

Annual Drinking Water Quality Report - 2020

OAKLEY TOWN PUBLIC WATER SYSTEM

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Oakley has two active water sources, the Cottonwood Spring, and the Humbug Well. Our water sources have been determined to be from ground water.

The Drinking Water Source Protection Plan for Oakley's water system is available for your review. It contains information about source protection zones, potential contamination sources and management strategies to protect our drinking water. Our sources have been determined to have a low level of susceptibility from potential contamination. We have also developed management strategies to further protect our sources from contamination. Please contact us if you have questions or concerns about our source protection plan.

There are many connections to our water 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 let polluted water or even chemicals mingle into the water supply system when not properly protected. This not only compromises the water quality but can also affect your health. So, what can you do? Do not make or allow improper connections at your homes. Even that unprotected garden hose lying in the puddle next to the driveway is a cross connection. The unprotected lawn sprinkler system after you have fertilized or sprayed is also a cross connection. When the cross connection is allowed to exist at your home, it will affect you and your family first. If you'd like to learn more about helping to protect the quality of our water, call us for further information about ways you can help.

If you have any questions about this report or concerning your water utility, please contact Oakley City at 435-783-5734 or Larry Hall at 801-209-6382. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled City Council meetings. Notice is provided to customers when meetings are held and information can be found on Oakley's website at www.oakleycity.com

Oakley City routinely monitors for constituents in our drinking water in accordance with the Federal and Utah State laws. The following table shows the results of our monitoring for the period prior to December 31st, 2020. The EPA requires monitoring of over 80 drinking water contaminants. Not all contaminants we test for are listed in this report however, any contaminant that was at a detectable level is listed in this report and can be found in the table below. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:
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.

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

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

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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.

Date- Because of required sampling time frames i.e. yearly, 3 years, 4 years and 6 years, sampling dates may seem out-dated.

Level 1 assessment- A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria were found..

Level 2 assessment- A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an Escherichia coli (E. coli) maximum contaminant level (MCL) violation has occurred and/or why total coliform bacteria were found on multiple occasions.

2019 OR PRIOR TEST RESULTS

Contaminant	Violation Y/N	Level Detected ND/Low-High	Unit Measurement	MCLG	MCL	Date Sampled	Likely Source of Contamination
Microbiological Contaminants							
*Total Coliform Bacteria	Y	9	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2020	Naturally present in the environment
Fecal coliform and <i>E.coli</i>	N	0	N/A	0	If a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	2020	Human and animal fecal waste
*Coliform 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. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. During the past year we were required to conduct one Level 1 assessment. One Level 1 assessment was completed.							
Turbidity for Ground Water	N	.24-2.6	NTU	N/A	5	2017 & 2019	Soil runoff
Radioactive Contaminants							
Gross Alpha	N	1.7-2.6	pCi/l		15	2019	Erosion of natural deposits
Radium 228	N	.29-1.4	pCi/l	0	5	2019	Erosion of natural deposits
Disinfection By-Products							
TTHM [Total trihalomethanes]	N	ND	ppb	80	80	2020	By-product of drinking water disinfection
Haloacetic Acids	N	ND	ppb	60	60	2020	By-product of drinking water disinfection
Chlorine	N	200 - 700	ppb	4000	4000	2020	Water additive used to control microbes
Inorganic Contaminants							
Arsenic	N	2300-3300	ppt	N/A	10000	2017 & 2019	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	98-131	ppb	2000	2000	2017 & 2019	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. 96.5 b. 0	ppb	1300	AL=1300	2019	Corrosion of household plumbing systems; erosion of natural deposits
c. Cyanide	N	ND-2	ppb	200	200	2017 & 2019	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	N	100-1300	ppb	4000	4000	2017 & 2019	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	Y	a. 1.4 b. 0	ppb	0	AL=15	2019	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen)	N	c. ND-200	ppb	10000	10000	2020	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	500-1000	ppt	50000	50000	2017 & 2019	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	2.1-4	ppm	None set by EPA	None set by EPA	2017 & 2019	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Sulfate	N	2-17	ppm	1000*	1000*	2017 & 2019	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland
TDS (Total Dissolved Solids)	N	116-184	ppm	1000**	2000**	2017 & 2019	Erosion of natural deposits

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During the past year we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. In addition, we were required to take one corrective action and we completed all of these actions.

In 2020 while conducting a Level 1 assessment on the water system we determined the source of the total coliform was from one of our sources. We immediately stopped using this source. We began using the source again but only after obtaining approval from the Utah Division of Drinking Water and installing a temporary system to add chlorine to the water which provides disinfection. The chlorine concentration in our water is very small and below the MCL required. The chlorine concentration range for 2020 can be found in the chart above. We are working on a permanent system to add chlorine to the water. We continue to test for total coliform on a routine basis as required by the Utah Division of Drinking Water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Oakley is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, 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. If you are concerned about lead in your water, you may wish to have your water tested. 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>.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or 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 1-800-426-4791.

MCLs 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 a lifetime to have a one-in-a-million chance of having the described health effect.

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 HIV/AIDS or other 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).