



Annual Drinking Water Quality Report - 2015 ***Nibley City***

Nibley City is pleased to present the Annual Drinking Water Quality Report for 2015. This report is designed to inform residents about the quality of the water that Nibley City delivers every day. The City's mission is to provide a dependable and safe supply of drinking water to residents.

Currently, Nibley City operates two wells to collect ground water that is used for drinking water. A third well is scheduled to be in operation by late summer 2016. The water from Yeates Spring that was contaminated by diesel fuel in April of 2015 has not been used as drinking water since the contamination incident. City Staff are currently working with engineers and state officials to determine what course of action to take with the spring.

The Drinking Water Source Protection Plan for Nibley is available for review. It contains information about source protection zones, potential contamination sources and management strategies to protect our drinking water. Although, our remaining drinking water sources have a low susceptibility of contamination, everyone needs to be vigilant in doing their own part in protecting our drinking water.

One of the biggest risks to our water supply is the threat of cross connections between non-potable, secondary irrigation water and the City drinking water system. There are many connections to the City distribution system. When connections are properly installed and maintained, the concerns are very minimal. However, unapproved and improper piping changes or connections can adversely affect not only the availability but also the quality of the water. A cross connection may allow polluted water or even chemicals to contaminate the water supply system when not properly protected. This not only compromises the water quality but can also affect your health. It is imperative that you not make or allow anyone else to make improper connections at your homes. If you have a question about a connection, please notify the City and we would be happy to inspect it for you free of charge.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man-made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800)426-4791.

Maximum contaminant levels (MCLs) for drinking water are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for an entire lifetime to have a one-in-a-million chance of having the described health effects.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with immune system

disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When found, lead in drinking water usually comes from materials and components associated with service lines and home plumbing. Nibley is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components in your home. You can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. The levels of lead detected in Nibley homes have been well below the action level set by the Environmental Protection Agency (EPA).

Some contaminants may not be noticeable to residents by taste, color or smell. So, in accordance with Federal and State laws, Nibley City employees routinely monitor for contaminants in the drinking water system. Water samples are collected and sent to a certified lab to be analyzed and tested. Some contaminants are tested for several times each month, while others are tested for every few years.

The most common contaminant found in any public drinking water system is a family of bacteria called Coliform Bacteria. Seven water samples are taken every month in various locations throughout Nibley and tested for this type of bacteria. Presence of bacteria from this family does not necessarily pose a health risk, as some of the bacteria in the family is not harmful to health. Only one sample taken this year tested positive for Coliform bacteria. When this happened in January, City staff immediately took three additional samples in the immediate area around the contaminated sample in an attempt to confirm the test. These samples were sent to the lab to be more thoroughly tested and to see if the type of bacteria found in the previous sample was a type of bacteria that could be harmful to human health. When these samples were analyzed, there was no Coliform bacteria present, and the tests indicated that the water was safe for residents to drink. However, City staff was unaware that a rule had changed as of January. According to the rule change, city staff should have taken an additional three samples to be tested. Should future samples test positive for Coliform bacteria, City staff will follow state guidelines and take six additional samples to be analyzed for harmful bacteria. Since January 2015, no water samples have tested positive for Coliform bacteria.

An additional mistake was made in September, when only four samples were turned in to the lab to be tested. This occurred because of a misinterpretation of a state rule, and has also been corrected. Previous to, and since the mistake, seven water samples have been collected monthly and turned in to the lab for testing.

The attached definitions and table show the results of all testing completed during 2015, as well as the Maximum Contaminant Level's for each contaminant set by the EPA.

If you have any questions about this report or Nibley drinking water, please contact Nibley's Water Superintendent Justin Pope at (435)994-0663. If you would like to discuss any issue's with our elected officials, you may attend any of our regularly scheduled City Council meetings, which are held on the first and third Thursday of each month at 6:30 p.m. at Nibley City Hall, 455 W 3200 S.

Definitions:

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Maximum Contaminant Level (MCL) - The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The “Goal”(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

ND/Low - High - For water systems that have multiple sources of water, the Utah Division of Drinking Water has given water systems the option of listing the test results of the constituents in one table, instead of multiple tables. To accomplish this, the lowest and highest values detected in the multiple sources are recorded in the same space in the report table.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Nibley City Water Sample Testing Results 2015

Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria	N	1	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2015	Naturally present in the environment
Fecal Coliform & E Coli	N	ND	N/A	0	0 A routine sample and repeat samples are total coliform positive and one is also fecal coliform or e. coli positive	2015	
Turbidity for Ground Water	N	0.05-0.4	NTU	N/A	5	2014	Soil runoff
Inorganic Contaminants							
Arsenic	N	ND	Ppb	0	10	2014	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	0.037-0.037	Ppm	2	2	2014	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper a. 90% results b. # of sites that exceed the AL	N	a.0.014-0.128 b. 0	Ppm	1.3	AL=1.3	2014	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	0.2-0.2	Ppm	4	4	2014	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead a. 90% results b. # of sites that exceed the AL	N	a.0-1.9 b. 0	Ppb	0	AL=15	2014	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	0.3-0.4	Ppm	10	10	2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	0-0.7	Ppb	50	50	2014	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	5.3-5.5	Ppm	500	None set by EPA	2014	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	37-55	Ppm	1000	1000	2014	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
TDS (Total Dissolved solids)	N	260-288	Ppm	2000	2000	2014	Erosion of natural deposits
Disinfection By-products							
Chlorine	N	0.4	Ppm	4	4	2015	Water additive used to control microbes
Total Haloacetic Acids	N	ND	Ppb	0	60	2014	By- Produce of drinking water disinfection
TTHM	N	ND	Ppb	0	0	2014	By- Produce of drinking water disinfection
Radioactive Contaminants							
Alpha emitters	N	-3.1-0.6	pCi/l	0	15	2015	Erosion of natural deposits
Radium 228	N	0.26-0.27	pCi/l	0	5	2015	Erosion of natural deposits