



Groundwater Study Frequently Asked Questions (FAQs)

Q.1 Are residents and businesses in western Loudoun at imminent risk of having their wells go dry?

A. We don't know. Approximately 19,000 wells are currently operating in western Loudoun; most are producing enough water to meet owners' needs. A growing number have had to be replaced after going dry or providing inadequate supply. Drillers have been able to find new sources, though they have generally had to drill deeper to find them.

There are many strong reasons for urgency and concern:

- Drought has caused our towns to urge water conservation efforts in recent years. Purcellville imposed mandatory restrictions in January 2026. Middleburg imposed mandatory restrictions in 2024 and Round Hill had voluntary restrictions in 2023-2024. This indicates that local water resources are stressed. Development continues to add to the demand on groundwater resources, exacerbating the problem.
- Water tables are believed to have fallen below the top of the bedrock in local areas across all of western Loudoun. This means that wells are drawing from isolated fractures in the bedrock where the storage capacity is inconsistent. As the water table continues to decline, some fractures may be rapidly depleted while others may provide enough storage for many years to come. The impacts on property owners, therefore, could vary significantly from one property to another.
- The "age of groundwater" in some area wells is less than a year, making those wells extremely vulnerable to short-term drought and over pumping. The County should be especially cautious about enabling large new demands on the groundwater in those areas.
- Declines in surface springs, streams and ponds have been reported by property owners in various areas. This presents immediate challenges for farmers, and significantly increases their costs of production. It also threatens natural ecosystems and wildlife.