

NTMWD Temporary Change in Water Treatment Process

Presenter

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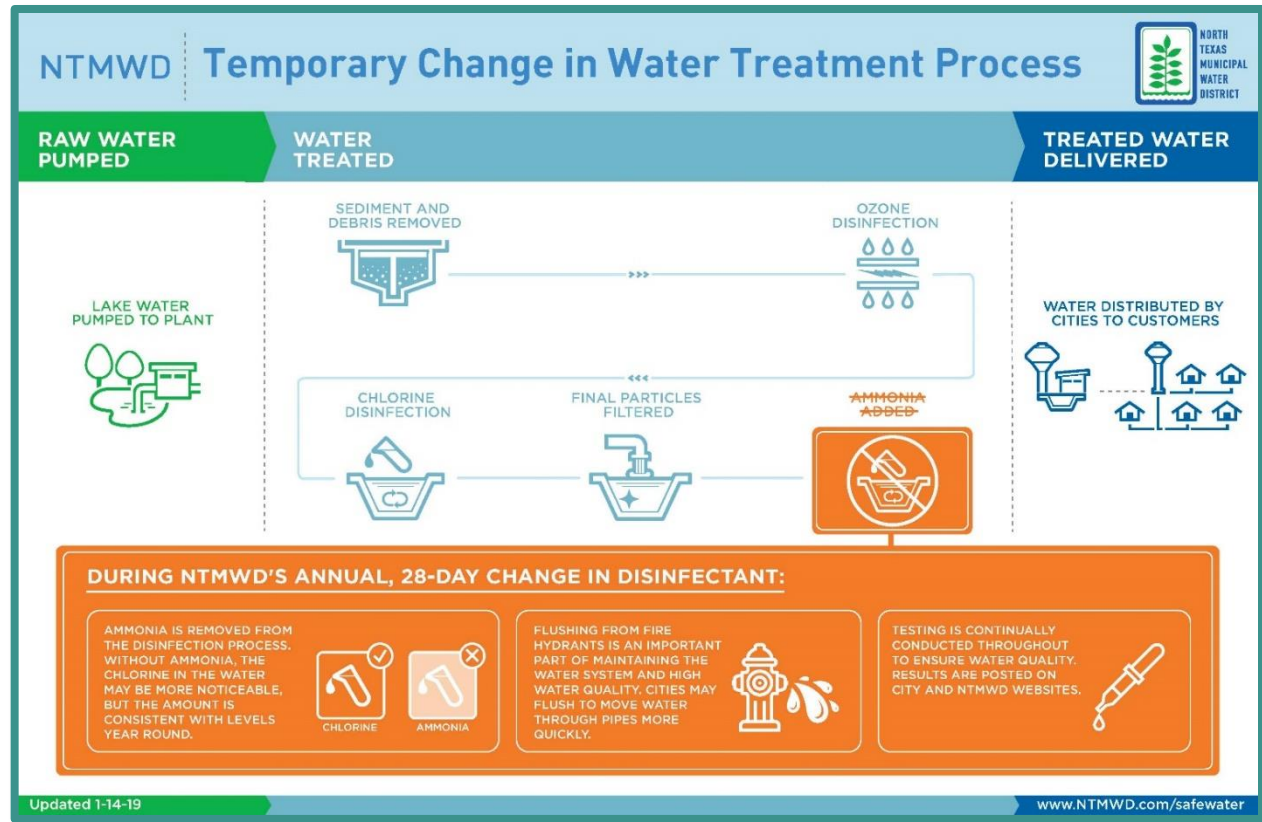
Director of Public Works



Unique by nature.

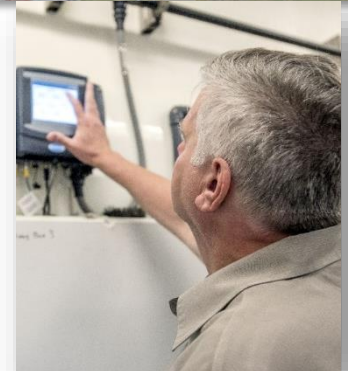
What's different during the temporary change

- One month each spring, ammonia is removed from treatment process
 - March 4 - April 1, 2019
- Common and accepted best practice
- Helps maintain safe high water quality year-round
- Chlorine levels consistent with rest of year – but may be more noticeable
- Water quality testing continues, required by TCEQ and EPA.



Keeping water safe on journey to homes and businesses

- Chlorination has been a proven treatment process for over a century.
- Prevents diseases such as Cholera, Typhoid, and Dysentery from spreading through our water supply.
- These diseases are attributed to numerous deaths each year in countries that do not have a safe and sufficient drinking water. ⁽¹⁾
- Maintaining disinfection in water is critical to keep it safe as it travels to homes and businesses.



(1) Information obtained from World Health Organization (WHO) and Centers for Disease Control and Prevention (CDC) websites

Information distributed to McKinney residents and businesses

- NTMWD's FAQ added to the "Hot Topic" section of City website:
<https://www.mckinneytexas.org/2082/Temporary-Disinfectant-Change-by-NTMWD>.
- "Directors' Column", City website
- McKinney Courier-Gazette, February 24, 2019
- Other Media public outreach (E-news, Facebook, Twitter, Instagram, Nextdoor)
- Water Division notifies 27 health & medical facilities through our annual notification letter with the affected dates.

Waters Division's operations during temporary change

- Continue sampling and testing to monitor Chlorine and Bacteriological levels for compliance with TCEQ and EPA requirements.
- Adjustments in water storage tank levels are made through the process to continuously move flow through the water distribution system.
- System flushing through fire hydrants to move water through the distribution system and dead-end segments.
- During this period, staff is expected to complete 300 chlorine residual tests and 120 bacteriological tests.

The mission of Public Work's Water Division is providing safe and uninterrupted drinking water to McKinney residents and businesses

- TCEQ rates the City of McKinney and NTMWD public water systems as “Superior”
- McKinney is part of a regional water system operated in partnership with the NTMWD and member cities
- Temporary change in disinfectant (also known as chlorine maintenance) is critical to deliver safe drinking water year round
- In 2018, McKinney performed 2091 chlorine residual tests and 1440 bacteriological tests to ensure safe water is provided that meets or surpasses state and federal public health standards and regulations
- Information posted on the city's website and annual water quality report
- Working with the NTMWD to inform customers about treatment and water quality testing

Some simple measures that can make the temporary change less noticeable

For Drinking Water

- Refrigerate water in an open pitcher for several hours.
- Add a slice of citrus or cucumber and let sit for several hours.
- Consider installing filters on kitchen faucets.

Bath Water

- Add a crushed 1000 mg Vitamin C tablet to bath water.

*NTMWD Tips to Reduce Chlorine Odor/Taste in Water (1-14-19)

NTMWD Information Resources:

- Shared with cities and posted online at 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.



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 National Science Foundation (NSF/ANSI) approved water filter. Check out more tips at www.ntmwd.gov.



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 when more water is used for irrigation.



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 2018 test results show?

NTMWD and TCEQ tests in 2018 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 between the end of February and the beginning of 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 2018 indicate chlorine levels were consistent with the rest of year and within the annual average amounts required by TCEQ and EPA.



Thank you

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