NORTHSHORE UTILITY DISTRICT
WATER SEWER

# 2022 Water Quality Report

## GOOD NEWS: YOUR TAP WATER MEETS OR EXCEEDS ALL STANDARDS FOR SAFE DRINKING WATER.

This report details how your drinking water is tested for safety and quality in 2021, and the measures taken every day to ensure it remains safe.

The Districts mission is to provide safe, clean and reliable drinking water. Please contact us if you have questions about any of the information in this report. Thank you for taking the time to learn more about your drinking water.

This report contains important information about your drinking water. If English is not your first language, please have someone translate it for you, or speak with someone who understands it.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

В этом сообщении содержится важная информация о воде, которую вы пьёте. Попросите кого-нибудь перевести для вас это сообщение или поговорите с человеком, который понимает его содержание.

此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

## IN THIS REPORT:



# WHO WE ARE

Northshore Utility District (NUD) is a special purpose government that specializes in providing water and sewer service in five cities located at the northeast end of Lake Washington.

NUD's corporate service area encompasses more than 17 square miles serving the City of Kenmore, and parts of the cities of Bothell, Lake Forest Park, Kirkland and Woodinville.

King County Water District Number 79 was formed in 1947. In 1979, Northeast Lake Washington Sewer District merged with the water district and the combined districts were known as Northeast Lake Washington Sewer and Water District. The utility was renamed Northshore Utility District in 1991. In October 1998, the District moved to its present location at 6830 NE 185th Street, in Kenmore, Washington.

The District serves more than 87,000 people served by approximately 22,000+ water and sewer service connections. District infrastructure includes 281 miles of water mains, 261 sewer conveyance pipes, 11 lift stations, 3 water pump stations, 11 building structures, 8 storage tanks with a combined capacity of 29 million gallons. The District is also an active local municipal partner for emergency management services and provides fleet services for Northshore Fire Department and the cities of Kenmore and Lake Forest Park.

## OUR MISSION

**"To provide necessary services to the community in a safe, reliable, economical, and ecologically responsible manner."**

To accomplish this goal, the District will:

- Manage available resources for the best long-term interest of our ratepayers;
- Provide our employees with a safe and fair work environment that promotes teamwork, professional growth and excellence in performance;
- Protect the environment through responsible operating practices and public education;
- Work cooperatively with the community and other municipal service providers.

# drinking WATER FACTS

## FROM THE U.S. EPA AND THE WA DEPARTMENT OF HEALTH

## How can water sources contain contaminants

Drinking water (both tap water and bottled water) comes from natural sources, including rivers, lakes, streams, ponds, reservoirs, springs and wells.

As water travels over the surface of the land and through the ground, it dissolves naturally occurring minerals. Substances resulting from the presence of animal or human activity, even radioactive material, can also be picked up along the way.

## Potential contaminants in Washington water sources

All drinking water, including bottled water, may reasonably be expected to contain at least some small amount of contaminants. Their presence does not necessarily indicate that the water poses a health risk.

In Seattle's surface water supplies, the potential sources of contamination include:

- Microbial contaminants, such as viruses, bacteria and protozoa from wildlife;
- Inorganic contaminants, such as salts and metals, which are naturally occurring, and;
- Organic contaminants, which result from chlorine combining with the naturally occurring organic matter.

**Information on the source water assessments is available from the Washington State Department of Health (DOH) website at https://fortress.wa.gov/doh/swap/.**

## How safe water standards are set and enforced

To ensure that your tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and/or the Washington State Board of Health prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.

The U.S. Food and Drug Administration and/or the Washington State Department of Agriculture regulations set limits for contaminants in bottled water to provide the same public health protection.

**More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1 (800) 426-4791 or visiting www.epa.gov/ground-water-and-drinking-water.**

## WHAT ABOUT PEOPLE WITH SPECIAL HEALTH CONCERNS?

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 from infections. These people should seek advice about drinking water from their health care providers.

Environmental Protection Agency/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**.

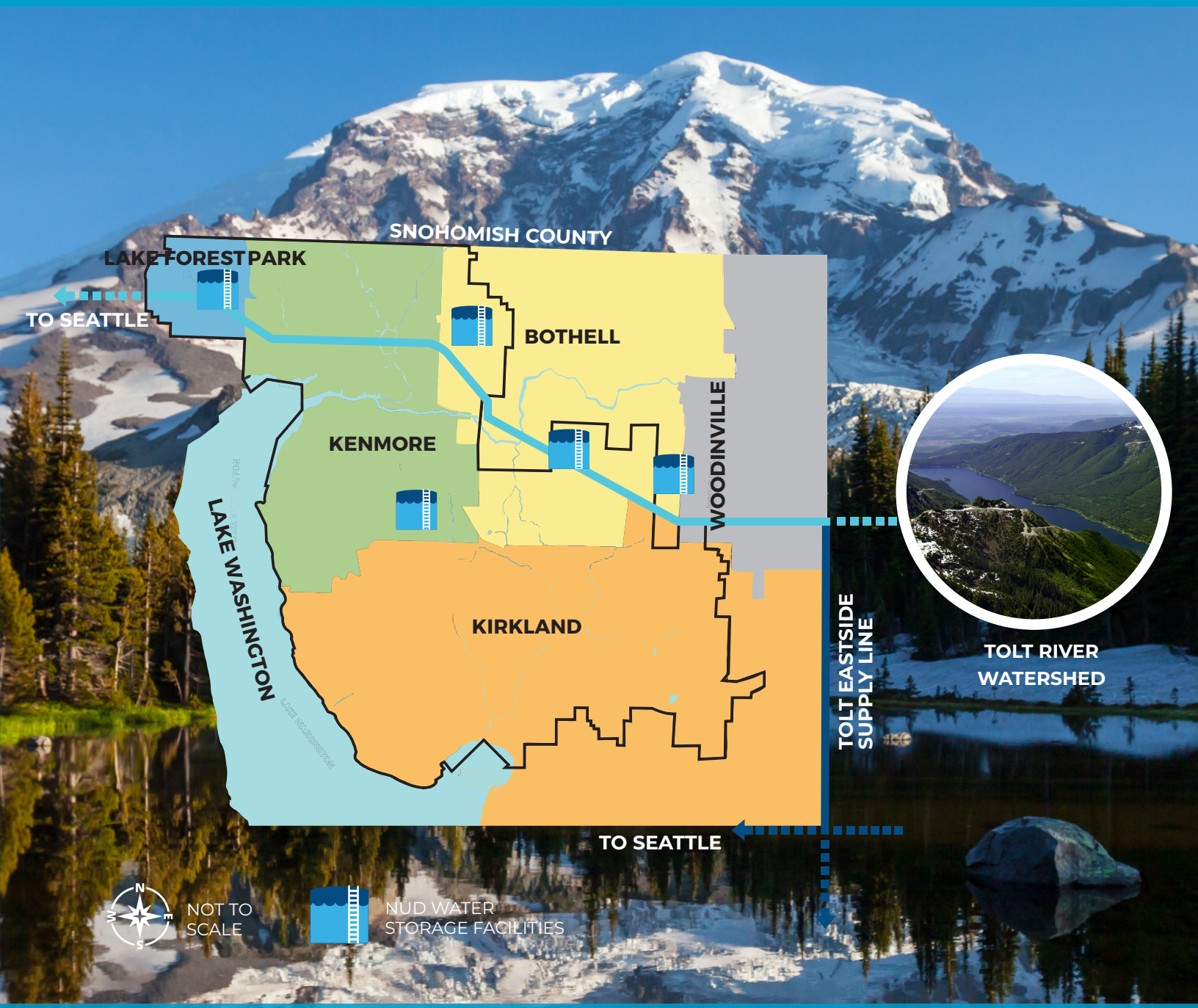
Washington State Department of Health

EPA United States Environmental Protection Agency

# where does our WATER COME FROM?

**NUD's water primarily comes from the Tolt River Watershed, located in the Cascade Foothills in east King County, via the Tolt River Pipeline. The Cedar River Watershed supplies water to about 70% of the Greater Seattle area and serves as an alternative water source for NUD.**

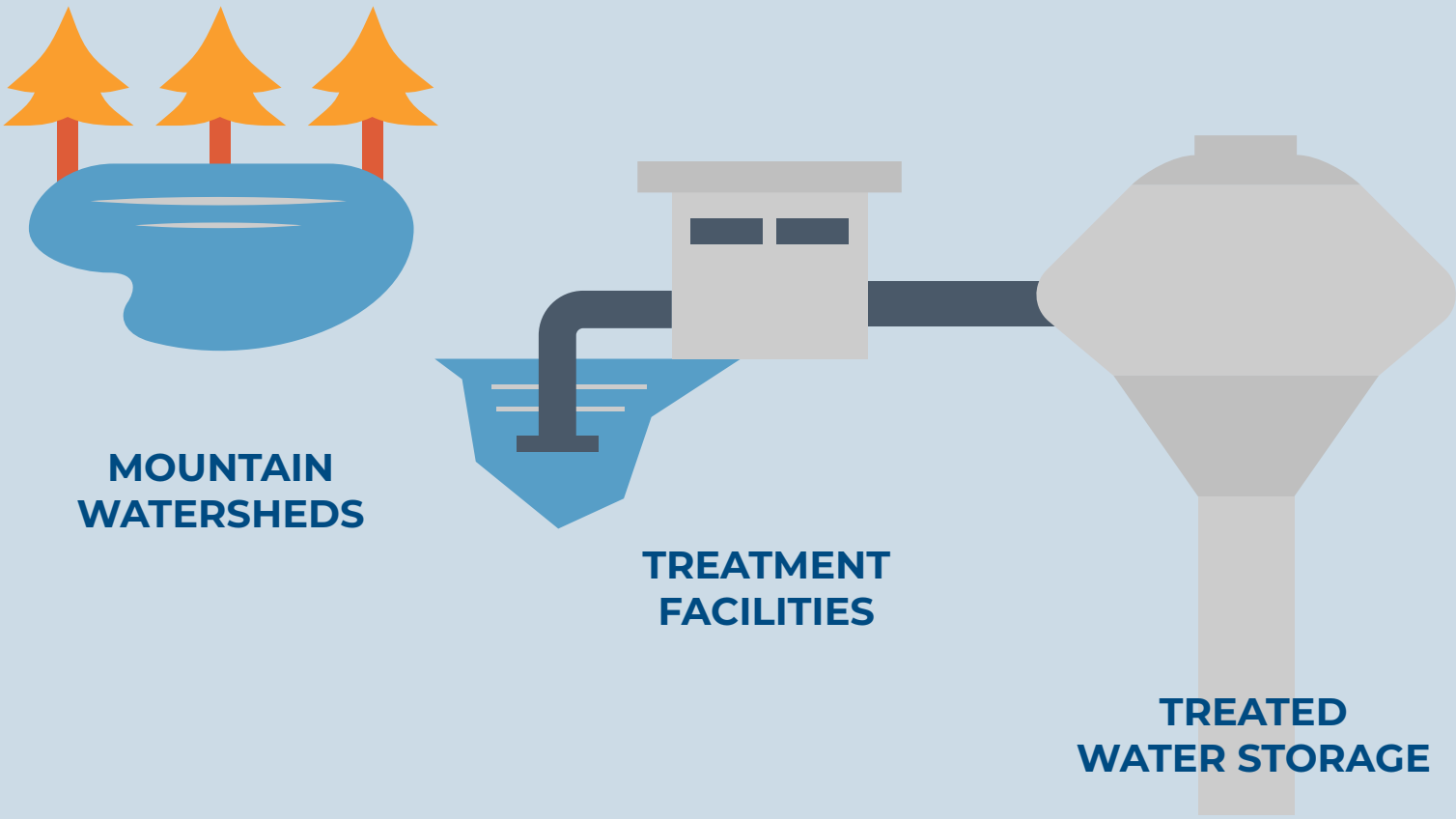
# our safe, clean, drinking water
# STARTS AT THE SOURCE

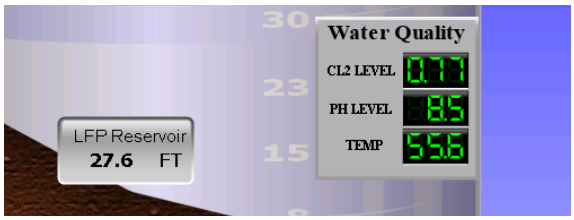



About 1.4 million people in the greater Seattle area share our protected regional water sources.

# water testing AND TREATMENT

"Raw" water from the Tolt River Watershed is treated on-site at the Tolt Water Treatment Facility. The treatment process uses a variety of compounds and steps to achieve the highest water quality, including:




A remote monitoring system reports water quality data to headquarters storage reservoir.

NUD tests water at 25 sample stands across the District.

## HOW DOES NUD MAKE SURE YOUR WATER REMAINS SAFE?

After treated water enters NUD's distribution system, the District has numerous controls in place to ensure high-quality drinking water. These include:

- **24-hour water quality monitoring equipment** attached to 10 District locations (including water tanks, pumping facilities and District headquarters) that track chlorine disinfectant levels (an indicator of protection from bacteria growth), water pH and temperature.
- **Routine water main flushing throughout the District** helps remove sediment and introduces "fresh" water to maintain high-quality water.
- **Continual sample testing throughout the District** to track disinfectant levels. The Department of Health sets guidelines on water disinfectant levels, to ensure continuous protection from bacteria growth.

**Ozonation:** The ozonation process disinfects the water and eliminates unwanted flavors. The ozonation process is very effective at destroying Cryptosporidium and other microbes.

**Filtration:** All particles are removed through high-rate filters.

**Corrosion control treatment:** Water pH and alkalinity are adjusted to reduce plumbing corrosion.

**Chlorination and fluoridation:** The water is disinfected further and fluoride is added for dental health. (More info about fluoride laws and levels SPU follows is at www.seattle.gov/utilities/your-services/water/water-quality).


OVER 280 MILES OF WATER MAINS

RESIDENCES

CUSTOMERS SERVED

## HOW OFTEN DOES NUD TEST THE WATER?

# 130+ tests per month or 1,500+ tests per year

In 2021, over 90 water samples per month were taken at 25 locations distributed throughout the District. NUD also tested chlorine residual levels at a sample stand at district headquarters twice weekly. Constant monitoring and regular tests make sure issues are caught, addressed immediately, and allow for the continued delivery of safe, high-quality drinking water.

# 2021 RESULTS

In accordance with State and Federal standards, NUD continually monitors and tests our drinking water. The following table lists the compounds that were detected in 2021. If the compound is not listed on the table, it was not found in any samples. None of the detected compounds were above EPA allowable limits.

| | | EPA'S ALLOWABLE LIMITS | | CEDAR WATER LEVELS | | TOLT WATER LEVELS | | MEETS EPA STANDARDS? | |
|---|---|---|---|---|---|---|---|---|---|
| **Detected Compounds** | **Units** | **MCLG** | **MCL** | **Average** | **Range** | **Average** | **Range** | **Compliance** | **Typical Sources** |
| **RAW WATER (Pre-Treatment)** | | | | | | | | | |
| Total Organic Carbon | ppm | NA | TT | 0.62 | 0.35 - 0.96 | 1.09 | 0.94 - 1.4 | ✓ | Naturally present in the environment |
| **FINISHED WATER (Post-Treatment)** | | | | | | | | | |
| Turbidity | NTU | NA | TT | 0.29 | 0.17 - 1.97 | 0.03 | 0.02 - 0.24 | ✓ | Soil runoff |
| Arsenic | ppb | 0 | 10 | 0.42 | 0.36 - 0.52 | 0.27 | 0.23 - 0.31 | ✓ | Erosion of natural deposits |
| Barium | ppb | 2000 | 2000 | 1.52 | 1.49 - 1.54 | 1.22 | 1.17 - 1.32 | ✓ | Erosion of natural deposits |
| Bromate | ppb | 0 | 10 | ND | ND | 0.7 | ND to 8 | ✓ | By-product of drinking water disinfection |
| Fluoride | ppm | 4 | 4 | 0.7 | 0.6 - 0.8 | 0.7 | 0.6 - 0.8 | ✓ | Water additive, which promotes strong teeth |
| Total Trihalomethanes | ppb | NA | 80 | Average = 37 | | Range = 15.1 - 34.6 | | ✓ | By-product of drinking water chlorination |
| Haloacetic Acids (5) | ppb | NA | 60 | Average = 36 | | Range = 19.0 - 40.9 | | ✓ | By-product of drinking water chlorination |
| Chlorine | ppm | MRDLG=4 | MRDL=4 | Average = .9958 | | Range = .08 - 1.80 | | ✓ | Water additive used to control microbes |
| Radium 228* | pCi/L | 0 | 5 | 0.6 | ND - 1.15 | 0.8 | ND - 1.69 | ✓ | Erosion of natural deposits |

# DEFINITIONS

**MCLG:** *Maximum Contaminant Level Goal* - 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.

**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.

**MRDL:** Maximum Residual Disinfectant Level - 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.

**MRDLG:** Maximum Residual Disinfectant Level Goal - 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.

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

**NTU:** Nephelometric Turbidity Unit - Turbidity is a measure of how clear the water looks. The turbidity MCL that applied to the Cedar supply in 2021 is 5 NTU, and for the Tolt supply it was 0.3 NTU for at least 95% of the samples in a month. For all other months in 2021, 100% of the samples from the Tolt were below 0.3 NTU.

**NA:** Not Applicable

**ND:** Not Detected

**ppm:** 1 part per million = 1 mg/L = 1 milligram per liter

**ppb:** 1 part per billion = 1 ug/L = 1 microgram per liter

**1 ppm** =1000 ppb

**pCi/L** = picocuries per liter

*UR: Unregulated Contaminants - These contaminants are not currently regulated by the EPA, but are being monitored.


## HOW MUCH IS 1 PART PER BILLION (PPB)?

In an average sized swimming pool (13,000 gallons), 1 ppb is equal to about 1 drop of water.

# lead and copper monitoring - ARE YOU AT RISK?

## NUD's SOURCE WATERS DO NOT CONTAIN LEAD OR COPPER.

However, lead and copper can leach into residential water from building plumbing systems. Lead and copper monitoring conducted at homes categorized as "high risk" was most recently completed in 2021 (see results in table data below). Lead and copper testing is performed every three years, with the next round of testing to be performed in 2023.

Homes or buildings that were built or re-plumbed with copper pipes and lead-based solder prior to 1985 are considered "high risk." "Worst case" conditions occur when water has not been used and has been sitting stagnant in the pipes for six hours or longer, such as first thing in the morning. The risk decreases as the plumbing ages. If you do not have copper plumbing, your home is considered "low risk." However, some lead may also be leached from brass faucets.

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.

Northshore Utility District is responsible for providing high-quality drinking water, but cannot control the variety of materials used in private plumbing components.

## TO MINIMIZE THE RISK OF LEAD EXPOSURE:

If your home is considered at-risk for higher lead levels, there are a few steps you can take:

- **Flush the tap for 30 seconds to 2 minutes** before using when water has been sitting 6 hours or more. You can use flushed water for plants, washing dishes or cleaning.
- **Only use cold water for cooking, drinking, and mixing baby formula.** (Lead dissolves more quickly in hot water.) Flush cold water first (if needed), and heat the water afterward if necessary.
- **Select low-lead or no-lead fixtures** when making plumbing changes.
- **Use water filters or treatment devices for lead reduction** certified by independent organizations, such as the National Sanitation Foundation (NSF).

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 at www.epa.gov/safewater/lead.

LEAD AND COPPER MONITORING PROGRAM RESULTS - TOLT RESERVOIR

| Parameter & Units | MCLG | Action Level+ | 2020 Results* | # Homes Exceeding Action Level | Typical Sources in Drinking Water |
|---|---|---|---|---|---|
| Lead, ppb | 0 | 15 | 3.8 | 0 of 55 | Corrosion of household plumbing systems. |
| Copper, ppm | 1.3 | 1.3 | 0.19 | 0 of 55 | |

*90th Percentile: i.e. 90 percent of the samples were less than the values shown. Lead and Copper testing is performed every three years, with the next tests to be performed in 2023.

+The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## CONCERNED ABOUT LEAD LEVELS IN YOUR HOME OR BUSINESS?

Although lead is not found in NUD's source water, household plumbing materials can contribute to higher levels of lead and copper in home drinking water. As a home or business owner, it is very important to be aware of the type of plumbing you own, any levels of corrosion in your home plumbing materials, and how these may affect your drinking water quality.

**To help address concerns, Northshore Utility District is offering free lead tests for homes considered at-risk for higher lead levels (homes built prior to 1985).** NUD's test, performed with field equipment by District staff, is considered informational only; results are not certified at the level of a water testing lab. A certified water lab can perform a thorough test for around $25.

**To request the free informational test, contact our Water Quality Office at (425) 398-4419 or waterquality@nud.net.**

# partners in conservation
# HOW WE CAN ALL HELP

## HOW MUCH WATER ARE WE USING?

Northshore Utility District participates with 18 other local utilities in the Saving Water Partnership (SWP). SWP has set a ten-year regional conservation goal to reduce per capita use from current levels so that the SWP's total average annual retail water use is less than 110 mgd (millions of gallons per day) through 2028, despite forecasted population growth, by reducing per capita water use. For 2021, the SWP met the goal, using 95.5 mgd.

In 2021, NUD purchased just over 2.04 billion gallons of water from Seattle Public Utilities. Of that, 6.1% was unmetered (lost), or about 124 million gallons. Water loss typically results from broken pipelines, with the national average percentage of loss around 16%. NUD's far lower amount, by comparison, shows our infrastructure is in very good shape.

To reduce system leakage and increase water efficiency, we continue to actively monitor and replace aging pipes prone to leaks or breaks. NUD routinely performs leak surveys with specialized equipment and water audits. NUD also runs a "Leak Notification Program" to notify customers of potential leaks when identified during meter reads.

## FREE RESOURCES TO HELP YOU SAVE - AT HOME, WORK, AND SCHOOL:

As a member of the Saving Water Partnership, Northshore Utility District customers have access to many great FREE resources to help your water-saving efforts, at home, in your landscape and garden, in your business, and in schools. These include expert advice, conservation materials, DIY videos, and more!

**Visit www.savingwater.org to learn more about:**

- Creating a healthy, water-wise landscape and garden
- Water-saving toilet rebates
- Water-efficient solutions for your business
- Free water education programs in your schools

## WHY BOTHER SAVING WATER IN A RAINY CITY?

Yes, it does rain frequently in our Seattle region, and we are fortunate to be able to store enough water for peak use in our hot, dry Northwest summers. But with a growing population, sometimes the periods of highest demand can stress water levels in our rivers, lakes, and streams. Using water wisely during the summer and early fall helps keep water in our rivers for fish and other wildlife.

**Actions to save water can help your water bill AND make a big difference to the salmon population.**

## WATER-WISE TIPS TO PRACTICE NOW:

Check for leaks and fix them as soon as you can. You can find videos and a how-to guide at www.nud.net/leaks.

Water your garden less by putting a thick layer of mulch around plants. More sustainable, water-wise gardening advice is at www.savingwater.org/lawn-garden.

Replace old toilets with WaterSense labeled toilets. To get a $100 rebate for installing a Premium model, visit savingwater.org/rebates.

# QUESTIONS?

## FOR MORE INFORMATION ON THIS REPORT

### NUD WATER QUALITY OFFICE:
(425) 398-4419 ▪ waterquality@nud.net
www.nud.net/wqr

### SEATTLE PUBLIC UTILITIES WATER QUALITY LAB:
(206) 684-7834 ▪ drinkingwater.quality@seattle.gov
www.seattle.gov/utilities/your-services/water/water-quality

### EPA SAFE DRINKING WATER HOTLINE:
1 (800) 426-4791 ▪ water.epa.gov

### WASHINGTON STATE DEPARTMENT OF HEALTH OFFICE OF DRINKING WATER:
1 (800) 521-0323
www.seattle.gov/utilities/your-services/water/water-quality

### FOR TRANSLATION SERVICES:
Call NUD at (425) 398-4400 and we will connect you with a translator in your language.

## MORE CUSTOMER ASSISTANCE AND CONTACT INFORMATION

### GENERAL CUSTOMER SUPPORT:
(425) 398-4400 ▪ www.nud.net

### WATER LEAKS, PRESSURE, OR SEWER CONCERNS:
(425) 398-4403 ▪ dispatch@nud.net

### BILLING AND CUSTOMER ASSISTANCE PROGRAMS:
(425) 398-4402 ▪ www.nud.net/cap

### WATER-SAVING INFO / REBATES:
www.savingwater.org/rebates

### BOARD OF COMMISSIONERS:
(425) 398-4400 ▪ www.nud.net/board

### NORTHSHORE UTILITY DISTRICT BOARD OF COMMISSIONERS:
Bruce Gardiner, Board President ▪ Suzanne Greathouse, Board Secretary ▪ Thomas Mortimer ▪ Trudy Rolla ▪ Matt Breysse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