LAKE MARGARET WATER SYSTEM
CONSUMER CONFIDENCE REPORT
ISSUE 27 - 2025

➢ ***What is this?***

This report provides the residents of the Lake Margaret Community a briefing on the status of our water system for the period January through December 2024. It includes background and operational information and a summary of results of laboratory analyses conducted on submitted water samples. We are committed to providing you with information because informed customers are our best allies. It is hoped that information contained in this report will generate interest in our unique water system. Your inquiries are always welcomed and persons interested in touring the water treatment facility are encouraged to request a guided tour.

➢ ***What is the source of our drinking water?***

Located in the center of the 90-acre Lake Margaret Plat is the lake, pride of the community and since 1997 the primary source of our drinking water. The lake receives its water from two inlet streams originating in the northern foothills and some feed from springs located within the lake base. The water is constantly flowing to the lake and released at a manually controlled dam outlet at the south end of the lake. A secondary source is a 400-ft. deep well which is used regularly during periods of maintenance and periodically to trim the temperature of the surface water source by blending.

➢ ***How is our drinking water treated?***

The water is pumped from the lake to and through a 3-stage gravel roughing filter where the majority of particulates are removed. The water is then saturated with on-site generated ozone gas which is the strongest commercially available disinfectant. In a contact tank the ozone saturated water is subjected to oxidation to remove taste, color, iron and manganese. The water then enters three large (450 Ft^2) sand filters. Any particulates that may still be present are captured as the water is filtered through 30-inches of fine sand. The water is then monitored for turbidity and routed to a finish water vault. A small dose of liquid chlorine is injected into the water stream before it leaves the treatment building and is sent to a 130,000 Gal. storage tank. Although ozone is the primary disinfection method employed, federal law requires that all potable water drawn from surface sources must be chlorinated to a level not less than 0.2 mg/l (parts per million) and that some residual of the chlorine be measured daily at the most distant point within the distribution system.

Our Water System Operations Staff attend training throughout each year concerning regulations and techniques for treating and distributing water to our customers. This training is vital to our commitment to you: to provide the highest quality drinking water available.

➢ ***How can I get involved in water quality decisions?***

The LMCPC Board, which administers the water system, meets at 7pm on the Fourth Wednesday of January, February, March, April, May, July, September, and October. The Community holds an Annual Meeting in early June after which the Board meets briefly to elect its officers. Meeting locations are listed in the newsletter, on the website www.lakemargaret.org, and on the community reader board.

➢ ***Water Quality Participants:***

The U.S. Environmental Protection Agency sets the requirements for water contaminants under the Safe Drinking Water Act. The Washington State Department of Health enforces the USEPA standards. State certified laboratories are used to test the water according to these standards and procedures. The Lake Margaret Water System collects water samples and protects the service area's water sources in conjunction with a Watershed Protection Plan. The Lake Margaret Community Members are vital to protecting our surface water source. Your questions, concerns and observations are an important part of the system's quality assurance program. **Reminder: The quality of our surface water is highly dependent on regular preventative maintenance of all septic systems.**

➢ ***Health Concerns Related to Drinking Water:***

Sources of drinking water, both tap and bottled water, include rivers, lakes, ponds, reservoirs, springs and wells.
As water travels over the surface of land or through the ground, it dissolves naturally occurring mineral, and in some cases, radioactive material. It can pick up substances resulting from the presence of animals or from human activity. Contaminates that may be present in source water before we treat it include:

- Microbial contaminates, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminates, 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.
- Radioactive contaminates, which are naturally occurring.
- Organic chemical contaminates, 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.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminates. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminates and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791), or the Washington State Department of Health, Division of Drinking Water, Northwest Region at (1-253-395-6750). The EPA's Drinking water Web Site is www.epa.gov/safewater

➢ ***Health Conditions May Require Precautions:***

Some people may be more vulnerable to contaminates 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, the elderly, infants and expectant mothers can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers 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 at (1-800-426-4791).

➢ ***Water Quality Data:***

The table below lists all the drinking water contaminants that we detected during the 2024 calendar year.
The presence of these contaminates 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 to December 31, 2024.

Terms & abbreviations used in table:

- Maximum Contaminant Level **(MCL):** The highest level of a contaminant that is allowed in drinking water.
- Maximum Contaminant Level Goal **(MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health.
- State Reporting Level (SRL): The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- Parts per Million **(ppm):** This unit is equivalent to one milligram per liter (mg/l).
- Parts per Billion **(ppb):** This unit is equivalent to one microgram per liter (ug/l).
- Not detectable at testing limit **(ND).**

Lake Margaret/Primary Source (SO-4)

Contaminant	MCL	MCLG	SRL	Level Detected	Violation	Possible Source
Nitrate	10 ppm	10 ppm	0.50 ppm	ND ppm	No	Runoff from fertilizer use, leaching from septic tanks, natural deposits.
Bromate	10	0	0.50 ppb	ND	No	By-product of ozone treatment.

Well/Secondary Source (SO-3)

Contaminant	MCL	MCLG	SRL	Level Detected	Violation	Possible Source
Nitrate	10 ppm	10 ppm	0.50 ppm	ND ppm	No	Runoff from fertilizer use, leaching from septic tanks, natural deposits.
Arsenic	10 ppb		1.40 ppb	2.525 ppb	No	Naturally occurring from Geological rock formations.

The Well was used as a temporary / secondary drinking water source during the 2024 calendar year. **Arsenic** was tested for during the period of use in 2024. The level of arsenic found in the well water is noted above in the Well/Secondary source SO-3 chart. The level detected is in parts per billion and reflects the running average over a four quarter period.

Water samples were tested for total **Trihalomethanes** and **Haloacetic acids (disinfection byproducts)**. Test results showed most byproduct contaminants were non- detectable. Byproduct contaminants that were detected are well below the maximum contaminant level specified by the Washington Department of Health.

A Notification of Treatment Technique Violation and Lead Action Level Exceedance was received from the Department of Health on September 14, 2016. The violation occurred when test results for three of five water samples taken on July 27th and 28th, 2016 exceeded the federal and state "action level" of 0.015 mg/l for lead. The Lake Margaret Board of Directors has hired a licensed engineering firm to design and implement a corrosion control system. In the spring of 2018 a Department of Health approved pH adjustment was installed and put on line. The system is using Soda Ash to raise the pH to a level of 8 to 8.3

About Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

About Arsenic: Some people who drink water that contains arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer

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About Lead: In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water has been sitting in pipes, the more dissolved metals, such as lead and copper, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children.

To help reduce potential exposure to lead: for any drinking water tap that has not been used for 6 hours of more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your water, you may wish to have your water tested.

Information on lead in drinking water is available from EPA's Safe Drinking Water Hotline at 1-800-426-4791 or online at www.epa.gov/safewater/lead

Requirements for reporting Water System information to customers: A regulation called the Water Use Efficiency Rule requires all public water systems to report water production and use to the Department of Health.
This same information is required to be sent to the customers of the water system.

During the 2024 calendar year:

- The Lake Margaret Water System produced 6,848,360 Gallons.
- The amount of authorized consumption and or water that the system billed for was 6,365,465 Gallons.
- The amount of non-revenue or unaccounted for water loss is 482,895 Gallons.

Non-revenue or unaccounted for water loss can occur due to distribution system leakage (water main breaks) and or flushing/maintenance of the water system. It is important that if a water leak is detected by a resident of the Lake Margaret Community that they bring it to the attention of the Water System Manager.

Note; During 2013, water main breaks increased to an historic level. Unaccounted for water loss reached 19.4% during the year. A goal was set to reduce distribution system leakage to below 5% by the end of year 2014. To accomplish reaching the goal of reducing unaccounted for water loss to below 5% construction to replace the distribution water main began in 2015. The ageing AC pipe was replaced with new C900 PVC.

The effort and expense undertaken by the Lake Margaret Community to replace the old water distribution pipe was rewarded in 2015.
I am pleased to report that unaccounted for water loss in 2015 was substantially reduced to 1.6%. The water distribution system has no leaks.
The 1.6% number exist because of flushing/maintenance of the water system. Unaccounted for water loss in 2017 was 3.2% and 4.5% in 2018.
Again, this number exist from maintenance of the water system and is still below the 5% established goal set back in 2014.

Together as the Lake Margaret Community we can Protect, Preserve and Provide Safe, Clean, and Healthy Drinking Water for Generations to Come.

Thank you,
Carl Mueller
Lake Margaret Water System Manager

- ***Contact Information:***

If you have any questions about this report or the Water System in general, please feel free to contact
Carl Mueller at (425) 844-2193 or e-mail watermaster@lakemargaret.org.

Web sites: Washington State Department of Health http://www.doh.wa.gov/ehp/dw/
USEPA http://www.epa.gov/ehp/dw/