



Planning for the Next Year and the Next Generation

FORT WORTH WATER



ANNUAL REPORT

2022



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Director's Message



We're investing in strategies to reduce water loss through district metering and acoustical leak surveys.

Chris Harder

Director



I am pleased to present Fort Worth Water's 2022 Annual Report.

The goal of this report is to inform our customers regarding our high-level goals and strategic objectives, operating highlights and financial performance, and accomplishments.

Since its founding 138 years ago, the Utility has expanded to serve a fast-growing population in Fort Worth and 39 surrounding communities with water, sewer, and reclaimed water services. Our system consists of five water plants, a regional wastewater plant, over 7,700 miles of pipeline, numerous storage tanks, pump stations and metering equipment, and 1,000 employees diligently providing 24/7 customer service.

The Utility strives to provide the highest level of service at the lowest price to our customers. We meet the demands of our service area while ensuring we prudently reinvest in our existing assets. The February 2021 winter storm highlighted vulnerabilities related to power resiliency and infrastructure. We responded with increased investment in backup power at critical treatment and pumping facilities and accelerated cast iron pipe replacement.

Reducing water loss continues to be a high priority. We're investing in strategies to reduce water loss through district metering and acoustical leak surveys.

We are proud of our regulatory compliance history with the Texas Commission on Environmental Quality and the Environmental Protection Agency. But to stay in compliance, we must be prepared to meet future regulations. Since 2016, we have been working to remove lead services from our system in advance of the EPA Lead and Copper Rule Revisions that go into effect in 2024. In 2022, we accomplished that.

The remote read meter exchanges and customer portal launch was completed in 2022. Customers now have access to an online portal to pay bills and review hourly water use and meter data that can be used to reduce private side and public water leaks.

Please take some time to review this report. We take the stewardship of your Utility seriously and appreciate any comments you have regarding our performance.

Water Utility Mission, Vision and Goals

Mission



Clean Water Done Right Every Time

The Water Utility enables the Fort Worth community to thrive with clean water done right every time. The Utility is responsible for providing drinking water, wastewater and reclaimed water service that keeps the community healthy and protects the environment.

Vision



Exceed Expectations

To be the premier water utility focused on exceeding customer expectations through value-driven innovative services.

Goals



Performance Excellence, Meeting Long-Term Community Needs

Fort Worth Water's strategic plan is structured around the **Effective Utility Management framework** designed by the American Water Works Association, the Environmental Protection Agency, and nine other association partners representing the U.S. water and wastewater sector.

The program is designed to **help water and wastewater utility managers** make informed decisions and practical, systematic changes to achieve excellence in utility performance in the face of everyday challenges and plan for long-term needs of the Utility.

The **goal is to improve** in product quality, customer satisfaction, employee and leadership development, operational optimization, financial viability, infrastructure strategy and performance, enterprise resiliency, community sustainability, water resource sustainability, and stakeholder understanding and support.

Fort Worth added four key focus areas to help in its strategic efforts:

The Workforce	Recruit, retain and develop the Utility's workforce throughout their career.
Data Analytics & Technology	Use data to optimize operations and better inform decisions.
Equity & Affordability	Maintain cost through efficient operations and ensure equitable access through infrastructure investment.
Stewardship	Provide best value while protecting, restoring and enhancing the natural environment.

Utility History

• **1873**

Fort Worth incorporates.



• **1878-1882**

Artesian wells provide service to Fort Worth. Wells continued to provide service until Lake Worth finalized and filled in 1914.

• **1882**

Captain B.B. Paddock creates a private water company to build a private water system.

• **1884**

City of Fort Worth buys the private system.

• **1911-1914**

Construction of Lake Worth begins in order to serve as the City's water supply. Lake filled in 1914. North Holly sand filtration plant and laboratory placed into service in 1912.

• **1892**

Holly Pump Station built.

• **1958**

A new modern plant, Village Creek Water Reclamation Facility, located in east Fort Worth, replaced the Riverside plant.

South Holly Plant and High Service Pump Station put into service.

Clear Fork raw water pump station put in service same year.

• **2022**

Begins operating the \$59 million state-of-the-art biosolids facility.

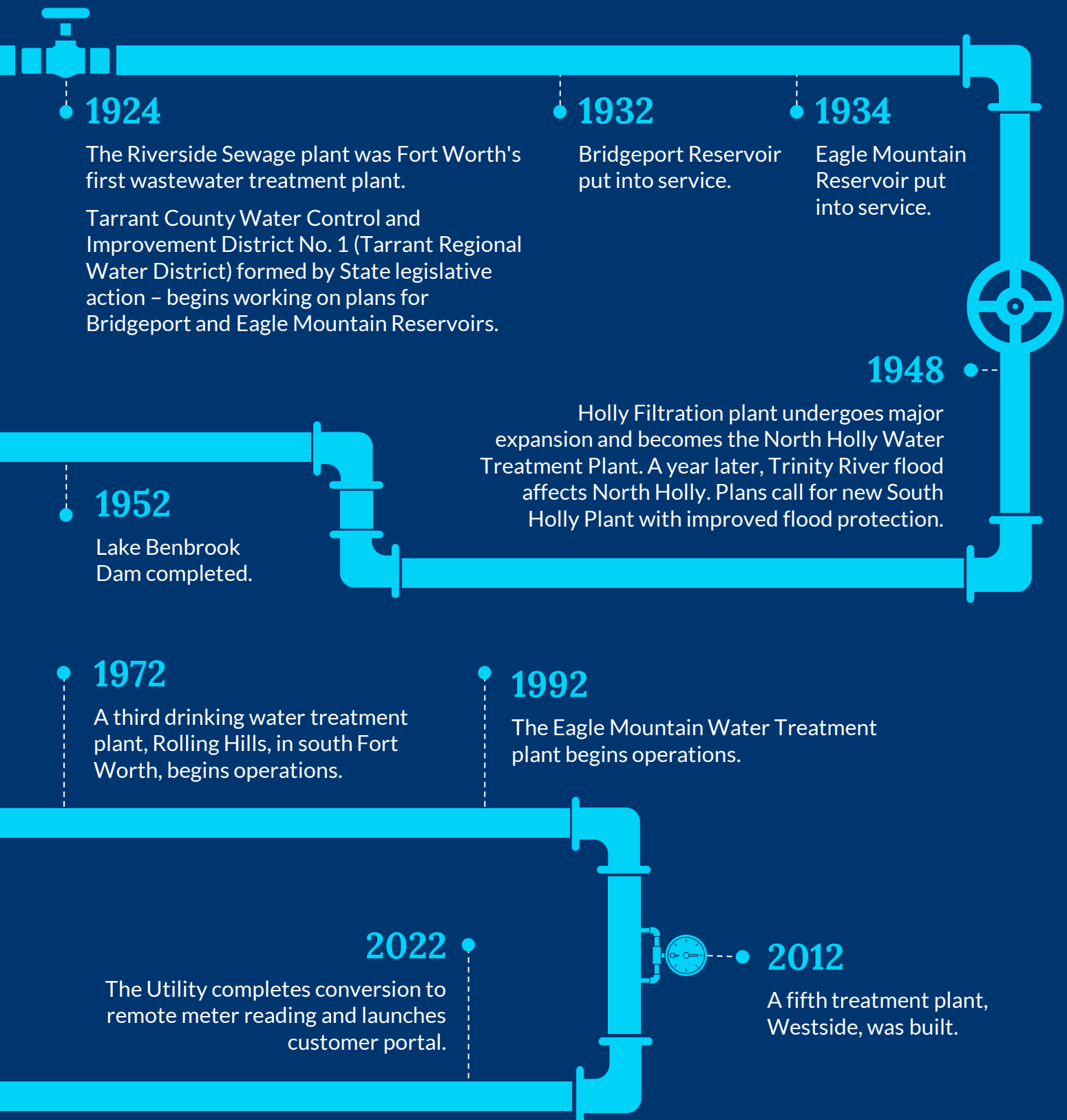
The Utility's fiscal 2022 budget represents

24%

of the City's overall operating budget

The Utility employs a staff of approximately

1,000



1924

The Riverside Sewage plant was Fort Worth's first wastewater treatment plant.

Tarrant County Water Control and Improvement District No. 1 (Tarrant Regional Water District) formed by State legislative action – begins working on plans for Bridgeport and Eagle Mountain Reservoirs.

1932

Bridgeport Reservoir put into service.

1934

Eagle Mountain Reservoir put into service.

1948

Holly Filtration plant undergoes major expansion and becomes the North Holly Water Treatment Plant. A year later, Trinity River flood affects North Holly. Plans call for new South Holly Plant with improved flood protection.

1952

Lake Benbrook Dam completed.

1972

A third drinking water treatment plant, Rolling Hills, in south Fort Worth, begins operations.

1992

The Eagle Mountain Water Treatment plant begins operations.

2012

2012

A fifth treatment plant, Westside, was built.

2022

The Utility completes conversion to remote meter reading and launches customer portal.

Governance Structure

The Fort Worth Water Utility is an Enterprise Fund of the City of Fort Worth. It receives no tax dollars and operates on its revenues and fees.

The Utility is owned and operated by the City of Fort Worth. Under its Council-Manager form of government, the mayor and city council oversee general administration, make policy and set the budget and rates.

The City manager, appointed by the City Council, carries out the daily administrative functions, including the Water Utility.

The water director oversees the Executive Management Staff, while the staff oversees the Utility's operations and a management staff oversees divisions within water and wastewater: strategic operations, field operations, customer care, plant operations, management services and capital delivery.



Management Team



1 Wendy Chi
Assistant Director of Strategic Operations

2 Tony Sholola
Assistant Director of Capital Delivery

3 Jan Hale
Assistant Director of Management Services

4 Kara Shuror
Water Deputy Director

5 Chris Harder
Water Director

6 Mary Gugliuzza
Media Relations and Communications Coordinator

7 Roy Teal
Assistant Director of Field Operations

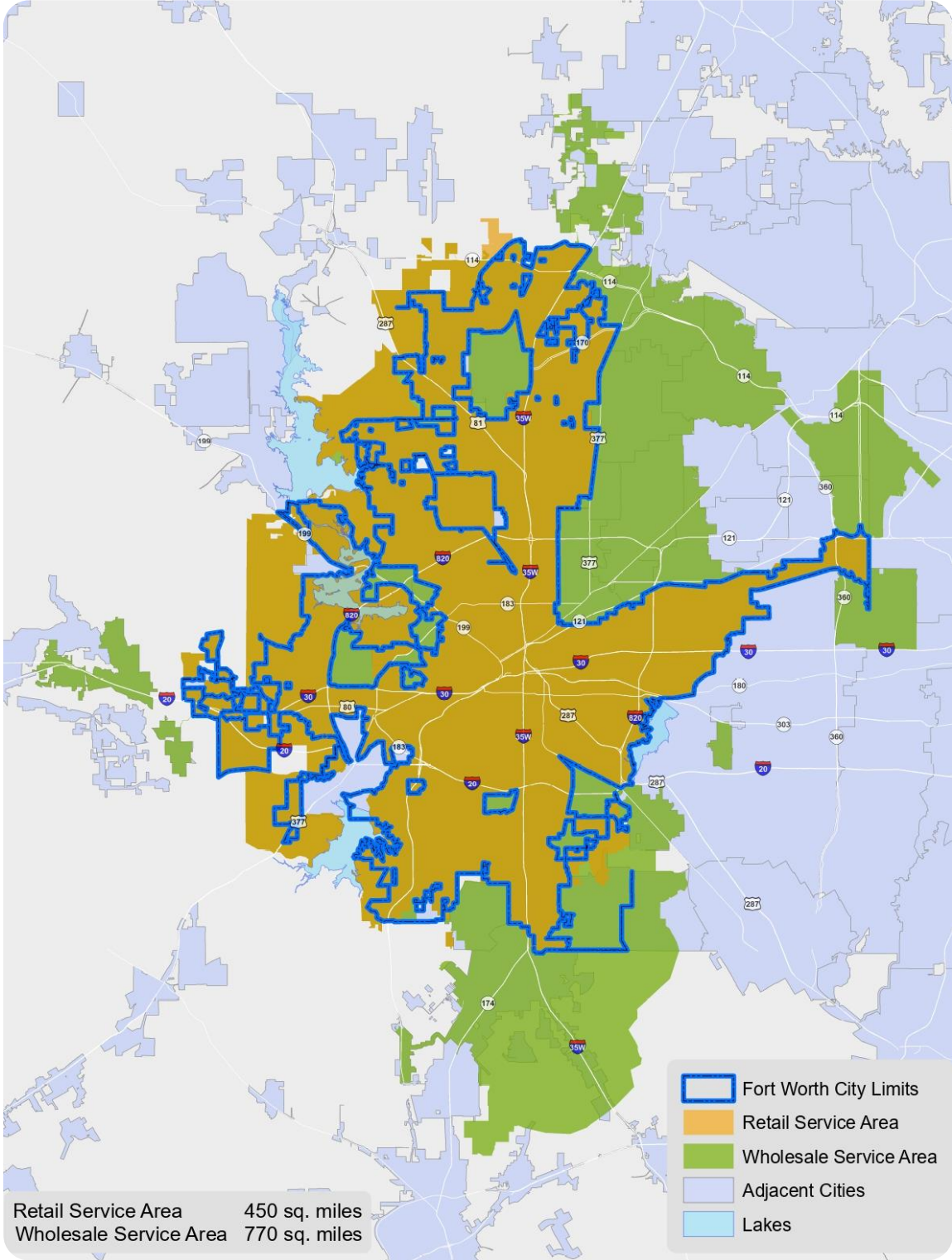
8 Laura Wilson
Water Deputy Director

9 Shannon Dunne
Assistant Director of Plant Operations

10 Jerry Pressley
Assistant Director of Customer Care

Customer Profile

Retail, Wholesale Service Areas



Customer Profile



1.4M people

are provided with treated drinking water in Tarrant, Johnson, Denton, Parker and Wise counties.

The Utility serves residents of Fort Worth and 33 surrounding communities. Some use Fort Worth Water in an emergency only.

These wholesale drinking water customers include Aledo, Benbrook Water Authority, Bethesda Water Supply Corp., Burleson, Crowley, Dallas/Fort Worth International Airport, Dalworthington Gardens, Edgecliff Village, Everman, Forest Hill, Grand Prairie, Haltom City, Haslet, Hudson Oaks, Hurst, Keller, Kennedale, Lake Worth, Northlake, North Richland Hills, Richland Hills, River Oaks, Roanoke, Saginaw, Sansom Park, Southlake, Trinity River Authority – Tarrant Water Supply Project, Trophy Club Municipal Utility District, Westlake, Westover Hills, Westworth Village, White Settlement and Willow Park.

The Village Creek Water Reclamation Facility serves Fort Worth and 23 surrounding communities.

Wholesale customers that buy wastewater services include Benbrook Water Authority, Bethesda Water Supply Corp., Blue Mound, Burleson, Crowley, Edgecliff Village, Everman, Forest Hill, Haltom City, Hurst, Kennedale, Lake Worth, North Richland Hills, Pantego, Richland Hills, River Oaks, Saginaw, Sansom Park, Trinity River Authority, Watauga, Westover Hills, Westworth Village and White Settlement.



Year-End, Utility-Wide Operational Performance and Trends

80.3 BG

Water produced

38.2 BG

Wastewater treated

932 MG

Reuse water provided

33,870
dry tons

Biosolids produced

2.6

SSOs per 100 miles of pipe

487,668

Call center calls

44,212

Water samples sent to lab

151,327

Water analyses performed

25.34
BG

Wholesale water usage

156.6
gallons

Avg daily use per person

219.8 MG

Average day usage

388.7
MG

Maximum day usage

272,052

Active wastewater accounts

284,057

Active water accounts

Utility Fast Facts

286,801

Water meters

63,933

Manholes

77,490

Water valves

21,646

Fire hydrants

322

Water sampling stations

3.36 M

Billing statements sent

70,181

MyH₂O portal registrations

19,679

Bills paid by mail

250

Available customer phone lines

Year-End Financial Performance and Trends

Revenues and Expenses

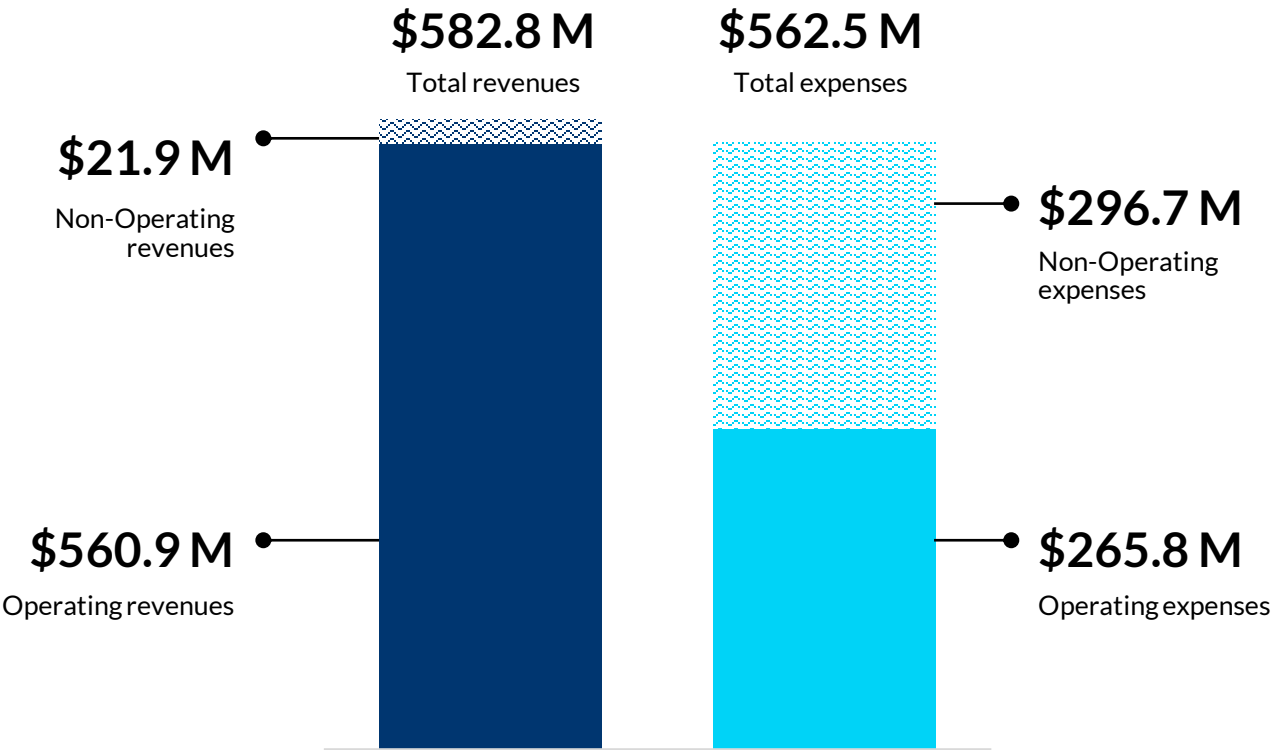
Fort Worth Water strives to keep water rates low. Through operational efficiencies and sound financial management, there have been no rate increases in three of the last four years.

The Water Utility is funded solely by the rates and fees it assesses and collects. No property tax dollars are used to fund water and wastewater operations. Rates are per 100 cubic feet or CCF. One CCF equals 748.1 gallons.

Water and wastewater rates have two components - a volume charge and fixed monthly service charge based on water meter size.

The following is a summary of revenues and expenses for fiscal 2022.

For more details visit the City's website at <https://www.fortworthtexas.gov/departments/the-fwlab/budget/fy2022>





\$20.3 M

Reserve Contribution

Includes water, reclaimed water and wastewater

Where Does Your Dollar Go?

Distribution of Expenses



By the Numbers



Fort Worth Water provides clean & affordable water to **1.4M people**

The Utility maintains **3,914 miles** of pipes for water distribution

3,788 miles of pipes for wastewater collection

11.5 miles of pipe for reclaimed water



Fort Worth Water has the capacity to daily treat

510M gallons of drinking water

166M gallons of wastewater

It operates

05 drinking water treatment plants

21 booster pump stations

30 storage tanks

1 water reclamation facility, with a second reclamation facility in the works



Capital Improvement Plan and Progress

A. Capital Investment Trends





Capital improvement projects in 2022 focused on replacing aging infrastructure, including cast iron water mains in Fort Worth’s oldest neighborhoods. Doing so ensures dependable service and reduced water loss, consequently lowering costs, both for customers and the Utility.

Utility management set the goal to replace a minimum of 20 miles of cast iron pipe every year. Currently, there are 55 miles of existing cast iron mains at various stages of design for replacement in fiscal 2023 and beyond.

Replacing the mains with materials such as PVC provides for distribution system upgrades and efficiency. When water mains are replaced, deteriorated sanitary sewer mains located within the same street are also replaced. These sewer mains are often high-risk lines and identified as part of the City’s Sanitary Sewer Overflow Initiative with the Texas Commission on Environmental Quality. According to the terms of the Sanitary Sewer Overflow Initiative, the City is committed to replacing and/or rehabilitating 10 miles of high-risk sanitary sewer mains a year.

B. 5-year Plan and Bond Rating

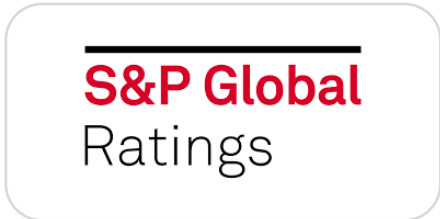
5-year Plan

-  Backup Power Facilities to address Senate Bill 3
-  Westside Pump Station, Storage Tanks and Pipelines
-  Clear Fork Lift Station and Force Main
-  Village Creek Digester Improvements



Bond Rating

The Standard and Poor’s, Moody’s and Fitch ratings have remained at AA+, Aa1, and AA, respectively. All outlooks are stable.



C. Funding Strategies

Water, Wastewater Impact Fee Increases in 2022

Impact fees help pay for growth-related water and wastewater infrastructure, such as new or expanded treatment facilities, pump stations, storage tanks and lift stations. The Utility has collected these impact fees since the 1990s and prepares updates every five years in compliance with state and local requirements. Last increased in 2017, updated impact fees went into effect in January 2022.

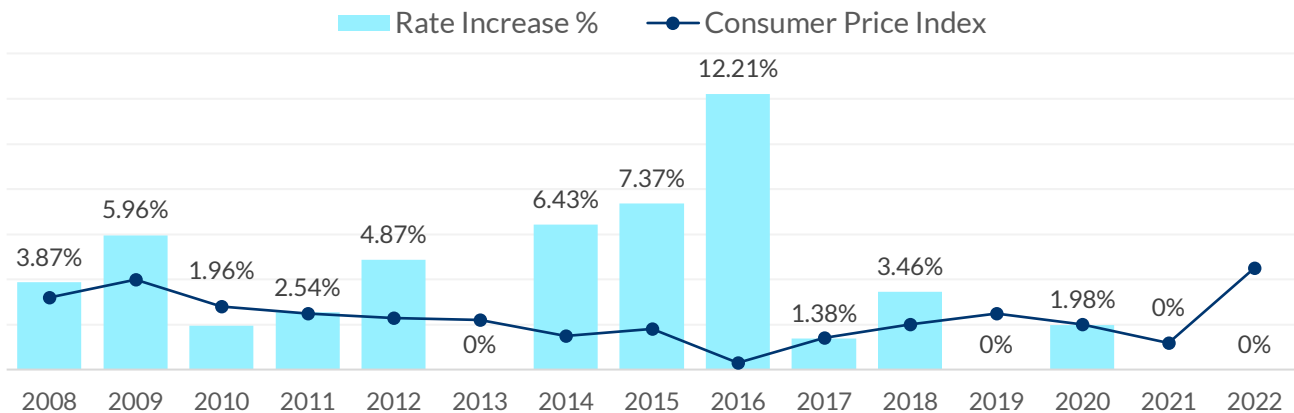
The Utility uses these impact fees to pay for growth-related projects directly, or to help pay the principal and interest on debt associated with funding them. Impact fees ensure that a portion of growth-related costs are paid by developers and not solely by ratepayers.

Rate Increase History

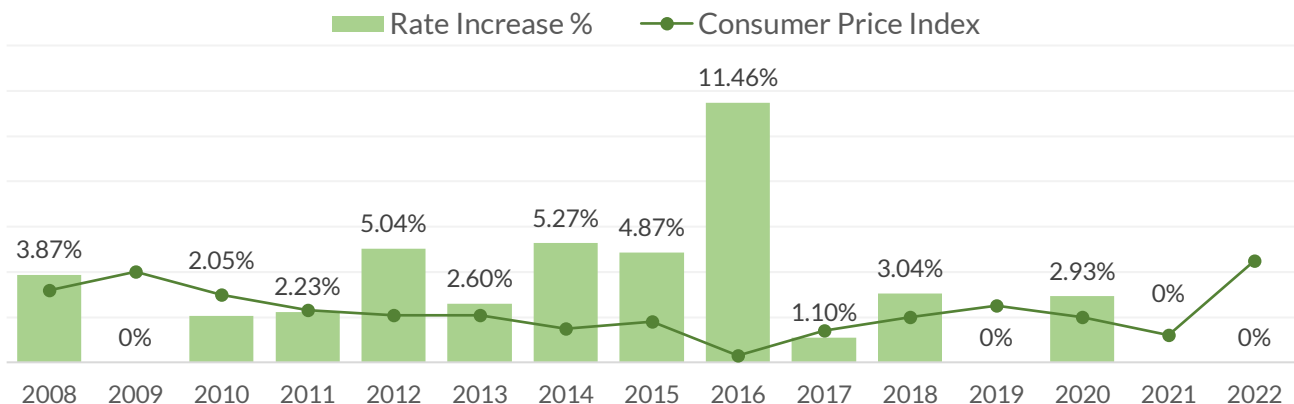
The Utility's largest source of revenue is the rates paid by Fort Worth residents and business owners. Based on the cost to provide water and wastewater services using industry standards, these rates pay for annual operations and maintenance, capital improvements and

debt service. The Utility strives to maintain fair and equitable rates balanced with affordability. The systemwide rate increases below reflect the utility's success in achieving this balance.

Water Systemwide Rate Increase History



Wastewater Systemwide Rate Increase History



Key Priorities

Customer Service

Accounting is a fundamental element of any business, whether it's a multinational corporation, a mom-and-pop shop, or Fort Worth Water.

Water's customer relations accounting services is a steward to Fort Worth residents. This team of four accountants and an accounting services supervisor work very hard to make sure bills are accurate and that every penny of revenue is properly accounted for.

The team is responsible for the accounting tasks and financial reporting of \$600 million for the water/wastewater, environmental protection, solid waste and stormwater funds.

It is our responsibility to safeguard the City's financial assets. This is done by establishing processes, procedures, quality internal controls and ensuring we are in compliance with the City's financial guidelines.

- Noreen Mitchell

Billing & Accounting Manager

Stewardship is a core value and is reflected in how we engage with our customers.

Workforce

If the pandemic taught us one thing, it's that the workforce is evolving and changing at a faster pace than ever imagined. Planning how the future workforce at Fort Worth Water will look took precedence in 2022.

In a challenging job market two years out from the start of the pandemic, a record 292 water employees were hired in 2022. Of the current staff, 44% have been with the Utility for five or fewer years.

Fort Worth Water focused on many workforce areas in 2022, including creating employee growth programs, leadership and management development, and using data and analytics to make workforce management decisions.

The data will provide a better understanding of who our employees are and where they are in the employee lifecycle, making it easier to develop programs that meet employee and Utility needs.

"Having real-time access to this data allows us to stay on the leading edge of workforce trends," Zondor said.

During the year, the Utility focused on expanding career ladders for promotion and recognition of expertise gained, as well as providing opportunities for employees to grow and develop into positions outside of their current role.

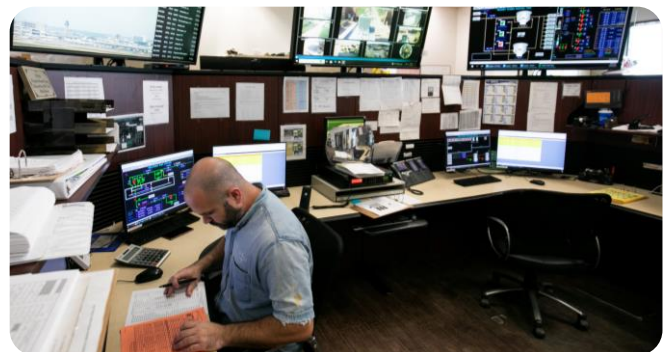
Incentive programs were also enhanced for some divisions.

In addition, because of anticipated retirements, the Utility instituted a system to capture deep institutional knowledge and improved succession planning.

We've experienced unprecedented increases in retirements and turnover.

- Shane Zondor

Workforce Initiatives Manager



Emergency Preparedness

The one-two punch of major winter storms in 2021 and 2022 have brought about changes and improvements to the Utility's efforts in maintaining service and communications with our customers during storms, power outages and other disasters.

In 2022, the Utility fulfilled a requirement to file an emergency preparedness plan with the Texas Commission on Environmental Quality. The plan spells out how we will provide water during extended power outages, as well as infrastructure replacement or upgrades needed.

Work continues to enclose the open air, high service pump stations at the Eagle Mountain and Westside water treatment plants. Emergency electric generators for the Westside plant and emergency power plans at the North Holly and South Holly plants are being completed.

Plans also include adding emergency generators at certain pump stations. Additionally, our call center capacity was increased to 250 phone lines to better handle calls during an emergency.



Water Supply & Conservation

Protecting the environment is an important part of protecting public health.

Fort Worth's raw water provider, Tarrant Regional Water District, is contractually obligated to ensure Fort Worth has an adequate water supply.

We recognize our role to extend the life of existing supplies as a part of our obligation to protect the environment.

Fort Worth joins other TRWD customers in coordinating a drought plan and manages a strong year-round conservation program. In 2006, the City Council enacted time-of-day watering restrictions to reduce water lost to evaporation. In 2014, the Council also limited outdoor watering to twice a week as a conservation measure in effect year-round.

And starting in 2018, Fort Worth Water outlined four pillars that play a key role in reducing water loss, including pressure management; speed and quality of repairs; active leakage control; and, pipeline and asset management.

Equity & Affordability

Water equity advances the idea that all people should have access to reliable water services at an affordable price. Affordability and equity were priority focus areas for the Utility in 2022.

Within the water industry, the standard definition of affordability has been based on the percentage of a household's income that goes toward paying water bills. Water costs that are 2.5% or less of median household income are considered affordable by the EPA.

Although the rates paid by Fort Worth Water customers are generally affordable, the Utility has policies and assistance programs to help customers by offering payment assistance and conservation programs, including a 4-tier rate structure that encourages water conservation and provides a "lifeline rate" that is below our cost of service and benefiting customers that use water for only essential needs.

Major Initiatives

MyH₂O

The summer of 2022 proved pivotal for Fort Worth Water, when meter exchanges were completed under the MyH₂O banner and the long-anticipated customer portal was launched.



The largest conservation program of the City of Fort Worth quickly turned hundreds of thousands of water customers into stewards of the water supply with more than 275,000 meters exchanged in three years.

By year's end more than 30% of our customers were using the MyH₂O portal to monitor their hourly, daily and monthly water usage, and to pay their bill.

Customers on the portal develop a better understanding of water costs and the importance of conservation, and can manage their account to improve their utility experience.

Biosolids

Biosolids begin as waste — poop to be exact.

Scientists, though, have developed a wastewater treatment process that turns what people flush into valuable nutrients and renewable energy.

Fort Worth Water is taking advantage of this process to improve its biosolids facility to address odor issues and high transportation costs.

A new \$59 million facility that began operations in 2022 replaces belt presses with a drum dryer to create a pellet product that has 90% of the water content removed.

Fort Worth achieves a 40% reduction in operating costs and savings of almost \$2 million annually.

Being able to finance the project at a low interest rate through the EPA State Revolving Loan Fund administered by the Texas Water Development Board is significant for ratepayers.

Health, Safety and Regulatory

In 2022, the Water Utility completed the lead service line inventory and replacement of city side lead services. This means that all the known lead pipe material is gone from the public side of the water distribution system.

Fort Worth has been ahead of the curve with regard to lead pipes in the water distribution system. Lead lines were banned from use in 1986, but the pipes already in the ground were allowed to stay. This year, the Environmental Protection Agency said public water systems needed to inventory what was still in use and work toward getting the lead out of our nation's drinking water. Fort Worth began doing that in 2016.

Fort Worth Water has replaced 1,839 lead service lines in the past six years, found in less than 1% of the total number of service lines.



This facility is state-of-the-art and the best option from both cost and environmental perspectives.

- **Chris Harder**
Water Director

The biosolids produced at the facility are applied to thousands of acres of farmland in Bosque, Denton, Kaufman, Johnson, Hill and Hood counties.

Reducing Water Loss

The Texas Water Development Board annually asks water utilities to submit a Water Loss Audit.

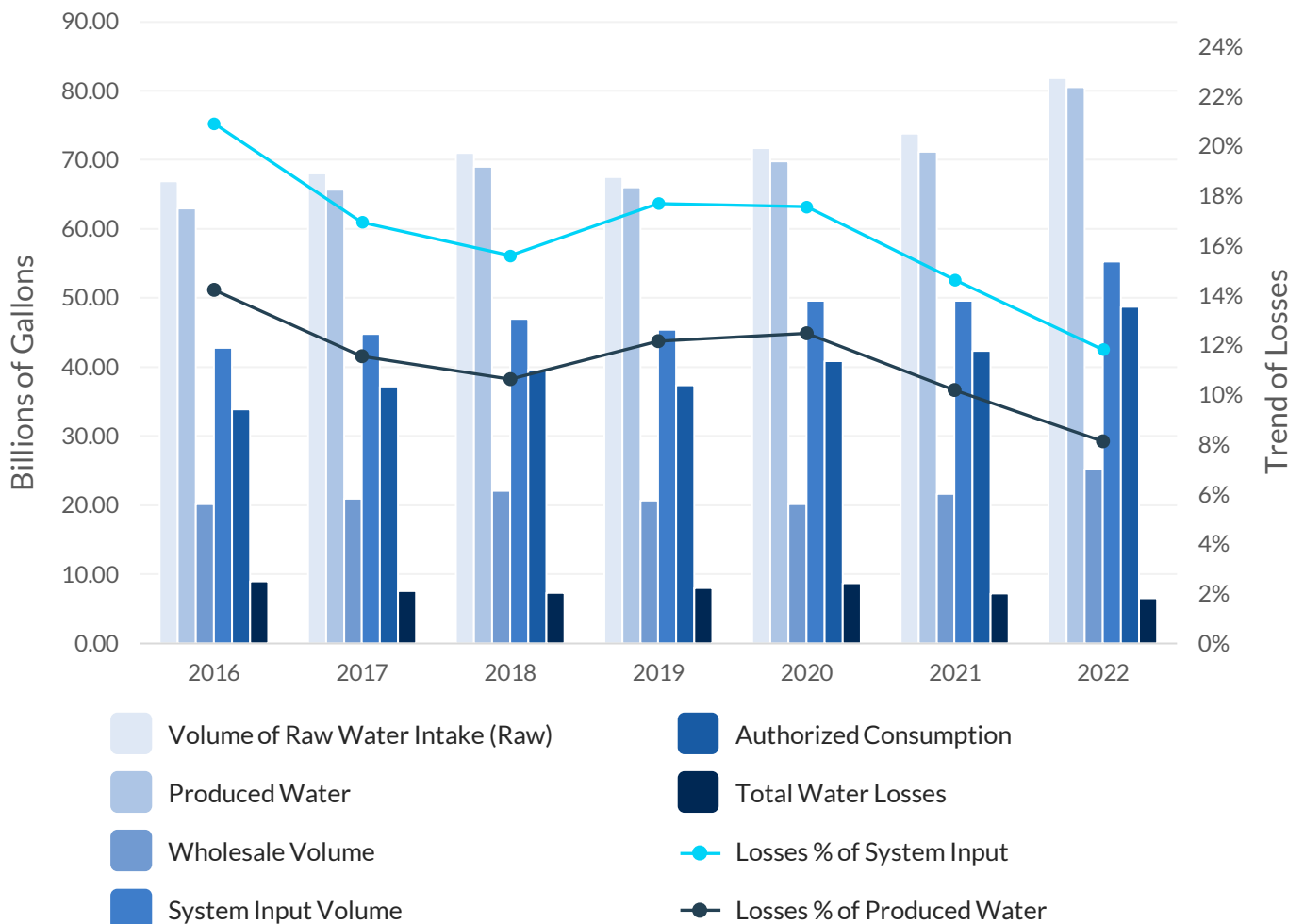
Water loss is the water Fort Worth buys, treats and puts into the distribution system, but receives no associated revenue. Doing an annual water loss audit helps the Utility account for and categorize that water. Controlling water loss is important to the Utility's bottom line.

This graphic shows a comparison of years 2016 to 2022. In 2022, water loss as a percentage of system input volume – produced water minus wholesale water exported – dropped to just under 11.8 percent. 2022 experienced a hot summer with little rainfall, resulting in increased water use overall.

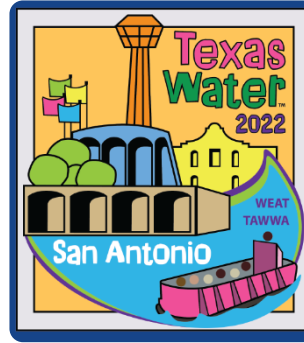
Data collection in 2022 was improved through more thorough numbers from our new remote read water meters, as well as from our field operations staff, which is using the work order system to gather better data.

These, and other changes, are helping the Utility better report and categorize water loss. Controlling water loss can determine system efficiency, extend supply, target mitigation efforts, and contributes to regional water planning.

Water Loss Snapshot



Recent Utility Awards



Sustainability

The Association of Metropolitan Water Agencies honored **Fort Worth** as one of four recipients of its **Sustainable Water Utility Management Award** in 2022.

The award recognizes water utilities that are committed to management that achieves a balance of innovative and successful efforts in areas of fiscal responsibility, environmental stewardship, efficient operations and social responsibility.

Watermark

Fort Worth Water earned a **Watermark Award for Communication Excellence** at Texas Water™ 2022 in San Antonio.

Fort Worth's [annual drinking water quality report](#) won the honor in the publications category for large utilities. The report is a regulatory requirement, but Fort Worth enhances the required technical information with stories about what the Utility is doing to improve and protect water quality from source to tap.



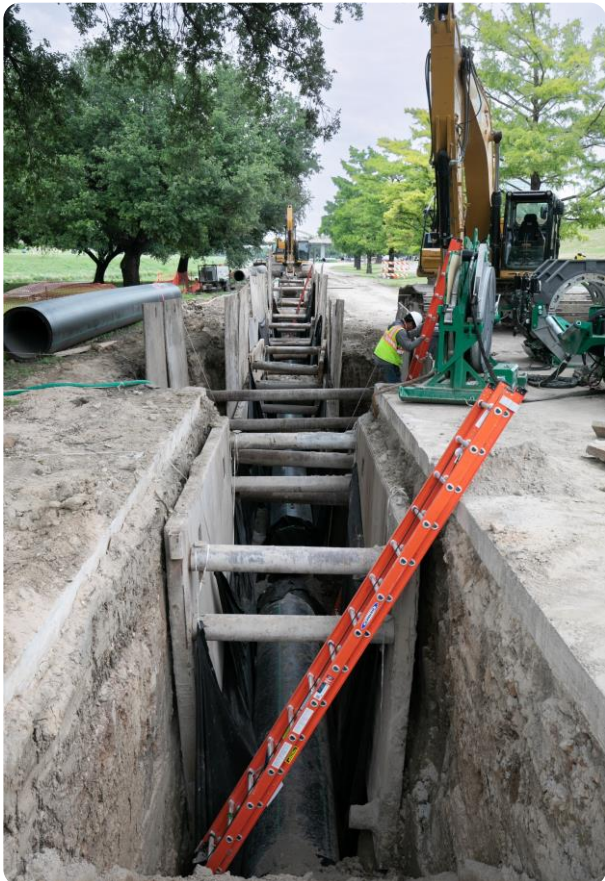
Xylem

Xylem Corp. presented **Fort Worth** its **Reach Transformation Award**, which goes to a customer and distributor that has applied Xylem technology to make operational advancements, improve customer service and get the most of their data. Fort Worth Water utilized Xylem technology in its MyH₂O program.

WaterSense

The City of Fort Worth's Water Utility was recently presented a **2022 WaterSense Partner of the Year Award** by the U.S. Environmental Protection Agency. The award recognizes Fort Worth's commitment to promoting the WaterSense program and overall water efficiency.








Water Utility Administrative Office

Fort Worth City Hall,
200 Texas Street, 2nd floor
Fort Worth, TX 76102
www.FortWorthTexas.gov/water

Water Customer Service

 817-392-4477

7 a.m. - 7 p.m. Monday to Friday
24 Hour Emergencies (Select Option 1)

