

South Farmingdale Water District

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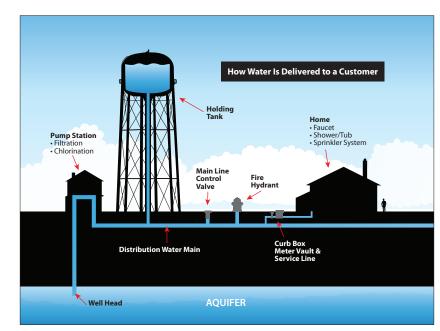
# **GROUNDWATER FACT SHEET**

### How We Get Our Drinking Water

The water that comes into our homes and out of our faucets originates far below the earth's surface in deep, interconnected underground layers of sand, gravel and silt – called Aquifers. The water they contain consists entirely of water from precipitation.

These plentiful Aquifers contain over 60 trillion gallons of water. This unique system makes us less dependent on yearly rainfall as some other areas, such as New York City, for example, which relies on surface water reservoirs for its public water.

Our water source, constantly replenished by precipitation, has many unique benefits. Starting as rainwater, it seeps through hundreds of feet of soil and closely packed natural particles before reaching the Aquifers. This procedure is actually a natural filtration process, which cleanses the water of some impurities.



## Where Our Water Is Stored - Deep Underground

The water is stored by nature primarily in three underground layers. The top one, called the Upper Glacial Aquifer, contains water that fell somewhere between 10 and 50 years ago. The Upper Glacial was formed during the last ice age, approximately 10,000 years ago; because it is the shallowest and most permeable of Long Island's Aquifers, it contains the newest water and is most prone to more recent contamination.

Next is the Magothy Aquifer, the largest of the Aquifer formations. It holds the most water; much of it is hundreds of years old. Running as deep as 800 feet, this layer of sand, gravel and silt was deposited about 60 million years ago and is the region's main source of drinking water. The very deepest and oldest is called the Lloyd layer, starting approximately 1,100 feet below the surface. This Aquifer is largely untapped. It holds the oldest water...some of it has been there for more than 5,000 years!

Some 1,000 deep wells throughout Nassau and Suffolk Counties pump about 150 to 200 billion gallons of water from our Aquifer system each year for use by the area's three million residents. This is dwarfed by the more than 300 billion gallons of recharged precipitation, which returns to

the Aquifer system annually. This water cannot be taken for granted, as water suppliers across Long Island – such as South Farmingdale Water District – make a conscience effort to conserve water, thus planning for dry weather events in any given year.

#### South Farmingdale Water District - Plants and Wells

Long Islanders should be reminded that the future of our water supply will be determined by how well we treat our environment today. SFWD obtains its source water from six (6) plant sites and eleven (11) water wells located throughout the geographic territories we serve, including:

- South Farmingdale
- North Massapequa
- Parts of Bethpage, Seaford and Massapequa Park.

Water is drawn from these Aquifers located 400 to 600 feet below ground level and we maintain 3.2 million gallons of stored water in three in-ground tanks and one elevated tank (located at Plant No.1 Langdon Road).

#### Monitoring and Testing Our Water On A Regular Basis

Many wells on Long Island have been impacted with naturally occurring and manmade contamination from past practices of dumping chemical materials and solvents. Most manmade contaminants are the byproducts of manufacturing and chemical discharge from the past several decades. To this end, our water is monitored, tested and treated regularly, meeting and exceeding all local, state and federal standards, before it ever enters your home.