

# What is Air Stripping?

Long Island's public water suppliers began using air stripping facilities in the mid 1980s to remove volatile organic compounds (VOCs) from the drinking water. Today, the proven technology is used by the majority of water purveyors throughout Nassau-Suffolk to rid the drinking water of toxic materials that were dumped on the ground more than 50 years ago, as is the case of the Unisys plume. At that time, waste disposal and pollution regulations were lax and offenders were not deterred by the harsh penalties enforced today.



Additionally, business operators and lawmakers were much less cognizant of the long term consequences future generations would face when harmful materials were handled carelessly. Since then, laws have been enacted, regulations have been put in place and strict standards have been set for drinking water quality.

Air-stripping plants transfer volatile components of a liquid into the air stream. The water is introduced at the top of a tall circular tower filled with randomly packed material that looks much like perforated plastic balls of various sizes. This design provides a maximized surface area for the water, creating a thin film of water, as it travels downward by gravity to the bottom. At the same time, air is forced up from the bottom of the tower, causing the VOCs to be released from the water as it comes in contact with the air. This chemical engineering technology is effective for treating water that contains volatile compounds because VOCs have a relatively high vapor pressure and low aqueous solubility qualities, allowing them to be easily stripped from the water.

Packed tower aeration is the most common air stripping technology for treating drinking water. The systems are typically custom manufactured to meet the specific requirements of the application.



**Water Authority of  
Great Neck North**