

HAYDEN LAKE IRRIGATION DISTRICT

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Hayden Lake Irrigation District's annual water quality report for the calendar year 2017. This report provides information regarding your water and the contaminants we monitor for. We hope you will take a few moments to review the information about your water and would like to bring the following to your attention:

- Contaminants detected in the water within the past five years are included in the enclosed report. If multiple samples are taken during a five-year period, only the most recent results will be shown. Earlier monitoring results are available on our website; www.haydenirrigation.com, click on *Drinking Water Quality Report* under *Your Water* and select the desired year for information.
- The District did experience one monitoring violation this past year. The monitoring violation was a late sample for radiological analysis at the Dakota Well Field (new Well site). The sample was completed late, with no water quality issues.
- The District does not add any chemicals or treatment to the water, including disinfection (chlorination).
- The water we provide is “moderately hard” to “hard” as the following report indicates on the last table. If you prefer softer water, a water softener may be an option.
- This year we added/completed an additional distribution well to the Dakota Well Field. The sampling results are well below the Idaho Department of Environmental Quality action levels, please see results below.
- The District is extremely diligent in our monthly sampling and we can safely report to you, no bacteria was present in our distribution sampling results.

2017 Annual Drinking Water Quality Report

Hayden Lake Irrigation District presents the 2017 Water Quality Report. This report is designed to inform you about the quality of water and service we deliver to you every day. Our goal is to provide you, our customers, with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve and protect our water resources. This report covers the period from January to December 2017.

We value our customers; if you have any questions concerning your water or the District, please contact Branden Rose, District Administrator, at (208) 772-2612. If you wish to learn more, you may attend any of our regularly scheduled Board meetings held on the first Tuesday of each month at 6:00 p.m. Meetings are held at the District office located at 2160 West Dakota Avenue in Hayden.

Your water comes from the Rathdrum-Prairie Aquifer. This Aquifer serves nearly 600,000 people in the surrounding region and is a reliable source of drinking water. Please help to maintain its quality through the wise use of fertilizers and pesticides, by recycling used oil and other chemicals and maintaining septic and storm water systems. These steps benefit all of the residents who depend on this source.

We rely on you to help us prevent harmful contamination of the drinking water system. You can help us accomplish this by completing the annual testing of all backflow prevention assemblies on your property. Annual testing of all backflow assemblies by a certified tester is required by the District and the State of Idaho. Our website has a list of testers who meet the District requirements.

The District continually takes steps to ensure the water quality is protected. Because we do not chlorinate (disinfect) our water we have some of the most stringent requirements of ourselves. And the contractors working on our water system, to prevent contamination. We continue to refine those requirements to maintain water quality. The District prefers to provide high quality water to its users without disinfection or other treatments.

Hayden Lake Irrigation District routinely monitors for contaminants in your drinking water in accordance with state and federal rules. All drinking water, including bottled water, may contain at least small amounts of some contaminants. The presence of contaminants does not necessarily mean the water poses a health risk. More information about contaminants and their potential health effects can be obtained by calling the **Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791** or researching online at: www.epa.gov/safewater

The following tables describe any contaminants detected in our water within the past 5 years. If multiple samples are taken during a five-year period, only the most recent results will be shown. The District samples for many additional contaminants; however, they were not detected in laboratory analysis of the water samples.

Contaminant	Sample Date(s)	Well 1	Dakota Wells 1,2 & 3	Well 4	MCL	MCLG	Violation ?	Typical source of Contaminant
Nitrate	2016 2017	ND .74	.65 .62	2.35 2.4	10	10	No	Runoff from Fertilizer/ Leaching from Septic Tanks/ Sewage/ Erosion of Natural Deposits
Arsenic	2016 2017	.0019	0.0016 0.0017	0.0033	.010	0	No	Erosion of natural deposits/ Runoff from Orchards/ Glass/ Electronics Production Wastes
Sodium	2014 2017	3.00	2.55 2.38	4.93	N/A	N/A	No	Erosion of Natural Deposits/ Discharge from Fertilizer/ Aluminum Factories
Barium	2014 2017	0.016	0.011 ND	0.036	2	2	No	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Radiological Gross Alpha	<i>Note: 1</i>	<i>Note: 1</i>	<i>Note: 1</i>	1.74 +/- 1.79	15	0	No	Erosion of Natural Deposits
Radiological Uranium	<i>Note: 1</i>	ND	ND ND	4.81 (ug/L)	30 (ug/l)	0	No	Erosion of Natural Deposits

Note 1: Radiological monitoring completed at:
Well # 1: 2013: R-226 ND+/-0.32; R-228 ND +/-0.69; 8-19-14: Alpha ND +/-1.68
Wells 1,2&3: 10/23/2017: R-226 <0.2+/-0.0289; R-228 .115 +/-0.190; Alpha .530+/-0.467
Well # 4: 10/18/16: Results depicted on table above

2016

Lead and copper sampling is conducted every three years, These are the results of our most recent sampling:

Contaminant	# of Samples	Date(s)	Our water 90 th percentile results	Range of detection	Action Level	MCLG
Lead	20	2016	2.4 (ppb)	1 to 1.8 (ppb)	15 (ppb)	0 (ppb)
Copper	20	2016	0.0452 (ppm)	ND to 0.0588 (ppm)	1.3 (ppm)	1.3 (ppm)

Well	Calcium	Magnesium	Hardness	pH	Alkalinity	Iron	Dissolved Solids	Langier Index	Total Organic Carbon
1	20.2	4.8	70.1	8.16	76.7	ND	92	-0.400	0.40
1,2 & 3	21.5	5.93	4.57	8.07	99.8	ND	104	-0.3014	0.34
4	39.8	29.6	221	7.74	208	ND	237	-0.129	0.49

The following list explains some of the technical terms and assists in understanding the tables provided above:

- **MCL:** Maximum Contaminant Level is in milligrams per liter (mg/l) unless otherwise specified. One milligram per liter is equivalent to one part per million (ppm). Put another way, one ppm is equal to one-part contaminant per one million parts drinking water.
- **MCLG:** Maximum Contaminant Level Goal 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.
- **mg/L:** represents milligrams per liter, one mg/L is equivalent to one part per million (ppm). Or one penny in \$10,000.
- **ug/L:** represents micrograms per liter, one ug/L is equivalent to one part per billion (ppb). Or one penny in \$10,000,000.
- **Radiological** contaminants are expressed in picocuries per liter (pCi/L) unless otherwise specified.
- **Total Coliform** is monitored monthly by taking seven samples from various locations in the District's water distribution system. At least two samples must show presence of coliform bacteria in order for a violation to have occurred.
- **Lead and Copper:**
 - Testing is completed at specific homes within the District
 - The 90th percentile of results is the reportable level
 - This means that 90% of all results are at or below (less than) the reported level
 - **Action Level:** is the point at which the District must take action to reduce lead or copper levels in the water
- **ND:** means non-detect; this means that the contaminant was below the laboratories ability to reliably measure that contaminant.

Maximum Contaminant Level (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology. MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants; a person would have to drink 2 liters of water every day at the MCL level or greater for a lifetime to have a one-in-a-million chance of having the described health effect. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as; person(s) with cancer undergoing chemotherapy, people who have undergone organ transplants, 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 methods 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: <http://www.epa.gov/safewater>.

The sources of drinking water (both tap water and bottled water) 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 material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants which may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, wildlife and nature.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharge, oil and gas production, mining, farming or road de-icing.
- 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 byproducts 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 tap water is safe to drink, the EPA regulates the limit of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. The District water quality met the EPA's requirements in 2016.

Please help us conserve your natural resource:

We are continuing the odd and even watering schedule. Sprinkler systems should be set to every other day watering examples, if your address ends with 1,3,5,7,9 you water on the odd days of the month, address's ending with 0,2,4,6,8 water on the even days of the month.

If you have any questions, please call 208-772-2612 or e-mail district@haydenirrigation.com

*Thank you,
The Board and Staff at Hayden Lake Irrigation District*