

Tabernash Meadows

Water & Sanitation District

2015 Water Quality Report For Calendar Year 2014 Public Water System ID# CO-0125720



What is this Report?

Tabernash Meadows WSD is pleased to present the 2014 Annual Water Quality Report in accordance with the United States Environmental Protection Agency (USEPA) National Primary Drinking Water Regulations, which requires all drinking water suppliers for community systems to provide the public with an annual statement describing the water supply and quality of its water.

Tabernash Meadows Water and Sanitation District is a Public Community Water System and is regulated by Colorado Department of Public Health and Environment (CDPHE), Water Quality Control Division. We have minimum sampling and analysis requirements set by the CDPHE to monitor the safety and quality of the drinking water we supply to our customers.

Our constant goal is to provide you with a safe and dependable drinking water supply.

Tabernash Meadows Water and Sanitation District
 PO Box 443
 Tabernash, CO 80478



Cross Connection and Backflow

Pollutants or contamination can enter the safe drinking water system through uncontrolled cross connections when backflow occurs. Backflow is the unwanted flow of non-potable substances back into the consumer's plumbing system.

Cross Connection protection is required by state regulation. The District requires that a dual check valve is installed in front of your water meter to prevent non-potable water from entering the public water system.

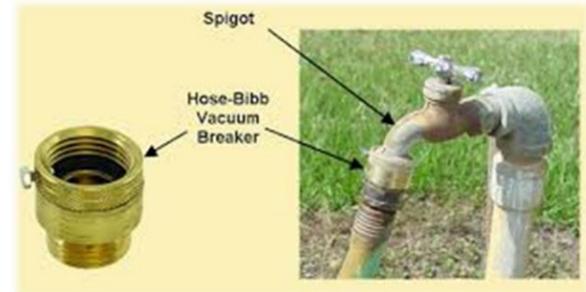
How to Prevent Contamination of Your Drinking Water

DON'T:

- Submerge hoses in buckets, floor drains, pools, tubs, sinks, ponds
- Use spray attachments on hoses without a backflow prevention device

DO:

- If you have an outside water spigot, buy and install a hose bib type vacuum breaker (inexpensive and sold at hardware stores).
- Keep the end of hoses clear of all possible contaminants
- If you have an irrigation system tied to your domestic water, you must have an approved backflow prevention device installed.
- Confirm you have an expansion tank connected to your hot water heater. If not, call a licensed plumber and have one installed because this can cause other problems in your domestic water system.



Help Us Protect the Wastewater Treatment Plant

Do not place following items down the drain:

- | | |
|--|--|
| <input type="checkbox"/> Paper Towels | <input type="checkbox"/> Baby Wipes |
| <input type="checkbox"/> Grease & Fat | <input type="checkbox"/> Cleaning Wipes |
| <input type="checkbox"/> Tampons & Pads | <input type="checkbox"/> Floss |
| <input type="checkbox"/> Condoms | <input type="checkbox"/> Cotton Balls and Q-Tips |
| <input type="checkbox"/> Cigarette Butts | <input type="checkbox"/> Band-Aids |
| <input type="checkbox"/> Chewing Gum | <input type="checkbox"/> Medications |
| <input type="checkbox"/> Facial Tissues | <input type="checkbox"/> Pesticides |
| <input type="checkbox"/> Dryer Sheets | <input type="checkbox"/> Petroleum Products |
| <input type="checkbox"/> Diapers | <input type="checkbox"/> Kitty Litter |
| <input type="checkbox"/> Plastic Bags | <input type="checkbox"/> Coffee Grounds |

Protect the River: Use Phosphate Free soaps and detergents



Where does your water come from?

Pole Creek Valley's drinking water is 100% groundwater. We have two quality groundwater wells and one emergency well in our system. Groundwater is naturally filtered over time through soil, rock and sand. We ensure our groundwater sources are protected from being under the influence of surface water by creating drainage away from our well heads and monitoring the raw water for Microscopic Particulates.



Source Water Assessment and Protection

The District is currently working with the state and local stakeholders to develop a source water protection plan. Protecting our source water before it becomes contaminated is our goal and will ensure our ability to provide our customers with the best quality drinking water. The District purchased Lot #19 located at the entrance to Pole Creek Valley and Coyote Creek off of Hwy 40. This is an integral part of our source water protection plan due to its location to the north of our main well supply water. If you would like to become involved as a stakeholder, please contact the District at 970-726-2839.

Changing the Landscape and Protecting Our Water

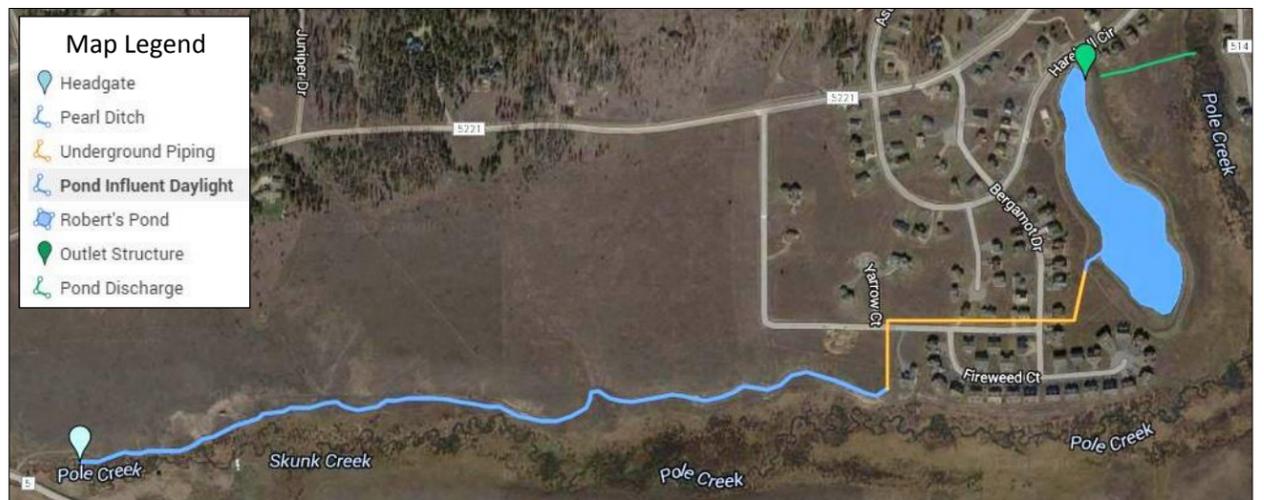


The Treatment Process and Delivery of Water

1. **Chlorination:** Chlorine is added to the raw groundwater as it is pumped from the well.
2. **Filtration:** Water is filtered through a 2 stage filter system, 5 micron then 1 micron filters .
3. **Storage:** Water is then pumped to a partially buried storage tank which accommodates water demand in the community and fire suppression needs.
4. **Delivery:** Treated water is gravity fed to your home. A booster pump is used to maintain adequate water pressure for the homes located at higher elevations in the community.



Pearl Ditch and Robert's Pond Overview



Distribution System Maintenance

We maintain over 18,000 feet of water pipes and valves in the distribution system. We flush hydrants twice per year to prevent sediment from accumulating in the water supply and to improve taste and odor.

Water Rights

TMWSD has water rights coming off of both Pole Creek and Crooked Creek. These water rights have a priority date of 1891 and 1892, respectively, which makes the rights senior to most other water rights under Colorado's prior appropriation water law. The water rights are used in our augmentation plan to replace well water which is consumptively used in the domestic water system. The water rights are also used to fill Robert's Pond in Pole Creek Valley (PCV) and used for recreation. TMWSD owns and manages the water in the pond, while the PCV HOA owns the land and has granted TMWSD an easement to use the pond and associated ditches.

Ditch and Pond Maintenance

During the Fall of 2014, District staff performed major needed maintenance on the Pearl Ditch which conveys water from Pole Creek to Robert's Pond. This consisted of removing vegetation in the ditch and repairing ditch sections that wash out. Because of this work, Robert's Pond was filled in record time this spring. We are also able to turn over more water daily (about 1.25 cfs) in the pond to keep the water fresher with the hopes to prevent vegetation and algal blooms. This is ongoing maintenance that must be performed yearly.

Fall of 2015 you will see staff working on Robert's Pond. The goal is to reduce the amount of seepage from the pond. We will be installing rock on the east side of the pond to help prevent erosion from wind action, protect the pond liner, and inhibit muskrat boring.

What is in my water?

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. 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 of infections.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting:

<http://water.epa.gov/drink/contaminants>.

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. Tabernash Meadows WSD cannot control 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.

Copper

The major sources of copper in drinking water are corrosion of household plumbing systems. Copper leaches into water through corrosion – a dissolving or wearing away of metal caused by a chemical reaction between water and your plumbing. We have conducted a corrosivity study of our drinking water and it is categorized as not corrosive by the Langlier Saturation Index.

Fluoride

Fluoride is beneficial for protecting teeth from cavities. Fluoride is naturally occurring in one of our groundwater wells. We use this water supply and blend it with our other well supply water to obtain a fluoride concentration of 0.70 – 1.0 ppm. This is the optimal fluoride level as set forth by the US Department of Health and Human Services. The American Dental Association recommends fluoride levels of 0.7-1.2 ppm.



Chlorine

As a community water system, we are mandated to disinfect our raw water supply for control of microbiological contaminants. We use sodium hypochlorite, a form of chlorine, for disinfection. We dose chlorine at concentrations to obtain a residual of 0.5-0.6 ppm at our entry point to the distribution system. We are mandated to maintain a trace level of chlorine at our further point in the distribution system. The Maximum Residual Disinfectant Level (MRDL) of Chlorine is 4.0 ppm. We keep the chlorine concentrations in our water supply well below the MRDL of 4.0 ppm to decrease the potential of disinfectant byproducts.



Hardness

Hardness is defined as the sum of calcium and magnesium ion concentrations and is measured as ppm as CaCO₃ (calcium carbonate). Calcium and Magnesium are natural minerals in the groundwater. The average hardness of your water is 180 ppm or 10.5 grains. The white spots you may see on your dishes are from hard water. You may choose to install a water softener, but we do not recommend this. Water softeners use sodium chloride pellets, which adds dissolved salts to the wastewater. The wastewater treatment plant facility does not treat or remove dissolved salts, so this eventually ends up in the Fraser River making it saltier, harming the biology in the river. Apple cider vinegar is a great natural cleaner that dissolves hard water spots. You can make a 3:1 dilution of water: vinegar and soak your glasses in this solution to remove spots.



Contact Us

Contact us to learn more about what you can do to protect your drinking water sources, any questions about the Drinking Water Consumer Confidence Report, to learn more about your system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Call: 970-726-2839

Email: manager@tmwsd.com

Visit: Office location is 729 Aster Drive (CR 5141), Tabernash, CO

Website: www.tmwsd.com



Colorado Public Water System ID #: CO125720

Esta es informacion importante. Si no la pueden leer, necesitan que alguien se la traduzca.

The state allows monitoring for some contaminants less than once per year because the concentrations are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old.

**** THERE WERE NO VIOLATIONS OR ENFORCEMENT ACTIONS IN 2014 ****

Regulated Water Contaminants

The following tables show all detections found in the period of January 1 to December 31, 2014 unless otherwise noted.

Lead and Copper Sampled in the Distribution System									
Contaminant Name	90 th Percentile	Sample Size	Unit of Measure	90 th Percentile AL	Sample Sites above AL	90 th Percentile AL Exceedance	Typical Sources		
Copper	0.21	5	ppm	1.3		NO	Corrosion of household plumbing systems; Erosion of Natural Deposits		
Lead	1	5	ppb	15		NO	Corrosion of household plumbing systems; Erosion of Natural Deposits		
Disinfection Byproducts Sampled in the Distribution System									
Name	Average	Range Low-High	Unit of Measure	MCL	MCLG	Highest Compliance Value	MCL Violation	Typical Sources	
Total Haloacetic Acids (HAA5)	8.29	8.29 to 8.29	ppb	60	N/A		NO	Byproduct of drinking water disinfection	
Total Trihalomethanes (TTHM)	18.7	18.7 to 18.7	ppb	80	N/A		NO	Byproduct of drinking water disinfection	
Radionuclides Sampled at the Entry Point to the Distribution System									
Name	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources	
Gross Alpha	5.65	5.65 to 5.65	1	pCi/L	15	0	NO	Erosion of Natural Deposits	
Combined Radium (2012)	0.5	0.5 to 0.5	1	pCi/L	5	0	NO	Erosion of Natural Deposits	
Combined Uranium	4.7	4.7 to 4.7	1	ppb	30	0	NO	Erosion of Natural Deposits	
Inorganic Contaminants Sampled at the Entry Point to the Distribution System									
Name	Year	Average	Range Low-High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Arsenic	2014	3	3 to 3	1	ppb	10	0	NO	Erosion of natural deposits
Barium	2014	0.02	0.02 to 0.02	1	ppm	2	2	NO	Erosion of natural deposits
Fluoride	2014	0.94	0.41 to 1.72	1	ppm	4	4	NO	Erosion of natural deposits
Nitrate	2014	1.6	1.6 to 1.6	1	ppm	10	10	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Maximum Contaminant Level (MCL) – The highest level of a contaminant allowed in drinking water.

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.

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 Contaminant Level Goal (MCLG) – 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.

Violation (No Abbreviation) – Failure to meet a Colorado Primary Drinking Water Regulation.

Formal Enforcement Action (No Abbreviation) – Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.

Gross Alpha (No Abbreviation) – Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.

Picocuries per liter (pCi/L) – Measure of the radioactivity in water.

ppm = parts per million = Milligrams per liter (mg/L) – One part per million corresponds to one minute in two years or a single penny in \$10,000.

ppb = parts per billion = 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.