

April 5, 2023

Utah Division of Drinking Water
Attn: Tim Davis
P.O. Box 144830
Salt Lake City, Utah 84114-4830

Dear Mr. Davis:

Subject: Consumer Confidence Report for Kane County Water Conservancy District Johnson Canyon System #13038

Enclosed is a copy of the Johnson Canyon Consumer Confidence Report for the Kane County Water Conservancy District System #13038. It contains the water quality information for our water system for the calendar year 2022 or the most recent sample data.

Since this system is between 500-10,000 in population, the District will notify its customers by posting on its monthly billing statement that a copy of the CCR is available at the District office or can be mailed out upon request. The district will also publish the CCR in a report in the SUN newspaper on April 13, 2023.

If you have any questions, please contact me at (435) 644-3997

Sincerely,

***Amanda Buhler, Office Manager
Kane County Water Conservancy District***

Enclosure:

Consumer Confidence Report

2022 Annual Drinking Water Quality Report

Kane County Water Conservancy District

Johnson Canyon Wells#1, #2, #3 – System #13038

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. Our water source is the Lamb Point Tongue of the Navajo Sandstone Aquifer. The Lamb Point Tongue lies beneath the Tenney Canyon Tongue of the Kaenta Formation and above the Kaenta Formation. The Lamb Point Tongue ranges up to 400 feet thick and typically provides abundant high-quality water, particularly in the lower section. We have three well sources, which are located in Johnson Canyon. Our number one well site is approximately 5 miles north of Johnson Canyon road and U.S. 89 intersection about 10 miles east of Kanab, Utah. Our number two well site is located approximately 3 mile north of well site number 1 on the west side of the road. Our number three well is 5 approximately miles north of well site number two also located on the west side of the road.

Kane County Water has a Drinking Water Source Protection Plan (DWSSP) that is available for your review. It provides more information such as potential sources of contamination and our source protection areas. It has been determined we have a low susceptible level of potential sources of contamination.

The Drinking Water Source Protection Plan for *Johnson Canyon* 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 no potential contamination sources in protection zones 1 and 2. However, potential contamination does exist in zones 3 and 4 as a result of residential septic systems. There is 1 septic system in zone 3, which is 4,700 feet from well#1. There are 4 septic systems in zone 4, which are between 6,000 – 16,000 feet from well#1. ***For well#2, there is no potential contamination in zones 1 and 2. However, there is 1 septic system in zone 3 and 3 septic systems in zone 4.*** 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.

The Kane County Water Conservancy District is pleased to report that our drinking water meets federal and state requirements. This report shows our water quality and what it means to you our customer. If you have any questions about this report or concerning your water utility, please contact **Amanda Buhler at (435) 644-3997 or e-mail her at kanecowater@gmail.com.** 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 meetings. They are normally held on **the 2nd Thursday of each month in the KCWCD conference room at 7:00PM from April through October and at 6:00PM from November through March.**

Kane County Water Conservancy District 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 of January 1st to December 31st, **2022**. 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.

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.

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

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

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

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 outdated.

Waivers (W)- Because some chemicals are not used or stored in areas around drinking water sources, some water systems have been given waivers that exempt them from having to take certain chemical samples, these waivers are also tied to Drinking Water Source Protection Plans.

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	N	0	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2021	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	2019	Human and animal fecal waste
Turbidity for Ground Water	N	.36	NTU	N/A	5	2019	Soil runoff
Turbidity for Surface Water	N	NA	NTU	N/A	0.5 in at least 95% of the samples and must never exceed 5.0	2013	Soil Runoff (highest single measurement & the lowest monthly percentage of samples meeting the turbidity limits)
Radioactive Contaminants							
Alpha emitters	N	1.9	pCi/l	0	15	2022	Erosion of natural deposits
Combined radium	N	.47	pCi/l	0	5	2022	Erosion of natural deposits
Radium 226	N	ND	pCi/l	0	5	2022	Erosion of natural deposits
Radium 228	N	.47	pCi/l	0	5	2022	Erosion of natural deposits
Inorganic Contaminants							
Antimony	N	ND	ppb	6	6	2022	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	N	.0019	ppb	0	10	2022	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos	N	W	MFL	7	7	2004	Decay of asbestos cement water mains; erosion of natural deposits
Barium	N	.077	ppb	2000	2000	2022	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits

Beryllium	N	ND	ppb	4	4	2022	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	N	ND	ppb	5	5	2022	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Carbon, Total Organic (TOC)	N	ND	ppm	NA	TT	2013	Naturally present in the environment
Chromium	N	ND	ppb	100	100	2022	Discharge from steel and pulp mills; erosion of natural deposits
Copper a. 90% results b. # of sites that exceed the AL	N	A 0.066 ave B 0	ppb	1300	AL=1300	2022	Corrosion of household plumbing systems; erosion of natural deposits
Cyanide	N	ND	ppb	200	200	2022	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	N	.19	ppb	4000	4000	2022	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 .0028 ave B 0	ppb	0	AL=15	2022	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	N	ND	ppb	2	2	2022	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel	N	ND	Ppb	10000	10000	2022	
*Nitrate (as Nitrogen)	N	2.4	ppb	10000	10000	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	N	<4.6	Ppb	1000	1000	2013	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	.0031	ppb	50	50	2022	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	33.8	ppm	None set by EPA	None set by EPA	2022	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.

Sulfate	N	445	ppm	1000*	1000*	2022	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland.
Thallium	N	ND	ppb	1	2	2022	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
TDS (Total Dissolved solids)	N	460	ppm	2000**	2000**	2022	Erosion of natural deposits

*If the sulfate level of a public water system is greater than 500 ppm, the supplier must satisfactorily demonstrate that: a) no better water is available, and b) the water shall not be available for human consumption from commercial establishments. In no case shall water having a level above 1000 ppm be used.

**If TDS is greater than 1000 ppm the supplier shall demonstrate to the Utah Drinking Water Board that no better water is available. The Board shall not allow the use of an inferior source of water if a better source is available.

Synthetic Organic Contaminants including Pesticides and Herbicides (If Water System has been issued waivers for these samples then this table can be deleted from the report).

2,4-D	N	ND	ppb	70	70	2009	Runoff from herbicide used on row crops
2,4,5-TP (Silvex)	N	ND	ppb	50	50	2009	Residue of banned herbicide
Acrylamide	TT	W	N/A		TT		Added to water during sewage/wastewater treatment
Alachlor	N	ND	ppb	0	2	2009	Runoff from herbicide used on row crops
Atrazine	N	W	ppb	3	3		Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH)	N	ND	ppt	0	200	2009	Leaching from linings of water storage tanks and distribution lines
Carbofuran	N	W	ppb	40	40		Leaching of soil fumigant used on rice and alfalfa
Chlordane	N	ND	ppb	0	2	2009	Residue of banned termiticide
Dalapon	N	ND	ppb	200	200	2009	Runoff from herbicide used on rights of way
Di(2-ethylhexyl) adipate	N	ND	ppb	400	400	2009	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	N	ND	ppb	0	6	2009	Discharge from rubber and chemical factories
Dibromochloropropane	N	W	ppt	0	200		Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb	N	ND	ppb	7	7	2009	Runoff from herbicide used on soybeans and vegetables
Diquat	N	W	ppb	20	20		Runoff from herbicide use
Dioxin [2,3,7,8-TCDD]	N	W	ppq	0	30		Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall	N	W	ppb	100	100		Runoff from herbicide use
Endrin	N	ND	ppb	2	2	2009	Residue of banned insecticide

Epichlorohydrin	TT	W	N/A	0	TT		Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	N	W	ppt	0	50		Discharge from petroleum refineries
Glyphosate	N	W	ppb	700	700		Runoff from herbicide use
Heptachlor	N	ND	ppt	0	400	2009	Residue of banned termiticide
Heptachlor epoxide	N	ND	ppt	0	200	2009	Breakdown of heptachlor
Hexachlorobenzene	N	ND	ppb	0	1	2009	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene	N	ND	ppb	50	50	2009	Discharge from chemical factories
Lindane	N	ND	ppt	200	200	2009	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	N	ND	ppb	40	40	2009	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	N	ND	ppb	200	200	2009	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls]	N	ND	ppt	0	500	2009	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol	N	ND	ppb	0	1	2009	Discharge from wood preserving factories
Picloram	N	ND	ppb	500	500	2009	Herbicide runoff
Simazine	N	ND	ppb	4	4	2009	Herbicide runoff
Toxaphene	N	ND	ppb	0	3	2009	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Contaminants

Benzene	N	ND	ppb	0	5	2019	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride	N	ND	ppb	0	5	2019	Discharge from chemical plants and other industrial activities
Chlorobenzene	N	ND	ppb	100	100	2019	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	N	ND	ppb	600	600	2019	Discharge from industrial chemical factories
p-Dichlorobenzene	N	ND	ppb	75	75	2019	Discharge from industrial chemical factories
1,2 - Dichloroethane	N	ND	ppb	0	5	2019	Discharge from industrial chemical factories
1,1 - Dichloroethylene	N	ND	ppb	7	7	2019	Discharge from industrial chemical factories
cis-1,2-trichloroethylene	N	ND	ppb	70	70	2019	Discharge from industrial chemical Factories

trans - 1,2 - Dichloroethylene	N	ND	ppb	100	100	2019	Discharge from industrial chemical factories
Dichloromethane	N	ND	ppb	0	5	2019	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	N	ND	ppb	0	5	2019	Discharge from industrial chemical factories
Ethylbenzene	N	ND	ppb	700	700	2019	Discharge from petroleum refineries
Styrene	N	ND	ppb	100	100	2019	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	N	ND	ppb	0	5	2019	Discharge from factories and dry cleaners.
1,2,4 -Trichlorobenzene	N	ND	ppb	70	70	2019	Discharge from textile-finishing factories
1,1,1 - Trichloroethane	N	ND	ppb	200	200	2019	Discharge from metal degreasing sites and other factories
1,1,2 -Trichloroethane	N	ND	ppb	3	5	2019	Discharge from industrial chemical factories
Trichloroethylene	N	ND	ppb	0	5	2019	Discharge from metal degreasing sites and other factories
Toluene	N	ND	ppb	1000	1000	2019	Discharge from petroleum factories
Vinyl Chloride	N	ND	ppb	0	2	2019	Leaching from PVC piping; discharge from plastics factories
Xylenes	N	ND	ppb	10000	10000	2019	Discharge from petroleum factories; discharge from chemical factories
Disinfection By-products							
TTHM [Total trihalomethanes]	N	13.6	ppb	0	80	2022	By-product of drinking water disinfection
Haloacetic Acids	N	ND	ppb	0	60	2022	By-product of drinking water disinfection
Chlorine	N	<.3	Ppb	4000	4000	2022	Water additive used to control microbes

The following constituents are regulated more closely, Arsenic, Lead, Nitrate, Radon and Cryptosporidium. Notice of any detection is required.

Microbiological Contaminants:

Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Fecal coliform/E.Coli. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Radioactive Contaminants:

Alpha emitters. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Beta emitters. Certain minerals are radioactive and may emit a form of radiation known as beta radiation. Some people who drink water containing beta emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Inorganic Contaminants:

Antimony. Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.

Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Asbestos. Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.

Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Beryllium. Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

Cadmium. Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.

Carbon, Total Organic (TOC). Carbon, Total Organic (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by products. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Chromium. Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Cyanide. Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.

Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Mercury (inorganic). Some people who drink water containing inorganic mercury well in excess

of the MCL over many years could experience kidney damage.

Nitrate. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Nitrite. Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Selenium. Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.

Sodium. Sodium is an essential nutrient. However, some people who drink water containing sodium in excess of the MCL may experience health problems.

Sulfate. High levels of sulfates in the drinking water may cause some people to have stomach problems.

Thallium. Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

TDS (Total Dissolved Solids). TDS is an aesthetic water quality problem, however high levels may cause some people to experience health problems.

Synthetic organic contaminants including pesticides and herbicides:

2,4-D. Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.

2,4,5-TP (Silvex). Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.

Acrylamide. Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.

Alachlor. Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.

Atrazine. Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

Benzo(a)pyrene [PAH]. Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.

Carbofuran. Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.

Chlordane. Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.

Dalapon. Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.

Di (2-ethylhexyl) adipate. Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects such as weight loss, liver enlargement or possible reproductive difficulties.

Di (2-ethylhexyl) phthalate. Some people who drink water containing di (2-ethylhexyl) phthalate well in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.

Dibromochloropropane (DBCP). Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.

Dinoseb. Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.

Dioxin (2,3,7,8-TCDD). Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.

Diquat. Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.

Endothall. Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.

Endrin. Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.

Epichlorohydrin. Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.

Ethylene dibromide. Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.

Glyphosate. Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.

Heptachlor. Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.

Heptachlor epoxide. Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.

Hexachlorobenzene. Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.

Hexachlorocyclopentadiene. Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.

Lindane. Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.

Methoxychlor. Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.

Oxamyl [Vydate]. Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.

PCBs [Polychlorinated biphenyls]. Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.

Pentachlorophenol. Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.

Picloram. Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.

Simazine. Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.

Toxaphene. Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.

Volatile Organic Contaminants:

Benzene. Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.

Carbon Tetrachloride. Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

Chlorobenzene. Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.

o-Dichlorobenzene. Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.

p-Dichlorobenzene. Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.

1,2-Dichloroethane. Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

1,1-Dichloroethylene. Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

cis-1,2-Dichloroethylene. Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

trans-1,2-Dichloroethylene. Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.

Dichloromethane. Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.

1,2-Dichloropropane. Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.

Ethylbenzene. Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.

Styrene. Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.

Tetrachloroethylene. Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.

1,2,4-Trichlorobenzene. Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.

1,1,1-Trichloroethane. Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.

1,1,2-Trichloroethane. Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.

Trichloroethylene. Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Toluene. Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.

Vinyl Chloride. Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.

Xylenes. Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

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).

We at the Kane County Water Conservancy District work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

April 5, 2023

Utah Division of Drinking Water
Attn: Tim Davis
P.O. Box 144830
Salt Lake City, Utah 84114-4830

Dear Mr. Davis:

Subject: Consumer Confidence Report for Kane County Water Conservancy District Johnson Canyon System #13038

Enclosed is a copy of the Johnson Canyon Consumer Confidence Report for the Kane County Water Conservancy District System #13038. It contains the water quality information for our water system for the calendar year 2022 or the most recent sample data.

Since this system is between 500-10,000 in population, the District will notify its customers by posting on its monthly billing statement that a copy of the CCR is available at the District office or can be mailed out upon request. The district will also publish the CCR in a report in the SUN newspaper on April 13, 2023.

If you have any questions, please contact me at (435) 644-3997

Sincerely,

***Amanda Buhler, Office Manager
Kane County Water Conservancy District***

Enclosure:

Consumer Confidence Report

2022 Annual Drinking Water Quality Report

Kane County Water Conservancy District

Johnson Canyon Wells#1, #2, #3 – System #13038

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. Our water source is the Lamb Point Tongue of the Navajo Sandstone Aquifer. The Lamb Point Tongue lies beneath the Tenney Canyon Tongue of the Kaenta Formation and above the Kaenta Formation. The Lamb Point Tongue ranges up to 400 feet thick and typically provides abundant high-quality water, particularly in the lower section. We have three well sources, which are located in Johnson Canyon. Our number one well site is approximately 5 miles north of Johnson Canyon road and U.S. 89 intersection about 10 miles east of Kanab, Utah. Our number two well site is located approximately 3 mile north of well site number 1 on the west side of the road. Our number three well is 5 approximately miles north of well site number two also located on the west side of the road.

Kane County Water has a Drinking Water Source Protection Plan (DWSSP) that is available for your review. It provides more information such as potential sources of contamination and our source protection areas. It has been determined we have a low susceptible level of potential sources of contamination.

The Drinking Water Source Protection Plan for *Johnson Canyon* 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 no potential contamination sources in protection zones 1 and 2. However, potential contamination does exist in zones 3 and 4 as a result of residential septic systems. There is 1 septic system in zone 3, which is 4,700 feet from well#1. There are 4 septic systems in zone 4, which are between 6,000 – 16,000 feet from well#1. ***For well#2, there is no potential contamination in zones 1 and 2. However, there is 1 septic system in zone 3 and 3 septic systems in zone 4.*** 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.

The Kane County Water Conservancy District is pleased to report that our drinking water meets federal and state requirements. This report shows our water quality and what it means to you our customer. If you have any questions about this report or concerning your water utility, please contact **Amanda Buhler at (435) 644-3997 or e-mail her at kanecowater@gmail.com**. 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 meetings. They are normally held on **the 2nd Thursday of each month in the KCWCD conference room at 7:00PM from April through October and at 6:00PM from November through March.**

Kane County Water Conservancy District 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 of January 1st to December 31st, **2022**. 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.

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.

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

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

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

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 outdated.

Waivers (W)- Because some chemicals are not used or stored in areas around drinking water sources, some water systems have been given waivers that exempt them from having to take certain chemical samples, these waivers are also tied to Drinking Water Source Protection Plans.

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	N	0	N/A	0	Presence of coliform bacteria in 5% of monthly samples	2021	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	2019	Human and animal fecal waste
Turbidity for Ground Water	N	.36	NTU	N/A	5	2019	Soil runoff
Turbidity for Surface Water	N	NA	NTU	N/A	0.5 in at least 95% of the samples and must never exceed 5.0	2013	Soil Runoff (highest single measurement & the lowest monthly percentage of samples meeting the turbidity limits)
Radioactive Contaminants							
Alpha emitters	N	1.9	pCi/l	0	15	2022	Erosion of natural deposits
Combined radium	N	.47	pCi/l	0	5	2022	Erosion of natural deposits
Radium 226	N	ND	pCi/l	0	5	2022	Erosion of natural deposits
Radium 228	N	.47	pCi/l	0	5	2022	Erosion of natural deposits
Inorganic Contaminants							
Antimony	N	ND	ppb	6	6	2022	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	N	.0019	ppb	0	10	2022	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos	N	W	MFL	7	7	2004	Decay of asbestos cement water mains; erosion of natural deposits
Barium	N	.077	ppb	2000	2000	2022	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits

Beryllium	N	ND	ppb	4	4	2022	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	N	ND	ppb	5	5	2022	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Carbon, Total Organic (TOC)	N	ND	ppm	NA	TT	2013	Naturally present in the environment
Chromium	N	ND	ppb	100	100	2022	Discharge from steel and pulp mills; erosion of natural deposits
Copper a. 90% results b. # of sites that exceed the AL	N	A 0.066 ave B 0	ppb	1300	AL=1300	2022	Corrosion of household plumbing systems; erosion of natural deposits
Cyanide	N	ND	ppb	200	200	2022	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	N	.19	ppb	4000	4000	2022	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 .0028 ave B 0	ppb	0	AL=15	2022	Corrosion of household plumbing systems, erosion of natural deposits
Mercury (inorganic)	N	ND	ppb	2	2	2022	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel	N	ND	Ppb	10000	10000	2022	
*Nitrate (as Nitrogen)	N	2.4	ppb	10000	10000	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen)	N	<4.6	Ppb	1000	1000	2013	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	N	.0031	ppb	50	50	2022	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N	33.8	ppm	None set by EPA	None set by EPA	2022	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.

Sulfate	N	445	ppm	1000*	1000*	2022	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills, runoff from cropland.
Thallium	N	ND	ppb	1	2	2022	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
TDS (Total Dissolved solids)	N	460	ppm	2000**	2000**	2022	Erosion of natural deposits

*If the sulfate level of a public water system is greater than 500 ppm, the supplier must satisfactorily demonstrate that: a) no better water is available, and b) the water shall not be available for human consumption from commercial establishments. In no case shall water having a level above 1000 ppm be used.

**If TDS is greater than 1000 ppm the supplier shall demonstrate to the Utah Drinking Water Board that no better water is available. The Board shall not allow the use of an inferior source of water if a better source is available.

Synthetic Organic Contaminants including Pesticides and Herbicides (If Water System has been issued waivers for these samples then this table can be deleted from the report).

2,4-D	N	ND	ppb	70	70	2009	Runoff from herbicide used on row crops
2,4,5-TP (Silvex)	N	ND	ppb	50	50	2009	Residue of banned herbicide
Acrylamide	TT	W	N/A		TT		Added to water during sewage/wastewater treatment
Alachlor	N	ND	ppb	0	2	2009	Runoff from herbicide used on row crops
Atrazine	N	W	ppb	3	3		Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH)	N	ND	ppt	0	200	2009	Leaching from linings of water storage tanks and distribution lines
Carbofuran	N	W	ppb	40	40		Leaching of soil fumigant used on rice and alfalfa
Chlordane	N	ND	ppb	0	2	2009	Residue of banned termiticide
Dalapon	N	ND	ppb	200	200	2009	Runoff from herbicide used on rights of way
Di(2-ethylhexyl) adipate	N	ND	ppb	400	400	2009	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	N	ND	ppb	0	6	2009	Discharge from rubber and chemical factories
Dibromochloropropane	N	W	ppt	0	200		Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb	N	ND	ppb	7	7	2009	Runoff from herbicide used on soybeans and vegetables
Diquat	N	W	ppb	20	20		Runoff from herbicide use
Dioxin [2,3,7,8-TCDD]	N	W	ppq	0	30		Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall	N	W	ppb	100	100		Runoff from herbicide use
Endrin	N	ND	ppb	2	2	2009	Residue of banned insecticide

Epichlorohydrin	TT	W	N/A	0	TT		Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide	N	W	ppt	0	50		Discharge from petroleum refineries
Glyphosate	N	W	ppb	700	700		Runoff from herbicide use
Heptachlor	N	ND	ppt	0	400	2009	Residue of banned termiticide
Heptachlor epoxide	N	ND	ppt	0	200	2009	Breakdown of heptachlor
Hexachlorobenzene	N	ND	ppb	0	1	2009	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene	N	ND	ppb	50	50	2009	Discharge from chemical factories
Lindane	N	ND	ppt	200	200	2009	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	N	ND	ppb	40	40	2009	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	N	ND	ppb	200	200	2009	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls]	N	ND	ppt	0	500	2009	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol	N	ND	ppb	0	1	2009	Discharge from wood preserving factories
Picloram	N	ND	ppb	500	500	2009	Herbicide runoff
Simazine	N	ND	ppb	4	4	2009	Herbicide runoff
Toxaphene	N	ND	ppb	0	3	2009	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Contaminants

Benzene	N	ND	ppb	0	5	2019	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride	N	ND	ppb	0	5	2019	Discharge from chemical plants and other industrial activities
Chlorobenzene	N	ND	ppb	100	100	2019	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene	N	ND	ppb	600	600	2019	Discharge from industrial chemical factories
p-Dichlorobenzene	N	ND	ppb	75	75	2019	Discharge from industrial chemical factories
1,2 - Dichloroethane	N	ND	ppb	0	5	2019	Discharge from industrial chemical factories
1,1 - Dichloroethylene	N	ND	ppb	7	7	2019	Discharge from industrial chemical factories
cis-1,2-trichloroethylene	N	ND	ppb	70	70	2019	Discharge from industrial chemical Factories

trans - 1,2 - Dichloroethylene	N	ND	ppb	100	100	2019	Discharge from industrial chemical factories
Dichloromethane	N	ND	ppb	0	5	2019	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	N	ND	ppb	0	5	2019	Discharge from industrial chemical factories
Ethylbenzene	N	ND	ppb	700	700	2019	Discharge from petroleum refineries
Styrene	N	ND	ppb	100	100	2019	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	N	ND	ppb	0	5	2019	Discharge from factories and dry cleaners.
1,2,4 -Trichlorobenzene	N	ND	ppb	70	70	2019	Discharge from textile-finishing factories
1,1,1 - Trichloroethane	N	ND	ppb	200	200	2019	Discharge from metal degreasing sites and other factories
1,1,2 -Trichloroethane	N	ND	ppb	3	5	2019	Discharge from industrial chemical factories
Trichloroethylene	N	ND	ppb	0	5	2019	Discharge from metal degreasing sites and other factories
Toluene	N	ND	ppb	1000	1000	2019	Discharge from petroleum factories
Vinyl Chloride	N	ND	ppb	0	2	2019	Leaching from PVC piping; discharge from plastics factories
Xylenes	N	ND	ppb	10000	10000	2019	Discharge from petroleum factories; discharge from chemical factories
Disinfection By-products							
TTHM [Total trihalomethanes]	N	13.6	ppb	0	80	2022	By-product of drinking water disinfection
Haloacetic Acids	N	ND	ppb	0	60	2022	By-product of drinking water disinfection
Chlorine	N	<.3	Ppb	4000	4000	2022	Water additive used to control microbes

The following constituents are regulated more closely, Arsenic, Lead, Nitrate, Radon and Cryptosporidium. Notice of any detection is required.

Microbiological Contaminants:

Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Fecal coliform/E.Coli. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Radioactive Contaminants:

Alpha emitters. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Beta emitters. Certain minerals are radioactive and may emit a form of radiation known as beta radiation. Some people who drink water containing beta emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Inorganic Contaminants:

Antimony. Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.

Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Asbestos. Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.

Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Beryllium. Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

Cadmium. Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.

Carbon, Total Organic (TOC). Carbon, Total Organic (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by products. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Chromium. Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Cyanide. Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.

Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Mercury (inorganic). Some people who drink water containing inorganic mercury well in excess

of the MCL over many years could experience kidney damage.

Nitrate. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Nitrite. Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Selenium. Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.

Sodium. Sodium is an essential nutrient. However, some people who drink water containing sodium in excess of the MCL may experience health problems.

Sulfate. High levels of sulfates in the drinking water may cause some people to have stomach problems.

Thallium. Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

TDS (Total Dissolved Solids). TDS is an aesthetic water quality problem, however high levels may cause some people to experience health problems.

Synthetic organic contaminants including pesticides and herbicides:

2,4-D. Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.

2,4,5-TP (Silvex). Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.

Acrylamide. Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.

Alachlor. Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.

Atrazine. Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.

Benzo(a)pyrene [PAH]. Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.

Carbofuran. Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.

Chlordane. Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.

Dalapon. Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.

Di (2-ethylhexyl) adipate. Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects such as weight loss, liver enlargement or possible reproductive difficulties.

Di (2-ethylhexyl) phthalate. Some people who drink water containing di (2-ethylhexyl) phthalate well in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.

Dibromochloropropane (DBCP). Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.

Dinoseb. Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.

Dioxin (2,3,7,8-TCDD). Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.

Diquat. Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.

Endothall. Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.

Endrin. Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.

Epichlorohydrin. Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.

Ethylene dibromide. Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.

Glyphosate. Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.

Heptachlor. Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.

Heptachlor epoxide. Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.

Hexachlorobenzene. Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.

Hexachlorocyclopentadiene. Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.

Lindane. Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.

Methoxychlor. Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.

Oxamyl [Vydate]. Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.

PCBs [Polychlorinated biphenyls]. Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.

Pentachlorophenol. Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.

Picloram. Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.

Simazine. Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.

Toxaphene. Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.

Volatile Organic Contaminants:

Benzene. Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.

Carbon Tetrachloride. Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

Chlorobenzene. Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.

o-Dichlorobenzene. Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.

p-Dichlorobenzene. Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.

1,2-Dichloroethane. Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

1,1-Dichloroethylene. Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

cis-1,2-Dichloroethylene. Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.

trans-1,2-Dichloroethylene. Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.

Dichloromethane. Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.

1,2-Dichloropropane. Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.

Ethylbenzene. Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.

Styrene. Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.

Tetrachloroethylene. Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.

1,2,4-Trichlorobenzene. Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.

1,1,1-Trichloroethane. Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.

1,1,2-Trichloroethane. Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.

Trichloroethylene. Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Toluene. Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.

Vinyl Chloride. Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.

Xylenes. Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

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).

We at the Kane County Water Conservancy District work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.