ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019

Presented By
City of Ukiah

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: CA2310003

2019 Executive Summary

The City of Ukiah's Water Resources Department is responsible for providing drinking water to over 5,000 connections. The water that we produce continues to consistently meet and exceed both State and Federal Standards for drinking water. Our ability to achieve this high standard is made possible by a combination of well-trained staff, an excellent water system, and outstanding sources of water.

In 2019, the City began operation of its recycled water system. This system offsets approximately 1,000 acre-feet of demand from the City's surface water sources. This savings will greatly improve our drought resiliency. The City also made a number of improvements to our system to improve reliability during power outages.

In 2020, we will be replacing almost a mile of distribution line as part of the Streetscape Project. We will also be replacing one of our storage tanks above the golf course. Our Department could not perform the job that we do without the hard work and support of our Distribution Crew, and their continual dedication is greatly appreciated. The combined efforts of the Distribution and Water Resources Departments ensure that exceptional drinking water is delivered throughout our entire system.

Where Does My Water Come From?

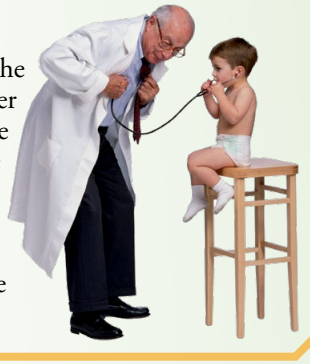
The City of Ukiah supplies its customers with water that is considered underflow from the Russian River, as well as five groundwater sources. The amounts of water delivered from each source, and when they are used, is dependent on both the demand on the system and the time of year. There are times of emergency when the City may have to purchase water from our neighboring water systems. These systems would be Millview County Water District and Willow County Water District.

Community Participation

Regularly scheduled Ukiah City Council meetings convene on the first and third Wednesdays of each month at 6 p.m. at the Ukiah Civic Center, 300 Seminary Avenue, Ukiah, CA. These meetings provide citizens with the opportunity to express concerns regarding the City's drinking water.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.



Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

> We remain vigilant in delivering the best-quality drinking water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. 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 water poses a health risk.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, that may come from a variety of sources such as agriculture, urban storm-water runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban storm-water runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

In June of 2016, the City of Ukiah completed a Source Water Assessment. This study considered the topography, type of vegetative cover, soil type, type of animal life, and climate conditions of our watershed. Combined with human-related recreation, industry, and life style, several areas were considered to have influence on our raw waters. The influence was considered to be minimal, and several areas of concern have been mitigated. These include the closing of the landfill, the replacement of leaking underground storage tanks, and bulk fuel containment. The City of Ukiah is continually upgrading its system and monitors for a variety of possible hazards. The City of Ukiah's water is still considered safe and reliable. The summary from that report is as follows.

Vulnerability Summary

According to the results of the vulnerability analysis, the surface water source is considered most vulnerable (vulnerability score* of 15) to the following activities not associated with any detected contaminants:

- Gas stations
- Plastic synthetic producers
- Historic gas stations
- Historic waste dumps/landfills
- Historic mining operations
- Confirmed leaking tanks
- Wastewater treatment and disposal facilities
- Managed forests
- Septic systems -- high

QUESTIONS?

For more information about this report, or for any questions related to your drinking water, please contact Shelly Wagenet, Water Treatment Plant Supervisor, at (707) 467-2842.

Test Results

During the past year, the City of Ukiah has taken hundreds of water samples to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables show only those contaminants that were detected in the water.

The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES

				Distribution System[1]		Surface Water		Groundwater[2]			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2019	1	2	100	NA	ND[2]	NA[2]	0.042[1,2]	ND–0.11[1,2]	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2019	[4.0 (as Cl2)]	[4 (as Cl2)]	0.87	0.41–1.54	NA	NA	NA	NA	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2019	2.0	1	NA	NA	0.17	NA	0.05	ND–0.12	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [as nitrate] (ppm)	2019	45	45	0.46	NA	0.41[2]	NA[2]	1.7[2]	0.88–2.6[2]	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Turbidity[3] (NTU)	2019	TT	NA	NA	NA	0.200	0.011–0.200	NA	NA	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2019	TT = 95% of samples meet the limit	NA	NA	NA	100	NA	NA	NA	No	Soil runoff

Tap Water Samples Collected for Copper and Lead Analyses from Sample Sites throughout the Community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	0.3	0.470	0/32	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2019	15	0.2	ND	0/32	No	Internal corrosion of household water plumbing systems; discharge from industrial manufacturers; erosion of natural deposits

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Distribution System AMOUNT DETECTED	Distribution System RANGE LOW-HIGH	Surface Water AMOUNT DETECTED	Surface Water RANGE LOW-HIGH	Groundwater AMOUNT DETECTED	Groundwater RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2019	500	NS	6.2	NA	4.6	NA	8.8	7.1–13	No	Runoff/leaching from natural deposits; seawater influence
Corrosivity (Units)	2019	Non-corrosive	NS	11	NA	10.49	NA	11.4	10.5–11.7	No	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; affected by temperature and other factors
Specific Conductance (µmho/cm)	2019	1,600	NS	NA	NA	190	NA	302	210–350	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2019	500	NS	10.0	NA	9.9	NA	15	12–19	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2019	1,000	NS	140	NA	110	NA	212	200–220	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2019	5	NS	0.131	0.064–0.281	NA	NA	0.040	0.003–0.700	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES [4]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Distribution System AMOUNT DETECTED	Distribution System RANGE LOW-HIGH	Surface Water AMOUNT DETECTED	Surface Water RANGE LOW-HIGH	Groundwater AMOUNT DETECTED	Groundwater RANGE LOW-HIGH
1-Butanol (ppb)	2019	NA	NA	0.5	ND-3.2	ND	NA
Bicarbonate (ppm)	2019	110	NA	100[2]	NA[2]	176	130-210
Bromochloroacetic acid (ppb)	2019	1.5	ND-3.7	NA	NA	29[2]	21–33[2]
Bromide (ppb)	2019	NA	NA	36	20-52	NA	NA
Bromodichloroacetic acid (ppb)	2019	1.6	ND-3.8	NA	NA	NA	NA
Calcium (ppm)	2019	18	NA	17[2]	NA	29	21-33
Chlorodibromoacetic acid (ppb)	2019	0.5	ND-0.96	NA	NA	NA	NA
Dibromoacetic acid (ppb)	2019	0.4	ND-0.91	NA	NA	NA	NA
Dichloroacetic acid (ppb)	2019	3.7	0.34-8.5	NA	NA	NA	NA
Magnesium (ppm)	2019	9.5	NA	9.7	NA	19	17-20
Manganese Total ICAP/MS (ppb)	2019	NA	NA	0.2	ND-1.2	1.7	0.72-2.6
Sodium (ppm)	2017	16	NA	9.1[2]	NA[2]	16[2]	11–20[2]
Total Alkalinity (ppm)	2019	89	NA	83[2]	NA[2]	146	110-170
Total HAA5 (ppb)	2019	8.3	0.34-18	NA	NA	NA	NA
Total HAA6Br (ppb)	2019	4.0	ND-9.4	NA	NA	NA	NA
Total HAA9 (ppb)	2019	10.5	ND-27	NA	NA	NA	NA
Total Hardness (ppm)	2019	83	NA	83[2]	NA[2]	148	128-163
Total Organic Carbon (ppm)	2019	NA	NA	0.5	ND-0.93	NA	NA
Trichloroacetic acid (ppb)	2019	4.0	ND-8.9	NA	NA	NA	NA

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.

DISTRIBUTION SYSTEM DISINFECTION BY-PRODUCTS

		2018				2019					
Total Trihalomethanes (ppb)	**MCL**	**2ND QUARTER**	**3RD QUARTER**	**4TH QUARTER**	**LRAA**	**1ST QUARTER**	**2ND QUARTER**	**3RD QUARTER**	**4TH QUARTER**	**LRAA**	**SOURCE**
Site #1	80	0.0	15.3	0.0	3.8	7.2	0.0	16.6	19.8	10.9	By-product of drinking water disinfection.
Site #2	80	0.0	9.4	17.4	6.7	0.0	0.0	1.0	14.2	3.8	
Site #3	80	4.8	23.5	25.1	14.8	8.2	2.8	14.1	19.9	11.3	
Site #4	80	7.3	17.0	31.6	15.8	11.3	2.5	18.4	20.9	13.3	
Total Haloacetic Acids (ppb)	**MCL**	**2ND QUARTER**	**3RD QUARTER**	**4TH QUARTER**	**LRAA**	**1ST QUARTER**	**2ND QUARTER**	**3RD QUARTER**	**4TH QUARTER**	**LRAA**	**SOURCE**
Site #1	60	0.0	10.8	18.9	7.4	5.6	0.0	8.4	10.2	6.1	By-product of drinking water disinfection.
Site #2	60	0.0	6.9	17.0	6.0	0.0	0.0	1.0	9.1	2.5	
Site #3	60	1.5	16.4	23.1	11.1	7.8	0.0	7.5	12.0	6.8	
Site #4	60	3.5	12.5	29.1	12.6	9.2	4.2	9.4	15.1	9.5	

[1] Sampled in 2017.
[2] Two groundwater sources sampled in 2018.
[3] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
[4] Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.