



Charles City County

Water Source Overview

Major water sources include groundwater wells and the James River.

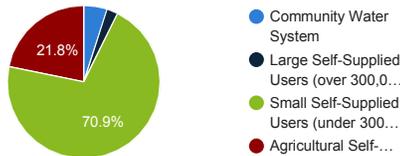
***Table 1:** Reported (2010) and projected (2040) water use by system type for Charles City County in MGD

Type	Reported Use 2010 MGD	Projected Use 2040 MGD
Community Water System	0.081	2.310
Large Self-Supplied Users (over 300,000 gal/month)	0.039	0.039
Small Self-Supplied Users (under 300,000 gal/month)	1.162	1.414
Agricultural Self-Supplied Users	0.357	0.357

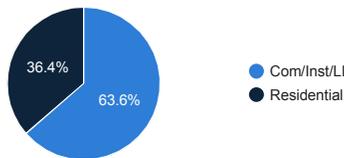
Water Use by System Type

Approximately 6,326 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 Charles City 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)
1.27	0.37	2.54	1.58

***Figure 3:** Charles City County highlighted in the Commonwealth of Virginia



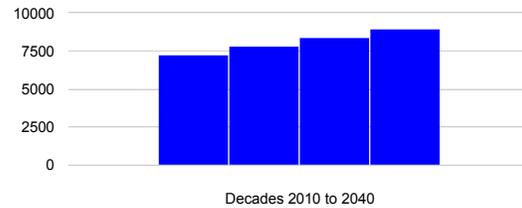
Projected Water Demand

Population and demand are projected to increase through the planning period. Demand is expected to exceed well capacity by 2040 in certain service areas. Additional groundwater sources are expected to meet demands in neighborhood service areas. Deficits in planned industrial areas (with no current source) may be met with interconnection to adjacent localities.

***Table 3:** Charles City County population projections by decade from 2010 to 2040 (data gathered from VEC projections - 05/2013)

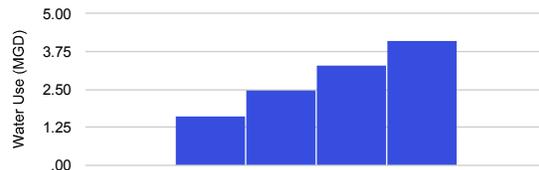
2010	2020	2030	2040	% Change (2010-2040)
7,256	7,811	8,376	8,905	14.3%

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



***Table 4 & Figure 5:** Charles City 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)
1.64	2.47	3.29	4.12	151.3%



Drought Management Practices

Enforcement of the Drought Response and Contingency Plan will be through an emergency ordinance. (Charles City County 2013 Water Supply Management Plan)