2020 Water Quality Report

Granger-Hunter Improvement District
www.ghid.org

Granger-Hunter Improvement District (GHID) is pleased to present this year's Annual Drinking Water Quality Report. This report is intended to inform our customers about the quality of water and services we deliver every day. Our goal is to provide safe and dependable drinking water that meets or exceeds Federal and State standards. We make great efforts to continually improve the water treatment processes and to protect our water resources, and are committed to providing the best quality of water whether it comes from surface water or ground water. We are closely monitoring the situation regarding Coronavirus (COVID-19) and the health and safety of our customers and employees is a top priority.

In 2019, we produced 7.6 billion gallons of potable water for our customers. In addition to eight District owned wells, we purchase water from Jordan Valley Water Conservancy District (JVWCD). GHID and JVWCD water sources include: Upper Provo River Reservoirs, Weber/Provo Rivers Diversion Canal, Jordanelle Reservoir, Deer Creek Reservoir, Southeast Well Field, 1300 East Well Field, and the Granger-Hunter Well Field. Further information regarding the quality of JVWCD water may be obtained on the web at www.jvwcd.org.

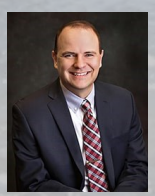
Contact Information

If you have any questions about this report or any other water quality issue, please contact our Water Quality Coordinator, Ryan Perry at r.perry@ghid.org or 801-968-3551. We want our customers to be informed about our water. If you want to learn more, please visit ghid.org for additional information. The public is welcome to attend any of our regularly scheduled meetings held at our offices. Our Board of Trustees generally meets the third Tuesday of every month at 3:00 PM.

Este informe contiene informacion importanie acerca de su agua potable. Haga que alguien lo traduzea para usted, o hable con alguien que lo entienda.

Board Members

Debra K. Armstrong
Chair



Corey Rushton
Trustee

Russell R. Sanderson
Trustee

GHID Water Quality

Yellowish or brownish water?

Typically it's Manganese.

Manganese is a naturally-occurring element that can be found in the air, soil, and water. Manganese is an essential nutrient for humans and animals. Concentrations as low as 0.02 mg/L (or ppm) can form coatings on water pipes that may later slough off as a black precipitate, causing an undesirable discoloration of the water. When changes are made to our system, such as turning on and off wells, customers may notice yellow or brown water for a short period of time. Usually, if you flush your lines for 15-30 minutes, the water will clear up. GHID also periodically flushes hydrants to try to keep these impacts to a minimum. Please let us know if you notice any change in your water at 801 -968-3551 Visit www.ghid.org/iron-and-manganese for more information.

Chlorine

In accordance with rules from the Utah Division of Drinking Water and the Safe Drinking Water Act, GHID is required to maintain a chlorine residual in our distribution system. We take 100 samples per month to ensure no bacteria is present in the system and to ensure an adequate chlorine residual.

What is the hardness of our water?

The water in our region is considered hard. Our water typically has a hardness that ranges from 7-10 grains per gallon.

What about Lead?

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. GHID is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water or www.ghid.org/lead-and-copper.

Future Water Quality Improvements

In 2018, GHID began a detailed study of water quality issues from our deep wells. The study determined that chlorine was oxidizing iron and manganese, which can turn the water yellowish or brownish. GHID has successfully pilot-tested iron/manganese removal, and is currently designing the first of four water treatment facilities to remove iron and manganese from our wells. Visit https://www.ghid.org/future-water-quality-improvements to learn more.

GHID Water Safety

Cross Connection Control

A cross-connection is a point where the potable (drinking) water supply is or can be connected to a non-potable source. Examples of potential cross-connections are irrigation systems, boilers, garden hoses, sprinkler systems and wash basins.

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 a 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. Visit https://www.ghid.org/backflow-and-cross-connection-control or www.deq.utah.gov/drinking-water/cross-connection-control-backflow-prevention for more information.

Drinking Water Source Protection

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 contamination sources and management strategies to protect our drinking water. A copy of the DWSP can be obtained at our offices at 2888 South 3600 West in West Valley City. Our wells have been determined to have a low level of susceptibility from potential contamination from sources such as industry and industrial storage. However, through regulatory controls and best management practices for pollution prevention these risks are greatly reduced. 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.

Water Fluoridation

Granger-Hunter Improvement District is required to fluoridate all water produced by our deep wells. We take fluoridation safety extremely seriously and have multiple safety measures in place to prevent overdosing. Questions regarding fluoridation may be addressed by contacting the Salt Lake County Health Department at slco.org/health/water-quality/drinking-water or at (385)468-4100.

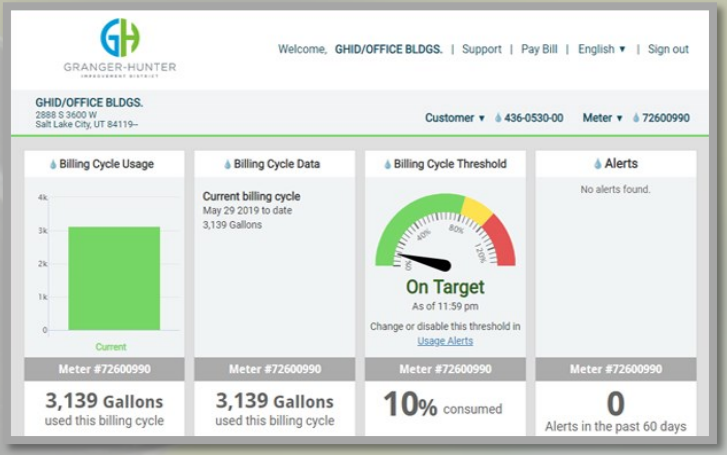
Conservation

Granger-Hunter Improvement District, Jordan Valley Water Conservancy District and the State of Utah are committed to water conservation. We have already reduced our per capita water use 27% since 2000, which beat the Governor's goal of 25% by 2025. The State of Utah has set a new regional goal of reducing water use another 19% from our 2015 numbers, and with your help, we can beat this goal too. Visit slowtheflow.org for more information.

Water Usage Portal

GHID encourages customers to enroll in our Water Usage Portal. To sign up, visit www.ghid.org and click on the "Water Usage Portal" link at the top-right of the page.

GHID has a tiered-rate structure, where higher users pay more for each 1,000 gallons of water to encourage conservation. Using the Portal, you can set water use goals (with alerts for daily and billing-cycle usage) and manage your use to stay within the lower tiers. You can also set alarms (via text or email) for water usage when you're on vacation , and keep an eye on your daily, weekly, monthly or yearly usage. The Portal is mobile friendly and can easily be accessed on your smartphone.



Water Tiers	Price
Tier 1 (Less than 7,000 gallons)	$1.77 per 1,000 gallons
Tier 2 (7,001 - 15,000 gallons)	$1.90 per 1,000 gallons
Tier 3 (15,001 gallons and above)	$2.05 per 1,000 gallons
Multi-Unit (apartments, condos, etc.)	$1.90 per 1,000 gallons

Things You Can Do

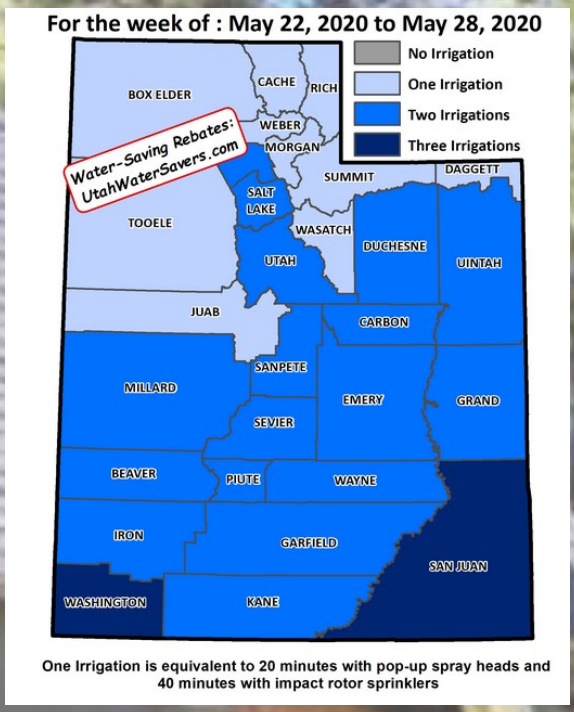
- Don't use water outside between the hours of 10:00 A.M. and 6 P.M. This will cut the loss of water by evaporation by 90%.
- Don't over-water your lawn. Hand water any dry spots.
- Remember to turn off sprinklers after a rain storm.
- Use drought tolerant plants when landscaping to decrease water.
- Keep drinking water in the refrigerator instead of letting the faucet run until cool. A running tap can use about 2 gallons of water per minute.
- Fully load the dishwasher and clothes washer before running them.
- If you have a swimming pool, use the cover while not in use. You will cut the loss of water evaporation by 90%.
- Repair any leaky faucets or toilets. Dripping faucets can waste up to 2,000 gallons of water each year in the average home. A leaky toilet can waste as much as 200 gallons per day.
- Don't leave the water running while you brush your teeth or shave. This can waste up to 7 gallons of water each time you brush or shave
- Use a broom instead of hose when cleaning walkways and driveways.

Follow us on Instagram and Facebook: GHID or Granger-Hunter Improvement District

Water Conservation Programs & Rebates

Utah Water Savers has multiple programs to help save water. Please visit their website at UtahWaterSavers.com for more information. If you are interested in water-wise landscaping, check out the Localscapes program, which encourages use of water-efficient plants and turf areas (localscapes.com).

Visit slowtheflow.org to view the Weekly Lawn Watering Guide, an online tool that recommends how many days per week to water.



Utah Water Savers

Jordan Valley Water Conservancy District

Free consultations for homeowners wanting to improve the water efficiency of their yard.

Cash rebates for homeowners who purchase a smart controller for their irrigation system.

Localscapes class graduates may be eligible for a landscape plan review as well as cash rewards for completing Localscape projects.

Cash rebates for homeowners who replace toilets that were installed before 1994.

Cash rebates for homeowners who convert grass park strips to water-efficient designs.

UtahWaterSavers.com

Apply today for a
FREE consultation or cash rebates!

General Watering Guide for Central/Northern Utah

Lawns

How Often?	Clay Soil	Sandy Soil
Mother's Day (start watering)	Once every 5 days	Once every 3 days
Father's Day	Once every 3 days	Once every 2 days
Labor Day	Once every 5 days	Once every 3 days
Columbus Day	Stop Watering (winterize)	

How Long?	Clay Soil	Sandy Soil
Rotating	45 min. total	25 min. total
Fixed	25 min. total	15 min. total

Use the "cycle and soak" method for lawn. Set each zone for half the time needed, run all zones, then run each station a second time. This minimizes water runoff.

Planting Beds

How Often?	Clay Soil	Sandy Soil
Mother's Day (start watering)	Once every 7 days	Once every 5 days
Father's Day	Once every 4 days	Once every 3 days
Labor Day	Once every 7 days	Once every 5 days
Columbus Day	Stop Watering (winterize)	

How Long?	Clay Soil	Sandy Soil
Drip (Recommended)	60 minutes	30 minutes
Spray	25 minutes	15 minutes

Drip irrigation in planting beds dramatically reduces weeds while saving water.

Water before 8 am OR after 8 pm for both lawn and planting beds.
Weather Conditions may impact your watering needs.
www.ConservationGardenPark.org

Conservation Garden Park

Drinking Water Constituent Report

Granger-Hunter Improvement District and Jordan Valley Water Conservancy District routinely monitor 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, 2019. We take over 100 samples per month to ensure safe drinking water. 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. Please see the information on the last page of this report for additional clarification.

Parameter	Units	2019 Avg.	2019 Max.	2019 Min.	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
PRIMARY INORGANICS									
Antimony	ug/L	ND	ND	ND	6.00	6.00	No	2019	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	ug/L	1.2	4.2	ND	10.0	0.0	No	2019	Erosion of naturally occurring deposits and runoff from orchards.
Asbestos	MFL	ND	ND	ND	7.0	7.0	No	2019	Decay of asbestos cement in water mains; erosion of natural deposits.
Barium	ug/L	45.7	75.1	ND	2000	2000	No	2019	Erosion of naturally occurring deposits.
Beryllium	ug/L	ND	ND	ND	4	4	No	2019	Discharge from metal refineries and coal burning factories.
Cadmium	ug/L	ND	ND	ND	5.00	5.00	No	2019	Corrosion of galvanized pipes; erosion of natural deposits.
Copper	ug/L	18.1	125.0	ND	NE	NE	No	2019	Erosion of naturally occurring deposits.
Chromium (Total)	ug/L	0.2	7.1	ND	100.0	100.0	No	2019	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide, Free	ug/L	0.3	2.3	ND	200.0	200.0	No	2019	Discharge from steel/metal factories; discharge from plastic and fertilizers.
Fluoride	mg/L	0.69	1.06	0.18	4.0	4.0	No	2019	Erosion of naturally occurring deposits and discharge from fertilizers. Fluoride added at source.
Lead	ug/L	0.2	1.4	ND	NE	NE	No	2019	Erosion of naturally occurring deposits.
Mercury	ug/L	ND	ND	ND	2.00	2.00	No	2019	Erosion of naturally occurring deposits and discharge from fertilizers.
Nickel	ug/L	0.2	10	ND	NE	NE	No	2019	Erosion of naturally occurring deposits.
Nitrate	mg/L	1.0	2.8	ND	10.0	10.0	No	2019	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Nitrite	mg/L	0.1	1.0	ND	1.0	1.0	No	2019	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Selenium	ug/L	0.6	4.1	ND	50.0	50.0	No	2019	Erosion of naturally occurring deposits.
Sodium	mg/L	19.1	157	10.0	NE	NE	No	2019	Erosion of naturally occurring deposits and runoff from road deicing.
Sulfate	mg/L	55.1	239.0	6.0	1000	NE	No	2019	Erosion of naturally occurring deposits.
Thallium	ug/L	ND	ND	ND	2.0	0.5	No	2019	Leaching from ore-processing sites and discharge from electronics, glass and drug factories.
Total Dissolved solids	mg/L	248.3	652.0	51.5	2000	NE	No	2019	Erosion of naturally occurring deposits.
Turbidity (Ground Water Sources)	NTU	0.2	0.83	ND	5.0	NE	No	2019	MCL is 5.0 for groundwater. Suspended material from soil runoff.
Turbidity (Surface Water Sources)	NTU	ND	0.3	ND	0.3	TT	No	2019	MCL is 0.3 NTU 95% of the time for surface water. Suspended material from soil run off.
Lowest Monthly % Meeting TT	%	100 % (Treatment Technique requirement applies only to treated surface water sources)							
SECONDARY INORGANICS - Aesthetic Standards									
Aluminum	ug/L	12.2	60.0	ND	SS = 50-200	NE	No	2019	Erosion of naturally occurring deposits and treatment residuals.
Chloride	mg/L	35.0	161.0	10.0	SS = 250	NE	No	2019	Erosion of naturally occurring deposits.
Color	CU	3.0	10.0	0.5	SS = 15	NE	No	2019	Decaying naturally occurring organic material and suspended particles.
Iron	ug/L	21.7	187.0	ND	SS = 300	NE	No	2019	Erosion of naturally occurring deposits.
Manganese	ug/L	3.4	34.0	ND	SS = 50	NE	No	2019	Erosion of naturally occurring deposits.
Odor	TON	ND	ND	ND	SS = 3	NE	No	2018	Various sources.
pH		7.7	8.5	6.8	SS = 6.5-8.5	NE	No	2019	Naturally occurring and affected by chemical treatment.
Silver	ug/L	ND	0.6	ND	SS = 100	NE	No	2019	Erosion of naturally occurring deposits.
Zinc	ug/L	0.2	10.0	ND	SS = 5000	NE	No	2019	Erosion of naturally occurring deposits.

Parameter	Units	2019 Avg.	2019 Max.	2019 Min.	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
VOCs (Volatile Organic Compounds)									
Chloroform	ug/L	22.4	61.6	ND	UR	NE	No	2019	By-product of drinking water disinfection.
Dibromochloromethane	ug/L	3.31	10.01	ND	UR	NE	No	2019	By-product of drinking water disinfection.
Bromodichloromethane	ug/L	7.90	14.4	ND	UR	NE	No	2019	By-product of drinking water disinfection.
Bromoform	ug/L	2.76	7.99	ND	UR	NE	No	2019	By-product of drinking water disinfection.
All Other Parameters	ug/L	None Detected			Various	Various	No	2019	Various sources.
PESTICIDES/PCBs/SOCs									
Bis (2ethylhexyl) phthalate	ug/L	ND			6.0	0.0	No	2019	Discharge from rubber and chemical factories.
All Other Parameters	ug/L	None Detected			Various	Various	No	2019	Various sources.
RADIOLOGICAL									
Radium 226	pCi/L	0.2	1.3	-0.5	NE	NE	No	2019	Decay of natural and man-made deposits.
Radium 228	pCi/L	0.4	1.3	-0.3	NE	NE	No	2019	Decay of natural and man-made deposits.
Radium 226 & 228	pCi/L	0.5	2.6	-0.3	5.0	NE	No	2019	Decay of natural and man-made deposits.
Gross-Alpha	pCi/L	3.3	14.0	-0.7	15.0	NE	No	2019	Decay of natural and man-made deposits.
Gross-Beta	pCi/L	6.5	32.0	1.2	50.0	NE	No	2019	Decay of natural and man-made deposits.
Uranium	ug/L	3.8	10.1	ND	30.0	NE	No	2019	Decay of natural and man-made deposits.
Radon	pCi/L	ND	ND	ND	NE	NE	No	2013	Naturally occurring in soil.
DISINFECTANTS/ DISINFECTION BY-PRODUCTS									
Chlorine	mg/L	0.43	1.59	0.01	4.0	NE	No	2019	Drinking water disinfectant.
TTHMs	ug/L	34.7	67.4	20.2	80.0	NE	No	2019	By-product of drinking water disinfection.
HAA5s	ug/L	18.8	50.8	6.19	60.0	NE	No	2019	By-product of drinking water disinfection.
HAA6	ug/L	33.4	53.6	20.1	UR	NE	No	2019	By-product of drinking water disinfection.
Highest Annual Location Wide Avg.	ug/L	TTHM = 47.8 mg/L, HAA5s = 26.7 mg/L						2019	
Bromate	ug/L	ND	ND	ND	10.0	NE	No	2019	By-product of drinking water disinfection.
Chlorine Dioxide	ug/L	ND	0.1	ND	800	NE	No	2019	Drinking water disinfectant.
Chlorite	mg/L	0.5	0.8	ND	1.00	0.80	No	2019	By-product of drinking water disinfection.
ORGANIC MATERIAL									
Total Organic Carbon	mg/L	1.5	3.1	ND	TT	NE	No	2019	Naturally occurring.
Dissolved Organic Carbon	mg/L	1.8	2.3	1.6	TT	NE	No	2019	Naturally occurring.
UV-254	1/cm	0.022	0.046	0.012	UR	NE	No	2019	This is a measure of the concentration of UV-absorbing organic compounds. Naturally occurring.
PROTOZOA (sampled at source water)									
Cryptosporidium	Oocysts/1L	ND	ND	ND	TT	0.00	No	2017	Parasite that enters lakes and rivers through sewage and animal waste.
Giardia	Cysts/1L	1.5	7.0	ND	TT	0.00	No	2017	Parasite that enters lakes and rivers through sewage and animal waste.
MICROBIOLOGICAL									
Total Coliform	% Positive per Month	0.00%	0.00%	0.00%	Not >5%	0.00	No	2019	MCL is for monthly compliance. Human and animal fecal waste, naturally occurring in the environment.
LEAD AND COPPER									
Parameter	**Units**	**90% tiles**			**MONITORING CRITERIA**			**Last Sampled**	**Comments/Likely Source(s)**
					AL	**MCLG**	**# Sites Over AL**		
Copper	mg/L	0.197			1.3	1.3	0	2019	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing.
Lead	ug/L	2.4			15	0	0	2019	Corrosion of household plumbing; erosion of natural deposits.

Definitions

Public Water Systems - The term "public water system" means a system that provides water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. The federal government has established regulatory limits (standards) on over 100 chemical and microbial contaminants in drinking water. These have their origin in the Safe Drinking Water Act (SDWA), which governs public water systems. Many states have established their own standards, which must be at least as stringent as the federal standards.

Primary standards are set to provide the maximum feasible protection to public health. They regulate contaminant levels based on toxicity and adverse health effects. The goal of standard setting is to identify Maximum Contaminant Levels (MCLs) which prevent adverse health effects. Secondary standards regulate contaminant levels based on aesthetics such as color and odor, which do not pose a risk to health. These secondary maximum contaminant levels (SMCLs) are guidelines, not enforceable limits. They identify acceptable concentrations of contaminants which cause unpleasant tastes, odors, or colors in the water. SMCLs are for contaminants that will not cause adverse health effects.
Safe Drinking Water Hotline: (800) 426-4791

Safe Drinking Water Guidelines. 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 from their health care providers about drinking water. 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) or online at epa.gov.

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.
- **Not Established (NE) or Unregulated (UR)** - no level for the constituent has been established.
- **Not Applicable (NA)** - not applicable to this constituent.
- **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.