



Questions for the Colorado Department of Public Health and Environment regarding Trihalomethanes levels in Municipal water for the Town of De Beque

1. Is the treated water in the Town of De Beque currently unsafe for human consumption without boiling the water or other treatments?
 - a. This risk is small compared to the risk of potentially deadly germs in drinking water that is not disinfected. At this time, we do not advise other sources of water for most people including boiling the water or other treatments. As written in the public notice, if you have a baby, severely compromised immune system, are pregnant, or are elderly, you may be at increased risk and should seek advice from a health care provider. If you do not have a provider, you can contact TOX-CALL at 303-692-2606. We cannot provide medical advice, but we can connect you to more information.

2. Do all water systems in the United States that use chlorine contain trihalomethanes?
 - a. Many systems that use chlorine have some trihalomethanes but at much lower levels. Trihalomethanes form when disinfectant substances, chlorine, react with natural organic material in water. This reaction is not instantaneous and factors such as time, water temperature, the amount of chlorine present in the water, and the amount of natural organic material affect whether trihalomethanes are present in consumed water. On the other hand, chlorine kills deadly germs like E.coli.

3. Did CDPHE notify the Public Water System Representatives via an electronic copy, of a Violation Notice regarding a Maximum Contaminant Level Violation on September 11, 2020?
 - a. Correct. The department issued the violation on September 11, 2020, and per our records, they issued a public notice on September 30, 2020. The town met the 30-day delivery requirement.

4. Is the maximum level for total trihalomethanes of 80 applied to a revolving 4 quarter average?
 - a. Correct. We call it a running annual average. We calculate the average of the results from the four most recent quarterly samples. The town's latest average result was 83 micrograms per liter, just slightly above the standard of 80 micrograms per liter. We took the August sample and the last three quarterly samples (May, Feb., and Nov.) to calculate this.

5. With the exception of the recent violation, have there been any violations for exceeding the maximum levels of trihalomethanes by the Town of De Beque?
 - a. No. According to state records, this is the town's first drinking water violation for exceeding trihalomethanes.



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6. Has the Town of De Beque ever been required to notify the public of a violation for exceeding the maximum levels of trihalomethanes and failed to do so?
 - a. No. According to state records, this is the town's first drinking water violation for exceeding water quality standards and so it is the first time the town has had to issue a public notice for trihalomethanes. Per the state's records, this is the first time the town exceeded any health-based water quality standards.
7. Assuming the town included the attached letter notifying water users of high levels of total trihalomethanes in water bills on October 1, 2020, did the town comply with State regulated deadlines?
 - a. Yes. Our records indicate De Beque issued the public notice on September 30, 2020 after the department issued a violation on September 11, 2020. The town met the 30-day delivery requirement.
8. Does the attached letter include the 10 mandatory elements for a letter notifying water users of high levels of total trihalomethanes?
 - a. Yes. In reviewing the public notice, it meets the 10 mandatory elements and so meets the public notice requirements.
9. Is the attached letter based upon a template provided by the State?
 - a. Yes. The public notice appears to be based upon a state template.
10. Is the violation regarding a maximum contaminant level of trihalomethanes an emergency or a non-emergent situation?
 - a. No, we would not consider this an emergency situation. Total trihalomethanes are considered a "chronic" health risk contaminant. Some people can experience health impacts if they were to drink levels above the standard on a regular basis for a long time. Exposure to these contaminants is different from "acute" health risk contaminants like E.coli. Acute health risk contaminants can make someone sick after drinking the water just once. If an acute contaminant is identified in drinking water, the public water system is required to issue a boil or bottle water advisory within 24 hours.
11. If the matter were considered to be an emergency situation, would the town be required to notify the public within 24 hours that water must be boiled prior to consumption and/or other actions as directed by the State?
 - a. If this were considered to be an emergency situation representing an immediate health threat, then public notice within 24 hours would have been required.



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12. Can problems with the liver, kidneys, central nervous system, or an increased risk of getting cancer occur in humans or pets with one violation in approximately 20 years?
- Exceeding the health-based standard once in 20 years is unlikely to increase the risk of cancer and/or result in problems with the liver, kidneys, or central nervous system. These kinds of impacts are more likely to occur after many years of drinking water containing trihalomethanes that exceed the health-based standard.

A few scientific studies show that exposure to higher amounts may also cause reproductive problems and birth defects. However, in each of the studies, how frequently people drank the water, as well as how many trihalomethanes were in the water were not known for certain. Because there may be a greater risk, pregnant women should contact their health care provider.

The potential health impact on each person also is determined by many other factors including age, genetics, and health history. The health impacts from trihalomethanes on pets are likely similar to the impacts on people, but information about the risk to animals is limited.

13. Did the town take the appropriate steps to resolve the issue as outlined in the notice provided to water users?
- The town is taking the appropriate steps to try to resolve the issue. We will not know if the issue is resolved until the next sample date in November. Already the town is taking prudent steps to address the situation. We will continue to review the situation and have reached out to De Beque to offer the assistance of state staff who can provide free technical assistance.
14. If the town has taken the appropriate steps to resolve the high levels of trihalomethanes, and future samples reveal levels below 80 ppb, is there a possibility of a second violation based upon a revolving 4 quarter average?
- Depending on future results, the town could exceed the trihalomethanes standard but we will not know until the November sample is collected and analyzed by the laboratory. De Beque is taking prudent measures to reduce the possibility this can happen. These activities include reducing the amount of time that the water stays in storage tanks and the piping system. The town is also looking at treatment options.
15. Would any of the levels of trihalomethanes detected in the water for the Town of De Beque over the past four quarters cause the water to smell like eggs?
- Based on the chemical structure of trihalomethanes, they are not known, or suspected, to cause an egg odor.