

# 2007

## Water Quality Report for Village Of Byron

This report covers the drinking water quality for the Village of Byron for the 2007 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2007. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from 2 groundwater wells, each over 168' in depth. The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source is "moderately high" but only accounts for 18.3% of 2416 communities evaluated.

[There are no] Significant sources of contamination included in our water supply. The Arsenic plant is now in full operation as of 12-06 with levels at between 4-5 ppb. 10ppb is the new standard MCL. Iron levels have also dropped from 0.8ppb to 0.0/0.1ppb.

We are very pleased with this significant drop in Arsenic and Iron levels.

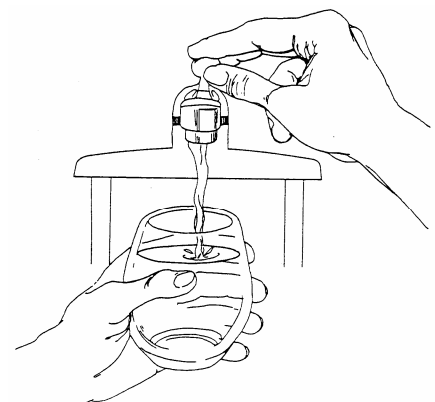
If you would like to know more about this report please contact: Michael Granger @ 810-266-6160 or stop at the office located at 121 N. Saginaw St. between the hours of 7:00am and 3:30pm M-F.

- **Contaminants and their presence in 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline (800-426-4791)**.

- **Vulnerability of sub-populations:** Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems 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).

- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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 that may be present in source water include:
  - T **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
  - T **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.
  - T **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.
  - T **Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
  - T **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.

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



## Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2007 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, 2007. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.

### Terms and abbreviations used below:

- **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 allow for a margin of safety.
- **Maximum Contaminant Level (MCL):** 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.
- **Maximum Residual Disinfectant Level (MRDL):** means 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.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** means 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.
- **N/A:** Not applicable **ND:** not detectable at testing limit **ppb:** parts per billion or micrograms per liter **ppm:** parts per million or milligrams per liter **pCi/l:** Pico curies per liter (a measure of radioactivity).
- **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Regulated Contaminant	MCL	MCLG	Your Water	Range	Sample Date	Violation Yes / No	Typical Source of Contaminant
Arsenic* (ppb)	10	0.006	Ground	10ppb	1-07/12/07	no	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Fluoride (ppm)	4	0.77	Ground	0.75	7/10/07	no	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Chlorine (ppm)			Ground	2.2	1-06/12-06	no	Water additive used to control microbes
Sodium (ppm)	5	<b>Range</b>	51	Erosion of natural deposits	7/10/07	No Limits	
<b>Contaminant Subject to AL Lead (ppb)</b>	<b>Action Level</b>	<b>MCLG</b>	90% of Samples ≤ This Level	<b>Sample Date</b>	<b>Number of Samples Above AL</b>	<b>Typical Source of Contaminant</b>	
	15	0				Corrosion of household plumbing systems; Erosion of natural deposits	
Copper (ppm)	1.3	1.3	0.48		9/13/06	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	

RADIUM 226/228	5	7	Ground		6/07-1/08 Quarterly	Yes	Radium levels are consistently at 2ppb since operation of Arsenic removal as begun.

\* Arsenic values are effective January 23, 2006. The MCL is 10 ppb and there is no MCLG.

\*\* EPA considers 10 pCi/l to be the level of concern for beta particles.

\*\*\* Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Microbial Contaminants	MCL	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	0 positive monthly sample	0	0	No	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	Routine and repeat sample total coliform positive, and one is also fecal or <i>E. coli</i> positive	0	0	No	Human and animal fecal waste

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Fecal coli forms and *E. coli* are bacteria whose presence indicated that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, the elderly, and people with severely compromised immune systems.

Monitoring and Reporting Requirements: The State and EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2007.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies are available at 121 N. Saginaw St. or can be viewed at [www.byron.org](http://www.byron.org). This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. Council meetings are held on the second Monday of every month at 7:00pm @ 146 S. Saginaw St. [Municipal building]. For more information about your water, or the contents of this report, contact: Michael Granger @810-266-6160. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).