



COMMUNITY SERVICES CHAPTER

Infrastructure and Utilities Content Area

Infrastructure and Utilities Guiding Principle.
In 2035, Fairfax is a city with safe, well-maintained infrastructure and use of advanced technology.

Infrastructure and Utilities Goal 1. Provide quality utility services and infrastructure systems, compliant with applicable national and state standards and requirements, which meet anticipated growth and development needs.

Outcome IU1.1. Access to a clean, safe and reliable potable water supply.

Action IU1.1.1 Continue to work with Fairfax Water to ensure the City has access to safe and reliable drinking water.

Action IU1.1.2. Encourage residents and businesses to conserve water in an effort to protect and preserve the water supply.

Outcome IU1.2. A reliable and efficient wastewater system that collects, conveys and treats wastewater.

Action IU1.2.1. Maintain the ability to collect and transmit the disposal of wastewater.

Action IU1.2.2. Continue to perform regular testing, maintenance and improvements to the City's wastewater collection system to ensure compliance with federal and state environmental regulations.

Action IU1.2.2.1. Maintain an inventory of existing public wastewater infrastructure assets, current infrastructure conditions and priorities for maintenance or rehabilitation.

Outcome IU1.3. A sustainable and efficient stormwater system.

Action IU1.3.1. Implement the Virginia Stormwater Management Program (VSMP) and city's stormwater management program.

Action NE1.3.2. Maintain an inventory of existing public stormwater infrastructure assets, current infrastructure conditions, and priorities for maintenance or rehabilitation.

Action IU1.3.3. Continue to maintain and improve the City's stormwater system.

Outcome IU1.4. Access to reliable energy and communication infrastructure.

Action IU1.4.1. Partner with utility providers, local municipalities and regional groups to improve access to utility data.

Action IU1.4.2. Coordinate upgrades and replacement of non-City provided utilities, including electricity, natural gas and communication networks.

Action IU1.4.3 Work with utilities, developers, and state agencies to relocate above-ground utility lines underground with an emphasis on major corridors.

Action IU1.4.4. Encourage the placement and appearance of utility infrastructure (e.g. substations, transmission towers and lines, and switching boxes) to minimize visual disruption and negative effects on quality of life, and to enhance streetscapes.

Action IU1.4.5. Work with utility companies to ensure access to electricity, natural gas, and communication networks both daily and during times of stress (e.g. storm events, flooding, extreme heat, etc.).

Outcome IU1.5. A safe and well-connected rights-of-way system that provides a functional surface transportation system and utility infrastructure services throughout the city.

Action IU1.5.1. Convert light fixtures and street lights to LEDs and down-cast lighting.

Action IU1.5.2. Evaluate and ensure that there is adequate lighting along all major streets. Utilize standards established by the "Illuminating Engineering Society" to determine whether an area is adequately lit.

Action IU1.5.3. Develop an inventory of existing public right-of-way infrastructure assets (e.g. street lights), current infrastructure conditions, and priorities for maintenance or rehabilitation.

Action IU1.5.4. Identify right-of-ways that will permit the expansion of tree planting strips and tree wells to provide more suitable growing conditions for street trees.

Outcome IU1.6. Access to reliable and efficient solid waste and recycling services and infrastructure.

Action IU1.6.1. Maintain and enhance solid waste and recycling infrastructure in City parks, trails, sidewalks, public facilities and at events (e.g., receptacles for solid waste, reuse, recycling, and composting with signage that provides guidance on proper waste disposal techniques).

Infrastructure and Utilities Goal 2. Expand the use of advanced technology to support economic growth and public safety, improve access to information and ensure a broad range of communications services.

Outcome IU2.2. All City residences, businesses and institutions have access to reliable and affordable advanced technology and telecommunication infrastructure and services.

Action IU2.2.1. Periodically update policies and regulations for the design and siting of telecommunication facilities to ensure they remain applicable with fast-changing communication technologies.

Action IU2.2.2. Explore public-private partnerships as a way to enhance the City's communication infrastructure.

Action IU2.2.3. Consider implementing innovative pilot initiatives that advance new technologies (e.g., regenerative power, solar powered charging stations, etc.).

Metrics:

- Percent of water produced meeting Safe Drinking Water Act standards.
- Number of National Pollutant Discharge Elimination System (NPDES) permit holders in compliance with Clean Water Act effluent and reporting guidelines.

FIGURE 131: Wastewater Collection System

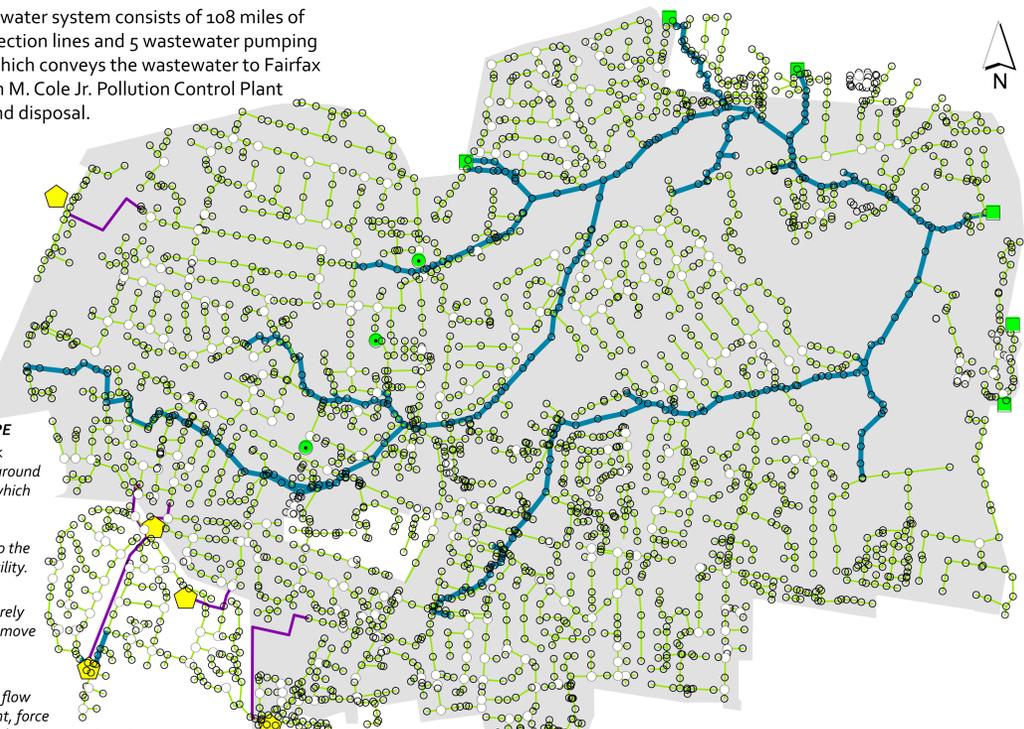
The City's wastewater system consists of 108 miles of wastewater collection lines and 5 wastewater pumping stations, all of which conveys the wastewater to Fairfax County's Noman M. Cole Jr. Pollution Control Plant for treatment and disposal.

Legend

- Manhole
- Intersection
- Cleanout
- Meter Vault
- ◆ Pumping Station

PIPES BY FLOWTYPE

- Gravity/Trunk
Larger underground trunk mains which use gravity to transport the wastewater to the treatment facility.
- Gravity
Gravity pipes rely on gravity to move wastewater
- Force
When gravity flow is not sufficient, force mains are used to move wastewater under pressure by using pumps or compressors located in pumping stations.



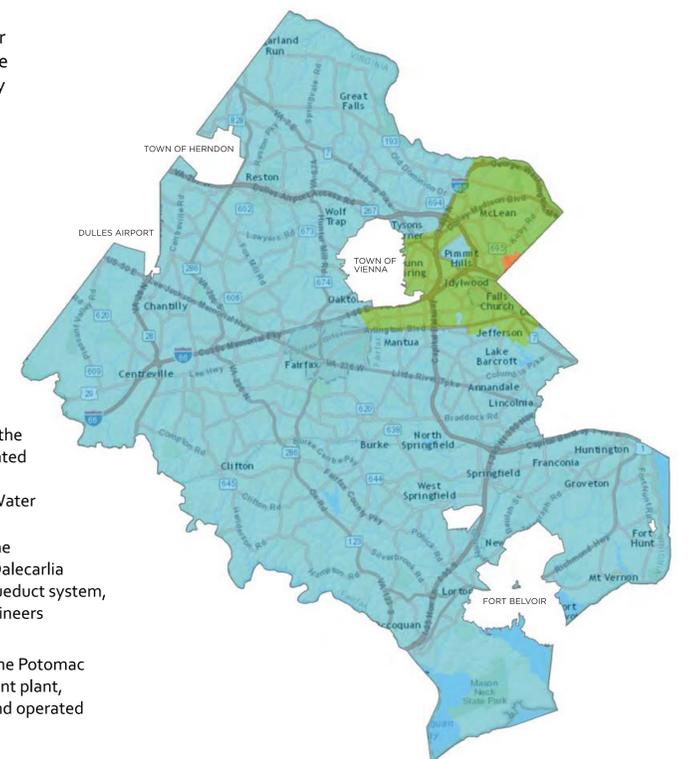
1 inch = 1,100 feet
 Source: City of Fairfax GIS sewer network 2016

FIGURE 132: Fairfax Water Service Areas

Since January 3, 2014, Fairfax Water has been the water provider for the City of Fairfax. The water quality in the City of Fairfax service area is excellent and consistently surpasses all federal and state standards.

Legend

- Customers in this service area receive water from the Potomac River and Occoquan Reservoir that is treated at the James J. Corbalis Jr. or Frederick P. Griffith Jr. treatment plants, owned and operated by Fairfax Water
- Customers in this service area receive water from the Potomac River that is treated at the McMillan and Dalecarlia water treatment plants, part of the Washington Aqueduct system, owned and operated by the U.S. Army Corps of Engineers
- Customers in this service area receive water from the Potomac River that is treated at the Dalecarlia water treatment plant, part of the Washington Aqueduct system, owned and operated by the U.S. Army Corps of Engineers



Source: Fairfax Water 2016 Annual Water Quality Report