

# Dear City of Kerrville Water Customer...

We'd like to share with you some useful information about the city's stewardship of our water and some helpful resources currently available to city residents. We also have some information to share with you regarding recent test results affecting a limited area of Kerrville water customers.

The City of Kerrville works diligently to manage both the quality & quantity of water available to Kerrville residents & businesses. Most recently, the city has allocated several million dollars to fund important improvements & maintenance to our overall water system, including an additional water source, storage improvements & upgraded water mains.

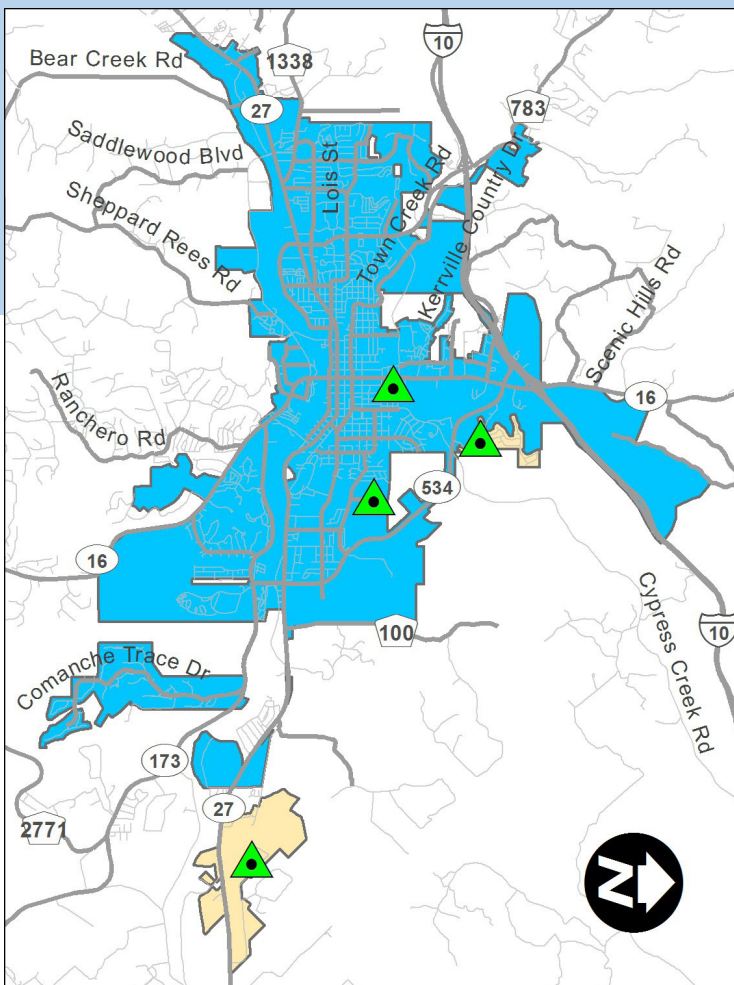
Our team of planning & production engineers, water quality experts, laboratory technicians, administration & staff provide more than 1.5 billion gallons of safe, drinkable water to the citizens of Kerrville each year.

# Important Information About Your Drinking Water

Recently, our water system received a notice of violation from the Texas Commission on Environmental Quality (TCEQ) for sampling results that exceeded the maximum standards for Total Trihalomethanes (TTHM) and Total Coliforms in the water supplied to some customers. Even though this is not an emergency, the city believes that all customers need to be informed on the test results & what the city is doing to correct the violation.

Quarterly sampling events are conducted throughout Kerrville at various locations. This violation pertains to an eastern & northeastern portion of town (please see attached map). Although this violation only affects a small percentage of our customers, city staff is working diligently to implement additional strategies & procedures to prevent future violations at sampling locations.

The affected areas are highlighted in the map below.



 **Unaffected Area**

 **Affected Area**

 **Sampling Location**

This product is for informational purposes & may not have been prepared for or be suitable for legal, engineering or surveying purposes. It does not represent an on-the-ground survey & represents only approximate relative locations.

## How Are These Sampling Locations Selected?

After a series of tests conducted from 2006 to 2013, the Texas Commission on Environmental Quality identified four locations where the City of Kerrville would be required to test TTHM levels on a quarterly basis. The TCEQ selected these particular locations because of their distance from the Water Treatment Plant. Locations that are far away from the Water Treatment Plant have an increased likelihood of experiencing elevated TTHM levels. If your home is not located within a designated sampling site this is because the TCEQ has determined the water delivered to your area is not at risk for elevated TTHM levels.

# Understanding TTHM

## What is TTHM?

When Chlorine is used for the disinfection of water, it reacts with organic matter in the water & creates a by-product. This by-product is called Total Trihalomethane (TTHM) & is the most common by-product formed during the disinfection process.

## Where else can you find TTHMs?

They can be found in swimming pools, soft drinks, coffee, tea, & some foods. TTHMs enter the body through inhalation during bathing / showering, skin contact during swimming & during food or drink consumption.

## What are the maximum contaminant levels & who establishes them?

The current maximum contaminant levels for TTHMs are .080 milligrams per liter (mg/L) which is equal to 80 parts per billion. These levels are established by the U.S. Environmental Protection Agency (EPA) & regulated by the Texas Commission on Environmental Quality (TCEQ).

## What were the sampling results for our water?

The latest results from two sampling locations in the 2nd quarter of 2017, showed a running average result of .093 mg/L and .105 mg/L which is .013 and .025 mg/L over the limit. This is equivalent to being over the limit by 13 or 25 parts per billion. For comparison, 13 parts per billion is equal to 13 drops of water in an Olympic size swimming pool.

## What causes high TTHM levels?

Heavy rainfall can often introduce large amounts of organic matter into the water supply. When this organic matter reacts with chlorine during the disinfection process, it creates TTHMs. Additionally, when drought conditions & extreme high temperatures exist, the water becomes warmer than usual & requires more chlorine be used for disinfection.

## What is the city doing to eliminate TTHMs?

On April 25, 2017, the Kerrville City Council directed staff to move forward with the "Water Treatment Plant Trihalomethane Reduction Project." As the first step in that process, the council approved an engineering contract in the amount of \$287,000. For the next 7 to 8 months the city's engineering contractor will be developing a design for improvements at the Water Treatment Plant to reduce TTHMs. Once the project is designed it will take several months to receive construction bids. Once the city council approves a construction contract the project should be completed within 6 to 10 months. The anticipated completion date of the Trihalomethane Reduction Project is October 2018. These improvements to the Water Treatment Plant should eliminate all traces of TTHM from the City of Kerrville's drinking water.

The Texas Commission on Environmental Quality (TCEQ) has notified the City of Kerrville water system that the drinking water being supplied to customers has exceeded the Maximum Contaminant Level (MCL) for total trihalomethanes. The U.S. Environmental Protection Agency (U.S. EPA) has established the MCL for total trihalomethanes to be 0.080 (mg/L) based on locational running annual average (LRAA), & has determined that it is a health concern at the levels above the MCL. Analysis of drinking water in your community for total trihalomethanes indicates a compliance value in quarter two 2017 of 0.093 mg/L for DBP2-01, 0.105 mg/L for DBP2-04.

Trihalomethanes are a group of volatile organic compounds that are formed when chlorine, added to the water during the treatment process for disinfection, reacts with naturally occurring organic matter in the water.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidney or central nervous system & may have an increased risk of getting cancer.

You do not need to use an alternative water supply. However, if you have health concerns, you may want to talk to your doctor to get more information about how this may affect you.

Please share this information with all people who drink this water, especially those who may not have received this notice directly (i.e. people in apartments, nursing homes, schools & businesses.) You can do this by posting this notice in a public place or distributing copies by hand or mail.

If you have questions regarding this matter, you may contact the City of Kerrville at 830.257.8000.

## Helpful Resources



**Brochures, Literature & Presentations** - Need information on water for your home, business, school, club or organization? The City of Kerrville will provide free written information or speakers for your event.



**Data Logs** - In order to better manage water usage or help pinpoint a leak, it is useful to see how & when water is used. Customers can call Water Records at 830.258.1504 to request a free data log. This easy to read report shows water usage by day & even hour for the last 90 days.



**Leak Letters** - If our meters detect continual or unusual water usage, the city will send you a courtesy notification. Often leaks are not visible or are small so this may be the only clue to check for a leak!

# Understanding Coliform

## Why am I receiving this notice?

The City of Kerrville tests for the presence of total coliforms at 25 sampling sites every month. These sites are selected according to a strict site sampling plan.

According to the federal Revised Total Coliform Act, anytime more than 5% of the total-coliform samples test positive in a month, the city must conduct a special assessment. In July 2016 samples from one sampling site tested positive for coliforms. It was later determined the residence at that sampling site had been vacant for a period of time. The stagnant water at that home subsequently caused the presence of coliforms. When this occurs, the City of Kerrville is required to conduct an assessment to identify and correct any problems that are found.

The Texas Commission on Environmental Quality originally informed the City of Kerrville that no assessment would be necessary because the circumstances contributing to the positive test results were beyond the city's control. However, as of May 2017 the TCEQ is now requiring the City of Kerrville to notify all water customers that this incident occurred last July and no subsequent assessment took place.

## What does this mean?

Since total coliform bacteria are generally not harmful themselves, this is not an emergency. If the situation had been emergent you would have been notified within 24 hours.

## What is Coliform?

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful waterborne pathogens may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. Most bacteria in the coliform group do not cause disease, but the greater their number the greater likelihood that disease-causing bacteria may be present.

## Where else can you find Coliforms?

They are common in soil and surface water and may even occur on your skin. Most types of coliform bacteria are harmless to humans, but some can cause mild illnesses and a few can lead to serious waterborne diseases.

## What is the city doing now?

The City of Kerrville has completed the required assessment and identified stagnant water at a vacant house as the cause of an isolated coliform reading in July 2016. The house has since been occupied and water lines flushed accordingly. No further corrective action is necessary.

## WHERE DOES KERRVILLE'S WATER COME FROM?



### SURFACE WATER 85%

The Guadalupe River provides the majority of Kerrville's water, drawn from Nimitz Lake.

### GROUND WATER 10%

The Lower Trinity Aquifer provides water via the City's eight operational wells.

### ASR 5%

Kerrville was the 1st in the State and 3rd in the nation to use an innovative underground water storage system called Aquifer Storage & Recovery.

During routine monitoring last July, one of 25 drinking water sample sites tested positive for total coliform and negative for *E. Coli*. Total coliform bacteria are naturally present in the environment and are used as indicator organisms. They indicate the need for further sampling to determine if there is contamination in the drinking water. With additional sampling in July 2016 the issue was identified. The sample that tested positive for total coliform was collected from a vacant home with stagnant water.

When this occurs the City of Kerrville is required to conduct assessments to identify and correct any problems that are found. The City of Kerrville failed to conduct the required assessment within the time period set by the federal government because the Texas Commission on Environmental Quality originally informed the City of Kerrville that an assessment would not be necessary in this case.

Upstream and downstream samples from the same time period in August 2016 showed no signs of coliforms indicating the issue has been resolved.

Please share this information with all people who drink this water, especially those who may not have received this notice directly (i.e. people in apartments, nursing homes, schools & businesses.) You can do this by posting this notice in a public place or distributing copies by hand or mail.

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