

CONSERVING WATER

Below are some tips regarding water conservation:

- Promptly fix toilet and faucet leaks.
- Avoid using drinking water for irrigation purposes.
- Take short showers - a 5 minute shower uses 12-15 gallons of water compared to up to 50 for a bath.
- Turn the faucet off while brushing your teeth and shaving; 1.5-2 gallons go down the drain per minute.
- Run dishwasher & clothes washer only when full.
- Leak Testing:** *Water customers are responsible for paying for all water that passes through their meter. This can become very costly if leaks beyond the meter go undetected.*

-Check the low-flow indicator on the face of your water meter periodically to make sure there is no water flow occurring while every faucet in the home is off.

-Watch for pooling water, unusual vegetation growth or soft areas between your home and your water meter as indicators of a service line leak.

Call the District office for additional details.



HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the **Safe Drinking Water Hotline (1-800-426-4791)**.

Note: *Cryptosporidium* is a microscopic organism typically found in surface waters such as reservoirs, rivers, lakes, streams or ponds.



BADGER MOUNTAIN IRRIGATION DISTRICT

ANNUAL DRINKING WATER QUALITY REPORT

Badger Mountain Irrigation District is pleased to present to you this year's Annual Drinking Water Quality Report. We sincerely hope that this report, which is distributed on an annual basis, will allow you to understand what the District is doing to insure the delivery of safe, clean drinking water to you, our customers. BMID tests for over 23 Volatile Organic Chemical (VOC) contaminants, and over 20 Inorganic Chemicals (IOC). We also systematically take at least 24 samples each year to submit for bacteriological testing. BMID chlorinates the drinking water. In addition, we monitor for residual chlorine levels daily (Monday – Friday). If you have any questions about this report or about water quality, monitoring, or test results, please call our office at **509-628-0777**. This information is also available on our website: www.badgermountainirrigation.com

PUBLIC PARTICIPATION

We **encourage** public interest and participation in our community's decisions affecting drinking water. The BMID Board of Directors regularly meets the first Wednesday of each month at 1:00 P.M. at the District office located at **87525 E. Reata Rd, Kennewick, WA**. Please feel free to participate.

WHERE YOUR WATER COMES FROM

BMID draws its drinking water through deep wells and the City of Richland Intertie. The District has two wells that serve the area. We are proud to report to you that the water provided by BMID is safe and meets or exceeds Federal & State requirements.

ABOUT DRINKING WATER

The **sources of drinking water** (both tap water & bottled water) include rivers, lakes, streams, ponds, reservoirs, springs & wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials, & can pick up substances resulting from the presence of animals or from human activity.

Drinking water, including bottled water, may contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants & potential health effects can be obtained by calling the **Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791)**.

Contaminants that may be present in source water before we treat it include:

Microbial contaminants, such as viruses & bacteria, which may come from sewage systems, septic systems, agricultural livestock operations & wildlife.

Inorganic contaminants, such as salts & metals, which can be naturally occurring or result from storm runoff, industrial or domestic wastewater discharges, oil & gas production, mining or farming.

Pesticides & herbicides, which may come from a variety of sources such as agriculture, storm water runoff & residential uses.

Organic chemical contaminants, including synthetic & volatile organic, which are by-products of industrial processes & petroleum production, & can come from gas stations, urban storm water runoff & septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil or gas production & mining activities.

In order 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 the public water systems. We routinely monitor & test our water according to EPA & Washington Dept. of Health regulations. The FDA & the Washington Dept. of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

COMMON SUBSTANCES FOUND IN WATER

The information below describes some common substances found in water. While these substances were detected in our drinking water, the levels detected were well below the regulated limits & therefore pose no health risk.

TTHMs (Total Trihalomethanes): Some people who drink water containing trihalomethanes in excess of the MCL (80 ug/L) over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Lead: Infants and children who drink water containing lead in excess of the action level (0.015 mg/L) could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water containing lead in excess of the action level could, over many years, develop kidney problems or high blood pressure.

About Nitrate: Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.



IMPORTANT BILLING INFORMATION

Domestic water is metered. Meters are read every two months:

February, April, June, August, October, and December. To avoid late charges or water shut off notices, it is advisable to contact the office if you *have not* received your water bill by the 15th of the months listed above.

BMID WATER QUALITY ANALYSIS

The table below lists all the drinking water contaminants that we detected during the 2019 calendar year. The presence of these contaminants 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 testing done January 1 – December 31, 2019. The State of Washington (DOH) requires us to test & monitor for certain contaminants less than once a year because the concentrations of these substances are not expected to vary significantly from year to year.

Substance	Level(s) Detected	Highest Detection	MCL, TT, or MRDL	MCLG or MRDLG	Violation	Sample Date(s)	Typical Source
Disinfectants & Disinfection By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)							
Haloacetic Acids (HAA5) (ug/L)	19.9 to 35.978	35.978	60	NA	No	2019	By-product of drinking water chlorination.
TTHMs [Total Trihalomethanes] (ug/L)	33.0 to 74.5252	74.5252	80	NA	No	2019	By-product of drinking water disinfection.
Inorganic Contaminants							
Asbestos (MFL)	0.116	0.116	7	7	No	2016	Decay of asbestos cement water mains; Erosion of natural deposits.
Barium (mg/L)	0.0710	.00710	2	2	No	2018	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (mg/L)	0.565	0.565	4.0	4.0	No	2018	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories. (Note: BMID does not add fluoride to our water; it is naturally occurring)
Nitrate (mg/L)	<0.5 to 0.7	0.7	10	10	No	2019	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Microbiological Contaminants							
Total Coliform (positive samples/month)	0	0	1	0	No	2019	Naturally present in the environment.
Turbidity (NTU)	0.16	0.16	NA	NA	No	2018	Soil runoff.
Radioactive Contaminants							
Beta/phon emitters (pCi/L)	ND to 10.9	10.9	50	0	No	2009	Decay of natural and man-made deposits.

Substance	Level Detected	Action Level (AL)	MCLG	# of Samples Exceeding AL	Exceeds AL	Sample Date	Typical Source
Inorganic Contaminants							
Copper - source water (mg/L)	0.0068 to 0.0048	1.3	1.3	0	No	10 & 17	Erosion of natural deposits
Copper - action level at consumer taps (mg/L)	0.028 to 0.18	1.3	1.3	0	No	2017	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead - source water (mg/L)	ND to 0.0004	0.015	0	0	No	10 & 17	Erosion of natural deposits
Lead - action level at consumer taps (mg/L)	<0.001 to 0.0023	0.015	0	0	No	2017	Corrosion of household plumbing systems; Erosion of natural deposits.

Term	Definition
mg/L	milligrams per liter (same as parts per million)
ug/L	micrograms per liter (same as parts per billion)
pCi/L	picocuries per liter (a measure of radioactivity)
MFL	million fibers per liter, used to measure asbestos concentration
NTU	Nephelometric Turbidity Units.
NA	Not applicable
ND	Not detected
MCL	Maximum Contaminant Level. 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.

Term	Definition
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.
TT	Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDL	Maximum residual disinfectant level. 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.
MRDLG	Maximum residual disinfection level goal. 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.

2019 Free Chlorine Residual Readings		
Lowest	Highest	Average
0.11 mg/L	1.40 mg/L	0.77 mg/L

We monitor for residual chlorine levels daily (Monday - Friday).
BMID considers the optimum average residual range to be 0.25–0.80

BMID Water Hardness		
Grains Per Gallon	mg/L	Description
4.9 to 5.3 grains	85 to 90 mg/L	Hard Water



WATER USE EFFICIENCY REPORT

The Badger Mountain Irrigation District submits an annual report to the Department of Health in regards to our water use efficiency. The data in this report is related to water produced, water sold, average water usage per customer and the percentage of water loss within the district. The data also takes into account water used through fire hydrants and loss due to leakage & theft.

Another component of the Water Use Efficiency (WUE) Report is to set a goal and a timeframe to accomplish the goal. In early 2010, BMID set a goal to reduce water use to an average of less than 200 gallons per residence per day by 2016. The chart below indicates that BMID & its customers have met and maintained this goal. BMID is currently in the process of reviewing and setting new goals for a 10 year WUE plan.

*To obtain a copy of BMID's complete Water Use Efficiency Report, please contact our office at (509) 628-0777.

