

**2016 WATER QUALITY REPORT**  
**SOUTH BLOOMFIELD HIGHLANDS**  
**OAKLAND COUNTY, MICHIGAN – WSSN #06080**

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.

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

We invite public participation in decisions that affect drinking water quality. Please attend monthly Board meetings and the annual meeting.

For more information about your water, or the contents of this report, contact Dave Walsh at 248-224-2258. Our annual Consumer Confidence Report is posted on our Website, [www.SBHIA.org](http://www.SBHIA.org). For more information about safe drinking water, visit the U.S. Environmental Protection Agency at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).

## **REMINDER**

Your address is the last digit of your house number.

Even number addresses water lawns on even calendar days. (2, 4, 6, 8, etc.)

Odd number addresses water lawns on odd calendar days. (7, 9, 11, 13, etc.)

No overnight water by hose and sprinkler allowed!

Those residents who have automated in ground sprinkler systems are encouraged to water between midnight and 5 a.m. Be prudent in your cycle length and duration! Those residents unsure of how to set the automated timer on these systems should call Dave Walsh to have the system timed correctly.

**2016**

## **WATER QUALITY REPORT**

This report covers the drinking water quality for South Bloomfield Highlands, for the calendar year 2016. This information is a snapshot of the quality of the water that we provided to you. 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 two (2) groundwater wells located on Marlborough and Somerset Roads. Both of these wells are in excess of 160 feet deep and are 4” in diameter. Both wells have a clay “cap” or cover over 60 feet in depth. The Somerset well is relatively new, being reconstructed in 1996. The Marlborough well and well house was constructed in 1952, but was upgraded to a variable speed controller in 2007 and is the largest volume producer because of its 30 hp pump motor. The original well was abandoned in 2011 and a new well was drilled to a depth of 227 feet.

Somerset well has a 15 hp motor and has a natural gas powered emergency generator to ensure an adequate water supply, even in power outages.

You may get up in the middle of the night and experience lower water pressure. This is because the Marlborough well is timed to operate during peak demand periods, 5 a.m. till 11:00 p.m., then Somerset operates at a slightly lower pressure from 11:00 p.m. to 5 a.m.

Our water is drawn from the underground aquifer that stretches from Ubyly, MI in the thumb, to Brighton in the west and Monroe to the south. It provides a consistent supply. Because of underground soil and rock structure in our region, our water is high in iron content, hence the need for homeowner filtration and water softeners. Refer to our test results for hardness.

The State of Michigan performed an assessment of our source water in 2003 to determine susceptibility of the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from “very low” to “very high” based on geologic sensitivity, water chemistry, and contaminant sources. The susceptibility of our source is moderate. A copy of the source water assessment is available by contacting Dave Walsh, Water Director, 248-224-2258.

Our water is treated with chlorine, in extremely small amounts, 1 to 3 ppm, depending on the time of year, to combat any colonies of E-coli bacteria from forming in our system. Chlorine treatment is not required by any agency. Because our members voted to keep chlorination we must and do adhere to the EPA and MDEQ guidelines.

Our water has naturally occurring fluoride and those families with young children may want to consult their doctor/dentist to ascertain this impact. The exact amount is listed in the following test results.

Our water is tested monthly for total coliform. Other testing including: partial chemistry, volatile organic compounds, pesticides, herbicides and carbonates, sodium nitrite, sulfate, arsenic, and carbamates are conducted on a regular basis. Results were “none detected” or less than the maximum contaminant level (MCL). The results of this testing is lengthy so please contact Dave Walsh for copies.

All results were lower than MDEQ-EPA maximum contaminant level, trace or not detected. This testing is routine and a part of the rigorous testing mandated by the MDEQ-EPA.

Our peak water flow has been verified and accepted by the DEQ engineers and our rating is “satisfactory”. Procedures governing our record keeping have been amended to comply with MDEQ and Federal standards.

**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)**.
- **Lead in drinking water:** 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. South Bloomfield Highlands 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 **(800-426-4791)** or at <http://www.epa.gov/safewater/lead>.
- **[For Lead]** Infants and children who drink water containing lead in excess of the action level 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 Copper]** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
- **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 storm water 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.
- **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 which 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.

We have amended our procedures and monitoring to comply with MDEQ and Federal regulations.

## 2016 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.
- **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 radiation)

Contaminant	MCL	MCLG	Our Water	Range of Detection	Sample date	Violation	Typical Source Of Contaminant
Arsenic (mg/L)	0.010	0	Marlborough .006	NA	08/28/2014	No	Erosion of natural deposits, runoff From glass and electronics Production wastes
Fluoride(mg/l)	4	4	Marlborough 0.51 Somerset 0.65	NA	08/27/2015 08/31/2016	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Radionuclides Combined radium (pCi/l)	5	0	Somerset 0.894	NA	9/27/2013	No	Erosion of natural deposits

\* While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

SPECIAL MONITORING AND UNREGULATED CONTAMINANT**	LEVEL DETECTED	SAMPLE DATE	TYPICAL SOURCE OF CONTAMINANT
Sodium(ppm)	Marlborough 18 ppm Somerset 28 ppm	08/27/2015  08/31/2016	Erosion of natural deposits

CONTAMINANT SUBJECT TO AL	ACTION LEVEL	90% of SAMPLE ≤ THIS LEVEL	SAMPLE DATE	NUMBER OF SAMPLES ABOVE AL	TYPICAL SOURCE OF CONTAMINANT
Lead (ppb)	15	4	09/04/2015	0	Corrosion of household Plumbing systems, erosion of natural deposits
Copper (ppb)	1300	170	09/04/2015	0	Corrosion of household Plumbing systems, erosion Of natural deposits, leaching From wood preservatives

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	1	Yes	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 January 2016 one of our monthly bacteriological samples tested positive for total coliform. A repeat sample was taken within 24 hours as required. The repeat sample immediately taken was satisfactory with no detection of bacteria.

A violation occurred because there should have been one repeat sample taken at the same location (which there was), in addition to an upstream and downstream sample and extra distribution sample sites per our current bacteriological sampling plan within 24 hrs. A public notice was not distributed to the residents.

All required samples were taken, and all samples were satisfactory with no detection for bacteria. Public notices will be distributed in the future if required.

The positive sample came from the kitchen tap at one of our routine testing locations. After the event, a new sampling tap was installed in another location in the home with all samples being negative to date.

\*\* Unregistered 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.

