



Regional Service Through Unity...
Meeting our Region's Needs Today and Tomorrow



DELIVERING SAFE WATER YEAR ROUND

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Plano City Council Update – February 22, 2021



WHO IS NTMWD?

Regional Service Through Unity

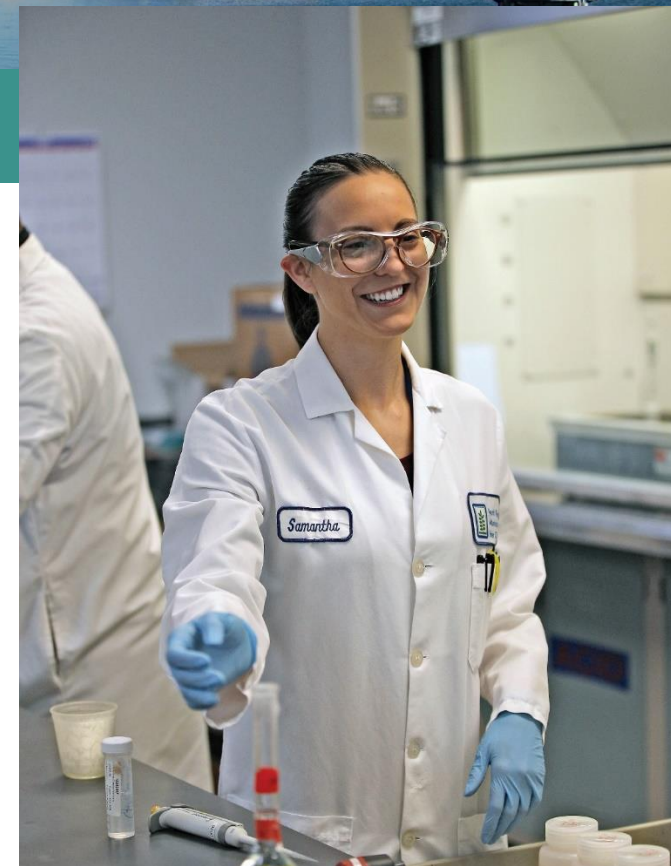
- For over 60 years, we have provided affordable, safe and reliable water to the people we serve
- 800+ people working with you to provide essential services – water, wastewater and solid waste
- We live here too – safe drinking water is important to all of us





SAFE DRINKING WATER IS TOP PRIORITY

- Regional water system operated in partnership with cities
- Temporary change in disinfectant (also known as chlorine maintenance) is critical to deliver safe drinking water year round
- NTMWD performs hundreds of tests every day to ensure safe water that meets or surpasses state and federal public health standards
- TCEQ rates NTMWD public water system as “superior”
- Information posted on NTMWD.com – monthly and annual water quality reports
- Working with cities to inform customers about treatment and water quality testing

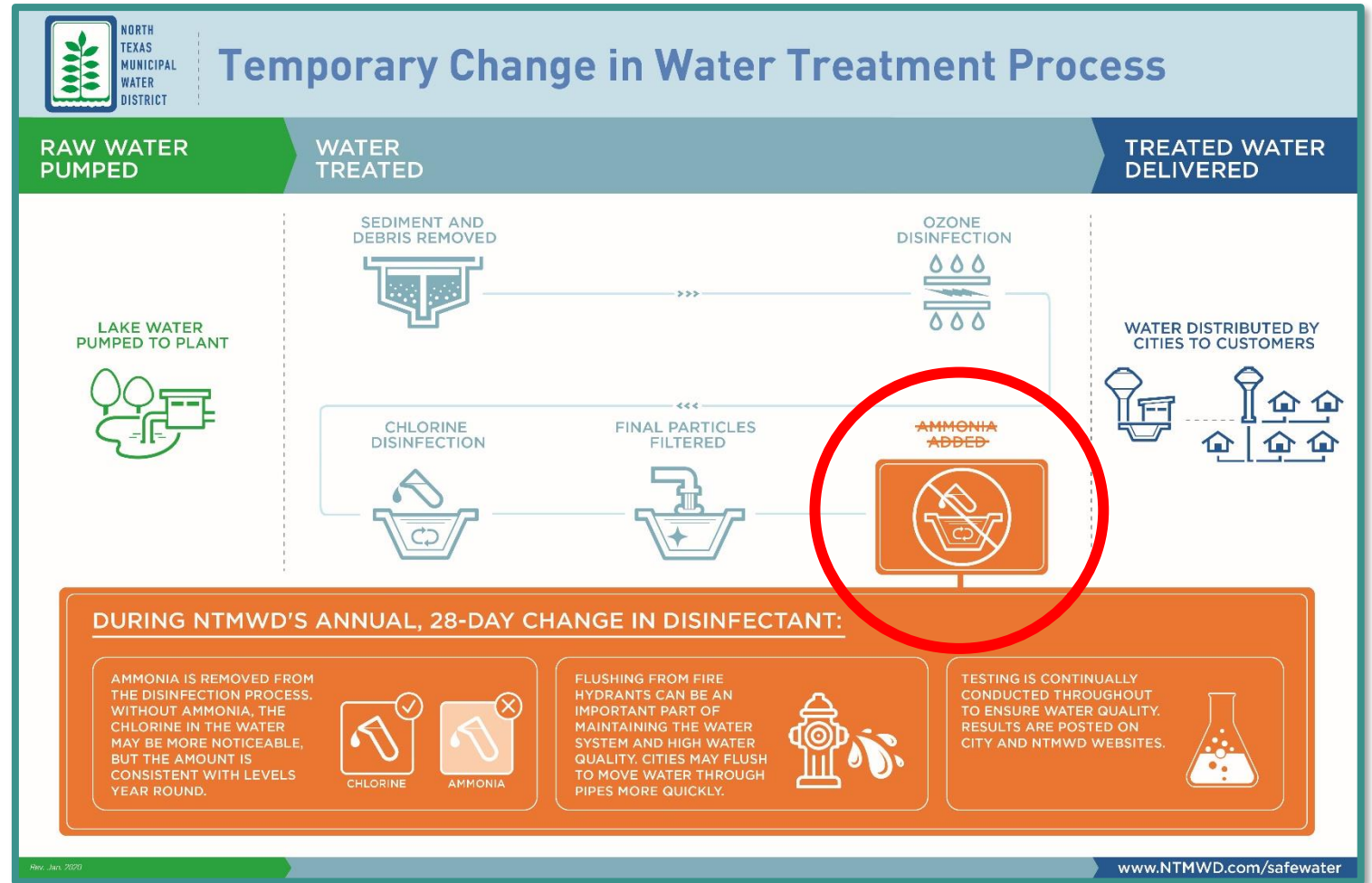


It's important and it's personal - our employees, families, friends drink and use our water every day



TEMPORARY CHANGE IN DISINFECTANT MARCH 1-29

- Maintaining disinfection in water required to keep it safe for drinking
- One month each spring, ammonia is removed from treatment process
- Common and accepted best practice
- Helps maintain water quality year-round
- Chlorine levels consistent with rest of year – yet may be more noticeable
- Water quality testing continues





GOING ABOVE & BEYOND REQUIREMENTS

Testing and Reporting Beyond What's Required

- Reporting weekly chlorine level averages online during maintenance period
- Testing and reporting monthly Disinfection By Products (DBP) levels
 - Data has been reported since December 2018
 - On top of 300+ samples of NTMWD water tested for DBPs each year within city systems
 - We must comply with standards set by scientific and medical experts
 - Change in regulatory standards are researched and addressed at the state/federal level





ONLINE RESOURCES AVAILABLE

- Shared resources with cities and posted online at [NTMWD.com](https://www.ntmwd.com)
- Answers to Frequently Asked Questions
- Tips for those sensitive to Chlorine
- Videos, infographics
- Links to TCEQ, EPA, CDC, AWWA information



American Water Works
Association



FREQUENTLY ASKED QUESTIONS

Temporary Change in Drinking Water Disinfectant



What is the temporary change in water disinfection?

NTMWD first disinfects water using ozone and chlorine as part of the treatment process to eliminate bacteria and viruses. Then, for most of the year, NTMWD also adds chloramine (chlorine + ammonia) as a secondary disinfectant to keep drinking water clean as it travels from the treatment plants through miles of pipes to homes and businesses. Each spring for one month, NTMWD temporarily suspends the use of ammonia and uses free chlorine as the secondary disinfectant to maintain water quality year-round.



Is the chlorine level tested during this period?

Yes, chlorine is tested, and many other compounds in water are monitored continuously. NTMWD conducts a quarter million tests each year in a state-certified laboratory to monitor, regulate and report water quality. During the disinfectant change in 2018, the Texas Commission on Environmental Quality (TCEQ) also collected 117 samples from 31 public water systems that deliver NTMWD water to confirm compliance. In some cases, NTMWD is voluntarily increasing the frequency of testing above what is required.



What can I do if I don't like the chlorine taste or smell?

The closer you live to the water treatment plant, the more noticeable the chlorine odor or taste may be. Some tips include refrigerating water in an open pitcher, adding a slice of citrus/cucumber several hours before using or using a NSF International (NSF/ANSI) approved water filter. Check out more tips at [NSF.org](https://www.nsf.org).



Why are fire hydrants flushed during this process?

Local water providers (cities or utility districts) who receive NTMWD water may help move the chlorine-disinfected water through the system faster by flushing water out of fire hydrants. Frequent flushing helps maintain the system, ensure high water quality and reduce the chlorine odor and taste. Performing system flushing in the spring also helps save valuable water during the summer months.



Why is this change necessary?

This change is a common water system maintenance practice among water providers in states with warmer climates. NTMWD uses it to maintain the system and ensure high water quality.



What did the 2020 test results show?

NTMWD and TCEQ tests in 2020 confirmed NTMWD's chlorine levels during its disinfectant change were within the chlorine residual levels required by TCEQ and EPA.



When does the change occur?

The temporary change usually occurs for about a month each year from the end of February through early April. It is done before the summer hotter temperatures which can increase the potential for bacterial growth in pipes.



How do test results during the disinfectant change compare to other months?

Test results in 2020 indicate chlorine levels were consistent with the rest of year and within the annual average amounts required by TCEQ and EPA.



[NTMWD.COM/SAFEWATER](https://www.ntmwd.com/safewater)

Rev. Jan. 2021



MEETING CHANGING REGULATIONS

- **NTMWD completed ozone generation facilities for primary disinfection in 2013**
- **Improved water quality and helps cities meet regulatory requirements for local distribution systems**
- **Filtration is last major step of treatment process**
- **Currently use anthracite over sand (dual-media filters) – one of the most common filters for water treatment**
- **Converting all four Wylie treatment plants to Biologically Active Filtration (BAF)**
- **Requires phased approach to preserve ability to deliver higher quantities of water during peak months**

BENEFITS OF BAF

Better Contaminant Removal



BAF more readily removes microbial, organic, and inorganic contaminants than conventional filtration.

Reduced DBP Formation



Reduction of organic carbon consequently reduces the formation potential of DBPs, such as trihalomethanes and haloacetic acids, and provides removal of NDMA.



CONVERTING TO BIOLOGICALLY ACTIVE FILTRATION (BAF)

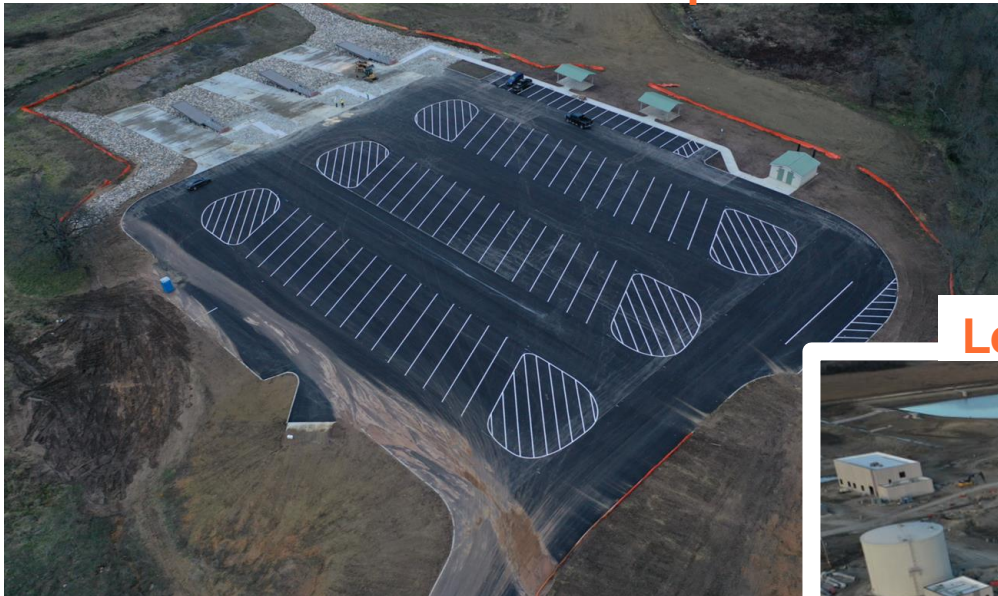
- **BAF more effective than conventional filtration at removing organic material**
- **Necessary improvements began in 2012 (treatment filter improvements)**
- **Anticipate partial BAF conversion at one of four Wylie Water Treatment Plants in late 2024 (Bonham and Tawakoni Water Treatment Plants utilize BAF)**
- **Construction Manager At-Risk selected in December 2020**
 - **Single partner coordinating multiple efforts**
 - **Complex flow paths; chemical additional changes**
 - **Water storage & mixing**
- **NTMWD remains focused on:**
 - **Providing high quality and dependable services in a cost efficient manner**
 - **Meeting water demands**
 - **Continuing to produce safe, high quality water**



BOIS D'ARC LAKE UPDATE

- Reservoir early impoundment to begin by April 2021
- Treating water from reservoir in Spring 2022

FM 897 Boat Ramp



Dam and Intake Structure



Leonard Water Treatment Plant





NTMWD DELIVERS SAFE WATER TO OUR CITIES 24/7

- We take our mission and responsibility seriously
- We follow national best practices and comply with state and federal regulations
- We continue to listen and provide additional testing, reporting and resources on our website for our Member Cities and consumers
- Committed to working with our city partners to deliver safe, reliable water 24/7 to support public health and quality of life for our citizens

