

rates-keeping prices down and encouraging conservation.

LETTER FROM THE MAYOR

To Our Community,

Delivering essential water and wastewater services means we are part of our customers' and stakeholders' lives in the most basic, vital, and meaningful ways. Transporting and treating wastewater in an environmentally responsible manner and providing affordable access to high-quality drinking water is the right thing to do and the key to how we succeed as a utility and community partner.

The Water and Sewer Advisory Council is a representation of how Hendersonville Water & Sewer aims to operate. A utility operating with great transparency and fiscal responsibility focused on building partnerships, encouraging economic development, and protecting our environment as the area continues to grow. The Advisory Council provides recommendations to Hendersonville City Council and consists of representatives from all local governing boards, industry and business representatives, and utility customers. Regular collaboration and input from this cross-section of the community play an integral role in creating long-range plans and

improvements that will best serve our entire area.

Over the past year, Hendersonville Water & Sewer has improved the system's water loss ratio with the hiring of a Water Leak Detection Technician and repair crew, finalized a sanitary sewer master plan, and completed basin repairs and coatings at the Water Treatment Plant. Water extensions. like the line on Ladson Road, have served economic development projects throughout Henderson County. Other pressure-improving projects like the Etowah and Northside Improvement Projects are underway with many capital improvements on the horizon.

When public health issues arise, like failing septic systems in mobile home parks or utility shut-off moratoriums due to a global pandemic, our utility has remained proactive in working with regulatory agencies, developers, and our customers to be a part of the solution.

We hope you enjoy reviewing some of the accomplishments and opportunities contained in this



Barbara G. Volk, MAYOR

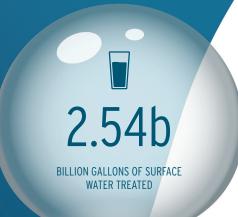
year's annual report. On behalf of the Hendersonville City Council, Water and Sewer Advisory Council, and Hendersonville Water & Sewer, we are proud to be an integral part of this community.

Farbara S. Volk

Sincerely,

Barbara Volk Mayor, City of Hendersonville

PERFORMANCE HIGHLIGHTS







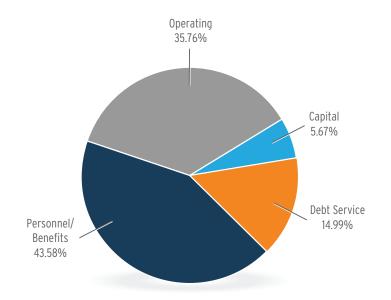




WHAT YOUR RATE FUNDS

The City's Water and Sewer Fund collected **\$17.3 million** in FY19-20. 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 FY20-21 to collect **\$17.8 million**. The increase in budgeted revenues is due to rate changes recommended by utility rates experts and reviewed by the Water and Sewer Advisory Council in partnership with Hendersonville City Council. Earned revenues will support the water and wastewater system's daily operations and capital projects. In future years, we anticipate higher levels of debt service expense for a greater volume of major capital projects.



INFRASTRUCTURE STATS

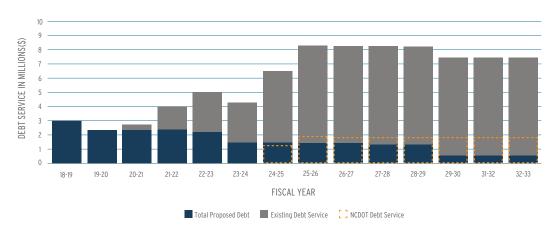
The tables below summarize key Water and Sewer Department Statistics from fiscal year (FY) 2018 through 2020.

FISCAL YEAR	2018	2019	2020
CALLS FOR SERVICE	9,634	12,305	8,199
METER DROP IN STUB OUT	161	102	58
ANNUAL WATER PRODUCTION	2,556,015,000	2,562,992,000	2,540,821,000
AVERAGE DAILY PRODUCTION (MGD)	7.003	7.022	6.942
NEW WATER TAPS	128	174	150
WATER MAIN LEAKS/BREAKS REPAIRED	83	107	77
WATER LOSS,%	23%		12.29%
ANNUAL WASTEWATER/SEWER TREATMENT	1,099,379,800	1,147,408,000	964,990,000
NEW SEWER TAPS	163	54	43
SEWER LINES CLEARED (ft)	153,842	98,162	90,462
SEWER INFLOW/INFILTRATION	34%	34%	30%

RATE CHANGES

We have collaborated with a private financial firm specializing in municipal utility rates to identify best practices. We continually advertise and seek feedback on our rates from various advisory councils and committees. There is **\$130.40 million** worth of debt issuances proposed in the 10-year CIP. Rate recommendations are based on the ability to fund these proposed projects while maintaining acceptable debt service coverage, operating, and available fund balance ratios.

DEBT SERVICE PLAN EXISTING VS. NEW



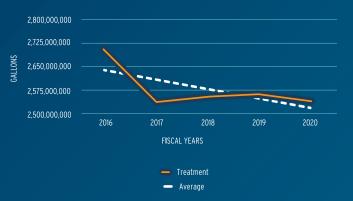
Additional information on financial ratios and requirements can be found on page 36 of the City's FY20-21 Adopted Budget at: https://www.hendersonvillenc.gov/budget



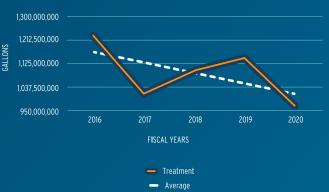
ETOWAH AREA WATER IMPROVEMENTS

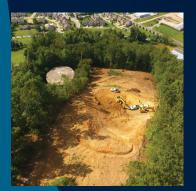
The Etowah Area Water System Improvements project in western Henderson County includes the installation of approximately 14,800 linear feet of 12 and 8-inch water mains, a 500,000-gallon ground level water storage tank access road, construction of a booster pumping station, and demolition of an existing 100,000-gallon elevated water storage tank and three existing booster pumping stations. The project will increase water pressure and available fire flow in the area. Construction work began in the Fall of 2019 and is anticipated to be completed in the Spring of 2021.

ANNUAL WATER PRODUCTION, GAL.



ANNUAL SEWER TREATMENT, GAL.





NORTHSIDE WATER SYSTEM IMPROVEMENTS - FLETCHER AREA

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. Initial work began in early Summer 2020 and construction will likely conclude in late spring of 2021. Implementing this project reflects the City's commitment to serving the continued growth and development of the Fletcher area.

MULTI-AREA STREAMBANK RESTORATION

Financed through a zero-interest green infrastructure loan from the North Carolina Division of Water Infrastructure, the Multi-area Streambank Restoration project will restore approximately 13,000 linear feet (nearly 2.5 miles) of stream to protect sanitary sewer infrastructure from erosion and reduce the likelihood of sanitary sewer flows reaching waterways. The project includes restoration efforts at thirteen sites throughout the City, a stormwater wetland retrofit at Patton Park, and sanitary sewer replacement and upgrades at three sites. Utilizing a natural approach that incorporates bioengineering practices by using native riparian vegetation, this project will restore the ecological and hydrological balance of streams by implementing structurally sound, economically feasible, and ecologically sustainable methods. Construction began in August of 2019 and the project will be complete



by late February 2021. Stormwater Magazine featured this project in its October 2020 issue, applauding the City for turning to nature for long-term resilience, leveraging innovative financing strategies, and offering a successful implementation framework for other cities in the region. The project was also nominated for a PISCES Award, which is a national honor administered by the EPA that recognizes exceptional and innovative projects.

SEVENTH AVENUE STREETSCAPE



This replacement work of undersized and aging water infrastructure illustrates Hendersonville Water and Sewer's dedication to breathing new life into the Historic Seventh Avenue District by creating a vibrant commercial and pedestrian destination for residents and visitors. These utility upgrades will complement the additional streetscape work that will be completed, including wider and more pedestrian-friendly sidewalks, planting and landscape enhancements, and expanded plaza areas.

WASTEWATER TREATMENT PLANT MASTER PLAN



To ensure that the City's Wastewater Treatment Plant (WWTP) is reliably maintained and expanded to meet projected growth demands, the WWTP Master Plan will identify improvements and expansions to the existing facility over a 20-year planning horizon. Major components of the project include condition assessments of existing infrastructure, treatment process review

and evaluation, and prioritizing schedules to assist with capital improvement project budgets. The Master Plan is one of many examples of the City's commitment to longrange planning that is responsive to the projected growth demands of our area.

EWART HILL RESERVOIR REPAIR

In order to address intermittent leaks, one of the City's 5-million-gallon concrete water storage basins, constructed in 1955, will be lined with a flexible membrane liner. This rehabilitation work will reinstate additional water storage and redundancy to the system.

FOURTH AVENUE AND ASHE STREET NEIGHBORHOOD WATER AND SEWER REPLACEMENT

This project will replace aging water and sewer infrastructure and is part of a broader City commitment to making critical improvements in the Ashe Street neighborhood, an area ripe for commercial and residential revitalization. Funded through a low-interest loan from the North Carolina Division of Water Infrastructure, the improvements will replace the existing cast iron and galvanized metal water pipe that has deteriorated over time as well as the clay sewer pipe that is highly susceptible to inflow and infiltration. Approximately



5,500 linear feet of new water pipe will be installed along with the replacement of 3,200 linear feet of sewer line and rehabilitation of 3,500 feet of sewer pipe. This work will minimize the frequency of repairs in the area and will provide important public infrastructure upgrades that will serve area residents for years to come.

TAKE BACK THE TAP!

Hendersonville Water and Sewer is excited to highlight a new initiative focused on public education and outreach, Take Back the Tap! Launched in May of 2020 during Drinking Water Week, this campaign focuses on customer education about the financial, environmental, and overall taste benefits of drinking tap water. We love promoting our high-quality water and reminding our customers that it is always #ThereWhenYouNeedIt twenty-four hours-a-day! Learn more at https://www.hendersonvillenc.gov/water-sewer/water-conservation/drinking-water-week Pictured below: the winning submission from the 2020 Drinking Water Week Art Contest and the winner, Logan from Edneyville Elementary, with his prize.





MUD CREEK SEWER INTERCEPTOR

In alignment with City Council's commitment to reduce the frequency of Sanitary Sewer Overflows (SSOs), this critical pipeline replacement project identified in the City's Sewer System Master Plan will upgrade existing aging and undersized sewer infrastructure along Mud Creek and will re-route tributary sewer mains to the new interceptor. The infrastructure will be properly sized to meet current and anticipated sewer demands.



DREW FINLEY

Drew Finley came to work with the City's Water and Sewer Department in August 2019 after graduating from Wake Forest University in May 2019 with his undergraduate degree in Politics & International Affairs and Spanish. He came to work with the City as part of a fellowship with a new program offered through the School of Government located within the University of North Carolina at Chapel Hill. This program, known as Lead for North Carolina, is part of a nationwide program known as Lead for America. These programs are intended to seek out the best and brightest of our newly graduating young adult class from college and provides those selected an opportunity to be introduced to local government throughout North Carolina. The hope is that these young professionals will consider a career in local government, whereas without this program, they may never even consider "working for the government".

With this fellowship, Drew has developed a work plan along with City staff, in an effort to map out what he and the City wanted to accomplish during his two-year stay with the City. His work plan now consists of three major projects – 1) Update City's water and sewer infrastructure extension policies and procedures; 2) Develop a water and sewer assessment policy and program to provide opportunities for residents outside of the City's corporate boundaries to have access to water and sewer at an affordable cost; and 3) Examine options for establishing a regionalized water and sewer utility by reviewing regionalization models throughout North Carolina.

Outside of these three major projects, Drew assists a great deal with our day to day operations by preparing reimbursement applications for some of our projects that are funded through the State Revolving Fund (SRF) which includes low-interest and no-interest loans and a project funded through the State Reserve Loan (SRP) that is a low-interest loan. Some of Drew's other projects include working on a team that is updating our Department's website, working on an initiative called Take Back the Tap and has participated on an interview panel when we were selecting a new operations manager. Drew is very insightful and offers great participation with all of his endeavors. Drew has become an integral part of our team! Next on Drew's list of things to do once he completes his fellowship with the City is graduate school, possibly a master's degree in public administration. We feel very confident that no matter what Drew does or where he goes, he will be very successful!



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

Kayla Bunday
Emily McDowell
Kasi Nix
Wendy Williams
JR Blackwell
Lee Smith
Rick Brown
Ricky Levi
Keith Kirchner
Gary Norton

Stephen Bell
Steven Warren
George Reedy
Austin Williams
Brentley Orr
Matthew Keener
Caleb Smathers
Kevin Albertson
Bo Stepp
Brad Duncan

Jay Heatherly
Brian McCall
Melinda Lundsford
Andy Brogden
Jonathan Owen
Chris Brewer
Harley Gordon
Keith Lynch
Matthew Herman

