



Loudoun County and the Towns of Hamilton, Hillsboro, Leesburg, Lovettsville, Middleburg, Purcellville, and Round Hill

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



Water Source Overview

Major water sources include purchased water, groundwater wells, and the Hirst Reservoir.

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

Type	Reported Use 2010 MGD	Projected Use 2040 MGD
Community Water System	23.604	38.239
Large Self-Supplied Users (over 300,000 gal/month)	1.825	2.914
Small Self-Supplied Users (under 300,000 gal/month)	4.121	4.133
Agricultural Self-Supplied Users	5.399	5.399

Projected Water Demand

Population and demand are projected to increase through the planning period. Loudoun County and five of the towns are not expected to experience a water deficit by the year 2040. The well and spring used by the Town of Hillsboro are inadequate and the Town plans to construct a new well and provide additional storage and infrastructure upgrades. The Town of Purcellville is estimated to experience a water supply deficit of approximately 0.07 MGD by 2040. The Northern Virginia WSP Region's plan to address the projected shortfall of municipal supply includes constructing a stream intake/pumping station on the Potomac estuary below Little Falls (recently permitted by DEQ); utilizing a reverse osmosis membrane treatment plant on the Occoquan estuary, using quarries located in Fairfax County to augment Fairfax Water storage, and using Loudoun County quarries to augment system storage (recently permitted by DEQ).

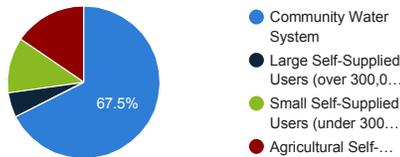
Water Use by System Type

Approximately 54,696 people use private groundwater wells for residential water supply. All tables and graphs represent reported water use including Sales to other localities, if applicable.

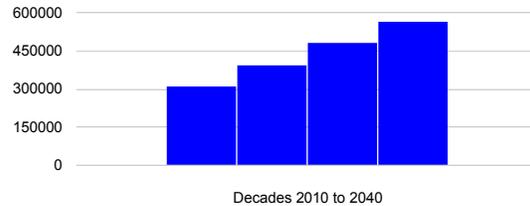
***Table 3:** Loudoun County population projections by decade from 2010 to 2040 (data gathered from VEC projections - 05/20/13)

2010	2020	2030	2040	% Change (2010-2040)
312,311	397,272	482,234	567,195	81.7%

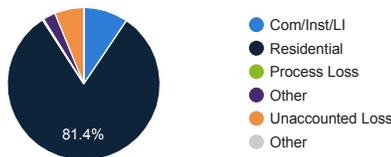
***Figure 1:** Percentage of reported water use by system type in 2010 (No use data shown on graph if less than .01 MGD: Refer to Table 1)



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

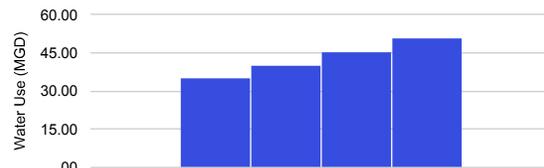


***Figure 2:** Disaggregated water use percentages for Community Water Systems in 2010 (No graph shown if no disaggregated use data reported)



***Table 4 & Figure 5:** Loudoun 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)
34.95	40.19	45.44	50.69	45.0%



***Table 2:** Reported (2010) and projected (2040) groundwater and surface water use for Loudoun 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)
9.27	25.68	10.94	39.75

Drought Management Practices

The County and Towns each adopted ordinances for the implementation and enforcement of the Drought Response and Contingency Plan. (Northern Virginia Regional WSP and the Town of Hillsboro WSP)