



Fluvanna County and the Town of Columbia

Water Source Overview

Major water sources include the James River, Rivanna River, and groundwater wells.

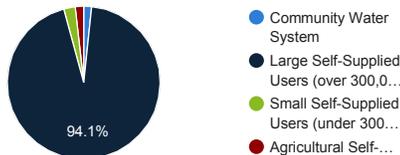
***Table 1:** Reported (2010) and projected (2040) water use by system type for Fluvanna County in MGD

Type	Reported Use 2010 MGD	Projected Use 2040 MGD
Community Water System	0.940	3.888
Large Self-Supplied Users (over 300,000 gal/month)	53.624	53.624
Small Self-Supplied Users (under 300,000 gal/month)	1.368	2.839
Agricultural Self-Supplied Users	1.033	1.033

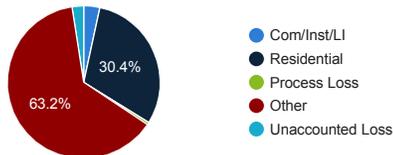
Water Use by System Type

Approximately 12,743 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 Fluvanna 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)
2.12	54.85	3.77	57.61

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



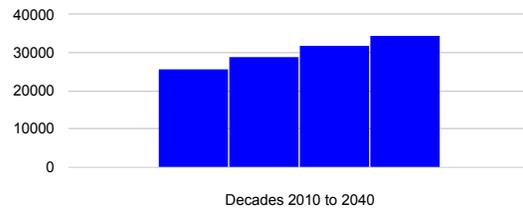
Projected Water Demand

Population and demand are projected to increase through the planning period. Existing water sources are expected to meet projected demands with the exception of the Palmyra Community Water System. The James River Water Authority is listed as an option to meet this anticipated increased demand.

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

2010	2020	2030	2040	% Change (2010-2040)
25,691	29,009	31,839	34,537	36.0%

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



***Table 4 & Figure 5:** Fluvanna 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)
56.97	58.44	59.91	61.38	7.8%



Drought Management Practices

The County and Town plan to enforce the Drought Response and Contingency Plan through the adoption of emergency ordinances. (Fluvanna County and the Town of Columbia Regional WSP)