

2024 Drinking Water Quality Report

Consumer Confidence Report

The Safe Drinking Water Act (SDWA) is the federal law that ensures the quality of Americans' drinking water. Under SDWA, the Environmental Protection Agency (EPA) sets standards for drinking water quality and oversees the state, local municipality and water supplier who implements those standards. Amendments to the SDWA require all public water systems with at least 15 service connections or a system that regularly serves at least 25 individuals to publish and distribute a Consumer Confidence Report (CCR) annually. The CCR increases the availability of information to water customers. Informed and involved customers can be strong allies of their water systems, large and small, as they take action on water issues. Also, an increase in public awareness can give sensitive sub-populations the information that they may need for their protection.

Special Health Information

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/Center for Disease Control 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 Information

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young

children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. WRC is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time.

You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes.

If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for at least 5 minutes to flush water from both your home plumbing and the lead service line. If you are concerned about lead in your water and wish to have your water tested, contact WRC at 248-452-9158 or wrcwater@oakgov.com for available resources. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and 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, storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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 must provide the same protection for public health.

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. More information about contaminants and potential health effects can be obtained by simply calling the EPA Safe Drinking Water Hotline at 800-426-4791.

Cross Connection Control Program

Michigan water utilities are required by State law (Michigan Public Act 399) to develop and implement a comprehensive Cross Connection Control Program. The WRC continues to operate and maintain our comprehensive, State approved program for the elimination and prevention of cross-connections in all residential, commercial, medical, industrial and institutional facilities.

Our Cross Connection Control Program is a continuing effort to maintain pure, clean, and safe drinking water for everyone. This is accomplished through inspections, testing, recordkeeping and public education.

For more information about your water system, visit www.oakgov.com/KnorrwoodKnollsWater

Knorrwood Knolls - Oakland Township



2024 Consumer Confidence Report

This report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. We are committed to ensuring the quality of your water. The Oakland County Water Resources Commissioner (WRC) is pleased to present the Annual Drinking Water Quality Report (CCR) for the year 2024.

The water source is groundwater found in glacial materials. Two wells (one 6-inch and one 12-inch) provide the pumping capacity for this water system (Water system serial number [WSSN] 3666). At this time, the Department of Environment, Great Lakes, and Energy (EGLE) has determined the susceptibility for this water system as "moderately low."

Your Water Quality

The Knorrwood Knolls Well Water Supply System is routinely monitored in accordance with the Safe Drinking Water Act (SDWA) for contaminants in your drinking water. The following tables show the results of our monitoring for the period of January 1 to December 31, 2024. In addition, other test results are shown for the year they were required, since annual testing is not required for some contaminants. The most recent test date for the detected contaminant is listed in the table.

An ortho-polyphosphate blend is added to the water at the well house for iron sequestering and corrosion control. Chlorination and water quality parameter sampling is required by EGLE as part of this treatment process.

Unregulated contaminants are those for which the Environmental Protection Agency (EPA) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The maximum Contaminant Level (MCL) is the highest level of a contaminant that is allowed in drinking water and is set at a very stringent level. To understand the possible health effects described for many regulated constituents, a person would have to drink two 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.

As you can see by the tables below, **the system had no violations**. We are proud that your drinking water meets or exceeds all Federal and State requirements. The EPA has determined that your water is safe at the levels detected.

We are pleased to report that your drinking water is safe and meets Federal and State requirements. If you have questions about this report, or your water utility, please contact your WRC representative, **Kathryn DiCea**, at wrcwater@oakgov.com or **248-452-9158**. We want our valued customers to be informed about their water utility.

System Design and Improvements

We work continually to provide high quality water to every tap. In order to maintain a safe and dependable water supply, we may need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. We ask that all our customers help us conserve and protect our water resources, which impact our present lifestyle and our children's future. Please email wrcwater@oakgov.com, call 248-452-9158, or visit our website at www.oakgov.com/water if you have questions.

Outdoor Water Use

Outdoor water use, primarily sprinkling of lawns, greatly affects water pressure and sizing of water system infrastructure when sprinkling is scheduled during peak demand times. We recommend customers schedule automatic irrigation equipment to water lawns outside of the 5 to 9 a.m. and 5 to 9 p.m. high demand times. Michigan State University recommends light, frequent irrigation applied in the early afternoon <https://bit.ly/3Gc6vaW>. **Water your lawns or set your automatic sprinklers to operate outside of the morning and evening high demand periods to improve your water pressure and decrease costs required for water system expansion.**

Water Quality FAQs

Why is my water discolored?

Iron in the water can cause yellow, orange, or red discoloration. Iron is not a health risk but is an aesthetic concern that causes staining and discoloration.

Why does my water smell like chlorine?

Chlorine is a disinfectant that is added to the drinking water. The EPA has determined that levels of chlorine up to four parts per million in drinking water is safe for consumption.

Why does my water smell like rotten eggs?

Stagnant water may start to smell like sulfur or rotten eggs. Let the water run for a few minutes and the smell should clear. If the odor is only in the hot water, try flushing out your hot water tank. We recommend this be done at least annually.

Hardship Assistance Program

WRC, in partnership with the United Way for Southeastern Michigan, created the Hardship Assistance Program to assist Oakland County households who need help with water and sewer bills but who may not qualify for existing water assistance programs. The Hardship Assistance Program can help eligible Oakland County residents. The program helps residents 1) Pay their current water or sewer bill for up to three months. 2) Eliminate past-due balances. 3) Pay for plumbing repairs. Visit oakgov.com/wrchardship to learn more!

Regulated Contaminants Table

Contaminant	Test Year	Health Goal MCLG	Allowed Level MCL	Highest Detected Level	Range of Detection	Units	Major Sources in Drinking Water	Violation
Inorganic and Volatile Organic Chemicals								
Arsenic	2021	0	10	4	NA	ppb	Erosion of natural deposits; Runoff from glass and electronics production waste.	No
Barium	2021	2	2	0.19	NA	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.	No
Fluoride	2024	4	4	0.54	NA	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.	No
Radiological Contaminants								
Combined Radium	2020	0	5	0.44	NA	pCi/L	Erosion of natural deposits.	No
Disinfectant Residuals and Disinfectant By-Products - Monitoring at Customers' Tap								
Haloacetic Acids (HAA5)	2023	NA	60	6.8	NA	ppb	By-product of drinking water disinfection.	No
Total Trihalomethanes (TTHM)	2023	NA	80	22	NA	ppb		
Disinfectant (chlorine)	2024	MRDLG 4	MRDL 4	RAA 0.23	0.01 - 0.59	ppm	Water additive to control microbes.	No

Copper and Lead Monitoring at Customers' Tap								
Contaminant	Test Year	Health Goal MCLG	Action Level (AL)	90 th Percentile Value*	Range of Detection	Units	Major Sources in Drinking Water	Number of Samples above AL
Copper	2024	1.3	1.3	0.5	0.2 - 0.6	ppm	Corrosion of household plumbing systems; Erosion of natural deposits.	0
Lead	2024	0	15	0	0	ppb	Lead service lines, corrosion of household plumbing including fittings and fixtures, erosion of natural deposits.	0

***The 90th percentile value** means 90 percent of the homes tested have copper and lead levels below the given 90th percentile value. If the 90th percentile value is above the AL, additional requirements must be met.

Per- and polyfluoroalkyl substances (PFAS) were analyzed for in 2024 and were not detected.

Service Line Material - Knorrwood Knolls has a total of 75 service lines. Of which, none are lead. If you would like to know what your service line is made of, please visit www.oakgov.com/watermap.

Unregulated Contaminants Table

Contaminant	Test Year	MCLG	MCL	Average Level	Range of Detection	Units	Major Sources in Drinking Water
Alkalinity	2024	NA	NA	265	250 - 280	ppm	Naturally occurring due to geological processes.
Calcium	2024	NA	NA	76	NA	ppm	
Chloride	2024	NA	NA	32	17 - 53	ppm	
Hardness	2024	NA	NA	305	NA	ppm	
Iron	2024	NA	NA	1.6	NA	ppm	
Magnesium	2024	NA	NA	28	NA	ppm	
Sodium	2024	NA	NA	21	NA	ppm	
Sulfate	2024	NA	NA	28	14 - 53	ppm	Water additive for corrosion control.
Orthophosphate	2024	NA	NA	2.0	1.0 - 3.1	ppm	

NOTICE TO NON-RESIDENTIAL CUSTOMERS

Federal Regulations require that as the billing customer, it is your responsibility to ensure that all water consumers at your facility (whether business, educational institute, apartments, etc.) have access to the report. Please post this CCR in a visible area. Copies are available for your distribution by contacting the WRC office at wrcwater@oakgov.com or 248-452-9158.

Important Definitions

Action Level (AL) - The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

Haloacetic Acids (HAA5) - HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.

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 Contaminant Level Goal (MCLG) - 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.

Maximum Residual Disinfectant Level (MRDL) - 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) - 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.

Not Applicable (NA)

Not detected (ND) - Not detectable at testing limit.

Parts Per Billion (ppb) - The ppb is equivalent to microgram per liter. A microgram = 1/1000 milligram. A ppb is equivalent to one penny in \$10,000,000.

Parts Per Million (ppm) - The ppm is equivalent to milligram per liter. A milligram = 1/1000 gram. A ppm is equivalent to one penny in \$10,000.

Running Annual Average (RAA) - The average of analytical results for all samples during the previous four quarters.

pCi/L - picocuries per liter (a measure of radioactivity)

Total Trihalomethanes (TTHM) - The sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.

MAINTAINING QUALITY DRINKING WATER IN YOUR HOME



A Shared Responsibility

Maintaining drinking water quality is a shared responsibility between the water supplier and the resident.

We're Committed to...

- Protecting public health and wellness.
- Delivering the same clean, high-quality water we've always delivered.
- Providing greater public education.

In order to maintain or improve water quality at home, there are a few things you should remember to do on a regular basis:



Remove and Clean Your Aerator Every 6 Months.

The aerator is that screen on the end of your faucet, and it's important to remove it and clean it every six months.



Also, if you have any plumbing work done, remove and clean the aerators on every faucet to get rid of particles that build up.

Flush Water that Has Been Sitting in Your Pipes.

Overnight, water sits stagnant in your pipes. And the longer it sits there, the more metal it may contain. So, flush your pipes by running the cold water for several minutes before you use it.



Replace Faucets, Fittings or Valves From Before 2014.

Even if marked 'lead-free,' faucets, fittings and valves sold before 2014 may contain higher levels of lead than the current tolerance of 0.25%. It might be time to upgrade.



Drink and Cook With Cold Water

Only use cold water for drinking or cooking. Hot water can sit for long periods of time in a hot water heater and could contain dissolved metals.

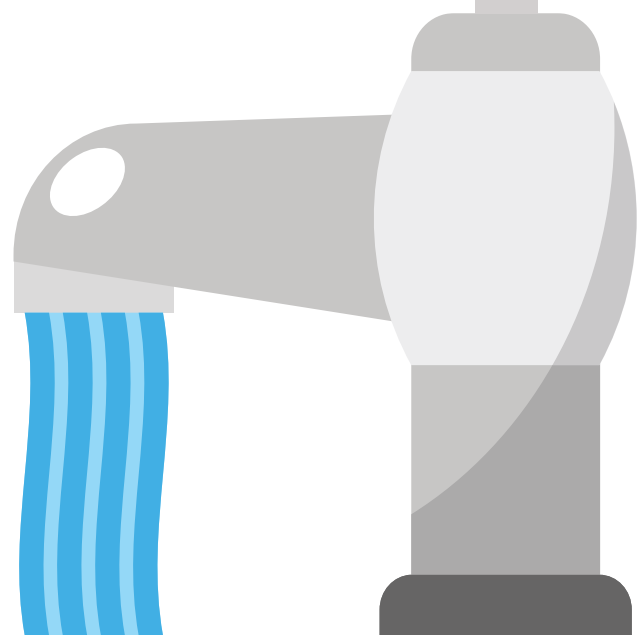
Purely Resourceful

www.oakgov.com/water

NEED ASSISTANCE WITH YOUR WATER BILL?

WRAP CAN HELP!

The Water Residential Assistance Program provides funding to eligible, low-income households. Funding is provided by the Great Lakes Water Authority and is administered in partnership with local community action agencies.



WRAP can help reduce your water bill and pay past due balances!

WRAP Eligibility:

- Reside within an eligible GLWA Member Community (see reverse side for list)
- Responsible for paying your water bill
- At or below 200% of the federal poverty level
- Own or rent your home

200% Federal Poverty Chart

Number of Household Members	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Income Limit (\$)	27,180	36,620	46,060	55,500	64,940	74,380	83,820	93,260	97,980	102,700	107,420	112,140	116,860	121,580

WRAP is administered by local service delivery partners



248-983-5656

<https://uwsem.smapply.org/prog/utilities/>



Oakland County: **Here to help.**

Hardship Assistance Program

A path to water affordability

What is the Hardship Assistance Program?

Currently, 22% of Oakland County residents live in households that don't qualify for assistance under federal poverty guidelines but still face hardships that make it difficult to pay their water bills and for other basic needs.

This program was created to help Oakland County households receive assistance in paying for water and sewer resources. The program is designed to help those who may not qualify for other existing programs, because we all need a little support from time to time!

Who is eligible?

The program is available to all Oakland County residents using municipal water and/or sewer services. Program eligibility is flexible and considers both income level and hardships.

The program is primarily designed to serve Oakland County households earning up to 300% of the federal poverty level. In 2024, that's \$93,600 for a family of four, \$61,320 for a two-person household and \$45,180 for a single individual.

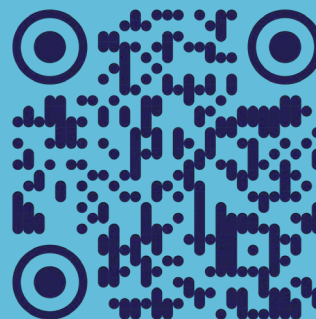
Are you currently going through a difficult time? **Examples of hardship include:**

- Your household is experiencing temporary unemployment due to unexpected job loss.
- Your household is paying for medical or health care expenses due to accident or injury of a household member(s).
- Your household is experiencing divorce.

How to apply:

Want our help? Apply TODAY in 15 minutes or less using your phone or computer!

**Scan the QR code
below to apply.**



Or visit the website at
OakGov.com/WRCHardship
to learn more and apply.



How to use the Hardship Assistance Program:

Benefits are provided on a first-come, first-served basis with an initial household cap of \$2,000.

Hardship Assistance Program benefits can include:

- Plumbing repairs to address water loss contributing to increased usage.
- Bill assistance for up to three months of water and/or sewer services.
- Help to eliminate past-due balances.

Contact us!

Have unanswered questions or need help completing the application form?

Give us a call at 844-211-4994.

**Support is available Monday-Friday
from 9 a.m. to 4 p.m.**

Don't wait to apply — Hardship Assistance Program funds are distributed on a first-come, first-served basis!

How to apply:

Want our help? Apply TODAY in 15 minutes or less using your phone or computer!

Scan the QR code

below to apply

or visit the website at
OakGov.com/WRCHardship



To complete your application, you'll need pay stubs/benefits statements or a State of Emergency Relief approval letter from the last 30 days.

The Hardship Assistance Program was developed by:



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