat any additional contaminants that may arise, not associated with the Lockheed Martin plume, which is traveling northwest at a rate of one-foot per day. With modern technology in place, contaminants that have reached the drinking water well sites are being removed to a non-detect level.

The Water Authority has historically maintained a standard of non-detection in the drinking water delivered to con-

sumers, which far exceeds the requirements of the state and federal governments. Authority officials believe the agreement with Lockheed Martin will enable the utility to continue to meet that standard, while effectively offsetting any costs to the residents it serves.

## More Extraction Wells Not an Option

While it may seem like a logical solution, engineering studies have shown that adding more extracting wells to remove the plume would in all likelihood cause the salt water that surrounds the Great Neck peninsula to be pulled toward the land and threaten the aquifers, and ultimately the drinking water, with salt water intrusion.

The Water Authority has taken

many steps to prevent salt water from reaching the drinking water source. Officials believe adding extracting wells is not a viable solution, as it could lead to salt water intrusion and force the Authority to further reduce pumping capacities from the drinking water wells in the immediate area.

#### **Timing is Critical**

With land not readily available in the densely populated area, Water Authority officials are concerned it would take many years for Lockheed Martin to develop more extraction wells, as was the case with the wells that are currently in operation at two separate locations.

With all things considered, officials believe the agreement with Lockheed Martin is by far the most prudent solution.