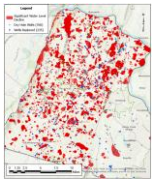

Groundwater Study Frequently Asked Questions (FAQs)

Q.5 Are we getting less rain and snow than we used to and how could that affect our water tables and wells?

A. Records show a recent decline in precipitation and more frequent droughts in our area. Between 2021-2025, for example, Purcellville received 21-23 inches less rainfall than normal (about 12%) based on rain gauges operated by the USGS. The decline in precipitation varies based on location (see table below). In early 2026, Purcellville imposed mandatory water restrictions. Other rural towns and villages have had to call for water restrictions in recent years.

Depending on how much water nature has stored in the ground beneath us, short-term droughts may not have any immediate effect on our wells. Over the longer term, with less precipitation to replace groundwater withdrawals, along with the natural flow of groundwater into our rivers and streams, our water table will continue to fall deeper into the fractured bedrock.

As this happens, shallow wells or wells that draw from small natural reservoirs are at increasing risk of going dry. As of early 2026, 260 wells in western Loudoun have had to be replaced and efforts to find new water sources have produced 760 dry holes.

Data Source	Deficit (2021-2025)	Deficit as percent of average years	Organization
WASHINGTON DULLES AIRPORT	33.84	17.0%	NWS
Leesburg	23.01	12.0%	USGS
Lovettsville	21.01	11.5%	USGS
PURCELLVILLE, VA US	22.76	11.8%	NWS
WEATHER FORECAST OFFICE STERLING	36.71	17.4%	NWS