



Warren County and the Town of Front Royal

**Water Source Overview**

Major water sources include the South Fork Shenandoah River, groundwater wells, and Passage Creek.

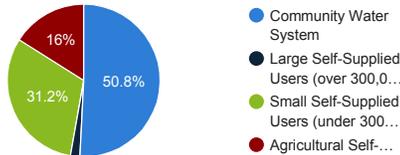
**\*Table 1:** Reported (2010) and projected (2040) water use by system type for Warren County in MGD

Type	Reported Use 2010 MGD	Projected Use 2040 MGD
Community Water System	2.323	3.801
Large Self-Supplied Users (over 300,000 gal/month)	0.093	0.202
Small Self-Supplied Users (under 300,000 gal/month)	1.426	3.106
Agricultural Self-Supplied Users	0.733	1.596

**Water Use by System Type**

Approximately 19,010 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 Warren 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)
1.57	3.00	3.43	5.28

**\*Figure 3:** Warren County highlighted in the Commonwealth of Virginia



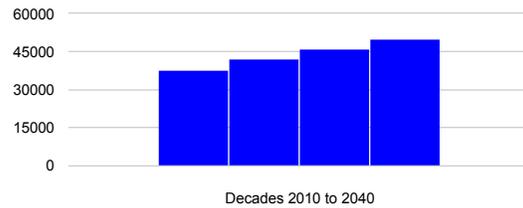
**Projected Water Demand**

Population and demand are projected to increase through the planning period. Existing water sources are estimated to meet projected demands.

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

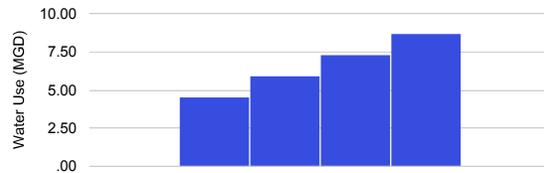
2010	2020	2030	2040	% Change (2010-2040)
37,575	41,856	45,818	49,709	32.4%

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



**\*Table 4 & Figure 5:** Warren 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)
4.57	5.95	7.33	8.71	90.3%



**Drought Management Practices**

The County and Town adopted ordinances to implement and enforce the Drought Response and Contingency Plan. (Northern Shenandoah Regional WSP)