



WATER AND SEWER UTILITY

A COMMITMENT TO WATER QUALITY

2017 ANNUAL Oak Creek Water QUALITY REPORT

WATER QUALITY EXCEEDS REGULATORY STANDARDS

This report summarizes the water quality provided to customers in 2016. It includes details about where your water comes from, what has been detected in your water and how it compares to provided regulatory standards. This water quality report will be made public annually by July 1. The Oak Creek Water and Sewer Utility (OCWS) is committed to providing you with useful information. OCWS produces some of the highest quality drinking water in the nation and always looks for new ways to improve. OCWS employees conduct thousands of water quality tests



annually to ensure the cleanest, safest drinking water possible flows to customers. OCWS is proud to announce that last year, as in years past, your tap water met and exceeded all federal and state drinking water health standards.

The Utility received three national awards for water quality performance improvements to our treatment plant and pipe distribution system. And, for the 23rd consecutive year, the Utility received the prestigious Certificate of Achievement for Excellence in Financial Reporting.

Looking ahead, the Utility seeks approval to replace an outdated underground water tank to ensure we achieve DNR compliance. Plans include installing ultraviolet disinfection equipment, replacing 45-year-old electrical equipment and pumps, using federal low-interest-loan funding. All of this is being done to ensure the cleanest, safest water quality possible using fiscally responsible planning.

SOURCE OF OAK CREEK'S DRINKING WATER

Oak Creek draws its drinking water from Lake Michigan, a surface water source. As water flows through rivers and lakes and over land surfaces, naturally occurring substances may be dissolved into the water. Animals and human activities also may affect the water. These substances then are called contaminants. Surface water sources may be highly susceptible to contaminants.

For example, the following contaminants might exist in "untreated" water: inorganic contaminants, such as salts and metals; biological contaminants, including viruses, protozoa and bacteria; organic chemicals from industrial or petroleum use; pesticides and herbicides; and radioactive materials.

Drinking water—including bottled water—may be reasonably 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 Safe Drinking Water Hotline at (800) 426-4791.



SPECIAL HEALTH INFORMATION AVAILABLE

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 at (800) 426-4791.

LEAD

Oak Creek has no lead piping or lead water-service laterals in our system. The last lead-pipe lateral was removed in 1993.

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.

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. OCWS 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 www.epa.gov/safewater/lead.



TREATED WATER QUALITY

Listed on the next page are contaminants detected in Oak Creek's drinking water during 2016. All detects are less than federal and state regulations allow. Not listed are the other compounds that were tested with no detectable results.

The state allows OCWS to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

TURBIDITY MONITORING

In accordance with s. NR 810.29 (1), Wisconsin Administrative Code, the treated surface water is monitored for turbidity to confirm that the filtered water is less than 0.3 NTU in at least 95% of the measurements taken each month and no single sample over 1 NTU. Turbidity is a measure of the cloudiness of water. We monitor for it

because it is a good indicator of the effectiveness of our filtration system. During the year, the highest single entry point turbidity measurement was 0.04 NTU. The range of all samples was 0.03 NTU – 0.06 NTU, therefore all of the monthly samples met the turbidity limits.

CUSTOMER QUESTIONS WELCOME

Numerous opportunities exist to learn more about the OCWS and water quality. If you have questions about drinking water quality, this report, water treatment plant tours or water commission meetings, please call OCWS

General Manager, Mike Sullivan at (414) 570-8210. Water commission meetings are held on the 2nd Tuesday of every month at 9am in the utility office at 170 W. Drexel Avenue.

DEFINITIONS

Locational Running Annual Average (LRAA): Highest sample result averaged over a running annual period and not a calendar year.

Maximum Contaminant Level (MCL): The highest level of a contaminant allowed by law in drinking water.

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

ppm: Parts per million.

ppb: Parts per billion.

AL = Action Level: The concentration of a contaminant that triggers treatment or other requirements, which a water system must follow. Action levels are reported at the 90th percentile for homes at greatest risk.

mrem/year: millirems per year (a measure of radiation absorbed by the body)
pCi/L: Picouries per liter measure the level of radioactivity in water. A picocurie is 10^{-12} curies and is the quantity of radioactive material producing 2.22 nuclear transformations per minute.

TT = Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Trihalomethanes: chloroform, bromochloromethane, dibromochloromethane and bromoform.

NTU = Nephelometric Turbidity Units: a measurement unit of turbidity, or water cloudiness, which is a good indicator of water quality.

nd = no detect

TCR = Total Coliform Rule

REGULATED CONTAMINANTS

SUBSTANCE	MCLG (Ideal Goals)	MCL (Highest Level Allowed)	LEVEL DETECTED	VIOLATION	SOURCE OF CONTAMINANT
Antimony	6 ppb	6 ppb	0.2 ppb	No	Fire retardants, ceramics, electronics, solder
Arsenic	N/A	10 ppb	1 ppb	No	Natural deposits.
Barium	2 ppm	2 ppm	0.020 ppm	No	Natural deposits.
Coliform (TCR)	0	presence of coliform bacteria in >=5% of monthly samples	3 count	No	Naturally present in the environment.
Copper Sample Date: 9/8/2014	1.3ppm	AL = 1.3 ppm	0.28 ppm (90th percentile value) 0 of 30 results exceeded AL	No	Natural deposits. Corrosion of household plumbing systems.
Fluoride	4 ppm	4 ppm	0.8 ppm	No	Natural deposits. Water additive that promotes strong teeth.
HAA5 (Site D15)	60 ppb	60 ppb	16 ppb average Range: 11 - 23 ppb	No	Byproduct of drinking water disinfection.
HAA5 (Site D45)	60 ppb	60 ppb	21 ppb average Range: 8 - 27 ppb	No	Byproduct of drinking water disinfection.
Lead Sample Date: 9/3/2014	0 ppb	AL = 15 ppb	3.2 ppb (90th percentile value) 1 of 30 results exceeded AL	No	Natural deposits. Corrosion of household plumbing systems.
Nickel		100 ppb	0.85 ppb	No	Natural deposits.
Nitrate (NO3 - N)	10 ppm	10 ppm	0.42 ppm	No	Natural deposits, fertilizer, animal, waste, sewage.
Radium, combined Sample Date: 4/8/2014	0 pCi/L	5 pCi/L	0.7 pCi/L	No	Natural deposits.
Sodium	N/A	Unregulated	11.0 ppm	No	Natural deposits.
Trihalomethanes, Total (Site D15)	0 ppb	80 ppb	34.4 ppb LRAA Range: 25.5 - 49.6 ppb	No	Byproduct of drinking water disinfection.
Trihalomethanes, Total (Site D45)	0 ppb	80 ppb	43.6 ppb LRAA Range: 14.4 - 62.9 ppb	No	Byproduct of drinking water disinfection.
Turbidity	N/A	TT = 1 NTU TT < 0.3 NTU 95% of the time	0.04 NTU average Range: 0.03 - 0.05 NTU 100% of samples below MCL	No	Natural sediment.

UNREGULATED CONTAMINANTS

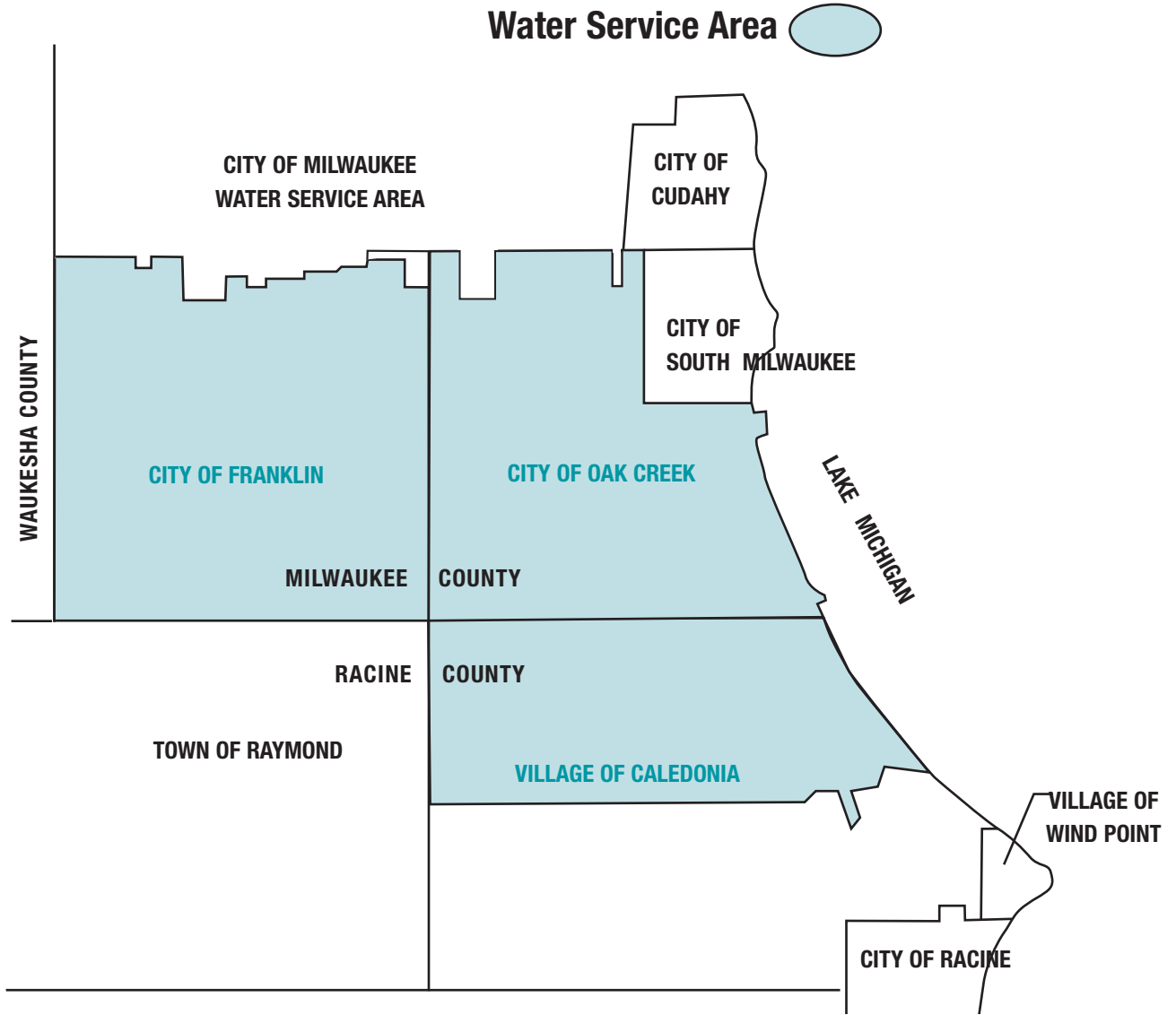
Unregulated contaminants are those for which the federal Environmental Protection Agency (EPA) has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA requires us to participate in this monitoring.

SUBSTANCE	Sample Date: 3/10/2015 LEVEL DETECTED	SUBSTANCE	Sample Date: 3/10/2015 LEVEL DETECTED
1,4-Dioxane (p-Dioxane)	0.074 ug/L average	Molybdenum	1.035 ug/L average
Chlorate	60.9 ug/L average Range: 53.9 - 67.9 ug/L	Sulfate	Range: 0.97 - 1.1 ug/L 23 ppm
Chromium	0.315 ug/L average Range: 0.30 - 0.33 ug/L	Strontium	142 ug/L average Range: 135 - 149 ug/L
Chromium, Hexavalent	0.160 ug/L average Range: 0.090 - 0.23 ug/L	Vanadium	0.145 ug/L average Range: 0.13 - 0.16 ug/L

“PROUD TO BE A CHARTER MEMBER”



OAK CREEK WATER UTILITY SERVICE AREA



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