

2017 Water Quality Report for NEWBERRY WATER & LIGHT

This report covers the drinking water quality for Newberry Water & Light, for the calendar year 2017. 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 3 wells, 2 located southwest of the village limits and one on North M-123.

The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility is moderately high for well #4 and high for well #5 (offline). Well # 6 (new) went online in late 2006 with an additional well (# 7) going online in 2008.

For more information about this report, contact Joe Lively in the water department at 906-291-0608.

- **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 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).
- **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:
 - **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
 - **Inorganic contaminants**, such as salts and metals, which 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**, which may come from a variety of sources such as agriculture and residential uses.
 - **Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
 - **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.

STATEMENT 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 Village of Newberry 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>.

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.

2017 Water Quality Report
Newberry Water & Light Board
June 8, 2018

This report discloses the drinking water quality for water delivered by the Newberry Water and Light Board for the calendar year 2017. Included in this report are details of the source of the water, chemical analysis of the water, and comparison of analytical data of the water to Environmental Protection Agency (EPA) and State of Michigan drinking water standards.

Newberry Water & Light Board routinely samples and has analysis conducted for a number of chemicals in your drinking water according to Federal and State laws. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can include microbes, inorganic or organic chemicals and radioactive substances. All 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. As water from precipitation (usually rain or snow) migrates to recharge an aquifer, it can accumulate substances or contaminants. It is important to remember that the presence of these constituents does not necessarily pose a health risk. The EPA and State of Michigan have established drinking water standards for constituents to evaluate the risk of using water for human consumption. This report and the attached tables contain the comparison of analytical results from water delivered by Newberry Water & Light Board to these drinking water standards.

Water Supply Source

The water distributed by the Newberry Water & Light Board is pumped from one of three wells. Two of these wells are located off West Victory Avenue (designated well #6 and well #7). The third well is located adjacent to M-123 on the northern limit of the Village of Newberry (designated well #4). The predominant volume of water was pumped from wells #6 and well #7.

The State of Michigan performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. While no chemical constituents have exceeded established health standards, the susceptibility for possible contamination was rated as moderately high for well #4.

Water Sampling and Analytical Results

Bacteria

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. For calendar year 2017, analytical results for all water samples indicated results for bacteriological analysis were below detection.

Regulated Constituents

Maximum contaminant levels (MCL's) are set at by state and federal regulatory agencies as stringent levels to protect human health and the environment. Concentrations below MCL's are deemed as within acceptable risk limits for a described health effect. With respect to drinking water, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

In 2017 water samples were taken at select locations in the water system and sent in for analyses. Analysis was conducted for constituents regulated under the Michigan Safe Water Drinking Act. The analytical results for the measured constituents were determined to be within acceptable limits as defined by the Michigan standards.

Copper and Lead

Samples are taken and submitted for analysis for copper and lead every three years. Samples taken in 2016 were taken directly from selected residences throughout the water distribution system. Ten (10) samples were taken during the calendar year 2017 and submitted for analysis.

Analytical results from the samples indicate that water distributed is in compliance with the U.S. EPA regulation as determined by the 90th percentile evaluation and illustrated in the attached table.

Lead in drinking water is rarely the sole cause of lead poisoning, but it can contribute to a person's possible exposure. It is advised that all potential sources of lead in the household should be identified and removed or replaced.

Studies have found that infants and young children are more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in the plumbing of your residence. If you suspect or are concerned about potential elevated lead levels in your water supply as a result of plumbing, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Further information is available from the Safe Drinking Water Hotline at 1(800) 426-4791.

Susceptibility to Chemicals in Drinking Water

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 an organ transplant, 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 give on appropriate means to lessen the risk of infection by crypto sporidium and other microbiological contaminants. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1 (800) 426 - 4791.

Iron Bacteria

In 2003 an issue of iron bacteria was identified in the water distribution system of Newberry Water & Light Board. This iron bacterium poses no health problem to humans however the presence of iron bacteria can affect the taste and odor of drinking water. Newberry Water & Light Board performs periodic flushing of the water delivery system to abate the iron bacteria and minimize affects to drinking water.

The Village of Newberry began a long-term water system project in 2004 spending over \$2,300,000, and from 2006 through 2009 an additional \$1,000,000 on well #6, well #7, and adjoining water lines. Additionally, a water tower overhaul was started in 2011 and was completed in 2012. An additional project was completed in 2016 to replace significant portions of the water distribution system at a cost of \$5,963,000.00.

On September 28, 2016 the tower was removed from service for cleaning and inspection by Utility Services and returned to service on October 1, 2016.

Monthly samples for bacteriological total coliforms were non-detected for the year.

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Please call or visit our office if you have any questions. Thank you.

Joe Lively
Newberry Water & Light Board

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2016 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, 2016. 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:** picocuries 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	Level Detected	Sample Date	Violation Yes/ No	Typical Source of Contaminant
Barium (ppb)	2000	2000	70 (#4)	9/12	No	Erosion of natural deposits.
Fluoride (ppm)	4	4	ND	2016	No	Erosion of natural deposits.
Nitrate (ppm)	10	10	1.7 (#4)	2016	No	Erosion of natural deposit; leaching from septic tanks; fertilizer runoff.
Nitrite (ppm)	1	1	0.08 (#4)	2016	No	Erosion of natural deposit; leaching from septic tanks; fertilizer runoff.
Chlorine (ppm)	MRDL	MRDLG		Daily	No	Water additive used to control microbes.
	4	4				
T. Trihalomethanes TTHM - (mg/L)	80		3.7	8/2/16*	No	By-product of disinfection.
Haloacetic Acids HAAS - (mg/L)	60		ND	8/2/16*	No	By-product of disinfection.
Radioactive Contaminant	MCL	MCLG	Level Detected	Sample Date		
Alpha emitters (pCi/L)	15		0.54 (#7)	2016	No	Erosion of natural deposits.
Radium 226/228	5		0.57 (#7)	2016	No	Erosion of natural deposits.
Special Monitoring and Unregulated Contaminant			Level Detected	Sample Date	Typical Source of Contaminant	
Sodium (ppm)			46 (#4)	9/16	Erosion of natural deposits.	
Contaminant Subject to an Action Level	Action Level		90% of Samples ::_This Level	Sample Date	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15		2.0	2017	0	Corrosion of household plumbing systems.
Copper (ppb)	1300		100	2017	0	Corrosion of household plumbing systems.

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. For more information about your water, or the contents of this report, contact Matt Perry at 293-5681.

For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/

Your local health department has detailed information about the quality of drinking water in your area. If you have concerns about the health risks related to the test results of your sample, please contact the Environmental Health Section through the address and telephone number listed below:

**LMAS District Health Dept.
14150 Hamilton Lake Rd.
Newberry, MI 49868
906 293-5107**

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
 OFFICE OF DRINKING WATER AND MUNICIPAL ASSISTANCE
**LEAD AND COPPER REPORT AND
 CONSUMER NOTICE OF LEAD RESULT
 CERTIFICATE FOR COMMUNITY WATER SUPPLY**



Issued under authority of 1976 PA 399, MCL 325.1001 *et al.*, and Administrative Rules, as amended.
 Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within 10 days after the end of the monitoring period. This form may be used to meet this requirement. Submit the information to the appropriate Department of Environmental Quality (DEQ) district office. For district office addresses, visit www.michigan.gov/deq and click on Locations.

1. Water Supply Name: NEWBERRY WATER AND LIGHT
 2. County: LUCE 3. WSSN: 4720
 4. Population: 1,400 5. Monitoring Period: From: 06-01-2017 To: 09-30-2017
 6. Minimum # of Samples Required: 10 7. # of Samples Taken: 9
 8. Name of Certified Laboratory: MDEQ LANSING LAB EPA CERT. NO. M100003

9. SAMPLE CRITERIA:

Yes	No	Explain No responses in Comments block.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	a. Are the same sampling points used as in the previous monitoring period?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Are all samples from Tier 1 sites?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	c. Are all samples from Tier 1, 2, or 3 sites giving Tier 1 priority?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	d. If no Tier 1, 2, or 3 sites are available, do all sites have plumbing materials commonly found at other locations in the system?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	e. Is the minimum number of lead service line samples taken (when applicable)?

For more information see *Instructions* paragraph 11, subparagraph "Sample Category."

Comments: A: SOME OLD SITES WERE NOT AVAILABLE
B: VARIOUS PLUMBING AND AGES OF SAMPLE SITES

10. NAME:


Name: MATTHEW PERRY #2802 *Matthew Perry*
 Title: SUPERINTENDENT Phone: (906) 293-8531 Date: 7-26-17

12. CONSUMER NOTICE OF LEAD RESULT CERTIFICATION: Each Community Water Supply (CWS) must deliver a consumer notice of lead result to occupants of each location sampled within 30 days of knowing the sample result under 40 CFR §141.85 of the Lead and Copper Rule Short Term Regulatory Revisions and Clarifications. A template of the notice is available on the next page.

Not later than 3 months following the end of the monitoring period, each CWS must mail a sample copy of the consumer notice of lead result to the DEQ along with a certification that the notice has been distributed under 40 CFR §141.91(f)(3). This sheet (page 3) may be used to meet the certification requirement. Submit this certification sheet along with a sample copy of a notice sent to consumers to the appropriate DEQ district office. For district office addresses, visit www.michigan.gov/deq and click on Contacts.

I certify that this public water supply has provided the consumer notice of lead result to persons served at each of the taps that was tested, either by mail or by another method approved by the DEQ, within 30 days of knowing the result. Attached is a sample of the notice I sent to consumers. It includes:

- The result of lead tap water monitoring for the tap that was tested.
- An explanation of the health effects of lead.
- Steps consumers can take to reduce exposure to lead in drinking water.
- Contact information for the public water supply.
- The maximum contaminant level goal and the action level for lead and the definitions for these two terms.

Water Supply Name: NEWBERRY WATER AND LIGHT
County: LUCE WSSN: 4720
Signature: _____
Printed Name: MATTHEW PERRY 
Title: SUPERINTENDENT Phone: (906) 293-8531 Date: 7-26-17