



# 2019 Water Quality Report

## Granger-Hunter Improvement District

BE IT • OWN IT  
LEAD IT • DO IT

**W**e're 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. We are committed to providing the best quality of water whether it comes from surface water or ground water. In 2018, we delivered 7.4 billion gallons of potable water. In addition to the eight District owned wells, we purchase water from Jordan Valley Water Conservancy District (JVWCD). Granger-Hunter Improvement District (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 [jvwcd.org](http://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](mailto: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 attend any of our regularly scheduled meetings held at our offices. Our Board of Trustees generally meets the third Tuesday of every month at 2:30 PM. You can visit [ghid.org](http://ghid.org) for additional information, including an agenda for the meeting.

Este informe contiene información importante sobre la calidad de su agua potable. Para asistencia en español, llame a nuestra oficina al 801-968-3551.

### Board Members



Debra K. Armstrong  
Chair



Corey Rushton  
Trustee



Russell R. Sanderson  
Trustee

# GHID Water Quality

## Why is my water yellow?

### 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. Granger-Hunter often flushes hydrants to try to keep these impacts to a minimum. Please contact our Water Quality Coordinator at 801-968-3551 if you notice any change in your water.



## Is Arsenic a problem?

While our drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

## 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 Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

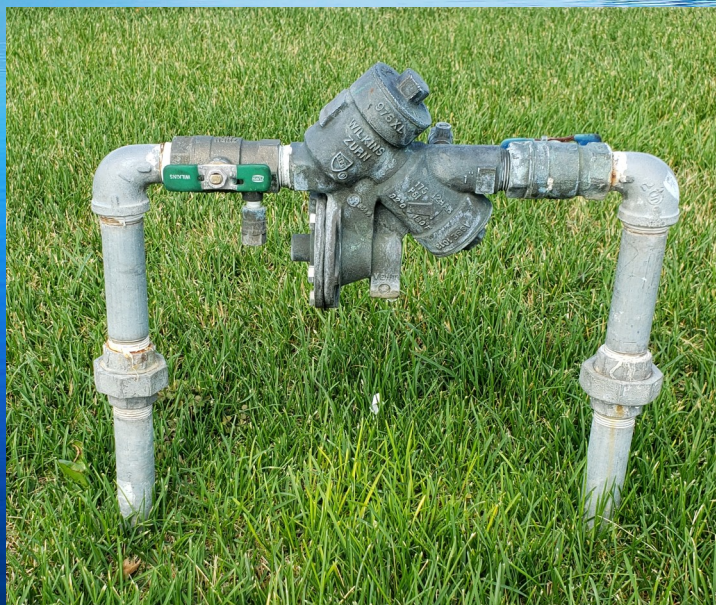
## What are we doing to improve water quality?

In 2018, Granger-Hunter Improvement District embarked on a multi-year water quality study. As part of this project, we have retained an outside consultant who has developed a series of recommendations on how we can improve the quality of water from our deep groundwater wells. Our next step will involve pilot testing of filtration equipment at our deep well sites. Our long-term goal is to improve our water quality by removing minerals from the wells before they pump into the distribution system. Look for more information about this project in the future.

# GHID Water Safety

## Cross Connection Control

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 [deq.utah.gov/drinking-water/cross-connection-control-backflow-prevention](http://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](http://slco.org/health/water-quality/drinking-water) or at (385)468-4100.

# Conservation

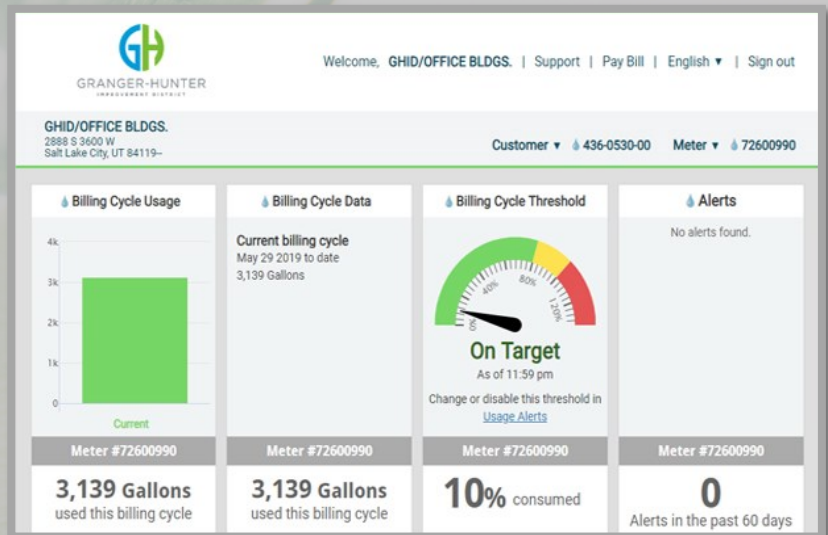
Granger-Hunter Improvement District, Jordan Valley Water Conservancy District and the State of Utah are committed to water conservation. We have already reduced our per capita water use 27% since 2000, which beat the Governor's goal of 25% by 2025. We can do even more to reduce water use, so we've compiled some useful links and information below. With your help, we can continue to beat the statewide goal. Visit [slowtheflow.org](http://slowtheflow.org) for more information.

## CUSTOMER WEB PORTAL

Granger-Hunter Improvement District encourages customers to enroll in our Customer Web Portal. This website will allow you to view your hourly and daily water use, as well as set alarms for live water use and for budgeting. You can also set up usage alerts while on vacation which would allow you to ensure no water is running while you're away.

To sign up, visit [www.ghid.org](http://www.ghid.org) and click on the "Customer Portal" link at the top of the page. You will need to contact the office at 801-968-3551 or [info@ghid.org](mailto:info@ghid.org) for your security token.

You can also sign up for online payment. You will need your account number and your last payment amount. Visit [www.ghid.org](http://www.ghid.org) and click on the "Pay Your Bill Online" link.



## GHID Conservation Calendar

The following events and programs are available to our customers at no cost:

1. GHID Conservation Monthly Calendar - Available for pickup every December
2. Free Toilet Program—September 2019
3. Customer Appreciation Event—Coming Fall 2019
4. Localscapes: Intro to Localscapes—hosted at the Conservation Garden Park
5. Lunch and Learns—hosted throughout the year at Granger-Hunter
6. Fix-a-Leak—March 2020
7. Water Week—April 2020
8. Spring Fest—May 2020

The full calendar can be found at [ghid.org](http://ghid.org) under the 'Water' and then 'Conservation' links.

Follow us on Instagram and Facebook: GHID or granger\_hunter

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



**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.



Locascapes class graduates may be eligible for a landscape plan review as well as cash rewards for completing Locascapes 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](http://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	How Long?	Clay Soil	Sandy Soil
Mother's Day (start watering)	Once every 5 days	Once every 3 days	Rotating 	45 min. total	25 min. total
Father's Day	Once every 3 days	Once every 2 days	Fixed 	25 min. total	15 min. total
Labor Day	Once every 5 days	Once every 3 days			
Columbus Day	Stop Watering (winterize)		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	How Long?	Clay Soil	Sandy Soil
Mother's Day (start watering)	Once every 7 days	Once every 5 days	Drip (Recommended) 	60 minutes	30 minutes
Father's Day	Once every 4 days	Once every 3 days	Spray 	25 minutes	15 minutes
Labor Day	Once every 7 days	Once every 5 days			
Columbus Day	Stop Watering (winterize)		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](http://www.ConservationGardenPark.org)



## Drinking Water Constituent Report

Granger-Hunter Improvement 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 1<sup>st</sup> to December 31<sup>st</sup>, 2018. 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	2018 Max.	2018 Min.	2018 Avg.	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
<b>PRIMARY INORGANICS</b>									
Antimony	ug/L	ND	ND	ND	6	6	NO	2018	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	ug/L	4.5	ND	2.74	10	0	NO	2018	Erosion of naturally occurring deposits and runoff from orchards.
Asbestos	MFL	ND	ND	ND	7	7	NO	2016	Decay of asbestos cement in water mains; erosion of natural deposits.
Barium	ug/L	116	ND	43.82	2000	2000	NO	2018	Erosion of naturally occurring deposits.
Beryllium	ug/L	ND	ND	ND	4	4	NO	2018	Discharge from metal refineries and coal burning factories.
Cadmium	ug/L	ND	ND	ND	5	5	NO	2018	Corrosion of galvanized pipes; erosion of natural deposits.
Copper	ug/L	125	ND	12	NE	NE	NO	2018	Erosion of naturally occurring deposits.
Chromium (Total)	ug/L	15.6	ND	1.73	100	100	NO	2018	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide, Free	ug/L	2	ND	1.44	200	200	NO	2017	Discharge from steel/metal factories; discharge from plastic and fertilizers.
Fluoride	mg/L	1.08	0.2	0.68	4	4	NO	2018	Erosion of naturally occurring deposits and discharge from fertilizers. Fluoride added at source.
Lead	ug/L	1.2	ND	0.1	NE	NE	NO	2018	Erosion of naturally occurring deposits.
Mercury	ug/L	0.2	ND	0.02	2	2	NO	2018	Erosion of naturally occurring deposits and discharge from fertilizers.
Nickel	ug/L	10	ND	1.5	NE	NE	NO	2018	Erosion of naturally occurring deposits.
Nitrate	mg/L	2.9	ND	0.47	10	10	NO	2018	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Nitrite	mg/L	ND	ND	ND	1	1	NO	2018	Runoff from fertilizer, leaching from septic tanks, and naturally occurring organic material.
Selenium	ug/L	4.1	ND	0.98	50	50	NO	2018	Erosion of naturally occurring deposits.
Sodium	mg/L	105	9.5	55.79	NE	NE	NO	2018	Erosion of naturally occurring deposits and runoff from road deicing.
Sulfate	mg/L	133	3	89.56	1000	NE	NO	2018	Erosion of naturally occurring deposits.
Thallium	ug/L	ND	ND	ND	2	0.5	NO	2018	Leaching from ore-processing sites and discharge from electronics, glass and drug factories.
Total Dissolved solids	mg/L	544	52	375.67	2000	NE	NO	2018	Erosion of naturally occurring deposits.
Turbidity (Ground Water Sources)	NTU	0.83	0.02	0.4	5	NE	NO	2018	MCL is 5.0 for groundwater. Suspended material from soil runoff.
Turbidity (Surface Water Sources)	NTU	0.58	0.01	0.03	0.3	TT	NO	2018	MCL is 0.3 NTU 95% of the time for surface water. Suspended material from soil runoff.
Lowest Monthly % Meeting TT	%	100 % (Treatment Technique requirement applies only to treated surface water sources)							
<b>SECONDARY INORGANICS - Aesthetic Standards</b>									
Aluminum	ug/L	32.8	ND	3.53	SS = 50-200	NE	NO	2018	Erosion of naturally occurring deposits and treatment residuals.
Chloride	mg/L	76	10	27	SS = 250	NE	NO	2018	Erosion of naturally occurring deposits.
Iron	ug/L	2280	0	520.25	SS = 300	NE	NO	2018	Erosion of naturally occurring deposits.
Manganese	ug/L	106	0	39.82	SS = 50	NE	NO	2018	Erosion of naturally occurring deposits. The 106 ug/L result is not considered a violation due to Manganese being a secondary standard that has an impact on aesthetics of the water.
pH		9.5	6.9	8.23	SS = 6.5-8.5	NE	NO	2018	Naturally occurring and affected by chemical treatment High pH was for short duration so there was no violation.
Silver	ug/L	ND	ND	ND	SS = 100	NE	NO	2018	Erosion of naturally occurring deposits.
Zinc	ug/L	ND	ND	ND	SS = 5000	NE	NO	2018	Erosion of naturally occurring deposits.

Parameter	Units	2018 Max	2018 Min	2018 Avg.	MONITORING CRITERIA			Last Sampled	Comments/Likely Source(s)
					MCL	MCLG	Violation		
<b>VOCs (Volatile Organic Compounds)</b>									
Bromoform	ug/L	ND	ND	ND	UR	NE	NO	2017	By-product of drinking water disinfection.
Chloroform	ug/L	81.5	ND	13.69	UR	NE	NO	2018	By-product of drinking water disinfection.
Dibromochloromethane	ug/L	2	ND	0.49	UR	NE	NO	2018	By-product of drinking water disinfection.
Bromodichloromethane	ug/L	14	ND	2.55	UR	NE	NO	2018	By-product of drinking water disinfection.
All other Parameters	ug/L	None Detected			Various	Various	NO	2018	Various Sources.
<b>PESTICIDES/PCBs/SOCs</b>									
Various Parameters	ug/L	None Detected			Various	Various	NO	2018	Various Sources
<b>RADIOLOGICAL</b>									
Radium 226	pCi/L	1.3	-0.54	0.13	NE	NE	NO	2018	Decay of natural and man-made deposits.
Radium 228	pCi/L	3	-0.3	0.54	NE	NE	NO	2018	Decay of natural and man-made deposits.
Radium 226 & 228	pCi/L	3.11	-0.29	0.66	5	NE	NO	2018	Decay of natural and man-made deposits.
Gross-Alpha	pCi/L	9.4	-1.2	1.55	15	NE	NO	2018	Decay of natural and man-made deposits.
Gross-Beta	pCi/L	8.9	1.1	4.27	50	NE	NO	2018	Decay of natural and man-made deposits.
Uranium	ug/L	10	ND	3.4	30	NE	NO	2017	Decay of natural and man-made deposits.
Radon	pCi/L	-1	-9	-6	NE	NE	NO	2013	Naturally occurring in soil.
<b>DISINFECTANTS/ DISINFECTION BY-PRODUCTS</b>									
Sodium Hypochlorite	mg/L	1.18	0.01	0.4	4	NE	NO	2018	Drinking water disinfectant.
TTHM's	ug/L	62.5	ND	31.25	80	NE	NO	2018	By-product of drinking water disinfection.
HAA5's	ug/L	37.2	ND	16.5	60	NE	NO	2018	By-product of drinking water disinfection. High result is not a violation, violation is determined on annual location average.
HAA6's	ug/L	40.2	12.7	24.8	UR	NE	NO	2018	By-product of drinking water disinfection.
Highest Annual Granger-Hunter Improvement District Location Wide Average.					TTHM = 48.30 ug/L HAA5s = 25.30 ug/L				
Bromate	ug/L	ND	ND	ND	10	NE	NO	2018	By-product of drinking water disinfection.
Chlorine Dioxide	ug/L	0.07	ND	0.003	800	NE	NO	2018	Drinking water disinfectant.
Chlorite	mg/L	0.75	0.37	0.54	1	0.8	NO	2108	By-product of drinking water disinfection.
<b>ORGANIC MATERIAL</b>									
Total Organic Carbon	mg/L	3.1	ND	1.6	TT	NE	NO	2018	Naturally occurring.
Dissolved Organic Carbon	mg/L	2.4	0.9	1.9	TT	NE	NO	2018	Naturally occurring.
UV-254	1/cm	0.046	0.011	0.026	UR	NE	NO	2018	This is a measure of the concentration of UV-absorbing organic compounds. Naturally occurring.
<b>LEAD and COPPER (tested at the consumer's tap) - monitoring required every 3 year.</b>									
Lead	ug/L	3.5	ND	1.5	AL = 15	NE	NO	2016	Lead violation is determined by the 90th percentile result. Corrosion of household plumbing systems, erosion of naturally occurring deposits.
Copper	ug/L	286	5.9	81.3	AL = 1300	NE	NO	2016	Copper violation is determined by the 90th percentile result. Corrosion of household plumbing systems, erosion of naturally occurring deposits.
<b>MICROBIOLOGICAL</b>									
Total Coliform*	% Positive per month	2%	0%	0.0025%	Not > 5%	0%	NO	2018	MCL is for monthly compliance. Human and animal fecal waste, naturally occurring in the environment.

**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.

\*In June 2018, Granger Hunter had a sample that tested positive for Coliform. This sample was taken from a recently replaced water line and was immediately isolated. This problem was most likely from manufacturing by-products used for fire hydrant production. The affected fire line was cleaned, disinfected and tested again. We have had no signs of coliform since the cleaning.

## 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. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants 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](http://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.