

BALTIMORE COUNTY
DEPARTMENT OF ENVIRONMENTAL PROTECTION & SUSTAINABILITY

FACTS ABOUT WELL YIELDS IN BALTIMORE COUNTY

Based on frequently asked questions about well yield requirements, the Department of Environmental Protection & Sustainability (DEPS) has prepared the following information.

- The minimum well yield requirements for approval of a domestic water supply is a state regulation that has been in effect since 1981. The state regulation requires that new well systems must be able to yield at least 1 gallon/minute over a six-hour period. In addition, new well systems must be constructed such that they can deliver at least 500 gallons over a 2-hour period. In other words, lower yielding wells must be drilled deep enough to provide a reservoir of water available for immediate use.
- A minimum well yield requirement for property conveyance has been in the Baltimore County Code since 1980. The County Code also requires that domestic water supplies yield a minimum of 1 gallon/minute, however, the buyer of an existing property may choose to accept a yield less than 1 gallon/minute by filing a waiver with DEPS. In addition, there is no storage requirement for existing wells. A yield test conducted to determine the well yield is valid for three years.
- These laws are intended to provide reasonable assurance that residents of properties served by private water supplies have adequate water supplies for typical domestic purposes. They are not a guarantee of water well yield.
- Theoretically, the minimum well yield (1 gallon/minute) equates to 1,440 gallons/day, which is over 4 times the average consumption for a family of four (300 gallons/day or 75 gallons/day/person).
- DEPS has recorded well replacement statistics in Baltimore County since 1989. The data indicates that each year approximately 165 wells (or <1% of the 30,000+ wells in Baltimore County) are drilled to replace a previously existing water supply. This includes new wells drilled to replace substandard water supplies such as hand-dug wells and springs. The number of wells drilled per year to replace a well due to “insufficient yield” is approximately 86.
- It is DEPS’ experience that many homeowners discover the need for a replacement well only when they decide to sell their home and are required to conduct a yield test
- While it is not uncommon for a well yield to exhibit seasonal variation, there is generally not a wide fluctuation over the lifetime of a well. The ability of a well in bedrock aquifers to produce water is dependent on the number and size of fractures intercepted during drilling. Occasionally, wells may “go dry” due to drought conditions, or natural siltation (clogging) of the water bearing fractures.
- If a well “goes dry,” several options are available to replace the water supply: the existing well may be deepened, the existing well may be hydrofractured, or a new well may be drilled. The determination as to which option is best will depend on many factors—it is recommended that homeowners consult with several well drillers and/or DEPS before making a decision.
- Some formations are known to be “good producers” due to the highly fractured nature of the rock, however, there remains a possibility of drilling a “dry hole” if suitable fractures are not encountered during drilling. In general, it is more likely to drill higher yielding wells in valleys or drainage swales than it is on ridge tops.
- Water pressure at the tap is not necessarily dependent on well yield. Proper sizing of the well pump, pressure tank, and distribution lines by a licensed plumber will help ensure adequate pressure for the user.

If you have additional questions or want further clarification, contact 410-887-2762.