Chesterfield County Department of Utilities

Met all U.S. National Primary Drinking Water regulations.

Recognized by the National Association of Counties for innovative programs.

Recognized by the National Association of Clean Water Agencies for Excellence in Management.

Received the 20-Year Director’s Award from Partnership for Safe Water.

Supplied 36.82 million gallons per day of drinking water.

Treated an average flow of 23.3 million gallons of wastewater per day.

Proudly served an estimated population of 315,000 customers with drinking water and an estimated population of 274,000 customers with wastewater service.
Chesterfield County Department of Utilities’ customers are fortunate because their water is supplied by three sources. These sources ensure adequate water supply well into the 21st century. The three sources that supply Chesterfield County’s potable water are the James River (top photo), Swift Creek Reservoir (middle photo), and Lake Chesdin (bottom photo). A total capacity of 105.5 million gallons of water per day, or MGD, is available and the average daily flow in fiscal year 2018 was 36.82 MGD. The map above outlines the county’s water-service areas.

The Chesterfield County Department of Utilities owns and operates the Addison-Evans Water Production and Laboratory Facility, which is located on Swift Creek Reservoir. This facility has a capacity of 12 MGD and produces approximately 20 percent of the county’s water needs. The county is one of five members of the regional Appomattox River Water Authority, or ARWA, which is located on Lake Chesdin. The county has a daily allocation of 66.5 MGD from the authority and receives approximately 56 percent of a typical daily water demand from this source. The third water source is the James River, which supplies the city of Richmond’s water treatment facility. This plant supplies water to Richmond and to the surrounding counties of Chesterfield, Goochland, Hanover, Henrico and Powhatan. The county’s contract with the city ensures an available supply of 27 MGD. An average of 24 percent of the county’s drinking water is provided by the James River.

**Water System Information Summary:**
- Miles of Water Lines: 1,995
- Water Storage Tanks: 23
- Total Water — Tank Capacity: 38.25 million gallons
- Water Pump Stations: 14
- Water — Active Services: 110,739
- Estimated Population Served: 315,000

**Water Sources:**
- James River (City of Richmond)
- Swift Creek Reservoir (Chesterfield County)
- Lake Chesdin (Appomattox River Water Authority)

**Water Plants:**
- **Addison-Evans Water Production and Laboratory Facility**
  - Capacity: 12 MGD
  - Average Production: 7 MGD
- **Appomattox River Water Authority**
  - Capacity: 96 MGD
  - Allocation: 66.5 MGD
  - Average Purchased: 20.8 MGD
- **City of Richmond**
  - Allocation: 27 MGD
  - Average Purchased: 9.02 MGD
  - Total Capacity: 105.5 MGD
  - Average Daily Flow: 36.82 MGD

All data listed in this brochure is reflective of June 30, 2018.
Maintaining water quality in the James River and Chesapeake Bay are vital to the social and economic future of Chesterfield County and Virginia. Chesterfield County has two wastewater treatment plants. The Falling Creek Wastewater Treatment Plant (top photo) and the Proctors Creek Wastewater Treatment Plant (bottom photo) play critical roles toward that goal by ensuring that wastewater is clean and safe when it is returned to the environment. The map above outlines the county’s service areas and systems. Both wastewater treatment plants have received awards of recognition from the Environmental Protection Agency, the Virginia Department of Environmental Quality and the Virginia Water Environment Association. Both plants use state-of-the-art technology to remove pollutants from wastewater before it is returned to the James River. Serving as Chesterfield County’s first wastewater treatment facility, the Falling Creek Plant opened in 1965 with a treatment capacity of 3 MGD. Expansions and upgrades brought the plant to its current capacity of 12 MGD. In 1975, the Proctors Creek Plant opened to serve a significant portion of Chesterfield County. With its expansions and upgrades, its current capacity is 27 MGD. With a total capacity of 39 MGD, these treatment plants can meet the county’s needs well into the future. The county has a reciprocal agreement with the city of Richmond to treat wastewater flows from the northern portion of the county. Chesterfield County also is a member of the South Central Wastewater Authority, or SCWWA, and has an allotted capacity of 2.3 MGD from the facility. This facility serves areas in southern Chesterfield County.

**Protecting the Water Quality of the James River and Chesapeake Bay**

2012 was the first full year that the Falling Creek Wastewater Treatment Plant operated its biological-nutrient-removal facility. The Biological Nutrient Removal Project involved the use of advanced-treatment technologies using a four-stage, integrated, fixed-film-activated sludge process. By constantly mixing media in the aeration tanks, ammonia in the wastewater is converted to nitrogen gas and is released harmlessly into the air. The Proctors Creek Wastewater Treatment Plant’s first year of full operation of the new nutrient-removal technologies was 2014. The investment in these projects has proven successful with removing unwanted nutrients from the plant’s discharge, which has improved the water quality in the James River and Chesapeake Bay.

**Wastewater System Information Summary:**
- Miles of Wastewater Lines: 2,105
- Wastewater Pump Stations: 25
- Wastewater – Active Services: 93,874
- Estimated Population Served: 274,000
- Total Capacity: 41.3 MGD
- Wastewater Treated: 23.3 MGD

**Wastewater Plants:**
- **Falling Creek Wastewater Treatment Plant**
  - Capacity: 12 MGD
- **Proctors Creek Wastewater Treatment Plant**
  - Capacity: 27 MGD
- **South Central Wastewater Treatment Plant**
  - Capacity: 2.3 MGD
The Chesterfield County Department of Utilities is a public water and wastewater utility that operates as an enterprise fund. It is sustained by the revenue of the department and uses no tax revenue. It is operated and funded much like a private company. The main functions of the department are providing its customers with the highest quality drinking water while also protecting the James River and Chesapeake Bay by operating advanced wastewater-treatment facilities. The department uses state-of-the-art technology to deliver the highest quality products and services to its customers.

The department provides water service to more than 110,000 customers and wastewater service to more than 93,000 customers. It works with an annual operating budget of approximately $68.8 million, has 299 full-time positions, owns one water-treatment plant and two wastewater-treatment plants, and controls 23 water-storage tanks and 39 pump stations. The department is diligent about ensuring that water is safely and efficiently delivered to customers. Chesterfield County water consumers can be assured that the water they drink meets or exceeds all federal drinking-water standards. They also enjoy some of the lowest rates in the area. Due to the department’s affordable rates and historically solid financial position, the Chesterfield County Department of Utilities is one of only a handful of water and wastewater utilities in the nation to have achieved AAA ratings on its revenue bonds from each of the three top rating services. Financial stability, customer service, quality products and services, and workplace environment are the four key components that make up the department’s strategic performance plan. Performance measures are established for every division of the department and are tracked monthly with an annual overview. The performance plan is vital to the department’s success. By consistently evaluating its processes and progress, the department continuously improves its tradition of excellence in customer service.

Recognition and Achievements: Progressive management and efficient department operations have allowed the department to become a recognized leader in Virginia as well as the nation. Following are examples illustrating some of the department’s recent achievements:

2008 — The department received the Association of Metropolitan Water Agencies Platinum Award for Utility Excellence.
2009 — The Falling Creek Wastewater Treatment Plant received E3 certification from DEQ.
2014 — The department received the National Association of Clean Water Agencies’ Excellence in Management Recognition.
2015 — The department received the Association of Metropolitan Water Agencies Sustainable Water Utility Management Award.
2016 — The department received the Silver Medal in Governor’s Environmental Excellence Award Program.
2016 — The Triple-AAA bond rating is affirmed by the top three rating agencies with issuance of 2016 revenue bonds to refinance all outstanding debt. The department first achieved its triple AAA rating in 2002 and has maintained it continually since then.
2016 — The Water Distribution section was the first water distribution system in the state to receive E2 certification from DEQ.
2017 — The department received national recognition as a Utility of the Future Today for being forward-thinking, innovative, and for providing resilient and value-added service to its communities.
2018 — The Addison-Evans Water Production and Laboratory Facility received the 20-Year Director’s Award for maintaining partnership for safe drinking water program standards. The facility previously received the 10-Year and the 15-Year Director’s award and was the first utility in Virginia to be recognized by the U.S. Environmental Protection Agency for a safe drinking-water program.
2018 — The department received the National Association of Clean Water Agencies’ Excellence in Management recognition.