

Water Quality Report for the City of Corunna

JUNE 2011

This report covers the drinking water quality for the City of Corunna, for the calendar year 2010. This information is a snapshot of the quality of the water that we provided to you in 2010. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. The City of Corunna purchases their water from the City of Owosso.

The City of Owosso's water supply is 100 percent from groundwater wells. Six wells are available to supply water to a central water treatment facility. Generally, only two to three wells are in operation to meet routine water demands. The wells generally draw from sand and gravel formations with screen settings from 80 to 100 feet below ground surface. All six wells have operating records in excess of 20 years.

<u>Well Name</u>	<u>Well Location</u>
Local Well #1	Water Treatment Plant grounds north of Allendale St. in Owosso
Palmer Well #2	Near Palmer St. on south side of the City of Owosso
Palmer Well #3	Near Palmer St. on south side of the City of Owosso
Hintz Road Well	West of Hintz Road, south of Middleton Road, in Caledonia Township
Osburn Well	North of East Oliver St. east of Gould St. In Caledonia Township
Local Well #3	East of Oakwood St. north of the river in the City of Owosso.

The water from all six wells is treated at a central treatment plant prior to delivery to customers. Treatment includes partial softening using a lime softening process, filtration, fluoridation and chlorine disinfection.

We now have a second feed line coming from Owosso and that line is located on M-21.

If you have any questions about this report or concerning your water utility, please contact City Hall at 402 N. Shiawassee St. Corunna, MI 48817. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled council meetings. They are held on the first and third Monday's of the month at city hall at 7:00pm.

The Michigan Department of Environmental Quality does a yearly evaluation of the water system and the system was given "Satisfactory" rating for the last few years.

- **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. Immuno-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 human activity.
- Contaminants that may be present in source water include:

1. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
2. **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.
3. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.
4. **Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
5. **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. The Food and Drug Administration regulations establish limits for contaminants in bottled water, which is provided by public water systems, and provides protection for public health.

Water Quality Data

The tables in this report list all the drinking water contaminants that we detected during the 2010 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, 2010. 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.
- N/A: Not applicable; ppb: Parts per billion or micrograms per liter; ppm: Parts per million or milligrams per liter.
- Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- 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 (MRDL): 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.

The table below shows the tests results for lead and copper for the City of Corunna.

The lead and copper tests are done every three years and are done at ten different addresses. These results are samples taken in August of 2009. We will do testing again in 2012.

Contaminant Subject to AL	Action Level	90% of Samples ≤ This Level	Sample Date	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0.0	2009	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	0.0	2009	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

The table below shows contaminants detected in the water that we purchase from The City of Owosso.

Regulated Contaminant	MCL	MCLG	Owosso Water	Sample Date	Violation Yes / No	Typical Source of Contaminant
Arsenic (mg/L)	0.010 mg/L	N/A	0.000 mg/L	2010	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (mg/L)	2	2	0.03 mg/L	2010	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Total Trihalomethanes (mg/L)	0.080 mg/L	NA	0.032 mg/L	2010	No	By product of drinking water chlorination
Fluoride (mg/L)	4	4	0.8 mg/L	2010	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Unregulated Contaminant **	MCL	MCLG	Owosso Water	Sample Date	Violation Yes / No	Typical Source of Contaminant
sodium	Not regulated		31 mg/L	2010	No	Erosion of natural deposits

** 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.

Regulated Contaminant	MCL	MCLG	Corunna Water	Range	Sample Date	Violation Yes / No	Typical Source of Contaminant
Chlorine (ppm)	MRDL	MRDLG	.21	.11-.65	2010	NO	Water additive used to control microbes
	4	4					

The table below shows Corunna's monthly routine water samples.

Microbial Contaminants	MCL	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	>1 positive monthly sample (>5% of monthly samples positive)	0	NA	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

In 2001 we were required to do a Gross Alpha test. This is checking for natural radiological contaminants in the water. The results were below the limits. Results were 0.9 pCi/L and 1.2 pCi/L. The limit is 5 pCi/L.

Is our water system meeting other rules that govern our operations? The state and EPA require us to test our water on a regular basis to ensure its safety.

In 2008 the City of Corunna was required to do Total Trihalomethanes (TTHM's and Total Haloacetic (THAA's). TTHM's are by products of chlorination of drinking water that contains organic material. TTHM's includes chloroform, bromochloromethane, chlorodibromomethane, and bromoform. TTHM's results were 0.184 (mg/l) MCL is 0.080 (mg/l)

THAA's are a group of chemicals that are formed along with other disinfection byproducts when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water.

THAA's results are 0.021 (mg/L) MCL is 0.060 (mg/l)

We met all the monitoring and reporting requirements for 2010.

We are committed to providing you safe, reliable, and healthy water. We are pleased to provide you with this information to keep you fully informed about your water. We will be updating this report annually and will also keep you informed of any problems that may occur throughout the year, as they happen.

IMPORTANT INFORMATION FROM EPA

The United States Environmental Protection Agency (EPA) has directed all public water to include the following information on the potential for contaminants in drinking water.

New information on lead: 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 of Corunna is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been setting 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 at <http://www.epa.gov/safewater/lead>.

The City of Corunna is working very hard in replacing old water mains to give the residents a better quality of water. The goal is to replace a water line each year until all lines are replaced.

In June of 2002, the federal government passed the Public Health Security and Bioterrorism Act. This act requires that all public water systems, serving 3,300 people or more, conduct a vulnerability assessment of the water system and prepare an emergency response plan in case there is an interruption to the water system. You, as a Corunna resident, can help in keeping your drinking water safe by reporting any suspicious activity by fire hydrants, pump houses, water towers and city-owned buildings. If you see anything, please call the police or dial 911.

We invite public participation in decisions that affect drinking water quality. For more information about your water, or the contents of this report, contact Tim Crawford at (989) 743 - 5040. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.

If you would like a copy of the report it can be picked up at Corunna City Hall.