



Hanover County and the Town of Ashland

Water Source Overview

Major water sources are the North Anna River, groundwater wells, a quarry, and purchased water.

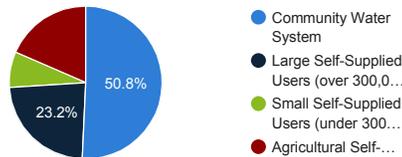
***Table 1:** Reported (2010) and projected (2040) water use by system type for Hanover County in MGD

Type	Reported Use 2010 MGD	Projected Use 2040 MGD
Community Water System	4.835	9.808
Large Self-Supplied Users (over 300,000 gal/month)	2.212	2.212
Small Self-Supplied Users (under 300,000 gal/month)	0.719	0.719
Agricultural Self-Supplied Users	1.760	1.760

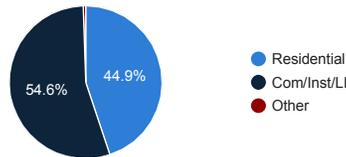
Water Use by System Type

Approximately 5,946 people use private groundwater wells for residential water supply. All tables and graphs represent reported water use including Sales to other localities, if applicable.

***Figure 1:** Percentage of reported water use by system type in 2010 (No use data shown on graph if less than .01 MGD: Refer to Table 1)



***Figure 2:** Disaggregated water use percentages for Community Water Systems in 2010 (No graph shown if no disaggregated use data reported)



***Table 2:** Reported (2010) and projected (2040) groundwater and surface water use for Hanover County in MGD

Reported 2010 Groundwater Use (MGD)	Reported 2010 Surface Water Use (MGD)	Projected 2040 Groundwater Use (MGD)	Projected 2040 Surface Water Use (MGD)
1.43	8.10	2.01	12.49

***Figure 3:** Hanover County highlighted in the Commonwealth of Virginia



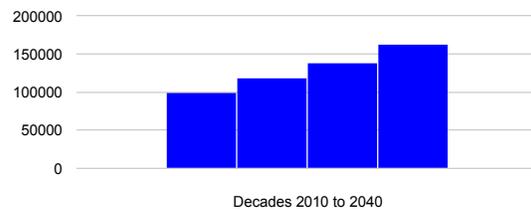
Projected Water Demand

Population and demand are expected to increase through the planning period. Community water systems may experience a deficit of 0.34 MGD by the year 2032. An alternative is the Verdon Quarry side storage reservoir project which includes river intakes and raw water pumping stations on North Anna and Little Rivers and a reservoir intake and raw water pumping station on Verdon Quarry.

***Table 3:** Hanover County population projections by decade from 2010 to 2040 (data gathered from VEC projections - 05/20/13)

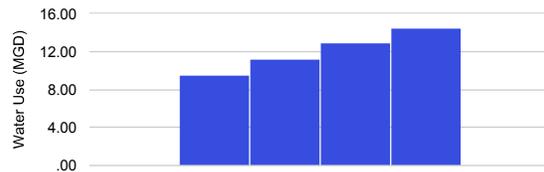
2010	2020	2030	2040	% Change (2010-2040)
99,863	118,135	139,000	162,475	63.6%

***Figure 4:** Hanover County population projections by decade for 2010, 2020, 2030 & 2040



***Table 4 & Figure 5:** Hanover County water demand trends by decade for 2010, 2020, 2030 & 2040 in MGD

Reported Use 2010 MGD	Projected Use 2020 MGD	Projected Use 2030 MGD	Projected Use 2040 MGD	Percent Change (2010-2040)
9.53	11.18	12.84	14.50	52.2%



Drought Management Practices

The County and Town each adopted ordinances for the implementation and enforcement of the Drought Response and Contingency Plan. (Hanover County and the Town of Ashland Long Range Water Resources Plan)