

Leesburg

the hometown of the 21st century

Department of Utilities

Annual Report Calendar Year 2023



FROM THE DIRECTOR

No matter the circumstance, through all weather events and even during a global pandemic, Department of Utilities staff are dedicated in their role to provide critical and essential water and wastewater services to our customers.

The five year water and sewer rate plan commits to funding various capital improvements in order to reinvest in aging infrastructure of the utility systems. The Department of Utilities team is committed to provide high quality of service and plan for the future including timely repairs, preventative maintenance, asset management tracking and great customer service.



Potomac River

MISSION and CORE VALUES

DEPARTMENT OF UTILITIES

MISSION:

We provide safe, efficient, and reliable water and wastewater services.

CORE VALUES:

Integrity

We do the right thing and are dedicated to getting the job done.

Communication

We openly collaborate and cooperate with others.

Accountability

We take ownership and responsibility for our actions.

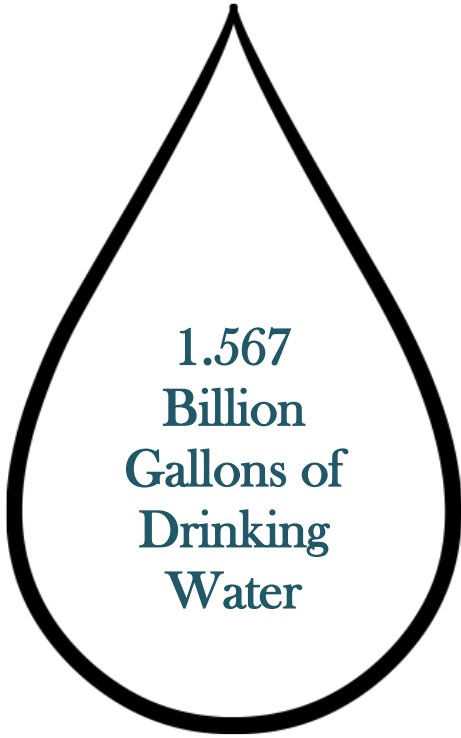
Respect

We treat all people fairly and with dignity.

Environmental Stewardship

We protect water quality and the environment.

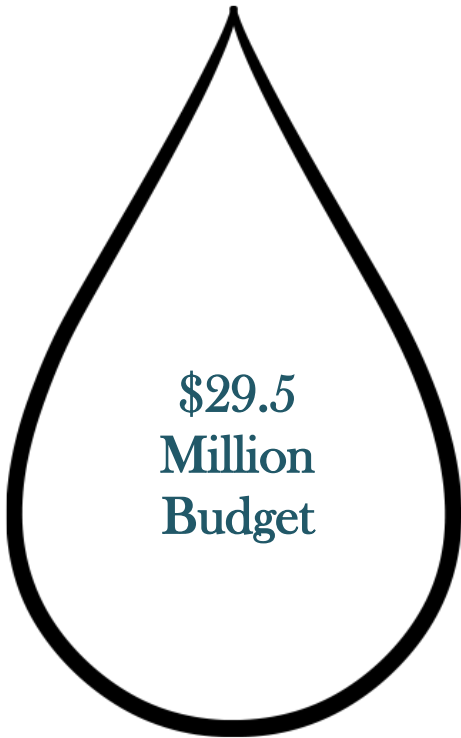


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1.567
Billion
Gallons of
Drinking
Water

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1.36 Billion
Gallons of
Wastewater
Treated

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\$29.5
Million
Budget

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106
Employees
supporting
services

INFRASTRUCTURE STATISTICS - 2023

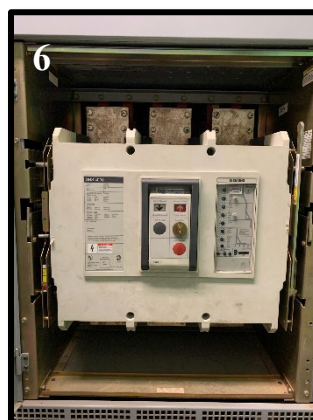
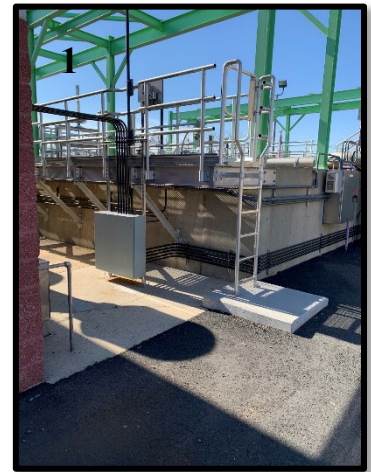
- ◆ Calls For Service = 163
 - ◆ Number of Accounts = 16,852
 - ◆ Average Day of Water Production / Capacity of Facility = 4.29 mgd / 12.88 mgd
 - ◆ Number of Water Quality Complaints = 58
 - ◆ Miles of Water Main = 247.765
 - ◆ Number of Hydrants = 2,929
 - ◆ Water Main Leaks/Breaks Repaired = 2 main breaks / 6 service line leaks
 - ◆ Non-Revenue Water = 8.16% (Best practice is less than 10%)
 - ◆ Average Day of Wastewater Treatment / Capacity of Facility = 3.72 mgd / 7.5 mgd
 - ◆ Miles of Sewer Main = 191.021
 - ◆ Number of Manholes = 5,773
 - ◆ Manholes Inspected = 1,285
 - ◆ Sewer Lines Cleaned = 200,268.23 feet
 - ◆ Sewer Lines Inspected (CCTV) = 119,027.22 feet
- ✓ mgd = million gallons per day



COMPLETED PROJECTS AND ACCOMPLISHMENTS

Water Pollution Control Division

- ◆ Secondary A/B isolation gate replacements. Used for taking tanks in and out of service as well as balancing Mixed Liquor volume equally between the other clarifiers. Replaces original infrastructure from 1995. (1)
- ◆ Bioreactor Internal Recycle Pump VFD replacements. Internal Activated sludge return pumping controls necessary to perform denitrification resulting in reduction of the Total Nitrogen discharge. (2)
- ◆ Additional photo of the VFD external control. Multiple IR VFDs replaced original installation in CY 2000. (3)
- ◆ Bioreactor A/B control wiring and conduit replacement. Used for the operating instrumentation and command signals to the IR pumps and zone mixers. Replaced original 1995 wiring and conduit. (4)
- ◆ Grit removal facilities HVAC - replaced original 1995 unit. (5)
- ◆ Electrical switchgear breaker - electrical supply for treatment units in the northern sector of the facility. Replaces original 1987 equipment. (6)
- ◆ Digesters A and C recirculation pumps - enable mixing, digestion, solids stabilization and reduction. Replaces original installation style (pumps have been rebuilt throughout the years) from 1970 and 1987 respectively. (7)



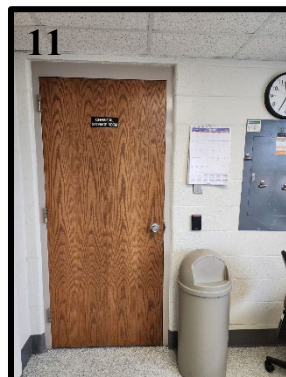
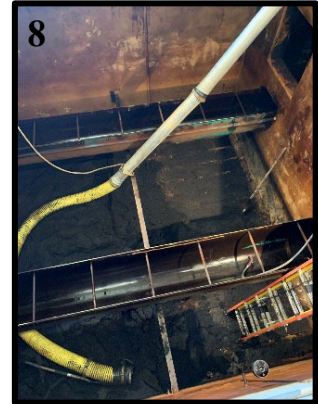
Lines Maintenance Division

- ◆ Sewer manole rehabilitation and sewer main relining
- ◆ Sewer lining and rehabilitation
- ◆ New GapVac Hydro Excavation Truck (7)



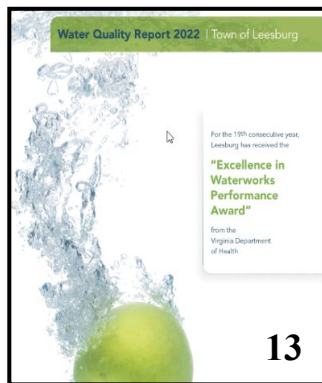
Water Supply Division

- ◆ Replaced Filter #4 media and restored underdrain system (8)
- ◆ Moved PLC #01 indoors at the Raw Water Pumping Station (9)
- ◆ Completed repairs to Sodium Hypochlorite Tank #1 (10)
- ◆ 80% of water operators currently hold a Class 1 License
- ◆ Implementation of Airtable as a well reporting software
- ◆ Security improvements in preparation for inventory overhaul (11)
- ◆ Waterworks Performance Award from VDH
- ◆ Annual Water Quality Report published and distributed
- ◆ YSI Source Water Monitoring Probe Integration (12)
- ◆ SCADA outage Table-Top Exercise
- ◆ Participated in MWCOG/EPA Regional Oil Spill Exercise



Other Accomplishments

- 💧 Waterworks Performance Award
- 💧 Implementation of Procore as a project management software
- 💧 Water Quality Report published (13)
- 💧 Public Outreach including recruitment event and Public Open House (14)



Lead

The Town's drinking water sources, including the Potomac River and Paxton well, do not contain any lead.

A source of lead in drinking water can be household plumbing and service line materials. In 1986, lead was banned from use in pipes and solder for drinking water systems. In older homes, where lead is present in the service lines, plumbing fixtures and solder connections, it may leach into the water after the water sits for long periods of time.

The Town's drinking water is treated with a corrosion inhibitor, which is added to help prevent lead from leaching from household plumbing into drinking water.

In 2021, the Environmental Protection Agency (EPA) released the much anticipated revisions to the Lead and Copper Rule. In accordance with this ruling, the EPA is requiring all water providers to identify and create an inventory of all water service lines within their distribution system. The goal of this program is to identify and replace lead service lines that may still be in existence. The EPA has confirmed an October 2024 deadline for this inventory to be completed, and since January 2022, the Town's Department of Utilities has been diligently working towards this goal by researching historical records in order to develop a water service line material inventory and map.

The Department of Utilities has operated a lead sampling program since 1992, and the Town's public water supply has always been in compliance with state and federal water quality standards. Homes built before 1988 have a higher potential for having lead in private water service lines, internal plumbing materials, and faucets.

PFAS

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a class of more than 6,000 manmade chemicals used in the manufacture of a wide variety of industrial and household products designed to resist heat, water, oil and stains. A wide variety of products are made with PFAS, including non-stick cookware, food packaging, personal care products and water-resistant apparel.

On March 14, 2023, the EPA announced its proposed national drinking water standards for 6 types of Poly-and Perfluoroalkyl Substances (PFAS) including proposed Maximum Contaminant Levels (MCLs) for Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). The proposed standard also includes establishing a hazard index for a combination of four other PFAS compounds.

The Department of Utilities is reviewing EPA's proposed rule along with our regional and national water utility colleagues. As we gain a clearer understanding of the implications of the proposed rule on Department of Utilities operations, information will be shared with our customers. The Town will take all necessary actions to meet federal and state drinking water regulations for PFAS. Exploratory testing conducted to date for several of these compounds has not indicated their presence in our drinking water.