



ANNUAL REPORT 2020-2021



HENDERSONVILLE WATER & SEWER



MISSION

Operate a great utility for our customers.

VISION

We envision a Hendersonville region with trusted, safe, high-quality, affordable utility service and a system that is responsive to the demands of its customers and regional growth.

VALUES

These values, which emerged from the utility's recent strategic planning efforts, guide our decision-making and ground us in what is most important to us and our customers:

- Great Customer Service
- Accountability
- Quality and the Environment
- Protecting Infrastructure from Hazards
- Partnerships and Teamwork
- Planning for the Future
- Adaptability
- Great Place to Work



LETTER FROM THE MAYOR

To Our Community,

We are proud to be part of your life in the most vital and meaningful ways through our daily delivery of essential water and wastewater services. We transport and treat wastewater in an environmentally responsible manner, and we provide affordable access to high-quality drinking water so that we succeed as a utility, and you succeed as a community partner.

We continually focus on transparency, fiscal responsibility, building partnerships, encouraging economic development, and protecting our environment as our area continues to grow. Regular collaboration and input from a cross-section of local governing boards, industry and business representatives, and utility customers in the community ensures that we are responsive to the needs and concerns of our ratepayers.

Over the past year, the City has completed its compliance efforts related to the American Water Infrastructure Act of 2018, which included the development of a risk and resiliency assessment and an emergency response plan for the City's water and sewer utilities. Planning and engineering design efforts have begun for water and sewer extensions that will serve Jabil Inc. at a new 41-acre industrial park on Garrison Lane in Henderson County. Hendersonville Water & Sewer also finalized its utility extension and assessment policies and continued work on other pressure-improving projects like the Hebron pressure zone, Etowah and Northside water system improvements.

As your utility, we remain vigilant and prepared for what lies ahead. We are committed to providing high quality, efficient service and working proactively with regulatory agencies, developers, and our customers to craft solutions that work for all.



We hope you enjoy reviewing some of the accomplishments and opportunities contained in this year's annual report. On behalf of the Hendersonville City Council, Water and Sewer Advisory Council, and Hendersonville Water & Sewer, it is our pleasure to serve you.

Sincerely,
Barbara Volk, Mayor, City of Hendersonville

A handwritten signature in black ink that reads "Barbara L. Volk". The signature is written in a cursive, flowing style.

PERFORMANCE HIGHLIGHTS



2.68b

BILLION GALLONS OF
SURFACE WATER TREATED



1b

BILLION GALLONS OF
WASTEWATER TREATED



82

EMPLOYEES SUPPORTING SERVICES



6%

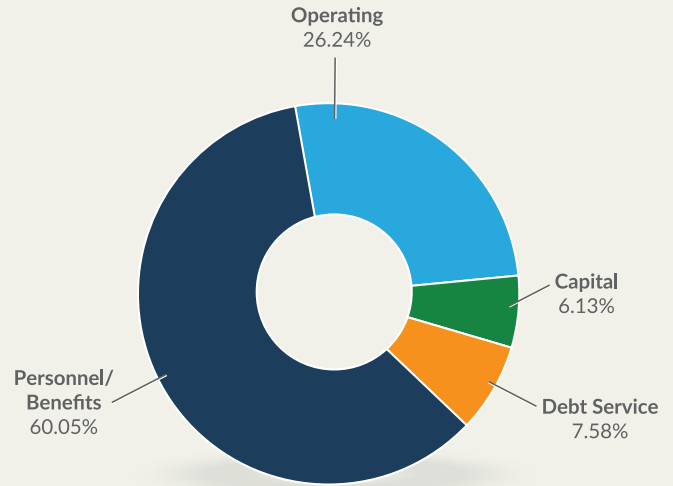
WATER LOSS RATIO

Basic performance measures for the City's Water and Sewer Department are included on page 32-35 of the Annual Budget at <https://www.hendersonvillenc.gov/budget>

WHAT YOUR RATES FUND

The City's Water and Sewer Fund collected **\$17.9 million** in FY20-21. The majority of revenues came from charges for water and wastewater service. The City expended these funds according to the pie chart provided.

The City is budgeted in FY21-22 to collect **\$20.1 million**. The increase in budgeted revenues is due to rate changes recommended by utility rate experts and reviewed by the Water and Sewer Advisory Council in partnership with the Hendersonville City Council. Earned revenues support the water and wastewater system's daily operations and capital projects. In future years, the utility anticipates higher levels of debt service payments on major capital improvement projects.



INFRASTRUCTURE STATS

The tables below summarize key Water and Sewer Department Statistics from fiscal year (FY) 2020 through 2021.

FISCAL YEAR	2019	2020	2021
CALLS FOR SERVICE	12,305	8,199	12,015
METER DROP IN STUB OUT	102	58	151

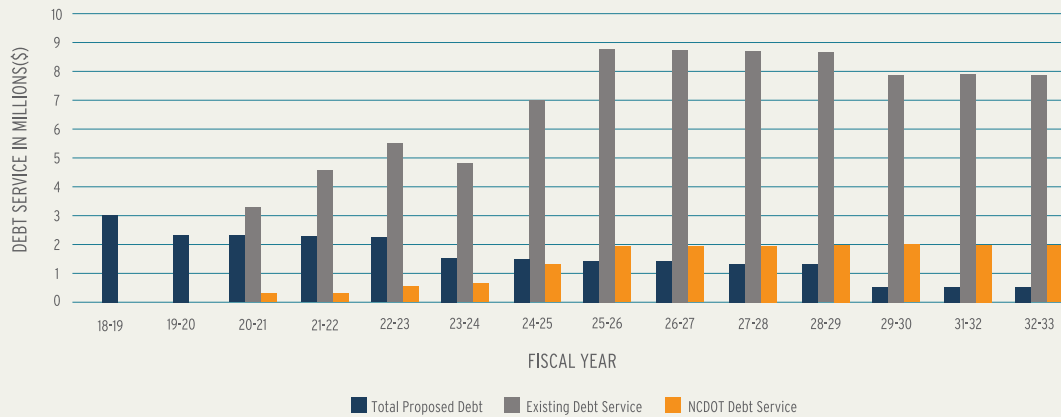
ANNUAL WATER PRODUCTION	2,556,015,000	2,562,992,000	2,680,552,000
AVERAGE DAILY PRODUCTION (MGD)	7.022	6.942	7.344
NEW WATER TAPS	174	150	232
WATER MAIN LEAKS/BREAKS REPAIRED	107	77	82
WATER LOSS, %		12.29%	6%

ANNUAL WASTEWATER/SEWER TREATMENT	1,147,408,000	964,990,000	1,002,834,000
NEW WATER AND SEWER CONNECTIONS	54	43	43
SEWER LINES CLEARED (ft)	98,162	90,462	123,783
SEWER INFLOW/INFILTRATION	34%	30%	

RATE CHANGES

The City has collaborated with private financial firms specializing in municipal utility rates to identify best practices. The City must also adhere to a bond covenant, requiring certain financial criteria be met to finance major capital projects. We continually advertise and seek feedback on our rates from various advisory councils, committees, and members of the community. The City's 10-year capital improvement plan (CIP) contains **\$112.7 million** of debt-funded projects. Rate recommendations are based on the City's ability to maintain favorable financial status via bond covenant requirements, and other ratios, including debt service coverage, operating, and available fund balance.

DEBT SERVICE PLAN EXISTING VS. NEW



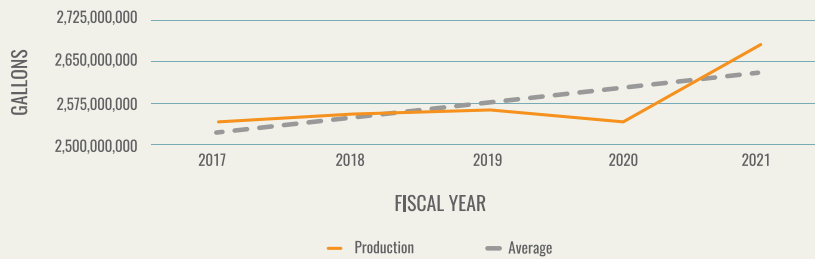
Additional information on financial ratios and requirements can be found on page 36 of the City's FY20-21 Adopted Budget at: <https://www.hendersonvillenc.gov/budget>

PROJECTS COMPLETED IN FY21

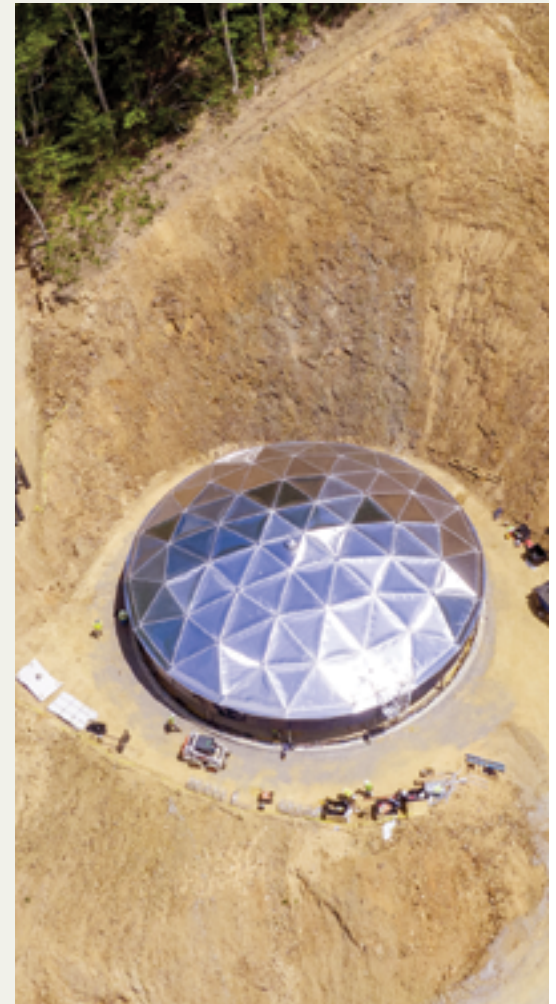
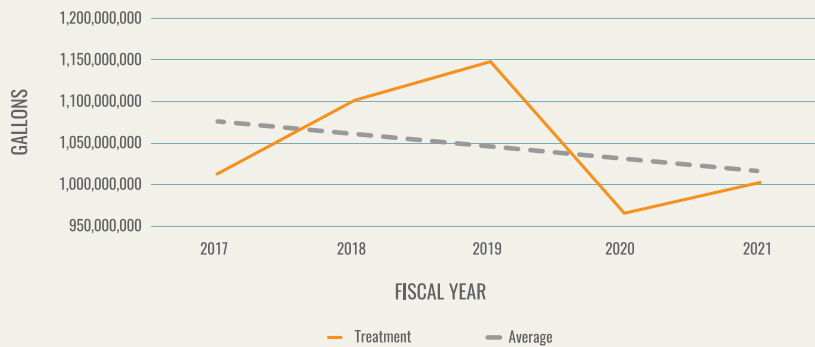


1. AWIA RRA and ERP
2. Utility extension and assessment policies finalized
3. Sewershed 6 Sanitary Sewer Evaluation Survey (SSES)
4. WWTF Septage Receiving Station – Online 8/10/2020

ANNUAL WATER PRODUCTION, GAL.



ANNUAL SEWER TREATMENT, GAL.



PROJECTS CONTINUED/BEGAN IN FY21

1. Jabil/Garrison Ln. Water and Sewer Project
2. French Broad River Intake Pump Station
3. Mud Creek Sewer Interceptor
4. Clear Creek Sewer Interceptor
5. Laurel Park Water System Transfer and Meter Upgrade
6. WWTP Master Plan
7. WWTP UV Disinfection Project
8. Hebron Pressure Zone Improvements
9. Northside Water System Improvements
10. Etowah Water System Improvements
11. NCDOT I-26 Water and Sewer Improvements

PROJECTS



French Broad River Intake Pump Station

The proposed French Broad River intake and pumping station is intended as a redundant source of non-potable water to improve the resiliency of the Water Treatment Facility general operations. The intake and pumping station is also designed for future expansion to serve future water demands within the City's water service area. The new water source associated with this project will be utilized as needed for maintenance as well as interchangeably with existing raw water sources during normal operations. The City will have the flexibility to operate one or all of its raw water sources simultaneously as required to adjust to changing conditions and treatment needs.



WWTF Ultraviolet Disinfection Improvements

The Ultraviolet (UV) Disinfection Improvements project consists of the replacement of aging UV disinfection equipment nearing the end of its useful life at the City's Wastewater Treatment Facility (WWTF). UV disinfection is the final stage of the treatment process where wastewater is disinfected before being discharged into Mud Creek. The project will consist of an additional concrete disinfection channel and new UV equipment to provide redundancy and additional capacity within this stage of the treatment process. In addition, the newer UV equipment is much more energy-efficient, saving the City an estimated \$70,000 per year through reduced electrical costs at the WWTF.



Clear Creek Interceptor Replacement

The Clear Creek Interceptor Replacement consists of the replacement of approximately 3,300 linear feet of undersized 18-inch diameter gravity sewer pipe along Clear Creek with 30-inch diameter sewer pipe. The purpose of the project is to provide additional capacity alleviating sanitary sewer overflows (SSOs) and serving future growth upstream in the Edneyville area. This project was identified in the City's sanitary sewer collection system master plan.



Northside Water System Improvements

Water service in the Fletcher (Northside) area will be improved by creating a new pressure zone with a new ground storage tank at a higher elevation and a water pump station. This tank will be constructed adjacent to the existing one. The tank will be served by a water booster station, which will be constructed south of the US 25 and Howard Gap Road intersection. The booster station will fill the tank during off-peak hours and provide additional flow during peak demands. This project, which is nearly complete, reflects the City's commitment to serving the continued growth and development of the Fletcher area.



Laurel Park Water Meter Upgrade

The City of Hendersonville and the Town of Laurel Park approved a water system merger in the Spring of 2021 to enhance the entire utility system and metering infrastructure. Water customers on the City of Hendersonville system have enjoyed the many benefits of automated metering technology for years. Now, customers on the Laurel Park system have been upgraded to new automated meters and provided with the same benefits. Laurel Park meters were replaced and connected to an automated and near real-time reading network, referred to as Advanced Metering Infrastructure (AMI).



Jabil/Garrison Ln Water and Sewer Project

Jabil Inc. broke ground on their 18.65-acre tract in Garrison Industrial Park, recognizing not only the multimillion dollar investment Jabil will make in Henderson County, but also the creation of the industrial park. Executed in November 2020, the historic Three-Party Agreement between the Economic Investment Fund of Henderson County (EIF), Henderson County, and the City of Hendersonville brought forces together to buy and develop the 41-acre industrially zoned site off Commercial Boulevard in southern Henderson County. The City received a \$556,000 grant from the Golden Leaf Foundation for the installation of the water lines that will serve the site.

ADAM STEURER, Utilities Engineer

1. Why did you choose to work for the City of Hendersonville?
Native of Mills River. Enjoy the multifaceted duties working for a utility and providing a high-level of service to the community.

2. What is your favorite part of your job?
Multifaceted duties working for a utility. Engineering (especially performing simulations within the utility's hydraulic water and sewer modeling software), planning, budgeting, creating policy, customer service, legal, education/outreach. Excellent coworkers.

3. What do you like to do for fun?
Mountain biking, fishing, and thinking about water infrastructure.

4. What does your typical workday look like?
I design and manage water and wastewater projects within the utility's capital improvement plan: line extensions, line replacement and rehabilitation, treatment facility improvements. I conduct project planning and prioritization, funding application and administration, permitting, procurement/bidding, and construction administration. I also provide technical support to utility operations personnel and provide recommendations. Finally, I review water and sewer connections associated with private development projects to determine the utility's ability to serve and to ensure new infrastructure is installed in accordance with utility standards and policies

5. What is the most important lesson you have learned in your work?
Before working for the utility, I didn't fully realize the intricate, behind-the-scenes components of providing water and sewer service. It is easy to take for granted how these systems work, until they don't. Our operations and maintenance personnel are extremely knowledgeable and dedicated across their specialties; whether it is operating water or wastewater treatment facilities, repairing water leaks, replacing fire hydrants, cleaning sewer lines, or maintaining pump stations.





**PLEASE HELP US RECOGNIZE THIS YEAR'S
WATER AND SEWER DEPARTMENT MVPS:**

Jay Heatherly

Jeremy Poss

Kenneth Page

Jonathan Owen

Rhonda Wiggins

Scott Chovan

Gary Norton

George Reedy

Rick Brown

Sherman Johnson

Jared Warren

Patrick Cooke

Kourtney Looper

Steven Warren

David Perrow

Andrew Jones

Brently Orr

Matthew Herman

Austin Williams

Matthew Keener

Harley Gordon

Kasey Sudderberg

LB Heatherly

James Clugh

Brandon Smith

Evan Doughty

Paul Williams



Hendersonville
Water  Sewer

305 WILLIAMS ST.
HENDERSONVILLE, NC 28792

828-697-3073

hendersonvillenc.gov/water-sewer



The WaterSense partnership program shares resources and encourages the adoption of water-efficient behaviors and quality products that use less water. To learn more visit: <https://www.epa.gov/watersense>