



CITY OF
SOUTH
LYON

2015
WATER
REPORT



SAFE • RELIABLE • SECURE

2015 Water Quality Report For the City of South Lyon

This report covers the drinking water quality for the City of South Lyon for the 2015 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2015. 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 three groundwater wells located within the city limits. A Well Head Protection Program report has been compiled for our well fields and copies are available at the Wastewater Treatment Plant located at 23500 Dixboro Rd., South Lyon.

The State and EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2015.

The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative 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 "moderately sensitive."

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at the

Wastewater Treatment Plant located at 23500 Dixboro Road. We invite public participation in decisions that affect drinking water quality. You may attend any regular city council meetings which are held the second and fourth Mondays of each month at 7:30 p.m. in the Shared Administration Building. For more information about your water, or the contents of this report, contact the Superintendent of the water department at (248) 437-4006. For more information about safe drinking water, visit the U. S. Environmental Protection Agency at www.epa.gov/safewater/.

Thank you for allowing us to continue to provide your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for your understanding.

We at the South Lyon Water Department work around the clock to provide top quality water to every tap. We ask all our customers to help us protect our water sources. Our water is the heart of our community, our way of life, and our children's future.



What is in Water?

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 at (800) 426-4791.



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 can be 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.

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 (FDA) regulations establish limits for contaminants in bottled water, which provide the same protection for public health.

Terms and Abbreviations

MCLG (Maximum Contaminant Level Goal): The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL (Maximum Contaminant Level): 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 radioactivity).

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

MRDL (Maximum Residual Disinfectant Level): The highest level of 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 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 lists all the drinking water contaminants that were detected during the 2015 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, 2015. 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.

2015 Regulated Contaminants Tables

Contaminant	MCL	MCLG	Level Detected	Range of Detection	Sample Date	Violations Yes/No	Typical Source of Contaminant
Arsenic (ppb)	10	0	ND	N/A	2015	No	Erosion of natural deposits. Runoff from orchards. Runoff from glass and electronics production wastes.
Fluoride (ppm)	4	4	0.46	N/A	2015	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Total Trihalomethanes (TTHM) (ppb)	80	N/A	44.25	21.0-54.0	2015	No	By-product of drinking water chlorination.
Haloacetic Acids (HAA5) (ppb)	60	N/A	9.72	1.0-11.0	2015	No	By-product of drinking water chlorination.
Disinfectant (chlorine) Residual (ppm)	MRDL 4	MRDLG 4	0.200 ppm	0.100-0.49	01/04 - 12/23 2015	No	Water additive used to control microbes. Chlorine residual data is based on running annual average.
Nitrate (ppm)	10	10	.11	N/A	2015	No	Runoff from fertilizer use, leaching from septic tanks/sewage, erosion of natural deposits.

SPECIAL MONITORING AND UNREGULATED CONTAMINANTS **

Contaminant	Level Detected	Sample Date	Typical Source of Contaminant
Sodium (ppm)	64.0	2015	Erosion of natural deposits.

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	2.0	2015	0	Corrosion of household plumbing system. Erosion of natural deposits.
Copper (ppm)	1.3	1.1	2015	0	Corrosion of household plumbing system. Erosion of natural deposits. Leaching from wood preservatives.

Microbiological Contaminant	MCL	MCLG	Highest Number Detected	Violations (Yes/No)	Major Sources in Drinking Water
Total Coliform Bacteria	>1 positive monthly sample (>5% of monthly samples positive)	0	0	No	Naturally present in the environment.
Fecal Coliform and E. coli	Routine and repeat sample total coliform positive, and one is also fecal or <i>E. coli</i> positive	0	0	No	Human waste and animal fecal waste.

** 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.

Sources of Drinking Water

The sources of drinking water (both tap 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.

Wellhead Protection

South Lyon's Wellhead Protection Program is designed to protect public water supply wells. The goals are: to prevent contaminants from entering the wells, avoid the need to cleanup contaminated ground water, and to ensure the community has a long-term source of clean water. It is everyone's responsibility to protect our water system. You can help protect the City of South Lyon community resources by proper recycling or disposal of household chemicals. To join the City of South Lyon's Wellhead Protection Committee or for more information, contact the water department at (248) 437-4006.

Information on Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. 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. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of South Lyon 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 at (800) 426-4791 or online at www.epa.gov/safewater/lead.

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 for 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 at (800) 426-4791.



South Lyon Water: Safe, Reliable and Secure



In a world where people feel they do not get what they pay for, the South Lyon water department is trying hard to deliver on a promise. The promise to our residents is that their drinking water is looked over with precious care and concern. The idea is to address the water system in a three-way plan: Make the water safe, reliable and secure.

Safe

The health and safety of water is crucial. The city performs bacteria analysis a minimum of 12 times per month. The department goes out into the city and samples at different locations within the water distribution system. A bacteria test is performed at the city lab and results are forwarded to the state of Michigan each month. Along with the city testing, the Michigan Department of Environmental Quality requires yearly testing on such things as arsenic, lead, copper, radiological elements, and organics. These samples are taken and forwarded to the state lab and are then analyzed and reported yearly in this consumer confidence report. The department's goal is to have a perfect record in these areas and that is where we are. We have had no violations in any of the reported areas.

Reliable

Reliable is a measure of consistency and quality of the water system. The South Lyon water department works very hard at maintaining and upgrading the current pumping facilities. Along with yearly maintenance schedules on our current wells, we continually maintain and upgrade

our iron removal system and filtration process within the water department. At any given time, the system has holding capacity of more than a million gallons so safe water can be distributed to the homeowners and business of our community. The city and water department is committed to daily reliability of the water system.

Secure

Security concerns have become an everyday occurrence since September 11. Water departments across the country now concern themselves not only with safe water and reliability, but also with guarding the security of pumping and storage facilities. The City of South Lyon is leading the way in these areas. Not only have security measures been put into place, but also public programs such as the Wellhead Protection Program are ongoing with input from both the private and public sectors. Our Wellhead Protection Program is designed to protect the public water supply. The goal is to prevent contaminants from entering wells from local homeowners and businesses and to avoid the need for costly cleanup of contaminated groundwater. The end result is to ensure the community has a long-term source of clean water.

The quality of a community water system is based upon confidence earned within the community. The water department works daily to earn the confidence and respect of its users. If you have any questions, please contact the water department at (248) 437-4006.