

# 2010 WATER QUALITY REPORT FOR City Of Spirit Lake And City Of Orleans PWS ID 3070078

This report contains important information regarding the water quality in our water system. The source of our water is surface water. Our surface water is drawn from Big Spirit Lake. Our water quality testing shows the following results:

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
THM (ppb) [Total trihalomethanes]	N/A	80	66	2009	45 - 93	No	By-products of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	N/A	60	23	2009	20 - 26	No	By-products of drinking water disinfection
THM (ppb) [Total trihalomethanes] IDSE	N/A	80	120	2009	24 - 120	No	By-products of drinking water disinfection
Haloacetic Acids (HAA5) (ppb) IDSE	N/A	60	42	2009	14 - 42	No	By-products of drinking water disinfection
Arsenic (ppb)	N/A	10	1	6-23-05	N/A	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Fluoride (ppm)	4	4	1.16	2009	0.91 - 1.16	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A	N/A	13	4/21/09	N/A	No	Erosion of natural deposits; Added to water during treatment process
Turbidity (NTU)	N/A	TT	0.12	2009	0.07 - 0.12	No	Soil runoff
Total Organic Carbon (TOC) (ppm)	N/A	TT	25% to 30% Removal required	2009	33% - 55%	No	Naturally present in the environment
Chlorine (ppm)	MRDLG =4.0	MRDL=4.0	1.8	Running Annual Average 2009	1.49 - 1.96	No	Water additive used to control microbes
Copper (ppm)	1.3	AL=1.3	0.05	July 2007	0-0.05	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	0	AL=15	0	July 2007	0-3	No	Corrosion of household plumbing systems; erosion of natural deposits

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

## DEFINITIONS

- 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 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- N/A -- Not applicable
- ND -- Not detected

- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Residual Disinfectant Level Goal (MRDLG) - 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.
- Maximum Residual Disinfectant Level (MRDL) - 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.
- RAA – Running Annual Average

## GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (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. 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. Spirit Lake and Orleans 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>.

*Cryptosporidium* is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicated the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

## SOURCE WATER ASSESSMENT INFORMATION

We have completed the Source Water Assessment and Delineation of Big Spirit Lake. The Big Spirit Lake water source was determined to highly susceptible to contamination because it is a surface water supply. The Big Spirit Lake water source will be more susceptible to activities such as underground storage tanks, landfills and land use patterns (urban and agricultural). The Howard R. Green Company completed a detailed evaluation of your source water supply and is available at the City of Spirit Lake offices.

## OTHER INFORMATION

Our water utility is making every effort to protect the water system from potential security threats. You, as customers, can also help. If you see any suspicious activity near the water tower, treatment plant, wells or fire hydrants, please contact us at Spirit Water Dept. 712-336-212 or the local police/sheriff department at 712-336-2525. We appreciate your assistance in protecting the water system.

## CONTACT INFORMATION

For questions regarding this information, please contact Dean Dodds at 712-336-2127 during the following hours: 7:00am-4:00pm Monday- Friday.

Decisions regarding the water system are made at the City Council meetings held on second and fourth Tuesday of each month at city hall at 5:30 p.m. and are open to the public.

Please Note: This report will not be mailed to individual customers.