2015 Consumer Confidence Report

City of Ripon ~ Public Works Department

Water Quality Exceeds Mark

Ripon vigilantly safeguards its water wells. Included in this report are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to bringing you this information, whereas consumers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

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This report describes Ripon's drinking water sources and quality, and the program which protects the high water quality of our water supply.

The information in this report is also submitted formally and routinely to the State of California Department of Health Services, which monitor our compliance with the many regulatory standards and testing protocols required to assure safe drinking water.

We test the drinking water quality for many constituents as required by State and Federal Regulations. *This report shows the results of our monitoring for the period of Jan. 1 - Dec. 31, 2015.*

The Sources of Drinking Water

The sources of drinking water, both tap water and bottle 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 which can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

Microbial contaminants*, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*

Inorganic contaminants*, such as salts and metals that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.*

Pesticide 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 that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.*

We found that all wells are subject to possible contamination from the following sources located within the well's area of influence; such as sewer collection systems, high-density septic systems (>1/acre), wastewater treatment, and disposal facilities. Additional activities that increase vulnerability are parks, high density housing (>2/acre), apartments, condominiums, schools, body shops, gas stations, repair shops, chemical storage, dry cleaners, truck/bus terminals, machine shops, printing shops, research labs, paper processing facilities, parking lots, cemeteries, hardware/part stores, office complexes, RV/mini storages, parks, wells for Agriculture irrigation, farming activities, historic gas stations, freeways, railroad, storm detention basins, and medical/dental offices.

How Much Water Do We Use?

The total potable water production for 2015 was 1.16 billion gallons of potable water and 185 million gallons of non-potable water. The peak month was July with 140 million gallons of potable water and 26 million gallons of non-potable water produced.

Este informe contiene información muy importante sobre su agua de potable. Tradúzcalo ó hablecon alguien que lo entienda bien.

Summary information for contaminants exceeding an MCL or AL, or a violation of any treatment or monitoring & reporting requirements. No regulated chemicals were found exceeding the applicable MCL.

Water Sources & System Operations

In 2015, all of Ripon's water originated from six groundwater wells. Two are located on the west side of Highway 99 and four on the east side. These wells tap underground reserves or aquifers from approximately 125-500 feet below the ground surface. The aquifers are replenished by rainfall, the Stanislaus River and agricultural irrigation water. The total pumping capacity for all wells connected to the City's water distribution system is 8,200 GPM. The City has two elevated storage tanks, a 1.5 MG located near the Jack Tone Interchange and a 2.5 MG tank on River Road at the Mistlin Sports Complex. These elevated tanks have the capacity to provide an additional 10,000 GPM for peak demand or fire fighting needs. Ripon's piping system is designed so that, depending upon the demand, water at your faucet can be supplied from a single well or any combination of wells in operation at any given time.

	Well #3	Well #7	Well #10	Well #13	Well #14	Well #18
Location	Second St	Manley Rd	Hughes Ln	River Rd	E Milgeo Ave	N Stockton Ave
Date Drilled	1950	1977	1993	2003	2003	2011
Depth of Well	156'	338'	462'	500'	240'	306'
Well Design	Open Bottom	Louvered Screen	Stainless Steel Screen Wire	Stainless Steel Wire Screen	Stainless Steel Wire Screen	Stainless Steel Wire Screen
Static Water Level	30'	34'	35'	38'	44'	49'
Production Rate GPM = Gallons Per Minute	900 GPM	1,100 GPM	2,000 GPM	2,000 GPM	1,000 GPM	1,200 GPM

What is the pH of Ripon's water?

The pH of Ripon's water after treatment ranges from 6.1 to 8.0 standard units. The average pH is 6.8 units.

Does Ripon have hard water?

Ripon has hard water ranging from 4.0 to 8.2. The average hardness is 10.4 grains of hardness per gallon.

Does Ripon add fluoride to the water?

Ripon does not add fluoride to the water. Parents of young children may want to consult with their dentist about the need for fluoride treatments to prevent tooth decay.

Why does the water sometimes look rusty?

Rusting galvanized pipe in plumbing systems is the typical cause of discolored water. Iron causes the discoloration; it is not a health risk. If cold water is discolored, it will clear after running a bit. If hot water, the water heater may need flushing. When flushing your water heater, please follow the manufacturer's directions. Contact the Building Department at (209) 599-2613 for a permit, if the water heater needs to be replaced.

What can I do about chlorine odors?

Chlorine kills organisms that may cause disease. If you remove the chlorine, be sure to refrigerate the water to limit bacterial re-growth. Below are some options on how to remove chlorine:

- Fill a pitcher and let it stand in the refrigerator overnight. (This is the best way)
- Fill a glass or jar with water and let it stand in the sunlight for 30 minutes.
- Pour water between containers about 10 times.
- Heat the water to about 100 degrees Fahrenheit.

Why does the taste and odor of the water sometimes differ?

Water naturally varies in taste and odor at different times of the year. Occasionally, the water will have a sulfur smell. This is the result of slow-moving water within the distribution system and the interaction of naturally occurring organics within the water. You can let the water run for several minutes to reduce the odor. If it persists please contact the Public Works Department at (209) 599-2151.

Safe Drinking Water

In order to ensure that tap water is safe to drink; USEPA and the State Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department requires us to monitor for certain contaminants less than once per year because they are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of detections	No. of months in violations	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection.	0	Naturally present in the environment.
Fecal Coliform or E. coli	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli.	0	Human and animal fecal waste.

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper *	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead	34	0 to ppm	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper	34	0.077 to ppm	0	1.3	0.17	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

**** Last monitoring was conducted in 2014 - Next test scheduled for July of 2017***

TABLE 3 - SAMPLING RESULTS SHOWING UNREGULATED CHEMICALS

Chemical or Constituent	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium	2013 - 2015	43.2 to ppm	16.8 - 103 ppm	none	none	Generally found in ground.
Hardness as CaC03	2013 - 2015	178.6 to ppm	69.2 - 311 ppm	none	none	Generally found in ground.
Calcium	2013 - 2015	46.7 to ppm	19.2 - 77.7 ppm	none	none	Generally found in ground.

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Arsenic	2013 - 2015	6.5 ppb	3.0 -9.5 ppb	10 ppb	4	Erosion of natural deposits; runoff from orchards; glass and electronics production waste.
Barium	2013 - 2015	105.3 ppb	0 - 201 ppb	2000 ppb	2000 ppb	Discharge of oil drilling waste and from metal refineries; erosion of natural deposits.
Nitrate as No^3	2013 - 2015	21.58 ppm	13 - 44 ppm	45 ppm	45 ppm	Runoff and leaching from fertilizer use, leaching from septic tanks, sewage; erosion of natural deposits.
TCE	2013 - 2015	0.2 ppb	1.4 ppb	5 ppb	0.8 ppb	Industrial solvent.
Cis 1,2 DCE	2013 - 2015	0.5 ppb	0 - 3.5 ppb	6 ppb	0.07 ppb	Industrial solvent.
DBCP	2013 - 2015	.0043 ppb	0 - 0.026 ppb	.2 ppb	1.7 ppb	Banned nematocide that may still be present in solids due to runoff/ leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit.

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLS)**	**Type Source of Contaminant**
Chloride	2013 - 2015	74.0 ppm	12 – 210 ppm	500 ppm	n/a	Runoff and leaching from fertilizer use; leaching from natural deposits; sea water influence.
Sulfate	2013 - 2015	23.8 ppm	7.7 – 52 ppm	500 ppm	n/a	Runoff leaching from natural deposits; industrial waste.
Total Dissolved Solids (TDS)	2013 - 2015	400 ppm	220 – 570 ppm	1000 ppm	n/a	Runoff leaching from natural deposits.

Water Well Protection: The City of Ripon encourages the abandonment of all non-used residential wells. On all existing City water wells, the following protection measures are used: Sanitary Seals at a minimum of 150' in depth, well head is set up 2' above ground level, and daily visual inspections are made. During construction of new wells, we ensure that there are no sewer lines within 100'.

Additional Information on Drinking Water: All drinking water, including bottled water, may reasonably be expected to contain at least a small amount of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as persons 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 provider about drinking water. USEPA/Centers for Disease Control (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). Cryptosporidium is typically found in surface water; Ripon's water comes from wells.

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a Contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Primary Drinking Water Standards (PDWS): MCLs for contaminants that affect health along with their monitoring and reporting requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL.

ND: Not Detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radiation)

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

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 are set by the U.S. Environmental Protection Agency (USEPA).

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): A concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

Total Coliform: Coliform are bacteria, which are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present.

Arsenic: There are a number of new and more demanding regulations that have become law in recent years. The most public attention has been given to the new Arsenic regulations. The maximum contaminant level was reduced from the previous 50ppm to 10ppm.

Arsenic above 5 ppb up through 10 ppb: While your drinking water meets the current standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The California Department of Health services continues to research the health effects of low levels of arsenic, which is a mineral known to cause concern in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Arsenic above 10 ppb up through 50 ppb: Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.

Nitrate: Drinking water at levels above 45 ppm is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 ppm may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Lead & Copper: 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 City 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 https://www.epa.gov/safewater/lead

Chlorine: Full time chlorination of the Distribution System was mandated by the State Office of Drinking Water and was implemented in December of 2000.

MTBE: (Methyl Tert-Butyl Ether): Ripon has one service station site with MTBE in the shallow ground water. The owner of the station has installed a pump and treatment system onsite. Thus far, we have NOT DETECTED MTBE in any of our drinking water wells.

Radon: Radon is a naturally occurring radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air-containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. It should be addressed if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that isn't too costly. For additional information, call your State Radon Program or call EPA's Radon Hotline: **1-800-SOS-RADON**

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 U.S. Environmental Protection Agency's Safe Drinking Water Hotline: 1-800-426-4791.

Questions & Answers

Contact the Public Works Department if you are interested in learning more about Ripon's water department or water quality. Questions can be answered by calling Ted Johnston, Public Works Director at (209) 599-2151 or visit us on our website at: *www.cityofripon.org*

Public Participation

City Council meetings are held at the City Hall Council Chamber at 6:00 p.m. on the second Tuesday of each month.

How small is one part per million?

Money = 1 cent in $10,000
Time = 1 minute in 1.9 years
Weight = 1 pound in 500 tons
Length = 1 inch in 16 miles
Volume = 1 oz of dye in 7,350 gallon of water
Kitchen = 1 oz of salt in 62,500 lbs of sugar

How small is one part per billion?

Money = 1 cent in $10,000,000
Time = 1 minute in 32 years
Length = 1 inch in 16,000 miles

Additional copies of this Consumer Confidence Report are available at City Hall in the Public Works Department or on our website at: *www.cityofripon.org*

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