Valley Grove Subdivision Public Water System
Consumer Confidence Report for 2020

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is a summary of last year's water quality. Its intent is to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Your drinking water quality meets all federal and state standards.

System Information

Your water system is regulated by the State of Montana as a community water system and is designated Public Water System (PWS) No. MT0003780. For questions or service problems, please contact Pete Adams at 406-580-1527 or call one of the HOA Board members. Water quality or service issues can also be brought to the HOA Board's attention at their regular monthly meeting. Please see the HOA web site for Board contact information and for the meeting time and location (http://www.vghoa.org/).

Water Source

The Valley Grove Subdivision PWS draws water from four wells. Wells 1, 2 and 4 tap a semi-confined alluvial aquifer, while Well 3 taps an unconfined alluvial aquifer. These types of aquifers underlie much of the Gallatin Valley and generally produce high quality water.

The Valley Grove Subdivision PWS wells are however potentially susceptible to being contaminated by several pollution sources including failing or overloaded septic systems and improper use or disposal of agricultural and household chemicals. A source water assessment report that provides more information is available on line at http://deq.mt.gov/water/drinkingwater/sourcewater

Water drawn from Wells 1, 2 and 3 is not filtered or treated in any manner before distribution. Water drawn from Well 4 is passed through a sand separator before distribution.

Compliance with Drinking Water Regulations

Your drinking water quality currently meets all federal and state standards.

Water Quality Monitoring Results

The Valley Grove Subdivision PWS follows a testing protocol established by the Montana Department of Environmental Quality (DEQ) to monitor the microbiological, chemical and radiological quality of the water supply. A listing of required tests and historical test results is available on line at http://deq.mt.gov/water/drinkingwater/yourdrinkingwater under the drinking water watch link.

Results from the most recent water quality tests are summarized in Tables 1 and 2 below.

Educational Information

All sources of drinking water are subject to potential contamination from microbes, organic and inorganic chemicals or radioactive materials. 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 (800–426–4791).

Drinking water sources for both tap water and bottled water may 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 materials and it can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in drinking water sources 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- *Radioactive contaminants,* which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

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 (800–426–4791).

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. The Valley Grove Subdivision PWS is responsible for providing high quality drinking water, but can not 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 the 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 your exposure is available for the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Regulatory Definitions:

NSDWR: A National Secondary Drinking Water Regulation is a non-mandatory water quality standard regarding contaminants that may cause cosmetic effects such as taste, odor or color

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water

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

Not-Detected (ND) - laboratory analysis indicates that the constituent is not present above reporting limits.

mg/L- milligram per liter, also equals one part per million (ppm)

ppb - one part per billion

pCi/L - picocuries per liter is a measure of the radioactivity in water.

90^{th} percentile – 90 percent of measured values are equal to or less than indicated value

Table 1
Secondary Drinking Water Regulation Test Results

Contaminant	Last Tested	Result (max)	NSDWR
pH	Dec. 2019	7.8	6.5-8.5
Calcium	Dec. 2019	73 mg/L	
Chloride	Dec. 2019	10 mg/L	250 mg/L
Fluoride	Dec. 2019	ND mg/L	2 mg/L
Iron	Dec. 2019	ND mg/L	0.3 mg/L
Magnesium	Dec. 2019	19 mg/L	
Manganese		not tested	0.05 mg/L
Potassium	Dec. 2019	6 mg/L	
Sodium	Dec. 2019	13 mg/L	<20 mg/L
Sulfate	Dec. 2019	21 mg/L	250 mg/L
Total Dissolved Solids	Dec. 2019	352 mg/L	500 mg/L
Zinc		not tested	5 mg/L
Alkalinity	Dec. 2019	247 mg/L	
Hardness	Dec. 2019	260 mg/L	

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Table 2
Primary Drinking Water Regulation Compliance

Contaminant	Last Tested	Result	Violation	MCLG	MCL or Action Level	Likely Source
Total Coliform [1)]	monthly	Not detected	No	zero detects	1 detect/mo.	
Fecal Coliform [1)]	monthly	Not detected	No	zero detects	1 detect/mo.	
Nitrate & Nitrites	Oct. 2020	1.39 to 2.41 mg/L	No	10 mg/L N	>5 mg/L –action 10 mg/L –MCL	Runoff from fertilizer use; Leaks from septic tanks or sewage mains, leaching of septic drain fields
Copper – Range – 90th percentile – # samples > action level	Sep. 2020	0.014 to 0.200 mg/L 0.164 mg/L 0	No	1.3 mg/L	1.3 mg/L	Corrosion of household plumbing and fixtures
Lead – Range – 90th percentile – # samples > action level	Sep. 2020	0.0/ ND mg/L ND mg/L 0	No	0.0 mg/L	0.015 mg/L	Corrosion of household plumbing and fixtures
Inorganics						
• Fluoride	Dec. 2019	ND to 0.1 mg/L	No	4.0 mg/L	4.0 mg/L	Erosion of natural deposits
• Arsenic	Dec. 2019	Not detected	No	0.0 mg/L	0.01 mg/L	Erosion of natural deposits
• Barium	Dec. 2019	0.06 mg/L	No	2.0 mg/L	2.0 mg/L	Erosion of natural deposits
• 8 other regulated elements	Dec. 2019	Not detected	No	Varies w/ contaminant	Varies w/ contaminant	
Volatile Organics						
• Phthalate [2)]	Oct. 2013 Jan. 2014 Apr. 2014 Aug. 2014 Feb. 2016 Oct. 2017 Nov. 2018 Dec. 2019	0.0028 mg/L ND 0.0026 mg/L ND ND 0.0012 mg/L ND ND	No	0.0 mg/L	0.006 mg/L	Leached from plastic and rubber materials
• Other regulated compounds	Oct. 2020 Dec. 2019	Not detected	No	Varies w/ contaminant	Varies w/ contaminant	
Synthetic Organics						
• Regulated compounds	Dec. 2019	Not detected	No	Varies w/ contaminant	Varies w/ contaminant	
Radiological						
• Radium 226 & 228 [3)]	Dec. 2015	1.3 to 3.6 pCi/L	No	0 pCi/L	5 pCi/L	Erosion of natural deposits
• Uranium [3)]	Dec. 2015	0.002 to 0.005 mg/L	No	0 mg/L	0.03 mg/L	Erosion of natural deposits
• Gross alpha [3)]	Dec. 2015	2.6 to 4.8 pCi/L	No	0 pCi/L	15 pCi/L	Erosion of natural deposits

1) The presence of Total and Fecal coliform bacteria is tested for monthly in two samples.
2) No di(2-ethylhexyl) phthalate was detected in Wells #1, 2 & 3. The concentration of di(2-ethylhexyl) phthalate initially detected in Well #4 (2013), while less than the MCL was greater than the detection limit and annual monitoring has been imposed until it is shown that the contamination in that well is consistently below the MCL
3) Radium radiation level in Well #3 and Uranium concentration and gross alpha radiation level in the composite sample from Wells #1 and #2 were high enough that increased monitoring frequency may be imposed.