GRANGER-HUNTER
IMPROVEMENT DISTRICT

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Annual Water Quality Report for 2023

PUBLIC WATER SYSTEM ID: 18007

ABOUT YOUR WATER

Where Your Drinking Water Comes From

Most drinking water in the United States comes from a river, a lake, or from an underground well. The water we provide to you comes from Granger-Hunter Improvement District (GHID) and Jordan Valley Water Conservancy District (JVWCD) sources which include: Upper Provo River Reservoirs, Weber/Provo Rivers Diversion Canal, Jordanelle Reservoir, Deer Creek Reservoir, Southeast Well Field, 1300 East Well Field, and Granger-Hunter Well Field.

We Protect the Source

The Drinking Water Source Protection Plan (DWSP) for Granger-Hunter Improvement District is available for your review. It contains information about source protection zones, potential contaminant sources and management strategies to protect our drinking water. A copy of the DWSP can be viewed at our offices at 2888 South 3600 West in West Valley City. We have also developed management strategies to further protect our sources from contamination. Please contact us if you have any questions or concerns about our source protection plan.

Pesticides

Parameter	Units	2022 Maximum	2022 Minimum	2022 Average	MONITORING CRITERIA			Last Sampled	Comments /Likely Source(s)
					MCL	MCLG	Violation		
PESTICIDES/PCBs/SOCs									
Bis(2ethylhexyl) phthalate	ug/L	ND	ND	ND	6	0	NO	2022	Discharge from rubber and chemical factories.
All other Parameters	ug/L	ND	ND	ND		0	NO	2022	Various Sources.

What Is in Your Drinking 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 human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800- 426-4791.

Your response to the drought over the past two years has been incredible. Significant water use reductions have helped avoid more extreme economic and environmental impacts. Despite one winter of great snow, we are still recovering from multiple years of drought. Any water we save this year puts us in a stronger position next year, conserves this precious resource and allows us to get more water to the Great Salt Lake. We have discovered it takes much less water than previously thought to meet our water needs. Let's use only what's necessary!

Our Water Met and Exceeded State and Federal Requirements In 2022.

The tables below list all the parameters in the drinking water detected by Granger-Hunter Improvement District or its suppliers in the drinking water during the calendar year of this report. The presence of these parameters in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from the testing done in the calendar year of this report. For certain parameters, EPA and/or the State require monitoring at a frequency less than once per year because the concentrations do not change frequently. EPA requires monitoring of over 80 drinking water contaminants. The contaminants listed in the table below are the only contaminants detected in your drinking water.

Brad Almond Water Quality Technician.

Microbiological

We look for bacteria regularly, as required by law, and there are 100 locations in the water system where we take samples for analysis.

Parameter	Units	Number of samples taken	Positive Samples	Violation	Comments/Likely Source(s)
MICROBIOLOGICAL					
Total Coliform	Present/Not present	1200+	Not > 5%	NO	Naturally present in the environment.
All other Parameters	Present/Not present	1200+	0	NO	Bacteria found in the lower intestine of warm-blooded organisms.

Lead and Copper

The most recent tests were taken in 2022. We take water samples from 50 different homes in our system every three years to test them for lead and copper.

Lead violation is determined by the 90th percentile result. Copper violation is determined by the 90th percentile result.

Parameter	Units	2022 Maximum	2022 Minimum	2022 Average	MONITORING CRITERIA			Comments /Likely Source(s)
					MCL	MCLG	Violation	
Lead	ug/L	4.1	ND	0.001	AL = 15	NE	NO	Corrosion of household plumbing systems, erosion of naturally occurring deposits.
Copper	ug/L	0.5	0.009	0.12	AL = 1300	NE	NO	Corrosion of household plumbing systems, erosion of naturally occurring deposits.

***MCL** - Maximum Contaminant Level: This is the highest level allowed for a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.*

***AL - Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.*

LEAD AND COPPER RULE REVISIONS (LCRR)

Revisions to the Lead and Copper Rule, effective December 16, 2021, are designed to better protect children and communities from the risks of lead exposure. The implementation of this rule has begun, however, there are additional changes on the way. The EPA announced that it intends to further revise its regulation on water. The Lead and Copper Rule Improvements (LCRI) are expected before October 2024.

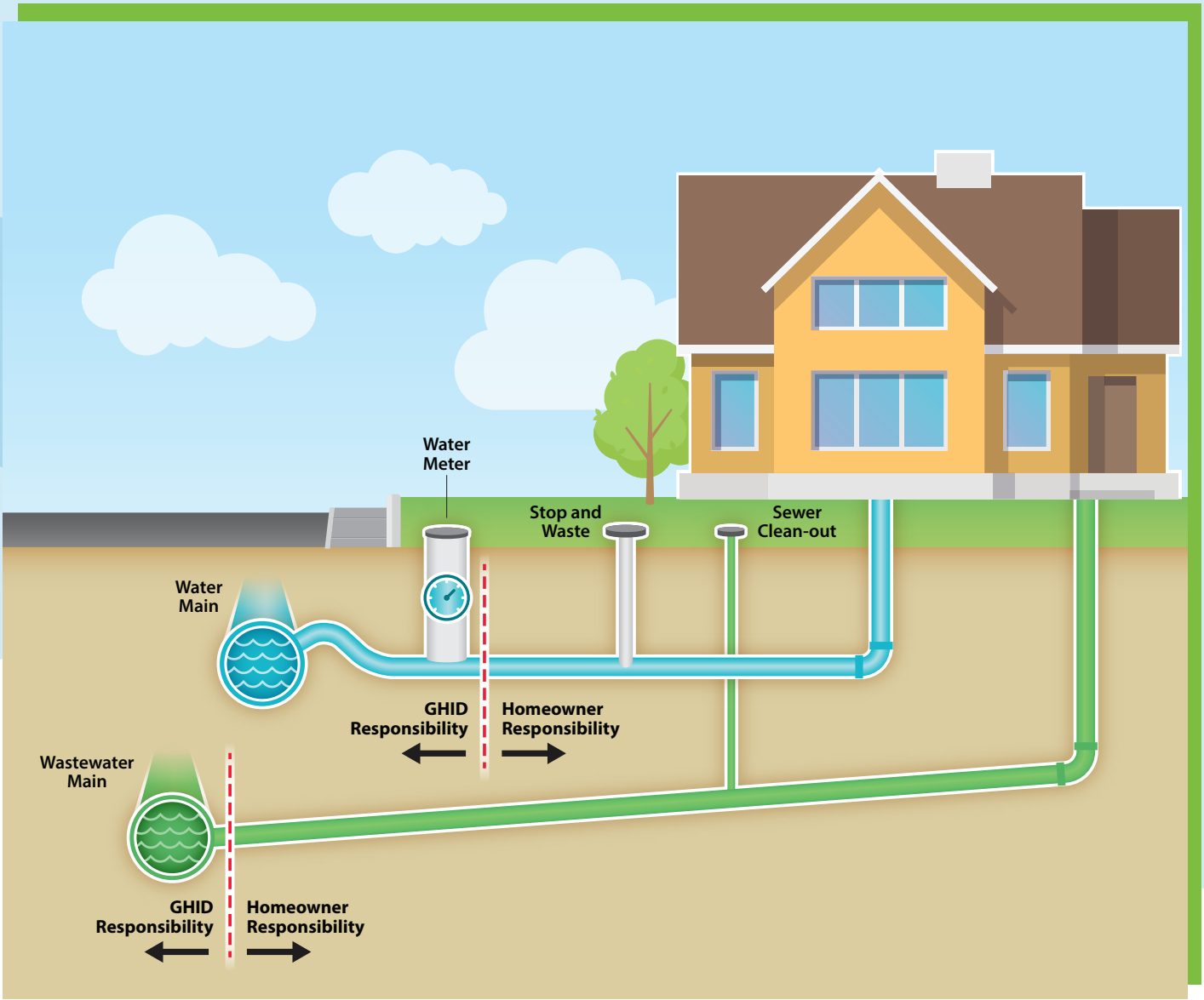
Water crew identifying water line material.

Water crew identifying water line material using a valve maintenance vehicle.

Run Water After Vacation

Another factor that affects water quality in your home is how "stale" the water is. When you leave your home or business for a long time, as you may when you take a vacation, the water in the pipes and plumbing doesn't move. When water has been sitting in the pipes for days, bacteria can grow, and if you have lead or copper plumbing, those metals can start to seep into the water. After being away for a long time run the water on full blast for 30 seconds to 2 minutes before drinking. Cold fresh water drawn from the outside should always be used for cooking.

Private Water Responsibility



Check Your Home or Business' Plumbing for Lead and Copper

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. Granger-Hunter is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry, or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Water Quality at 801-955-2283. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

YOUR ROLE IN WATER QUALITY

We work hard to provide high-quality water when it arrives on your property. Once the water we provide passes through the meter on your property, however, it is exposed to a whole new environment in your home that we have no control over. But you do.

Some of the things that can change the water quality on your property include your plumbing and pipe material, how long you go without running the water, and whether or how you connect outdoor hoses to your home's water supply.

CROSS-CONNECTION CONTROL

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment or water sources of questionable quality.

Contamination can occur when the pressure in the equipment or system fluctuates. For more information on backflow prevention, visit our website at ghid.org.

Connect Outdoor Hoses

Connections to the water outside your home can influence water quality in your home. The outdoor spigot connection to a hose provides a potential way for pollutants to enter your plumbing. If you use the hose to spray chemicals on your yard by connecting the nozzle to a spray bottle, or if you have a sprinkler system connected, there is the potential for chemicals from the bottle or the lawn to be accidentally sucked back into your internal plumbing.

Primary Inorganic Chemicals

Parameter	Units	2022 Maximum	2022 Minimum	2022 Average	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
Antimony	ug/L	0.001	ND	0.00002	6	6	NO	2022	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	ug/L	3.7	ND	1	10	0	NO	2022	Erosion of naturally occurring deposits and runoff from orchards.
Asbestos	MFL	ND	ND	ND	7	7	NO	2021	Decay of asbestos cement in water mains; erosion of natural deposits.
Barium	ug/L	150	ND	51.5	2000	2000	NO	2022	Erosion of naturally occurring deposits.
Beryllium	ug/L	ND	ND	ND	4	4	NO	2022	Discharge from metal refineries and coal burning factories.
Cadmium	ug/L	0.0003	ND	0.00001	5	5	NO	2022	Corrosion of galvanized pipes; erosion of natural deposits.
Copper	ug/L	125	ND	5.5	NE	NE	NO	2022	Erosion of naturally occurring deposits.
Chromium (Total)	ug/L	ND	ND	ND	100	100	NO	2022	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide, Free	ug/L	3	ND	0.3	200	200	NO	2022	Discharge from steel/metal factories; discharge from plastic and fertilizers.
In the year 2000, residents of Salt Lake County voted to fluoridate drinking water. *(Fluoride is added at the Source)*									
Fluoride	mg/L	0.9	ND	0.68	4	4	NO	2022	Erosion of naturally occurring deposits and discharge from fertilizers.
Lead	ug/L	1	ND	0.04	NE	NE	NO	2022	Erosion of naturally occurring deposits.
Mercury	ug/L	ND	ND	ND	2	2	NO	2022	Erosion of naturally occurring deposits and discharge from fertilizers.
Nickel	ug/L	3.7	ND	0.3	NE	NE	NO	2022	Erosion of naturally occurring deposits.
Nitrate	mg/L	2.9	ND	1.2	10	10	NO	2022	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Nitrite	mg/L	ND	ND	ND	1	1	NO	2022	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Selenium	ug/L	8.1	ND	0.6	50	50	NO	2022	Erosion of naturally occurring deposits.
Sodium	mg/L	74.2	8	19.9	NE	NE	NO	2022	Erosion of naturally occurring deposits and runoff from road deicing.
Sulfate	mg/L	239	5.4	51	1000	NE	NO	2022	Erosion of naturally occurring deposits.
Thallium	ug/L	1.1	ND	0.05	2	0.5	NO	2022	Leaching from ore- processing sites and discharge from electronics, glass and drug factories.
Total Dissolved solids	mg/L	652	88	249	2000	NE	NO	2022	Erosion of naturally occurring deposits.
Turbidity (Surface Water)	NTU	0.1	0.01	0.03	0.3	TT	NO	2022	MCL is 0.3 NTU 95% of the time for surface water. Suspended material from soil runoff.
Turbidity (Ground Water)	NTU	0.7	0.01	0.2	5	NE	NO	2022	MCL is 5.0 for groundwater. Suspended material from soil runoff.

NTU - *Nephelometric Turbidity Units: Turbidity is measured with an instrument called a nephelometer. Measurements are given in nephelometric turbidity units. Turbidity is the measure of cloudiness of the water and has no health effects*

MCL - *Maximum Contaminant Level: This is the highest level allowed of a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.*

MCLG - *Maximum Contaminant Level Goal: The goal level of a pollutant in drinking water. Below this amount, there is no known or expected health effect.*

mg/L - *Milligrams per liter*

ug/L - *Micrograms per liter*

mg/L - *Number of milligrams in one liter of water ug/L*

NE – *Not Established.*

RUSHTON WATER TREATMENT PLANT PROJECT

In December 2021, Granger Hunter Improvement District started a two-year project with Nelson Brothers Construction, to construct a treatment plant designed to improve the quality of water from our deep groundwater wells. The treatment plant was designed based on the results of a multi-year water quality study that started back in 2018. The study looked at each of the District's eight wells and a plan was developed to treat the water at each of these sites. The water from three of the wells will be treated at the Rushton Water Treatment Plant and plans are currently underway to construct a future treatment facility that will treat the water at an additional two more Well sites in the District.

The Rushton Treatment Plant will consist of two filter vessels, capable of each treating 3000 gallons per minute. The filter vessels will improve the taste and aesthetic qualities of the water by treating the higher levels of iron and manganese in the groundwater. Funding for the project has been provided by the Department of Environmental Quality, Division of Drinking Water through the State Revolving Fund (SRF). It is anticipated that construction will be completed, and the filter vessels will be in operation by September 2023.

STAY INFORMED ABOUT YOUR WATER

Your input is important to us!

You are welcome to attend our Board meetings or visit our website for more details on ghid.org.

Social Media

One way to stay connected with us is by following us on Instagram or Facebook. Here you'll find the latest news about big projects we're working on, fun lessons for students or opportunities to get involved with water in our community. We also offer helpful tips on conservation, landscaping, and how to protect your pipes.

Projects and Rates

Infrastructure projects and our rates go hand in hand. We can't keep the system in top shape without your help, so we want you to be as informed as possible about what we need and why. Check out our website at www.ghid.org to learn about projects and ways you can have input into them.

Secondary Inorganics - Aesthetic Standards

Parameter	Units	2022 Maximum	2022 Minimum	2022 Average	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
Secondary Inorganics – Aesthetic Standards									
Aluminum	ug/L	ND	ND	ND	SS= 50-200	NE	NO	2022	Erosion of naturally occurring deposits and treatment residuals.
Chloride	mg/L	161	10	39.1	SS=25 0	NE	NO	2022	Erosion of naturally occurring deposits.
Iron	ug/L	313	ND	22.3	SS=30 0	NE	NO	2022	Erosion of naturally occurring deposits.
Manganese	ug/L	34	ND	0.09 6	SS=50	NE	NO	2022	Erosion of naturally occurring deposits.
pH		8.7	6.7	7.7	SS=6.5 -8.5	NE	NO	2022	Naturally occurring and effected by chemical treatment.
Silver	Ug/L	ND	ND	ND	SS=10 0	NE	NO	2022	Erosion of naturally occurring deposits.
Zinc	Ug/L	1	ND	0.03	SS=50 00	NE	NO	2022	Erosion of naturally occurring deposits.

Disinfection by-products (Trihalomethane (THM) or Haloacetic Acids (HAA))

Four times per year we look for byproducts of the disinfection process. When chlorine and sodium hypochlorite, the disinfectant we use to protect the water against bacteria and viruses, starts to break down in the water, it can form new compounds. These compounds, trihalomethanes (THM) and haloacetic acid (HAA) have been known to cause cancer at high levels. We test for these compounds at seven different locations in the water system.

Disinfection By-products

Parameter	Units	2022 Maximum	2022 Minimum	2022 Average	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
DISINFECTANTS/DISINFECTION BY-PRODUCTS									
Sodium hypochlorite	mg/L	1.84	ND	0.42	4	NE	NO	2022	By-product of drinking water disinfection.
TTHM's	ug/L	74.6	ND	39.3	80	NE	NO	2022	
HAA5's	ug/L	49.2	ND	18.8 2	60	NE	NO	2022	
HAA6's	ug/L	54.4	ND	35.3	UR	NE	NO	2022	
Bromate	ug/L	ND	ND	ND	10	NE	NO	2022	
Chlorine Dioxide	ug/L	0.4	ND	0.04	800	NE	NO	2022	
Chlorite	mg/L	1	ND	0.5	1	0.8	NO	2022	

What are VOCs? VOCs are a significant source of pollution in the environment, sometimes found in the groundwater beneath certain industrial businesses such as dry cleaners and gas stations.

VOCs Volatile Organic Compounds

Parameter	Units	2022 Maximum	2022 Minimum	2022 Average	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
VOCs (Volatile Organic Compounds)									
Bromoform	ug/L	0.65	<0.50	0.6	UR	NE	NO	2022	By-product of drinking water disinfection.
Chloroform	ug/L	45.6	18.1	28.7	UR	NE	NO	2022	
Dibromochloromethane	ug/L	5.3	2.5	3.6	UR	NE	NO	2022	
Bromodichloromethane	ug/L	14.9	7.1	10.1	UR	NE	NO	2022	

TTHMs - *Total Trihalomethanes*

THAAs - *Total Haloacetic Acids*

NE – *Not Established*

MCL - *Maximum Contaminant Level: This is the highest level allowed for a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.*

Many of the contaminants found in public drinking water sources occur naturally. For example, radioactive radium and uranium are found in small amounts in almost all rock and soil and can dissolve in water. Radon, a radioactive gas, created through the decay of radium, can also naturally occur in groundwater.

Radiological

Parameter	Units	2022 Maximum	2022 Minimum	2022 Average	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
VOCs (Volatile Organic Compounds)									
Radium 226	pCi/L	1.3	-0.05	0.2	NE	NE	NO	2022	Decay of natural and man-made deposits.
Radium 228	pCi/L	1.3	-0.3	0.4	NE	NE	NO	2022	Decay of natural and man-made deposits.
Radium 226 & 228	pCi/L	2.6	-0.25	1.8	5	NE	NO	2022	Decay of natural and man-made deposits.
Gross-Alpha	pCi/L	7.2	0.5	2.9	15	NE	NO	2022	Decay of natural and man-made deposits.
Gross-Beta	pCi/L	11	0.9	3.8	50	NE	NO	2022	Decay of natural and man-made deposits.
Uranium	ug/L	10.1	0.002	3.8	30	NE	NO	2022	Decay of natural and man-made deposits.
Radon	pCi/L	ND	ND	ND	NE	NE	NO	2022	Naturally occurring in soil.

pCi/L - *Picocuries per liter (a measure of radioactivity)*

NE – *Not Established*

ND – *Not Detected*

Definitions

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 allow for a margin of safety.
MCL	Maximum Contaminant Level: The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
MRDLG	Maximum Residual Disinfectant Level Goal: This is the lowest amount of cleaning chemical drinking water should have because it is the lowest amount needed to make sure bacteria and viruses can't live.
MRDL	Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.
NR	Monitoring is not required but recommended
NTU	Nephelometric Turbidity Units: Turbidity is measured with an instrument called a nephelometer. Measurements are given in nephelometric turbidity units.
PPM	Part Per Million= 1 drop of water in a hot tub
PPB	Part Per Billion = 1 drop of water in an Olympic size swimming pool
PPT	Part Per Trillion (ppt) = 1 drop of water in a lake that's 6 square acres

Not All Substances in the Water Have Official Health Limits.

The law doesn't specify a limit for every potential substance that could be found in the water, so the Environmental Protection Agency (EPA) is constantly studying new potential pollutants (they call them unregulated contaminants) to determine what their effects are on our health, and at what levels, to determine where to set limits for them.

Forever chemicals, Per- and Polyfluoroalkyl Substances (PFAS) Are a Group of Manufactured Chemicals

PFAS are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s because of their useful properties. There are thousands of different PFAS, some of which have been more widely used and studied than others. One common characteristic of concern of PFAS is that many break down very slowly and can build up in people, animals, and the environment over time.

In 2019, the Department of Environmental Quality (DEQ) assembled a workgroup to develop a monitoring reconnaissance plan for PFAS in the State of Utah. This workgroup developed an ongoing monitoring and reporting strategy to determine if PFAS contaminants can be found in Utah's groundwater, surface water, or drinking water. This monitoring effort will help identify point source discharges of PFAS substances, so they can be addressed.

EPA is proposing a National Primary Drinking Water Regulation (NPDWR) to establish legally enforceable levels, called Maximum Contaminant Levels (MCLs), for six PFAS in drinking water. EPA is also proposing health-based, non-enforceable Maximum Contaminant Level Goals (MCLGs) for these six PFAS.

PFAS

Compound	Units	2019 Maximum Concentration	2019 Minimum	2022 Average	MONITORING CRITERIA			Comments/Likely Source(s)
					MCL (Proposed)	MCLG (Proposed)	Violation	
PFOA	ng/L	<0.7			4.0 ng/L	Zero		
PFOS	ppt	<0.38			4.0 ppt	Zero		
PFNA		<0.33			1.0 (unitless)	1.0 (unitless)		
PFHxS		<0.49			Hard Index	Hard Index		

NE – *Not Established*

Look Out for Special Populations

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 healthcare providers.

EPA/CDC 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.

Radon

Radon is a naturally occurring gas present in some groundwater. Radon may pose a risk to your health if you inhale it once it is released from water into the air. This could occur during showering, bathing, washing dishes, or washing clothes. The radon gas released from drinking water is a relatively small part of the total radon naturally found in the air. One major source of radon gas is from the soil, where the gas can seep through the foundations of homes. It is not clear whether ingested (i.e., taken through the mouth) radon contributes to cancer or other adverse health conditions. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on home testing, contact Salt Lake County Health Department.

En español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, contáctenos por correo electrónico a r.perry@ghid.org o por teléfono al (801) 968-3551.

Additional Resources

Information on lead in drinking water: www.epa.gov/safewater/lead
Requirements of the Water Quality Report
http://www.epa.gov/sites/default/files/201405/documents/guide_qrg_ccr_2011.pdf
The Safe Drinking Water Act: www.epa.gov/sdwa
American Water Works Association: http://www.awwa.org
Water Environment Federation: http://www.wef.org
Groundwater Information: https://waterdata.usgs.gov/nwis and
http://www.epa.gov/ground- water-and-drinking-water/

Contact us.

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