VISION:
REGIONAL SERVICE THROUGH UNITY: MEETING OUR REGION’S NEEDS TODAY AND TOMORROW

MISSION:
TO PROVIDE HIGH-QUALITY AND DEPENDABLE WATER, WASTEWATER AND SOLID WASTE SERVICES IN A COST-EFFICIENT MANNER

GOALS:
• PROVIDE SUPERIOR SERVICES TODAY
• SECURE FUTURE SUPPLIES & SERVICES
• MAINTAIN STRONG RELATIONSHIPS
• MAINTAIN OUR INFRASTRUCTURE
• TAKE CARE OF OUR PEOPLE

(front cover, left to right)
Kimberly Luker, Professional Engineer; Zeke Campbell, Water System Manager; Samantha Murray, Senior Laboratory Technician; Gerald Jones, Lookout Transfer Station Foreman

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MESSAGE FROM OUR EXECUTIVE DIRECTOR

We are North Texas. Our team of over 800 employees delivers critical services that people can’t live without. We produce safe drinking water for more than 1.7 million North Texans in 80 communities. Our shared regional wastewater conveyance and treatment systems protect public health and the environment for one million people living in 24 communities. And we safely dispose of solid waste for cities in Collin County. North Texas is one of the fastest-growing regions in the United States, requiring new water sources and associated infrastructure to support its thriving cities.

Not only do we serve North Texas; we live here, too. We are part of the communities we serve and are personally invested in delivering reliable, affordable services to the region we call home. Our employees are responsible for installing and maintaining the infrastructure to run our systems without interruption around the clock, every day of the year. When a crisis affects District services, our crews are the first on the scene, and they stay until the issue is resolved.

2019 was a historic year for the North Texas Municipal Water District (NTMWD). We invested more in our system this year than any other year in our 60-year history. As we closed out 2019, our team was actively working on 78 projects requiring more than $2 billion in spending. This includes significant projects under construction, like Bois d’Arc Lake in Fannin County – the first major Texas reservoir built in 30 years. To use a trekking analogy, we have climbed and summited Mt. Everest, and I applaud all the people behind the scenes as well as those leading these efforts.

Numerous projects are needed to keep up with current and future growth in our service area, where the population is projected to double by 2050. When completed, these projects will require ongoing NTMWD operations support, including staffing and maintenance, to continue providing reliable services.

We are pleased to feature in this report some of the people who work diligently behind the scenes to bring our region the services critical for our public health, economic strength and excellent quality of life. We also salute the unique attributes of each of our member cities and customer communities, which has earned so many of them national recognition.

While much has changed since we began delivering drinking water for 32,000 people in 1956, the passion and drive of our employees has remained steady. We are proud to support the growing, thriving North Texas communities that continue to be among the best in the nation.

Thomas W. Kula
Executive Director and General Manager
OUR TEAM PRODUCES SAFE DRINKING WATER FOR MORE THAN 1.7 MILLION NORTH TEXANS.

Supplying water to our region is how NTMWD got its start. Leaders from 10 North Texas cities realized the need and benefit of pooling their resources to provide essential water to a fast growing and semi-arid region.

It takes a team of professionals with a vast range of expertise to run a large wholesale water system. Thanks to the hard work of those on our water team, we deliver safe and reliable drinking water to nearly 80 communities across 2,200 square miles.

NTMWD employees work around the clock to manage plants, pump stations and pipelines. Hundreds of water samples are collected each day and tested in our state-certified laboratory to ensure water quality. We are proud that the water we produce not only meets all regulatory and health standards, but that our water system also consistently earns the “Superior” rating from Texas Commission on Environmental Quality (TCEQ).

NTMWD’s service area is expected to double to 3.7 million people by 2050. To provide for this growth we are also:

- Expanding our Wylie Water Treatment Plant and completing the Trinity River Main Stem Pump Station and Pipeline.
- Constructing Bois d’Arc Lake in Fannin County.
- Constructing our 7th water treatment plant in Leonard, TX.
- Pursuing various other innovative sources, water savings and strategic partnerships.
The People Behind Water

Kevin Cooper and Fred McCasland

As Safety Coordinator in our Technical Services Division, Kevin (left) makes regular visits to various operations staff to ensure safe protocols are in use. Fred, Water Plant Operator (right), works with numerous departments to implement processes and procedures to continue efficient operations around the clock.

Robert Forest

Robert is a Lead Water Plant Operator who works at our Wylie Water Treatment Plant complex, checks all the systems every four hours during each shift including pulling water samples from the ozone contactor to check levels.

Quick Facts

5 Water Sources:
Lavon Lake, Chapman Lake, Lake Texoma, Lake Fork, Lake Tawakoni, Lake Bonham, East Fork Wetland

Recipients:
80 member and customer communities/cities
Adding new water sources is a critical priority to the District to ensure reliable service in the future. In May 2018, we broke ground on Bois d’Arc Lake, the first major reservoir in Texas in nearly 30 years, and a key resource to meet the needs of our growing region.

The reservoir, water treatment plant and associated projects are budgeted at $1.6 billion. To date, the Texas Water Development Board has approved $1.477 billion in low interest financing through the State Water Implementation Fund for Texas (SWIFT) program, which is expected to save NTMWD and those we serve over $230 million in financing costs.

A team comprised of NTMWD employees and contractors have been advancing the project, which remains on schedule. Around 500 crew members are currently involved in the construction. By the end of Fiscal Year 2019, 42% of the entire project had been completed.

Key accomplishments included:

- Clearing 90% of the reservoir footprint.
- Completing just under 40% of the dam, reservoir project.
- Constructing nearly half of the FM 897 bridge and completing 40% of all work on county roads.
- Creating emergent wetlands, performing stream restoration and planting over 1.6 million trees.
- Finishing about 30% of major facilities at the Leonard Water Treatment Plant.
- Began installing raw water pipeline in July 2019, completing 3.14 miles of the 35-mile-long project in the first four months.

NTMWD launched BoisdArcLake.org and a monthly e-newsletter to provide regular and updated information on the project.

In addition to the reservoir, other project components include:

- A raw water pump station and 35-mile raw water pipeline.
- Leonard Water Treatment Plant (initially able to treat 70 MGD).
- Treated water pump station and 25-mile treated water pipeline.
- 1.3-mile bridge (6,900 feet) plus state and county road improvements.
- Environmental mitigation including 17,000+ acres of mitigation, planting 5 million trees and improving 70+ miles of stream.
- Lake Operations Center, maintenance facilities and recreational boat ramps.
CONSERVATION AND REUSE

Water conservation and reuse remain key components of the District’s water resource planning despite the wetter than normal conditions over the past few years. Nearly one-quarter of the water needed to meet the region’s future demands will come from conservation and reuse.

Fifteen years ago, the District championed the first state-wide water awareness program in Texas, which helped reduce annual water use by an estimated 12–15%, saving about 200–400 million gallons of water per day during peak summer months. The District continues this commitment today with multiple education campaigns and by implementing innovative processes for conservation and reuse.

The District teamed up with two neighboring water agencies, Dallas Water Utilities and Tarrant Regional Water District, to launch a public education and conservation campaign for the region. The campaign focuses on Texas traditions to instill a sense of pride in our water to help “Keep Texas Water On Tap.”

Through a collaboration with Texas A&M AgriLife Extension Service, the District delivers recommendations to subscribers to help reduce waste from overwatering lawns and landscapes. This irrigation tool regularly notifies homeowners “when to water and when to wait.”

Water4Otter centers on the next generation of water users. Otis the Otter and his friends visit local classrooms and community events to encourage our youth to increase the conversation of water with family members, change wasteful water-use habits, and protect the water that we and area wildlife rely on every day.

The award-winning East Fork Water Reuse Project is the largest man-made wetland used for water supply in the U.S. Water from the Trinity River is diverted to the wetland, where it is filtered through aquatic plants and sunlight before being pumped to Lavon Lake for future treatment and use. In the middle of the wetland, the John Bunker Sands Wetland Center provides education and research opportunities.
SAFE WATER — IT’S PERSONAL

Many members of our team live in the communities we serve, which means the water we treat is the same water our families use on a daily basis. We take very seriously our mission of providing safe, high quality and dependable water, as well as wastewater and solid waste services. For six decades, our water has met or surpassed Safe Drinking Water Standards established by the U.S. Environmental Protection Agency (EPA) as well as regulations set by the TCEQ.

WATER TREATMENT

NTMWD uses some of the best water treatment processes available to make sure our water is safe from contaminants. We use a multi-step process that treats the water at a plant (using ozone), and then adds disinfectant to maintain water quality over the long distances through pipes to homes and businesses. Both steps are needed to keep tap water free of harmful microorganisms, such as parasites and viruses.

Together, our four water treatment plants in Wylie are among the largest, fully-ozonated water treatment facilities in the world.

DOMINIQUE EADES

As Senior Lab Technician for our Environmental Services Lab, Dominique analyzes hundreds of samples daily to ensure they meet federal and state drinking water standards.
PLANNING FOR THE FUTURE

We must plan for and build the necessary water, wastewater and solid waste infrastructure for our growing communities to continue to thrive. In 1956, our first year of service, NTMWD provided water to 32,000 people. Today, we provide water services to 1.7 million people, and projections show that number increasing to 3.7 million by the year 2050. And it’s not just water. NTMWD also provides vital wastewater and solid waste services to the growing population of North Texans.

At the close of 2019 fiscal year, NTMWD was actively working 78 projects (valued over $1M) requiring an investment of more than $2 billion, our highest level in the 60-year history of the District.

Replacing, maintaining, addressing regulatory changes, and expanding our water, wastewater and solid waste systems are the key drivers in determining our annual budget. As major projects are completed, we are forecasting a reduced capital improvement program in the coming years.

ALL SYSTEM CIP PROJECTS
Fiscal Year 2013 – Fiscal Year 2024

SHELA CHOWDHURY
As a Professional Engineer, some of Shela’s key responsibilities include managing project teams to develop the regional sewer system collection models and wastewater treatment plant master plans.
THE FABRIC OF NORTH TEXAS

The District’s 10 original Member Cities – Farmersville, Forney, Garland, McKinney, Mesquite, Princeton, Plano, Rockwall, Royse City and Wylie – came together in 1951 with a common need for water. Richardson, Allen and Frisco joined later. The diversity of these cities makes up the fabric of North Texas. From national centers of business and commerce, to areas with thriving art, food and music scenes, the personality of each city shines through and makes our region a great place for millions to live and work.
NTMWD SERVICE AREA AND MEMBER CITIES

Regional. Reliable. Everyday.
OUR WASTEWATER TEAM PROTECTS THE HEALTH AND ENVIRONMENT OF 24 NORTH TEXAS COMMUNITIES.

Our wastewater conveyance and treatment facilities provide the equally important other half of the District’s water equation. Once the water we produce is used in homes and businesses, it must be transported back to a treatment plant where it is cleaned prior to release. This ensures that the water released into our waterways is safe for public health and the environment. Without proper wastewater treatment, our region could not safely sustain the growth and economic prosperity we enjoy today.

The steady increase of businesses and residents moving into the area requires a robust, expandable system that can convey and treat more wastewater as needed. The EPA estimates each American produces up to 100 gallons of wastewater per day by cleaning dishes, washing laundry, taking showers, and going to the restroom.

Our wastewater team operates and maintains a system that includes hundreds of miles of pipeline, pumps and the latest in treatment technology. These facilities can convey and treat approximately 150+ million gallons of wastewater daily.

After wastewater is treated, our team also tests it according to 18 parameters and reports about 2,500 samples to TCEQ each month. The cleaned water meets or surpasses regulatory requirements and is released back into our waterways to blend with larger water supply sources for irrigation and other downstream uses.
Our team is working to expand as well as maintain our system. This past year we have:

- Issued $119.1 million of revenue bonds to fund various system improvements.
- Completed the expansion of Sabine Creek WWTP to support growth of Royse City and Fate.
- Continued work on expansion of Wilson Creek Wastewater Treatment Plant from 56 million gallons per day (MGD) to 64 MGD.
- Continued expanding the peak flow capacity of our Rowlett Creek plant from 60 MGD to 77.5 MGD.
- Continued permitting on Sister Grove Water Resource Recovery Facility to serve growing communities in northern Collin County.

### Communities Served

- **222 Wastewater Employees**
- **$112 Million** In regional wastewater, conveyance & sewer system construction contracts
- **47.2 Billion** Gallons of wastewater treated this year
- **224+ Miles** large-diameter wastewater pipelines
- **150+ MGD** (Million Gallons/Day) average annual wastewater treatment capacity
- **709 Million** Gallons treated in wetland for reuse
- **21.4 Billion** Gallons treated wastewater returned to Lavon Lake for reuse

### The People Behind Treated Wastewater

**Shane Spaziani**

Team members like Shane Spaziani make sure that NTMWD’s wastewater processes continue to run smoothly. Shane checks and maintains treatment equipment at our Panther Creek Wastewater Treatment Plant, including the sedimentation tanks that allow heavy particles to settle as water continues through the treatment process.

**Jonathan Cotton**

Jonathan Cotton is a Wastewater Operator. As part of the secondary treatment for wastewater, he checks the sedimentation basin to ensure proper settling of particles and pump operations.

### Quick Facts

Current Wastewater Operations:

- Overall system is at 70% of total capacity with some plants regularly operating beyond normal flows during storm events.

Recipients:

- 1 million residents in 13 Member Cities and 11 other customer communities.
OUR TEAM MEMBERS PROVIDE CRITICAL WASTE DISPOSAL SERVICES THAT KEEP OUR COMMUNITIES SAFE AND CLEAN.

Our solid waste team provides a service that is as important as any at NTMWD ensuring clean communities and protecting water quality and the environment. Our crews properly dispose of nearly a million tons of waste every year through our regional solid waste system.

Our five Member Cities in Collin and Dallas Counties collect and deliver solid waste from homes and businesses to one of our three transfer stations or the landfill. From the transfer stations, the waste is loaded into larger NTMWD trucks for transport to our 121 Regional Disposal Facility (landfill) in Melissa. This feat requires the dedication of over 100 professionals who either drive 18-wheel transfer trucks, run the transfer stations or operate 60-ton landfill compactors. They also monitor our landfills and work with external agencies to recycle or compost as much material as possible. Our team takes pride in completing all these vital services in full compliance with state and federal regulations.

In addition, we are always looking for new ways to improve. Over the past several years, our solid waste team has:

- Implemented processes that decrease vehicle emissions and save money during waste transit.
- Partnered with City of Plano on a composting program that helps divert about 50,000 tons of yard waste from the landfill.
- Partnered with Morrow Renewables on a state-of-the-art facility that captures landfill gas (methane and carbon dioxide) and converts it to clean, renewable natural gas. The sales of the natural gas helps offset the cost of the landfill and reduces CO\textsubscript{2} emissions.
Around 1+ million TONS of solid waste disposed this year

108 SOLID WASTE EMPLOYEES

4 CONVENIENCE CENTERS

COMUNITIES SERVED

• PLANO
• RICHARDSON
• FRISCO
• ALLEN
• MCKINNEY

Around 50,000 tons of yard & organic waste composted annually

3,800 tons of solid waste disposed per day at 121 Regional Disposal Facility

3 Transfer stations permitted to process up to 3,295 TONS of solid waste per day

Current landfill expected to meet the solid waste needs of our region for the next 38 years

Recipients:
Almost 1 million residents in 5 Member Cities served: Allen, Frisco, McKinney, Plano and Richardson

CHRIS GERNER

Chris Gerner is a Transport Driver for the Lookout Transfer Station, and drives approximately 50,000 miles every year in his 18-wheel tractor trailer to transport solid waste from our transfer stations to the 121 Regional Disposal Facility. By consolidating solid waste into a larger vehicle, Chris reduces the number of vehicles on roads, lowering traffic congestion, fuel costs, and air pollution.

JEFF BOND (opposite page)

As Fleet Manager for all NTMWD vehicles and associated equipment, Jeff is responsible for the repair and maintenance program of the District’s solid waste program, along with purchasing and replacing equipment. Jeff ensures that all vehicles are safe to operate and ready for use.
INVESTING FOR TODAY AND TOMORROW

NTMWD remains in a sound financial condition and meets the Board’s goal of fulfilling its contractual obligation with participating cities while protecting the environment. In FY2019, the District maintained our existing systems while investing in capital programs needed to serve our growing region.

Key investments in 2018–2019 budget included:

- Issuance of approximately $739.22 million of revenue bonds to fund the District’s capital programs.
- Construction of the 70 million gallons per day (MGD) Leonard Water Treatment Plant Site and Terminal Storage Reservoir, Riverby Mitigation site, Bois d’Arc Lake Raw Water Pipeline and Treated Water Pipeline from Leonard WTP to McKinney No. 4.
- Construction of various expansion and improvement projects in the Regional Wastewater System, Upper East Fork Interceptor System and Sewer System.

Also in FY2019, the District began using a new budget methodology that takes into account recent trends in water use and NTMWD’s refined execution of its large capital program.

QUICK FACTS

Water Rates Fund #MoreThanWater

15% Variable system costs
Actual water used: chemicals & power for treatment & delivery

85% Fixed system costs
Debt repayment & maintenance: pipes, pumps, storage & treatment facilities
## Financial Highlights

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<tr>
<td><strong>Total Operating Revenues</strong></td>
<td>$516,892,284</td>
<td>$484,209,991</td>
<td>$439,923,445</td>
<td>$398,068,222</td>
<td>$338,513,458</td>
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<td><strong>Total Operating Expenses</strong></td>
<td>$289,482,162</td>
<td>$264,672,663</td>
<td>$253,691,088</td>
<td>$224,688,538</td>
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<td><strong>Interest Expense</strong></td>
<td>$116,746,379</td>
<td>$90,004,570</td>
<td>$68,257,962</td>
<td>$54,997,252</td>
<td>$49,531,332</td>
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<td><strong>Net Position (end of year)</strong></td>
<td>$1,619,182,701</td>
<td>$1,451,891,180</td>
<td>$1,334,208,144</td>
<td>$1,210,161,660</td>
<td>$1,084,270,528</td>
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<td><strong>Total Assets</strong></td>
<td>$5,465,236,425</td>
<td>$4,712,432,955</td>
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<td><strong>Total Liabilities</strong></td>
<td>$3,887,092,156</td>
<td>$3,293,884,127</td>
<td>$2,397,722,744</td>
<td>$2,064,940,305</td>
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<td><strong>Total Outstanding Debt</strong></td>
<td>$3,445,445,306</td>
<td>$2,938,457,923</td>
<td>$2,065,757,110</td>
<td>$1,787,809,381</td>
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<td>$1,613,849,003</td>
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### Long-Term Bond Ratings

- **Water System**: Aa2/AAA
- **Wastewater System**: Aa2/AAA
- **Solid Waste System**: Aa2/AA
- **Interceptor System**: Aa1/AAA

### Debt Coverage Ratio

- 2019: 1.35
- 2018: 1.60
- 2017: 1.46
- 2016: 1.48
- 2015: 1.27
- 2014: 1.19

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### 2019 Expenses

- **Personnel**: $86,314,412
- **Chemicals**: $38,265,482
- **Other Supplies**: $18,640,608
- **Electric Power**: $18,042,370

### 2019 Revenues

- **Water Sales**: $335,832,842
- **Wastewater Service Fees**: $143,817,640
- **Other Operating Revenues**: $2,999,773
- ** Debt Service**: >1%

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### 2019 Revenue Breakdown

- **Water Sales**: 65%
- **Wastewater Service Fees**: 24%
- **Other Operating Revenues**: 10%
- **Other**: 1%
COMMUNICATING WITH OUR REGION

SHARING ABOUT WHAT WE DO AND HOW WE DO IT IS CRITICAL TO OUR MISSION.

NTMWD’s communications team works with our communities to make sure the residents they serve are informed about our operations. In 2019, the District strengthened communications across all our services. We enhanced our website with more educational information on water conservation and downloadable resources for the annual temporary change in disinfectant for drinking water. We continue to provide District news updates through the monthly News Stream e-newsletter and social media.

ACHIEVEMENTS

It is the skill and dedication of employees that makes us successful. This past year, many individuals and teams were recognized for their excellence in services from water operations to innovative wastewater treatment.

- Our North Texas Rangers competed in Operations Challenge, a competition to recognize excellence and professionalism in the wastewater industry, at Texas Water (state) and WEFTEC (international). After a strong showing at Texas Water, they dominated at WEFTEC in competition against 40 other teams in Division 2, winning 1st place in three individual events and 1st place overall in Division 2.
- Our Bois d’Arc Lake project team received a 2019 Celebrating Leadership in Development Excellence Award from the North Central Texas Council of Governments.
- Justin Diviney, our CMOM Program Manager, was honored with the Water Environment Association of Texas Sidney L. Allison Award.
- Our fleet department was recognized in the Top 100 Public Fleets of North and South America.
- The NTMWD Records Department received numerous awards from the Association of Records Managers and Administrators.
- NTMWD employs a record number of Class A licensed water and wastewater team members in our 60+ year history. The District has over 56 professionals with this highest level of certification dedicated to protecting public health.
- 15 District inspectors achieved a career milestone as they passed the challenging American Public Works Association (APWA) exam to receive their APWA Inspector Certification.
- The Panther Creek and Cottonwood Wastewater Treatment Plants achieved National Association of Clean Water Agencies Platinum Peak Performance Awards for 8 and 17 consecutive years, respectively.
BOARD OF DIRECTORS JUNE 2018 TO MAY 2019

LEFT TO RIGHT:

Seated: Larry Parks, Secretary (Rockwall), Don Gordon, Vice-President (Garland), John Sweeden, President (Richardson), Tom Kula, Executive Director

John Murphy (Richardson), Joe Joplin (McKinney), John Carr (Forney), Blair Johnson (Royse City), Richard Peasley (Frisco), James Kerr (Allen), Rod Hogan (Plano), Terry Sam Anderson (Mesquite), George Crump (Farmersville), Lynn Shuyler (Frisco), Bill Lofland (Rockwall), Jack May (Garland), David Hollifield (Royse City), Joe Farmer (Allen), Darrell Grooms (Forney), Dave Island (Princeton), Marvin Fuller (Wylie), Phil Dyer (Plano), David Paschall (Mesquite), Charles McKissick (McKinney)

Not pictured: Bill Glass (Princeton), Bob Thurmond (Wylie)

EXECUTIVE TEAM 2018–2019

Tom Kula
Executive Director and General Manager

Joe Stankiewicz
Deputy Director, Engineering & Capital Improvement Programs

Mike Rickman
Deputy Director, Operations & Maintenance

Rodney Rhoades
Deputy Director, Administrative Services

Billy George, P.E.
Assistant Deputy, Water

Jenna Covington, P.E.
Assistant Deputy, Wastewater

Jeff Mayfield, P.E.
Assistant Deputy, Solid Waste

Cesar Baptista, P.E.
Assistant Deputy, Engineering

R.J. Muraski, PMP
Assistant Deputy, Capital Improvement Programs/Planning

Dave Patton
Assistant Deputy, Maintenance

Jim Shirley
Assistant Deputy, Technology & Support

Erik Felthous
Assistant Deputy, Finance

John Montgomery, SPHR, SHRM-SCP
Assistant Deputy, Human Resources/Administration

Brian Brooks
Process Improvement Advisor

Janet Rummel
Public Relations and Communications Officer

Melisa Fuller
Executive Assistant