

Private Wells

Before the well is installed:

Establish a site for the well that will protect it from contamination:

- Where possible, the well should be located uphill at a maximum possible distance from any potential sources of contaminants, such as septic systems, pesticide or fertilizer storage areas, road salt storage, gasoline and fuel oil tanks.
- Surface water should drain away from the area of the well.
- Maintain the following minimum separation distances:
 - 10ft. to any building
 - 15ft. to property lines
 - 50ft. to septic tank
 - 100ft to sewage system
 - 50ft. to stream, lake, or wetland

Hire a well driller who is registered with the New York State Department of Environmental Conservation (DEC). A list of registered drillers can be obtained from the Seneca County Health Department (SCHD).

Determine if there are any existing unused wells on the property. These wells should be properly abandoned to protect your ground water source from contamination. Please contact the SCHD for information on proper well abandonment procedures.

After installation:

- The well casing should extend at least one foot above the ground surface (at least two feet above the 100 year flood elevation)
- The well casing should extend at least fifty feet below the ground surface
- The ground surface immediately around the well should be graded to direct surface water away from the well.
- The new well should be shock disinfected. This procedure is often performed by the well driller at the time of installation. The SCHD can also provide directions on how to shock disinfect the well.
- Make sure the well is protected with a tight fitting, vermin-proof well cap or sanitary seal that is properly vented. The vent should face down ward, be screened, and be at least 1 foot above the ground surface.
- The water must be tested for the presence of Total Coliform and E. coli to establish safety of the new water source. This should be done after shock disinfection, when there is no longer any chlorine present in the water.
- **New Home Builder/Owners Please Note: A Certificate of Occupancy will not be given until your water tests negative for Total Coliform.** Please refer to Table 1 for tests further recommended by the SCHD to ensure that your water is safe for you and your family.
- Get a complete well log, receipt and results of any tests from your well driller and keep these records in a safe place.

Table 1: Individual Residential Well Water Supply Quality Testing

Test	Maximum Contaminant Level (MCL)
Coliform bacteria	Any positive result is unsatisfactory
Chloride	250.0
Lead	0.015 mg/L
Nitrates	10mg/L as Nitrogen
Nitrites	1mg/L as Nitrogen
Iron	0.3mg/L
Manganese	0.3mg/L
Sodium	No designated limit**
pH	No designated limit
Hardness	No designated limit
Turbidity	5 NTU

- mg/L means milligram per liter
- MCL defines the highest concentrations of contaminants allowed in public water supplies, as set by the New York State Health Department and the Environmental Protection Agency (EPA).
- NTU means Nephelometric Turbidity Units

More than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets.

Also test for contaminants that might be located in your area. For example, test for volatile organic chemicals (VOCs) if oil, petroleum, or solvents are stored nearby or if there has been a spill. Test for pesticides and herbicides if a well is located close to an area used for agriculture. Contact the SCHD if you have any questions 315-539-1945.

Maintaining your well:

- Protect the well from animal, chemical and groundwater contamination.
- Occasionally check the condition of the well cap or seal to ensure it is not cracked or loose. Also, check the casing for cracks or holes, and make sure that surface water is diverted away from the well.
- Prevent backflow of contaminated water into your water supply by installing backflow prevention devices (check valves or vacuum breakers) on all faucets with hose connections. An air gap should also be maintained between water supply lines and a potential source of contamination (for example, a hose and water in a swimming pool or puddle).

- Test for coliform bacteria and nitrate annually. You should test more frequently if there is a change in water taste, odor, color, or clarity. The SCHD strongly suggest testing your water if any of the following circumstances occur:
 - your neighbors find a particular contaminant in their water
 - unexplained illness in the household

*NOTE: **Don't forget your guests** sometimes you may be immune to illness due to frequent exposure to the contaminants within your water. However, your guests may not possess strong immunity and may become ill after drinking contaminated water)

 - Your water should always be tested when there is a pregnancy and/or small children in the household.
- Disinfection of a well should be performed any time the well is exposed to the environment- for example, if the well cap is removed and/or repairs are made to the well or submersible pump. Contact the SCHD for technical advice.
- Have your well inspected every 10-29 years by a qualified well driller or pump installer.
- Keep good records on your well!

The Seneca County Health Department does not recommend dug wells as potable water supplies.