HOW WE ARE MANAGING COSTS

While critical investments are needed to ensure safe, reliable service and meet industry standards, staff continues identifying efficiencies and ways to avoid, minimize or defer costs wherever possible across all three services.

Examples include:

Value Engineering

Trinity River Main Stem Pump Station: Reduced piping costs on the project by approximately $13M by purchasing pipe during manufacturing down time.

Wilson Creek Regional Wastewater Treatment Plant Expansion: Reduced planning-level construction estimate by $10.2M by focusing on immediate capacity needs due to regional population growth. Project using alternate delivery method to leverage the value engineering that contractors can bring to the design process. Evaluation of solids handling at Wilson Creek RWWTP realized a life-cycle cost savings of $31.2M. The method will reduce truck traffic and more efficiently control odors.

Princeton Lift Station and Force Main: Identified $6.1M in potential construction cost reductions by minimizing well depth, optimizing pump sizing, reusing existing odor control equipment, reducing force main size, and adjusting alignment to minimize tree mitigation and property acquisition costs.

North McKinney Pipeline Phase III and McKinney No. 1 to Princeton No. 1 Pipeline: Both projects were bid by grouping like-sized pipe into separate contracts including multiple approved pipe materials on each contract. This increased opportunities for both medium- and large-sized contractors to participate and bid on the project that fits their core business. This process increased competition and bids received were $6M lower than engineer's estimate.

Debt Management

Refinancing Bonds: The District has refinanced bonds (in FY17) which will result in an estimated total savings of $18.6 million between 2017 and 2038.

SWIFT Program Funding: The Texas Water Development Board recently approved over $677 million in low-interest financing through the State Water Implementation Fund of Texas (SWIFT) for the Lower Bois d'Arc Creek Reservoir (LBCR) project. Use of SWIFT funding may potentially save the District and its ratepayers more than $117 million in interest costs.

Operations

Treatment Plant Chemical System Improvements: Installation of more precise controls will improve the chemical feed resulting in more consistent water treatment at the Wylie facilities and an estimated future chemical cost savings of up to 2%.

Maximizing Use of WaterMyYard Weather Stations: The weather stations rain data is used to populate our Maximo Asset Condition Monitoring system on our clearwells impacted by TCEQ Roof Slope Exception requirements. Then our maintenance management system auto-generates work orders based upon the rainfall recorded at the site of affected clearwells saving labor and travel time by prompting work only when the condition is present at that specific location. Additionally, data from the weather monitoring stations is now being used to help better understand wastewater system response during wet weather. Stormwater often makes its way into wastewater lines which significantly increases the required system capacity, often by three to four times the amount of normal flows. This will allow NTMWD to optimize sizing of wastewater infrastructure and better communicate with communities served the amount of stormwater coming into the system.

Energy Management

Oncor Commercial Load Management (CLM) Program: The Mesquite Regional Wastewater Treatment Plant is enrolled in the Oncor CLM Program which compensates NTMWD for curtailing demand when Oncor needs to quickly reduce its overall demand on the power grid. The program is anticipated to yield a $70,000 savings this year.

Energy Procurement Strategy: The District has reduced overall energy costs through a procurement approach which includes hedging significant volumes of power years in advance to lock in prices at favorable rates. This strategy has already reduced costs from a contracted rate of $40.02/Mwh in 2015 to $32.64/Mw/hr in 2016 – resulting in an estimated rate savings of up to $2.2 million for calendar year 2016.

Permitting

Site Security during Environmental Anaylsis: Staff proposed, secured regulatory agency approval and implemented a lower cost alternative to 24-hour on-site security during ongoing environmental analysis work. The approved procedure is expected to save approximately $230,000 over 15 months.

NORTH TEXAS MUNICIPAL WATER DISTRICT

North Texas Municipal Water District

FY18 APPROVED BUDGET AND RATES

REGIONAL SERVICE THROUGH UNITY...MEETING OUR REGION'S NEEDS TODAY AND TOMORROW

North Texas Municipal Water District

Administration Building
501 East Brown St.
P.O. Box 2408
Wylie, TX 75098

972.442.5405
www.NTMWD.com

FAST FACTS:

UP TO **90** COMMUNITIES **SERVED**

SERVICE AREA: **2,220** SQUARE MILES IN **10** COUNTIES

1.6 MILLION POPULATION **SERVED**

WATER

WASTEWATER

SOLID WASTE

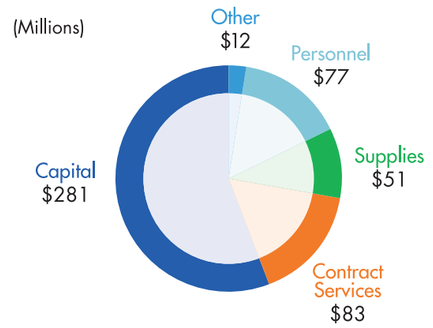
OCTOBER, **2017**

Funding to support safety, compliance, reliability, future needs

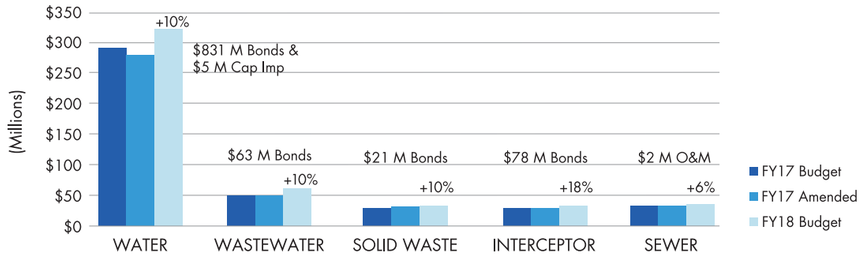
The North Texas Municipal Water District (NTMWD) has always been focused on providing high quality water and dependable services at the lowest possible cost. As the wholesale provider of essential services for more than 1.6 million people in up to 90 communities across a 10-county region, we face increasing challenges.

Our region is growing and the population is expected to more than double over the next 50 years. Large capital projects must have adequate funding to plan, permit, acquire property and construct in time to meet future needs. As we plan and build new projects, our existing systems and infrastructure—some constructed 60 years ago—require maintenance and improvements to sustain reliability, comply with regulations, and ensure public health and safety. The NTMWD FY2018 budget was developed to meet these responsibilities. This summary highlights the FY2018 budget components (including major projects and initiatives), historic and projected rates and system costs, as well as examples of efficiencies to minimize costs where possible.

FY18 Budget: All Systems Expenditures $504M



Expenditures By System



Key Projects By System

Water

- Trinity River Main Stem Pump Station and Pipeline
- Proposed Lower Bois d'Arc Creek Reservoir
- Wylie Water Treatment Plants Upgrades and Expansion

Wastewater & Conveyance

- Wilson Creek Regional Plant and system expansions
- Rowlett Creek Regional Plant Peak Flow Improvements
- Interceptor System Lift Station Improvements

Solid Waste

- Improvements to 121 Regional Disposal Facility
- Parkway Transfer Station Improvements

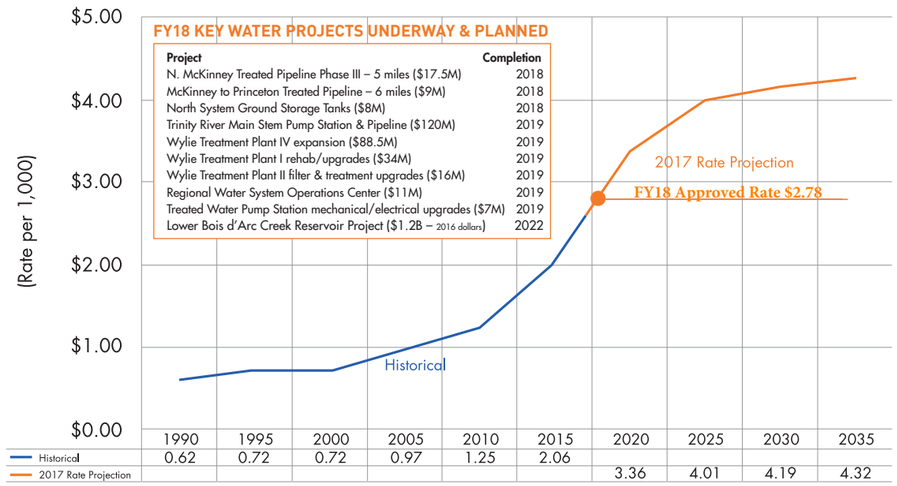
NTMWD Wholesale Water Rates – Projects and Programs Driven

Adequate funding through rates is required to cover increasing fixed costs and repay bonds for capital projects. From 1993 to 2001, NTMWD held water rates flat while the population in our communities grew by more than a quarter million more people. With continued significant growth projected, NTMWD could no longer wait to invest in new supplies and infrastructure. New supplies from the East Fork Water Reuse/ Wetlands project ($243M), as well as storage, treatment and delivery facilities from Lake Tawakoni ($180M) were completed in the 2000 decade – just in time.

Since then, we've faced multi-year drought and regulatory challenges. Ozone disinfection ($127M) became a required part of the treatment process at the four Wylie plants. Then, zebra mussels in Lake Texoma limited access to 28 percent of available water supplies. The $312-million Texoma pipeline (about one-quarter of the cost of the proposed Lower Bois d'Arc Creek Reservoir) was an unforeseen, yet necessary, investment to comply with regulations and restore access to supplies.

In 2003, work began on the extensive permitting process for the proposed Lower Bois d'Arc Creek Reservoir (LBCR). Through July 2017, $188 million has been contracted for required permitting, engineering, and land acquisition. The estimated total cost at completion is $1.2 billion (2016 dollars). The Main Stem Pump Station and Pipeline ($120M) will divert water from the Trinity River to help meet the projected shortfall in supplies until LBCR is completed (approx. 2022).

Member City Wholesale Water Rates – Historic and Projected



Member Cities

- Allen
- Farmersville
- Forney
- Frisco
- Garland
- McKinney
- Mesquite
- Plano
- Princeton
- Richardson
- Rockwall
- Royse City
- Wylie

Future Costs are Preliminary Based on Most Recent Estimates

FY2018 Approved Member City Wholesale Water Rate

*NTMWD Customers pay 5 cents above the Member City wholesale rate per thousand gallons.

2018 Customer wholesale rate = $2.83 (per 1,000 gal)

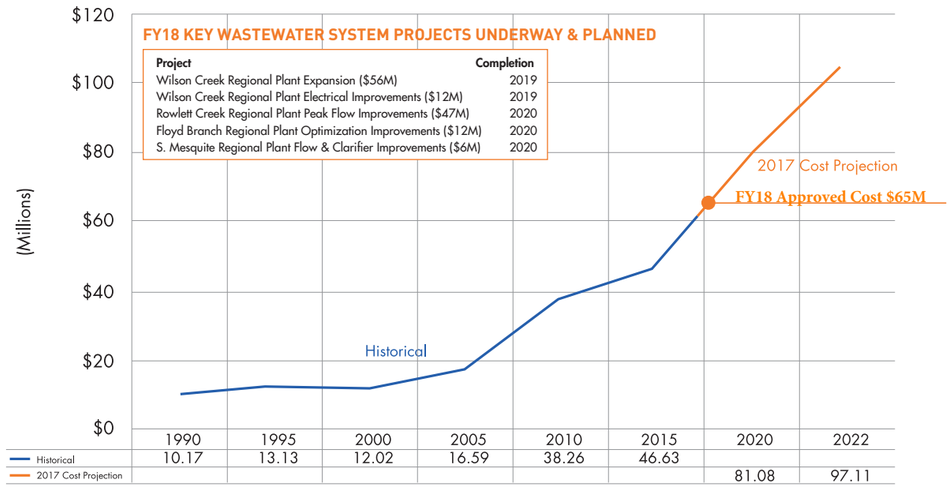
	FY17 Budget	Change	FY18 Budget
Variable O&M	$ .41	– $ .01	$ .40
Fixed O&M	$ .66	$ .02 (Personnel/Supplies)	$ .68
Capital	$ 1.46	$ .24 (Capital Program)	$ 1.70
Total (per 1,000)	$ 2.53	$ .25	$ 2.78*

OCTOBER, 2017

Increasing Costs to Provide Wastewater Services

Similar to the water system, the NTMWD regional wastewater and interceptor systems are experiencing increasing fixed costs to address growing capacity and regulatory requirements. Critical repairs, system expansions and condition assessments require investments now to avoid the risk of overflows that can impact the environment and result in costly fines. The allocation of these costs across participating cities is determined based on each city's pro-rata share of the total annual flows collected and treated by the various plants within the system.

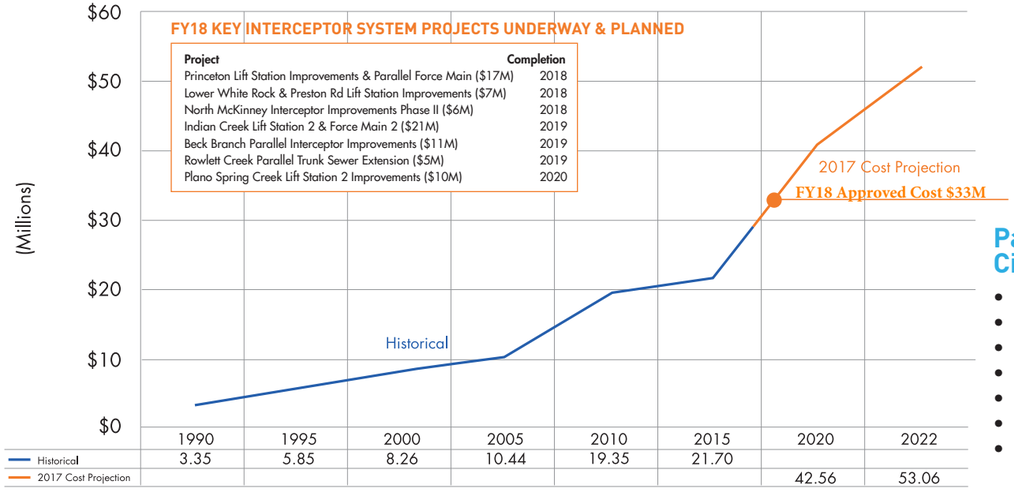
Regional Wastewater System (Treatment) Costs



Participating Cities

- Allen
- Forney
- Frisco
- Heath
- McKinney
- Mesquite
- Plano
- Princeton
- Prosper
- Richardson
- Rockwall
- Seagoville

Upper East Fork Interceptor (Conveyance) System Costs



Participating Cities

- Allen
- Frisco
- McKinney
- Plano
- Princeton
- Prosper
- Richardson