

Water Department Contact Information

Bari Wrubel
Supervisor of Water/Wastewater Operations
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Marysville, MI 48040
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*Have any questions? Interested in a plant tour?
Call the Water Plant at (810)-364-8460 to ask your
questions or schedule a visit!!*

*Public information and participation regarding
water issues are encouraged. You are welcome to
attend City Council meetings that are held on the
2nd and 4th Monday of each month at the City Hall
Council Chambers.*

Other Phone Contact Information

St. Clair County Health Dept.	810-987-5300
Michigan DEQ, Warren Office	586-753-3700
Environmental Assistance Center	810-662-9278
EPA Drinking Water Hotline	800-426-4791
Marysville DPS Director	810-364-8340
Marysville City Manager	810-364-6613

On-Line Information

City of Marysville website:
www.cityofmarysvillemi.com

American Water Works Association:
www.awwa.org

Michigan Department of Natural Resources
and Environment:
www.michigan.gov/deq

Water Environment Federation:
www.wef.org

*This report can be found on the City of Marysville
website. Copies may also be obtained at the
Library, City Hall, Water Plant, Public Safety
Building, and DPS building.*

WHERE DOES YOUR WATER COME FROM...

Our water source is the St. Clair River. This river is a freshwater source, and is part of the Great Lakes water supply. The filtration plant has two 550 ft intake lines that are 30 ft below surface level that draw the water into the plant.

...HOW IS IT TREATED...

The water is chlorinated for disinfection, treated with alum for particulate settling, fluoridated for tooth decay prevention, and filtered for fine turbidity removal. We routinely monitor for contaminants in your drinking water according to State and Federal laws. When the plant is in operation, we monitor chlorine and turbidity levels at least once every hour. Bacteria, pH, hardness, alkalinity, and fluoride are monitored once every day.

...AND HOW DOES IT GET TO YOU?

After treatment, it is pumped through approximately 50 miles of water distribution mains to service the entire city and also maintain levels in our three elevated water towers.

SOURCE WATER ASSESSMENT

The state performed an assessment of our source water in 2004 to determine the susceptibility of the potential for contamination. The susceptibility rating is on a six-tiered scale from "very low" to "high" based primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of our source is "highly susceptible" given the land uses and potential contaminant sources within the source water area. A copy of the full report is available.

PRESORTED STANDARD
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RESIDENTIAL CUSTOMER
Marysville, MI 48040

City of Marysville
Water Department
1111 Delaware St.
Marysville, MI 48040

CITY OF MARYSVILLE WATER FILTRATION PLANT

2016 Water Quality Report



*The City of Marysville Water
Filtration Plant is pleased to present
our 18th Annual Water Quality
Report. This report shows the
results of our monitoring for the
period of January 1st to December
31st, 2016. This publication is being
issued to conform to the rules and
regulations of the United States
Environmental Protection Agency
(USEPA) and the Michigan
Department of Environmental
Quality (MDEQ)*

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

Microbial contaminants:

Viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants:

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.

Pesticides and Herbicides:

Variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Radioactive contaminants:

Can be naturally occurring or the result of oil and gas production and mining activities.

Organic chemical contaminants:

Includes synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

To ensure that tap water is safe, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water, which must provide the same protection for public health. All of these contaminants were below the level of concern in Marysville's water.

SPECIAL HEALTH CONCERNS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 about drinking water from their health care providers. Federal guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are also available from EPA's Safe Drinking Water Hotline, 800.426.4791.

Test Results for the 2016 Calendar Year

Contaminant	Violation Y/N	Testing Results and Notes		MCL / MRDL	MCLG / MRDLG	Likely Source of Contamination
Regulated Microbial Parameters						
Turbidity	N	Highest single reading was 0.04 NTU	100% of samples were under monthly MCL of 0.3 NTU	Single : 1.0 NTU Monthly : 95% of samples < 0.3 NTU		Soil runoff, natural colloidal particles in the raw river water.
Turbidity - A measurement of the cloudiness of the water. We monitor it because it is a good indication of the effectiveness of our filtration system. Turbidity is monitored at least every hour that the water plant is in operation. In accordance to MDEQ guidelines, 95% of all samples must be below 0.30 NTU, and every single sample must be below 1.0 NTU. 100% of our samples were under 0.30 NTU, and our highest was 0.04 NTU. As an example, 5.0 NTU is barely noticeable to the human eye.						
Regulated Parameters						
Fluoride	N	0.72 - sampled on 8/03/16		MCL 4.0 ppm	MCLG 4.0 ppm	Additive for tooth decay prevention. Also naturally occurring in river water.
Selenium	N	Not Detected - sampled on 8/12/14		0.05 ppm	0.05 ppm	Petroleum/metal refineries
Barium	N	0.01 ppm - sampled on 8/12/14		2 ppm	2 ppm	Drilling waste, metal refineries
TTHM - Total Trihalomethanes	N	Site 1 42.9	Site 2 33.8 ppb	80 ppb	NA	Disinfection by-product
HAA5 - Halo Acetic Acids (5)	N	Site 1 11.0 ppb	Site 2 11.0 ppb	60 ppb	NA	Disinfection by-product
Free Chlorine	N	Range for 2016 was 0.08 to 1.10 ppm	Highest quarterly ave. was 0.62 ppm	MRDL 4.0 ppm	MRDLG 4.0 ppm	Water additive for disinfection
Unregulated Parameters						
Sodium	N	6.0 ppm - sampled on 8/3/16		NA	NA	Erosion of natural deposits
Unregulated parameters, like sodium, are those for which the EPA has not established drinking water standards. Monitoring helps EPA to determine where these contaminants occur and whether it needs to regulate those contaminants.						
Lead & Copper - results from 20 homes with lead service lines in August of 2014 Our next testing will be in the 3rd Qtr 2017.						
Copper (sampled from 20 homes)	N	90th percentile home value - 0.45 ppm No homes were above the AL for Copper.		AL 1.3 ppm	NA	Corrosion of home plumbing, erosion of natural deposits.
Lead (sampled from 20 homes)	N	90th percentile home value - 12.0 ppb One home was above the AL for Lead.		AL 15 ppb	NA	Corrosion of home plumbing (mostly lead services)
Lead (sampled at water plant)	N	A finished water sample was taken at the water plant on 8/14/14 and lead was <u>not detected</u> .		NA	NA	Erosion of natural deposits
Information about 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 Marysville 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 .						
Additional Sampling Information						
The MDNRE 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. Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk. More information can be obtained by calling EPA's Safe Drinking Water Hotline -1.800.426.4791. The sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials, and can also pick up substances resulting from animal or human activity.						

Results Table Legend

ppm - parts per million 1 ppm means 1 pound of a chemical in 1,000,000 pounds of water. It also equates to a single penny in \$10,000.

ppb - parts per billion 1 ppb means 1 pound of a chemical in 1,000,000,000 pounds of water. It also equates to a single penny in \$10,000,000.

NTU Nephelometric Turbidity Unit Measurement unit of water turbidity (cloudiness).

90th Percentile The value obtained after disregarding the top 10% highest sample values. Out of 20 samples, the top 2 are disregarded.

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

MCL Maximum Contaminant Level The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

MCLG Maximum Contaminant Level Goal 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.

MRDL Maximum Residual Disinfectant Level 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.

MRDLG Maximum Residual Disinfectant Level Goal 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.

NA Not Applicable

DRINKING WATER MONITORING NETWORK

The City of Marysville is proud to be a partner in the Huron to Erie Drinking Water Monitoring Network. The network is a real time monitoring system that samples the river water once per minute for a possible chemical spill. The recorded data can be viewed at www.rwqims.com, click projects, partner projects, then mchd-dwpp

LEAD SERVICE LINE INFORMATION

Infants and children who drink water containing lead in excess of the AL could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

For more information regarding your drinking water including: Lead service line information, lead testing information, various laboratory testing results, or a digital copy of this Water Quality Report, please visit the City's website at:

www.cityofmarysvillemi.com
and click on
Drinking Water Information