

RESIDENTIAL/COMMERCIAL OPPORTUNITIES TO CONSERVE

SECTION 4

4.0 INTRODUCTION

Conservation simply makes sense. In today's society we begin to realize that our resources are not endless; resources cost money to produce, to use, and to dispose of. Using less, saves money and protects the resource.

Water conservation by the consumers of the Water Authority of Great Neck North helps in many ways. Using less water reduces consumer water bills and produces less wastewater. If less water is used, the Water Authority pumps less (saving energy) and uses fewer chemicals and saves money. By pumping less, the groundwater resource is conserved and stressed less (preventing saltwater intrusion).

This section will discuss how consumers can begin to conserve water through a technique known as a water audit. It will also present methods to help consumers reduce water use. This will ensure that each consumer of the Water Authority of Great Neck North has enough water for his or her needs.

4.1 *Water Audit*

A water audit is beneficial for the following basic reasons:

- Identifies opportunities for water savings in the house and yard by assessing indoor and outdoor water use;
- Determine if any leaks are occurring at your home;
- Promotes conservation through cost savings;
- Reduce environmental impacts;
- Control the cost of water and wastewater services.

The basic steps for performing an annual water audit are explained below. The water audits are performed by the Water Authority, at no cost, upon request from a customer. The audit can be a family activity to get everyone conservation minded and to give all members the knowledge of how water is used in the home.

- A. Provide internal water use audit through the inspection of existing fixtures. The internal audit must include at a minimum the following:
 - a. A leak inspection;
 - b. Estimate of gallons lost per quarter and per year;
 - c. An inspection of flows through existing fixtures;
 - d. An estimate of savings based on the use and implementation of conservation devices and measures (including retrofit applications).
- B. Provide external water use audit through the inspection of existing practices and actual needs. The external audit shall include at a minimum the following:
 - a. Inspection of existing practices;
 - b. Inspection of actual irrigation needs;
 - i. Soil analysis;
 - ii. Turf requirements;
 - iii. Rate of application.
 - c. An estimate of savings based on more efficient irrigation practices.
- C. Total estimated savings is based on the entire internal and external audit and the implementation of a water conservation program.

4.2 Conservation

Once the leaks are found and fixed, there are a number of other areas to focus on) as explained in detail below:

A. *Toilets*

Toilets installed pre 1950 use 7 gallons of water per flush. Those installed from 1950 through 1980 used 5 gallons per flush; 1980 through 1995, reduced to an average of 4 gallons per flush; and 1995 to present, 1.6 gallons per flush. Certainly, the older models used much more water per flush and replacing the old models will save water. By replacing old, inefficient toilets with newer models, the average family can reduce water used for toilets by 20 to 60 percent.

Replacement can be expensive but devices are also available for retrofitting existing high-volume flush toilets. Displacement bags, toilet dams, adjustable flappers can save as much as 1.0 gallon per flush. The Water Authority provides retrofit kits to its constituents at no cost.

B. *Showerheads*

Two methods to conserve water: low volume showerheads and showerhead retrofit devices. Low volume showerheads use less than 2.5 gpm (gallons per minute) as compared to older devices (3.0 to 6.0 gpm). The Water Authority provides low flow showerheads at no cost, upon exchange of an older model.

Shower retrofit devices are of two types: cutoff buttons, and flow restrictors. The valve type (cutoff button) is attached to existing showerheads while the flow restrictor is a disk inserted into the body of the showerhead.

C. *Faucets*

Today's new faucets are available as low volume types (2.2 gpm compared to 5 gpm conventional high volume). Retrofit devices include aerators and flow restrictor attached to the end of the faucet and can reduce faucet flow to as little as 1.5 gpm.

D. *Other Appliances*

New products are being marketed that reduce water use such as washing machines and dishwashers. Present new model clothes washers cut usage by approximately one-half the water of the older models.

Dishwashers presently marketed use as little as 4.5 to 7.0 gallons per load compared to 12 to 14 gallons (pre 1995).

E. *Irrigation*

The watering of grass, plants, vegetables, and shrubs can account for up to one third of the average daily water consumption. While outdoor vegetation needs water to survive, there are recommended practices that should be followed. Most

people continue to water their lawns during rainstorms or wet weather periods, even though it is not beneficial to lawns. Automatic sprinklers have led to wasteful “set it, forget it” practice. Turning off or resetting sprinkler systems based on weather conditions should be practiced and can save substantial water.

The Water Authority of Great Neck North requires a separate meter and backflow device for new service installations supplying water to underground irrigation systems. The Authority requires a rainfall-sensing device along with restrictions on the days and hours the irrigation system can be utilized. See Appendix E for other requirements and the appropriate application.

Xeriscape (using low water use plants) is a fairly new concept being adopted by landscape professionals around the country. It is a way to maintain the landscape aesthetics and reduce the water needed to keep plants healthy.

The Water Authority of Great Neck North, in cooperation with Nassau County, has established a xeriscape at the corner of Bayview Avenue and Old Mill Road in the Village of Saddle Rock on properties owned by Nassau County and the Water Authority. This is the only xeriscape of its kind in Nassau County, and the only xeriscape project in the western section of the county (the only other major xeriscape is maintained by Nassau County under the auspices of Nassau County Cornell Cooperative extension in Plainview).

Other methods to conserve water include drip irrigation and soaker hoses for plants and shrubs.

4.3 Comparison

Implementing the methods described in Section 4.2 will reduce your water use. This can be verified by doing another water audit and comparing this new result to the older audit numbers. Implementing these measures will lead to a lower water bill and the satisfaction of knowing you have helped to protect Long Island’s sole source of groundwater resource.

The Water Authority of Great Neck North has simple-to-use conservation kits available to help its consumers retrofit some areas of water use in their homes. A consumer can stop in at the Water Authority to pick up these kits during normal business hours.

For more information on how to protect Long Island’s only drinking water source, visit ourwaterourlives.com presented by the Long Island Commission for Aquifer Protection.