#### **HIGHLIGHTING DISTRICT PROJECTS**



#### INGLEMOOR RESERVOIR & PUMP HOUSE

The District recently completed construction on the Inglemoor Reservoir, Pump House and Secondary Emergency Operations Center Project. The purpose of the project was to construct major upgrades to the Inglemoor Tank Farm site located at 8204 NE 150th St. in Kenmore.

Improvements included roof upgrades and interior recoating for two of the four reservoirs; demolition of the existing pump house building and construction of a new building; construction of a new secondary emergency operations center; new perimeter fencing and other site improvements; and construction of frontage improvements along NE 150th St.

A major modification inside the pump house was the installation of a turbinepowered pump. Because the Seattle water supply source is located at a much higher elevation, the Seattle supply system delivers water to us at a higher pressure than is necessary. The turbine utilizes the excess water pressure on the transmission main feeding the site to power the pump, saving



an estimated \$24,000 per year in electrical costs.

The total cost of construction was approximately \$5.7M. The project was designed by Gray & Osborne, Inc., of Seattle, Washington, and constructed by Kassel & Associates, Inc. of Redmond, Washington.

#### **ESSENTIAL INFORMATION ABOUT** YOUR DRINKING WATER

#### WHO IS MAKING SURE OUR WATER IS SAFE TO DRINK?

Northshore Utility District tests your drinking water over 3,600 times per year to ensure it is safe to drink. This exceeds the testing regulations prescribed by the Environmental Protection Agency (EPA) and Washington State Board of Health to limit the amounts of certain contaminants in water provided by public water systems.

As part of the regulatory process, the Department of Health (DOH) Office of Drinking Water conducts Washington's Source Water Assessment Program. According to DOH, all surface waters in Washington are given a contaminant susceptibility rating of "high," regardless of whether contaminants have been detected or whether there are any sources of contaminants in the watershed. Information on the source water assessments is available from the DOH website at https:// fortress.wa.gov/doh/eh/dw/swap/maps/.

#### IS OUR WATER SOURCE **PROTECTED?**

Since both the Tolt and Cedar watersheds are publicly owned by the City of Seattle, Seattle Public Utilities has protected them by prohibiting agricultural, industrial, residential and recreational activities within the watersheds. This vigorous protection program means there is little opportunity for contaminants to enter the water. However, there is always some potential for naturally occurring sources of contamination.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminant. 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 and bacteria. from wildlife
- Inorganic contaminants, such as salts and metals, which are naturally occurring
- Organic contaminants that are byproducts of disinfection processes
- Radioactive contaminants that can be naturally occurring

#### **HOW IS OUR WATER TREATED?**

The majority of our water travels from the Tolt River watershed and is then treated at the Tolt Water Treatment Facility. The treatment process for the Tolt includes ozonation, coagulation and flocculation; filtration; chlorination; fluoridation; and corrosion control treatment. Ozonation is very effective at destroying Cryptosporidium and other microbes. Source water monitoring in 2013 detected Cryptosporidium in one sample collected from the Tolt water supply and in none of the samples collected from the Cedar water supply. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water









# **OR MORE INFORMATION**

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Northshore Utility District is committed to providing the necessary services to our community in a safe, reliable, economical and ecologically responsible manner.

## REUTILITY

## 2014 Annual Water Quality Report

**Published Data for 2013** 

## NORTHSHORE UTILITY DISTRICT

is pleased to present your 2014 Water Quality Report. It contains the most recent year's data on the compounds for which your water is tested and treated per EPA guidelines. As this report shows, your tap water meets or exceeds all standards for safe drinking water — in fact, your water is among the best in the nation, both in purity and taste. At an average cost of \$.0053 per gallon, it's also a great bargain!

We know that the quality of water provided to you and your family is an issue of great concern. Please contact us if you have any questions about any of the information contained in this report.

NUD is committed to our mission of "providing the necessary services to the community in a safe, reliable, economical and ecologically responsible manner." We have been proud to provide you with high quality water, dependable service and competitive rates since 1947. We are always looking for feedback to do a better job and welcome you to contact us anytime at (425) 398-4400 and attend our public meetings the first and third Mondays of each month.

Sincerely,

Bruce Gardiner, President Board of Commissioners

#### WHERE DOES OUR WATER COME FROM?

Seattle Public Utilities (SPU) provides drinking water to over 1.3 million people in the Seattle metropolitan area. The Cedar River Reservoir and the South Fork Tolt River Reservoir supply almost all of SPU's water. These two surface water sources are located in remote, uninhabited areas of the Cascade Mountains. An aggressive watershed protection program is strictly enforced; no agricultural industrial or recreational activities are allowed.

Northshore Utility District's primary water source comes from the South Fork Tolt River Reservoir. Occasionally, Cedar River water is used, depending

on snow pack accumulations, drought conditions and the availability of water transmission lines. Both water sources receive chlorine disinfection. fluoride addition, pH adjustment and ozone treatment.

SPU provides high quality drinking water. In order to meet new water quality requirements and improve the overall reliability of the systems significant improvements have been made to the Tolt Filtration Plant and the Cedar Treatment Plant.

For more information on these plants and other improvements visit SPU's web site at www seattle.gov/util.

## **2013 WATER QUALITY MONITORING RESULTS**

Northshore Utility District provides safe, reliable, and affordable drinking water to approximately 69,000 people. Northshore's water system encompasses nearly 17 square miles within King County, extending from Lake Forest Park to the City of Woodinville, all of Kenmore and parts of Kirkland and Bothell. In accordance with State and Federal standards, we continually monitor and test our drinking water. The following table lists the compounds that were detected in 2013. Out of the detected compounds, none were above EPA allowable limits.

		EPA's Allowo	ble Limits	Cedar Wa	ater Levels	Tolt W	ater Levels	Meets USEPA Standards?	
Detected Compounds	Units	MCLG	MCL	Average	Range	Average	Range	Compliance	Typical Sources
RAW WATER									
Cryptosporidium*	#/100L	NA	NA	ND	ND	<1	ND - 2	$\checkmark$	Naturally present in the environment
Total Organic Carbon	ppm	NA	TT	0.7	0.4 - 1.1	1.2	1.1 - 1.4	$\checkmark$	Naturally present in the environment
FINISHED WATER									
Turbidity	NTU	NA	TT	0.4	0.2 - 2.7	0.06	0.04 - 0.14	$\checkmark$	Soil runoff
Barium	ppb	2000	2000	1.8	one sample	1.9	one sample	$\checkmark$	Erosion of natural deposits
Bromate	ppb	0	10	0.08	ND - 2	ND	ND	$\checkmark$	By-product of drinking water disinfection
Fluoride	ppm	4	4	0.8	0.7 - 0.8	0.8	0.7 - 0.9	$\checkmark$	Water additive, which promotes strong teeth
Coliform, Total	%	0	5%	1	None detec	ted in 20	013	$\checkmark$	Naturally present in the environment
Total Trihalomethanes	ppb	NA	80	Averaç	ge = 28	Range =	11.1 - 40.9	$\checkmark$	By-products of drinking water chlorination
Haloacetic Acids (5)	ppb	NA	60	Averaç	ge = 27	Range =	14.4 - 38.8	$\checkmark$	By-product of drinking water chlorination
Chlorine	ppm	MRDLG=4	MRDL=4	Average	e = .904	Range =	.16 - 1.29	$\checkmark$	Water additive used to control microbes

ND - Non-Detected NA - Not Applicable TT -Treatment Technique

#### **TABLE 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

#### NTU: Nephelometric Turbidity Unit

Turbidity is a measure of how clear the water looks. The turbidity MCL that applied to the Cedar supply in 2011 is 5 NTU, and for the Tolt it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2011 were below 0.3 NTU.

#### TT: Treatment Technique

A required process intended to reduce the level of a contaminant in drinking water.

**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

#### 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.

#### Water Samples:

ppm: 1 part per million, or milligrams per liter = mg/L ppb: 1 part per billion, or micrograms per liter = ug/L1 ppm = 1000 ppb

#### **MONITORING LEAD. COPPER & RADON**

Our 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 2011. Compliance is determined on a regional basis.

Homes or buildings that were built or re-plumbed with copper pipes and leadbased solder prior to 1985 are considered "high risk." Lead solder was banned in King County in 1985. "Worst case" conditions are defined as 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, you are at low risk.

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.

#### Parameter & Units

#### Lead, ppb Copper, ppm

+ The concentration of a contaminant

ppm: 1 part per million, or milligrams per liter = mg/L

1 ppm = 1000 ppb

Northshore Utility District is responsible for providing high guality 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 http:// www.epa.gov/safewater/lead. The flushed water should not be consumed as it may contain dissolved metals. However, this water can be used for watering plants and washing dishes. If your home is not "high risk," you may still be at some risk from lead being leached from brass faucets.

Although we are not required to test for radon, Seattle Public Utilities, our water supplier, has tested each of its sources. Continued monitoring shows that radon is not present in either the Cedar or Tolt water supplies.

#### PARTNERS IN CONSERVATION

Northshore Utility District partners with 18 other local utilities to form the Savina Water Partnership (SWP). SWP has set a six-year conservation goal: reduce per capita use from current levels so that the SWP's total average annual retail water use is less than 105mgd (millions of gallons per day) from 2013 through 2018 despite forecasted population growth. In order to meet the goal, the amount of water used per person will need to decrease to offset growth. For 2013, SWP met the goal, using 93.1mgd.

#### WATER-SAVING STRATEGIES

To increase our water use efficiency, NUD actively monitors and replaces pipes that are prone to leakage and breaks; we also notify our customers of potential leaks.



Here are some things you can do to save water and keep your water bills low:

- Check for leaks and fix them as soon as you can
  - Replace old toilets with WaterSense-labeled toilets (\$75 rebate available for Premium model)
  - Water your garden less by putting a thick layer of mulch around plants. The Garden Hotline has more water-saving advice at (206) 655-0224 or help@gardenhotline.org.

Thank you for all you are doing to conserve water. It makes a difference!

#### Lead and Copper Monitoring Program Results - Tolt Reservoir

MCLG	Action Level +	2011 Results *	# Homes Exceeding Action Level
0	15	6	0 of 53
1.3	1.3	0.16	0 of 53

Sources of Contamination: Corrosion of household plumbing systems

\* 90th Percentile; i.e. 90 percent of the samples were less than the values shown

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.

ppb: 1 part per billion, or micrograms per liter = ug/L

### **HELPING HABITATS**



for a healthy salmon run is a healthy habitat — good water quality and flow. Your actions to conserve water, particularly in the summer and early fall when flows are lowest, help provide the habitat necessary for a ealthy salmon population.

## WATER AND HEALTH

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people 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.