

CITY COUNCIL REPORT

DATE: September 21, 2015

TO: Mayor and Council Members

FROM: Mark Richardson, Utilities Operations Manager
Steve Camp, Utilities Regulatory Compliance Manager
Brad Hill, Utilities Director

CC: Josh Copley, Jerene Watson, Barbara Goodrich, Leadership Team

SUBJECT: Public Notice Requirement for DBP Water Quality Violation

This City Council Report provides information about a recent water quality issue. The permitted amount of haloacetic acid (HAA5) was exceeded in portions of the water distribution system. The Arizona Department of Environmental Quality (ADEQ) requires the City to notify the public in areas affected within 30 days of the laboratory notifying the City, which would be by October 1, 2015.

DISCUSSION:

ADEQ requires public notification when the one-year rolling average concentration of disinfection by-products or DBPs (i.e., Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)) exceeds the maximum contaminant level (MCL). Disinfection by-products are a result of organic material in the water distribution system reacting with the chlorine, which is used as a disinfectant. DBPs are more prevalent in surface water systems, which typically contain more organic material, than they are in groundwater systems.

The City is required to sample for DPBs at eight locations throughout the water distribution system. Recent sampling conducted on August 13, 2015, showed an exceedance of less than 3% above the HAA5 MCL based on the one-year rolling average concentration at a sampling location near I-40 and Butler Avenue. This single location exceedance is the first and only one for the City of Flagstaff. The one-year rolling average concentration at this location was 0.062 ppm (parts per million). The one-year rolling average MCL for HAA5 is 0.060 ppm. The other seven sampling locations throughout the City's water distribution system did not exceed the MCL of any DBPs.

The attached public notice will be sent to the businesses and residences in the affected area (see map attached). The area of notification was based on water-quality sampling and a sophisticated computer model of our water distribution system conducted by NCS Engineers. ADEQ reviewed and approved the public notice.

What are we doing?

Utilities hired NCS Engineers to help Utilities better understand how DBPs are being formed and what mitigation measures can be instituted to minimize their creation within the water distribution system. NCS Engineers has extensive experience in helping Phoenix-Metropolitan area municipal water utilities meet DBP compliance. They have expertise in water quality and water distribution system modeling and created our current water distribution system computer model. Mitigation alternatives may include: short-term operational changes (e.g., mixture of groundwater/surface water ratio); identification of why existing treatment technologies do not minimize the formation of DBPs; identification of ways to enhance existing treatment technologies to minimize the formation of DBPs; and implementation of a routine purging program in problematic areas of the distribution system.

Attachments – Public Notice and map

RECOMMENDATION / CONCLUSION:

This report is for information only.

DRINKING WATER NOTICE

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The City of Flagstaff Public Water System ID AZ0403008 Haloacetic Acid 5 (HAA5) MCL Violation

Please refer to the enclosed map for the areas affected. If you received water outside of these areas, this notice does not apply to you.

The City of Flagstaff water system was notified on September 1, 2015 about one drinking water standard exceedance that occurred on August 13, 2015. Although this incident is not an emergency, as our customers, you have the right to know what happened and what we are doing to correct the situation.

The City routinely monitors for the presence of drinking water contaminants. The City has eight monitoring locations where we routinely sample for haloacetic acids (HAA5) and only one exceeded the Locational Running Annual Average (LRAA) for HAA5. The LRAA is determined by averaging all of the samples collected at each sampling location for the past 12 months. The maximum contaminant level (MCL) for HAA5 is 0.060 mg/l the LRAA at only one of our eight monitoring locations was 0.06175 mg/l. This was less than 3% over the LRAA MCL for HAA5. The other seven monitoring locations did not exceed the LRAA MCL for HAA5. Please refer to the enclosed map for the areas affected by the HAA5 exceedance. If you received water outside of these boundaries, the water did not exceed the LRAA MCL and this notice does not apply to you.

What Should I Do?

- You **do not** need to boil your water or take any other corrective actions. If a situation did arise where the water is no longer safe to drink, you will be notified within 24 hours.
- There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers.

What Does This Mean?

This is not an emergency. If it had been an emergency, you would have been notified within 24 hours. HAA5 consists of five haloacetic acid compounds which form when disinfectants, such as chlorine, react with natural organic matter in the water. People who drink water containing haloacetic acids in excess of the maximum contaminant level (MCL) ***over many years*** may have an increased risk of getting cancer.

What is Being Done?

As a regulated water system, the City of Flagstaff is required to monitor your drinking water for specific contaminants on a regular basis. In accordance with the Code of Federal Regulations (CFR) Title 40, Part 141.132(b), our water system is required to conduct Disinfectant Byproduct (DBP) sampling, which includes HAA5 and Total Trihalomethanes (TTHM).

The City has retained a consultant to help identify the reason for, and correct the exceedance.

For more information, please contact Mark Richardson, Operations Manager, or Steve Camp, Regulatory Compliance Manager, at 211 West Aspen Ave, Flagstaff, AZ 86001.

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

This notice is being sent to you by The City of Flagstaff Public Water System.

Water System ID#: AZ0403008

Date distributed: September 22, 2015

