ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

29 Hazen Drive, Concord, New Hampshire 03301 • (603) 271-3503 • www.des.nh.gov

DWGB-1-8 2020

Recommended Minimum Water Supply Capacity for Private Wells

One of the most important factors to consider when planning to purchase or build a home is the adequacy of the water supply. The amount of water available to the home can be as important as the quality of the water. How much water is adequate for a private domestic supply is a commonly asked question of NHDES and the Water Well Board. Please note that the State of New Hampshire does not regulate how much water a private well shall yield. Some towns have adopted ordinances requiring private wells produce a specific amount of water prior to issuing occupancy or building permits; check with your local authority to find out more.

Available water supply is a function of both the recovery rate and the storage volume of the well. These two factors contribute to the actual capacity of the supply particularly if the well recovery rate is low. A standard 6-inch diameter drilled well can store 1½ gallons of water per foot of well depth. The actual volume of water in storage will depend on the water level in the well and the pump setting depth.

The Water Well Board suggests that a minimum water supply capacity for domestic internal household use should be at least 600 gallons of water within a two-hour period once each day. This is equivalent to a flow rate of 5 gallons per minute (gpm) for two hours. Alternatively, the New Hampshire Water Well Association recommends a flow rate of 4 gpm for a period of four hours as an optimum water supply capacity for a private domestic supply. This volume is equivalent to 960 gallons of water within a four-hour period. Some homeowners may find these amounts to be less than desirable depending on the size of the family and/or if outdoor use is a requirement.

The following tables were developed to assist readers to interpret the recommendations above. In both tables, the overall yield is the sum of the aquifer yield to the well and the available well storage. The tables presume a pump setting of 20 feet above the bottom of the well and a static water level of 20 feet below the ground surface. However, a pump can be set anywhere in the well and the static water level changes over time.

Contact a licensed water well contractor or licensed pump installer for information about pumping tests and available options for increasing the capacity of inadequate supplies. Also see fact sheet WD-DWGB-1-13 “Determining the Reliable Capacity of a Private Water Supply Well and Pumping System” for more information.

Recommended Minimum Capacity

The values in Table 1 provide a yield of 600 gallons of water to the home during a period of two hours of pumping.

Table 1. **Supply 600 gallons in Two Hours**

Sustained Well Yield (gpm)	Required Well Depth (ft)
0.5	400
1	360
1.5	320
2	280
2.5	240
3	200
3.5	160
4	120
4.5	80
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Recommended Optimum Capacity

The values in Table 2 provide a yield of 960 gallons of water to the home during a period of four hours of pumping.

Table 2. **Supply 960 gallons in Four Hours**

Sustained Well Yield (gpm)	Required Well Depth (ft)
0.5	600
1	520
1.5	440
2	360
2.5	280
3	200
3.5	120
4	---

For More Information

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov or visit our website at www.des.nh.gov.

Note: This fact sheet is accurate as of September 2019. Statutory or regulatory changes or the availability of additional information after this date may render this information inaccurate or incomplete.