



2010 City of Rio Dell Annual Consumer Confidence Report

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 January 1 - December 31, 2008.

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

Type of water source(s) in use Surface Water

Name & location of source(s): Rio Dell's water intake gallery is located just below the Eagle Prairie Bridge in the EEL RIVER.

Drinking Water Source Assessment information:

An assessment of the drinking water source was completed in 2003.

The source is considered most vulnerable to the following activities not associated with any detected contaminants:

Automobile - Gas stations

Known Contaminant Plumes

Septic systems - high density

Underground storage tanks - Confirmed leaking tanks

Wastewater treatment plants and disposal facilities.

A copy of the complete assessment can be viewed on the web at

<http://swap.ice.ucdavis.edu/TSinfo/output/ps1210012-005.pdf>

Is my water safe?

In order to ensure that tap water is safe to drink, the USEPA and The California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

How can I get involved?

City Council meetings are on the first and third Tuesday of every month at 6:30 pm at Rio Dell City Hall, 675 Wildwood Ave. Call 764-3532 during business hours for more information.

For more information please contact:

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Conservation Tips

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-cost ways to conserve water. Water your lawn at the least sunny times of the day. Fix toilet and faucet leaks. Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath. Turn the faucet off while brushing your teeth and shaving; 3-5 gallons go down the drain per minute. Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

Additional General Information on Drinking Water

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 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 (1-800-426-4791).

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. 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 at (1-800-426-4791) or at their website at: <http://www.epa.gov/safewater>

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.

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).

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 Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

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

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

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

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

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)

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.

The City of Rio Dell does not add additional FLORIDE to the water supply. Fluoride is a naturally-occurring trace element in groundwater and at low levels, helps prevent dental cavities. The U.S. Public Health Service considers optimal levels of fluoride to be 0.7 to 1.2 ppm for drinking water. The City's average fluoride level of 0.15 ppm is considered to be lower than optimal for helping prevent tooth decay. You may want to consider consulting your dentist about ways to prevent tooth decay.

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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides* that may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants* that can be naturally-occurring or be the result of oil and gas production and mining activities.
- *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. City of Rio Dell 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 <http://www.epa.gov/safewater/lead>.*

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 allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants (to be completed only if there was a detection of bacteria)	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper SAMPLE DATES: 9/13/07 & 1/17/08	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	20	3.8	0	15	2	Internal corrosion of household water plumbing systems; discharge from industrial manufacturers; erosion of natural deposits
Copper (ppm)	20	.4	0	1.3	.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2006	4.4	4.4-6.5	none	none	Generally found in ground & surface water
Hardness (ppm)	2010	120	71-120	none	none	Generally found in ground & surface water

SODIUM:

We recognize that the addition of sodium to drinking water may be of concern to some customers. In 2005, after treatment, the water contains approximately 12 ppm of sodium. The U.S. EPA considers servings of less than 35 ppm to be very low sodium. The Food and Drug Administration states that most American adults tend to eat between 4,000 and 6,000 ppm of sodium per day. There is currently no drinking water standard for sodium.

HARDNESS:

Water in the City of Rio Dell is considered to be fairly hard at an average detected level of 120 ppm. Water that is too soft, below 30 ppm, can be corrosive to plumbing pipes and water that is too hard, above 300 ppm, causes scaled to form on plumbing fixtures and cooking utensils.

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb)	2006	6	6	10 ^(b)	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2009	.068	.068	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2009	1.9	1.9	50	100	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits.
Copper (ppm)	2009	.005	.005	1.3	.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	2009	.11	.11	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha (pCi/L)	2008	.334	.334	15	3	Erosion of natural deposits
Lead (ppb)	2006	5.2	5.2	15	1.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Nickel (ppb)	2009	1.4	1.4 – 58.	100	12	Erosion of natural deposits; discharge from metal factories

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum (ppm)	2009	.016	.016	1	.6	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2006	1.9	1.9	500	N/A	Runoff/leaching from natural deposits; seawater influence
Color	2004	10	10	15	N/A	Naturally-occurring organic materials
Specific Conductance (μ S/cm)	2010	220	220	1600	N/A	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2006	6.2	6.2	500	N/A	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	2006	170	170	1000	N/A	Runoff/leaching from natural deposits
Zinc (ppm)	2006	.05	.05	5.0	N/A	Runoff/leaching from natural deposits; industrial wastes

TABLE 6 – DISINFECTANT BYPRODUCTS

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Notification Level	Health Effects Language
Total Trihalomethanes TTHM (ppb)	2010	24.5	80	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
Haloacetic Acids (ppb)	2010	13.1	60	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Chlorine CL2 (ppb)	2010	.7	4.0	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

TABLE 7 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

<i>Treatment Technique</i> ^(a) (Type of approved filtration technology used)	
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	<u>Turbidity of the filtered water must:</u> 1 – Be less than or equal to 0.2 NTU in 95% of measurements in a month. 2 – Not exceed 0.3 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	.15 ntu
Number of violations of any surface water treatment requirements	0

* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided earlier in this report.

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

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.