QUESTIONS AND ANSWERS RELATED TO TRIHALOMETHANES (TTHM's) IN YOUR DRINKING WATER

CORRECTION NOTE: THE MAILING RECENTLY SENT TO ALL WATER CUSTOMERS HAD A SPELLING ERROR; TRIHALOMETHANES IS THE CORRECT SPELLING. THE ORINGAL NOTICE HAS A MISSPELLING IN SOME AREAS. WE APOLOGIZE IF THIS CAUSED CONFUSION.

QUESTION: WHAT ARE TRIHALOMETHANES (TTHM's) AND WHY DO I NEED TO BE NOTIFIED WHEN IT IS PRESENT IN THE DRINKING WATER?

ANSWER: Trihalomenthanes are chemicals that are created in a water distribution system when chlorine used to disinfect water from bacterial contamination reacts with the bacteria (organic material). In other words they are a by-product of the disinfection process. Based upon Environmental Protection Agency (EPA) studies and standards, individuals who drink water containing trihalomenthanes in excess of the maximum contaminant level (MCL) over many years, may experience problems with their liver, kidneys or central nervous system and may have an increased risk of getting cancer.

QUESTION: HAVE I BEEN PUT AT RISK BECAUSE I DRANK BLOOMFIELD WATER?

ANSWER: No. Based upon the EPA warning, increased risk comes with consuming water with TTHM's over the (MCL) *for many years*. The Bloomfield water system last experienced a TTHM exceedence in early 2012. We have been in compliance with the MCL requirements up until now. Therefore, anyone consuming Bloomfield water has not been exposed to drinking water in excess of the MCL for many years since these exceedances have been periodic and not continuous. However, if you have particular health concerns or have other pre-existing health issues, it is recommended you discuss this notice with your health care professional.

QUESTION: I GOT SICK IN AUGUST WITH SYMPTOMS CONSISTENT WITH FOOD POISONING. DID DRINKING BLOOMFIELD WATER WITH TTHM'S CAUSE THIS?

ANSWER: No. TTHM's do not cause food poisoning or create immediate sickness. Food poisoning is caused bacteria, such as E. coli or fecal coliform ingested from a variety of sources. Any sickness from TTHM's would be created through excessive exposure over a long period of time.

QUESTION: IF THE WATER IS SAFE TO DRINK, WHY AM I GETTING THIS NOTICE?

ANSWER: The Environmental Protection Agency (EPA) requires a water system provide this mandatory notice when a water standard is not met. As a customer and consumer of a

product (in this case Bloomfield water) you have a right to know what is in the water you are consuming. Receiving this notice is not unlike reading the mandatory ingredient labels, nutritional information and warning labels that are placed on all food products purchased in the United States.

QUESTION: IS THIS NOTICE AND VIOLATION RELATED TO OR THE SAME AS THE NOTICE ABOUT COLIFORM THAT WE RECEIVED IN SEPTEMBER?

ANSWER: No. there is no direct relation to these violations. Having increased levels of coliform does not mean you will eventually get high levels of TTHM's. There may be an indirect relation to these occurrences because both contaminants are related to chlorine (disinfectant) levels. Coliform will form when the chlorine fails to properly circulate in the distribution system thereby not killing all the bacteria, while TTHM's form when the chlorine actually kills the bacteria creating the chemical reaction but does not circulate, dilute and eventually evacuate from the distribution system.

QUESTION: WHAT IS BLOOMFIELD DOING TO PERVENT THIS FROM HAPPENING AGAIN?

ANSWER: We purchase our water, fully treated, from the City of Newark. We therefore do not treat or disinfect our water. We have no direct control as to the amount of chlorine added to the water we purchase. TTHM's normally form in areas of the distribution system where the water has a tendency to move at a slower velocity and not get expelled from the system through normal water use and consumption. This normally happens at dead ends and areas with higher vertical elevations where circulation in the system may be slower. The most effective, immediate thing we can do is flush the system to eliminate or evacuate this water from the system. Hydrants are flushed from the source outward so that the freshly treated water at the interconnections is drawn into the system at a quicker pace. The township has been flushing hydrants as part of the fall flushing program since August. This program involves flushing a minimum of half of all the hydrants in the system as well as all dead-ends. Long term solutions to this problem involve capital improvements to the system. The Engineering Department will be starting a capital program this fall to eliminate some of the problematic, dead-ends in the system. Dead ends are locations where the water does not efficiently circulate through the system thereby creating areas where bacteria and other pollutants can potentially accumulate. We have also adopted a Water System Asset Management Plan that outlines specific programs, capital improvements and policies to maintain proper and appropriate drinking water standards for the township in the decades to come.

QUESTION: THIS VIOLATION HAPPENED IN AUGUST. WHY AM I ONLY NOW, IN OCTOBER, BEING INFORMED OF THIS?

ANSWER: Unlike coliform testing which is simply a presence or absence test where results can be yielded in approximately 48 hours, testing for TTHM's requires determining a

concentration of the substance in micrograms per liter (parts per billion). This type of testing has a much longer period before results are determined which can be from two to four weeks. Once a violation is confirmed by the NJDEP, a violation notice must be issued and then the notice must be prepared, reviewed and approved before being printed and distributed. Unfortunately, this can take up to thirty days to complete. However, please note that the notice is provided to our customers within the thirty-day notice period required by the NJDEP and EPA.

QUESTION: HAVE I BEEN DRINKING WATER WITH HIGH LEVELS OF TTHM'S SINCE AUGUST?

ANSWER: There is no way to determine that you have been drinking water with high levels of TTHM's at a specific time or at a specific location within the distribution system. TTHM sampling and testing is not a "real time" determination meaning that results are representative of a system only for the date and time the sample is taken. If such a test were taken the next day; the previous day or today, the concentrations would more than likely not be the same. The best representation of what a TTHM test does is take a "snapshot" of the system on the day the sample is taken. Furthermore, EPA and state regulations require we take samples at four standard locations every quarter (every three months). These locations are chosen based upon their "hydraulic remoteness" (areas where the least amount of flow in the system is estimated). Therefore it is a snapshot of the system at four specific locations, four times per year. These four "snapshots" are then averaged to come up with the concentration of TTHM's for the current quarter. This is the process for sampling and testing for TTHM's. Therefore the concentration of 84.5 micrograms per liter is not a "real time" concentration of this substance within the system but an overall average based upon four "snapshots at four locations for four quarters. If we do not meet the standard based upon this methodology it indicates that we need to do more to eliminate the cause and bring our averages down. As indicated above, the Bloomfield water department has specific plans to remedy the situation.

QUESTION: WHAT ASSURANCE CAN YOU GIVE ME THAT HIS WILL NOT HAPPEN AGAIN?

ANSWER: Unfortunately, as with any water system, there can be no guarantees that this will not happen again. However, the Engineering Department can assure you that we continually sample and test our water in accordance to state and federal regulations. We continue to improve the system through capital programs in an effort to maintain the safety and quality of our water.

QUESTION: IS THER ANYTHING I CAN DO TO FEEL MORE CONFIDENT AND SAFE USING BLOOMFIELD WATER?

ANSWER: As a customer and consumer of our water, we welcome your input and observations related to the water you use. You are our first line of defense in detecting a problem

within our distribution system. If you discover or notice any changes to the water such as discoloration, strange odor or taste, low pressure, etc., or if you have any questions related to the water, you should contact the Engineering Department at 973-680-4130 or preferably, via e-mail , directly to the Township Water Operator, Paul Lasek at plasek@bloomfieldtwpnj.com. We will do our best to answer your questions in a timely manner.