



# King County Water District No. 90

## 2014 WATER QUALITY REPORT

### FOR THE YEAR 2013

Each year King County Water District No. 90 (KCWD 90) is committed to providing residents with a safe and reliable supply of high quality drinking water. Seattle Public Utility (SPU) and private laboratories test our water using sophisticated equipment and state of the art procedures. We are proud to report that the water provided by your Water District meets or exceeds established state and federal standards for appearance, safety and water quality standards.

#### THE PURPOSE OF THIS REPORT

The Federal Safe Drinking Water Act (SDWA) and the US Environmental Protection Agency (EPA) require that every community water system must prepare and distribute a consumer confidence report (water quality report) annually to the public it serves. This annual report describes your drinking water sources, provides actual water quality test results, compares those results to stringent federal water quality standards and informs you about important water quality issues. Although this report is technical in nature, we have attempted to provide the information in such a way as to make it meaningful to our customers. Our goal is to help you understand what is in your water (contaminants) and how it may affect you. So please, take a few minutes to read through and familiarize yourself with the quality of the water you and your family drink every day.

#### SENSITIVE PEOPLE

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, may be particularly at risk from infections. If there is concern, these people should seek advice about drinking water from their health care providers. EPA and the Center for Disease Control (CDC) provide guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants. For this information please call the Safe Drinking Water Hotline **800-426-4791**.

#### SYSTEM OVERVIEW



KCWD 90 purchases approximately 70% of its water from SPU. SPU draws its water from the Cedar and Tolt Rivers. Thirty percent of our water is produced from our own wells. The water you normally consume from KCWD 90 comes from the Cedar River and our wells. In 2013, KCWD 90 distributed 559 million gallons of water to its customers. In a continuing effort to upgrade the District's water system we have replaced undersized and failing water mains, made pump and vault improvements, installed new mains to support future demand for service and harden the system as part of our emergency preparedness plan.

The District takes pride in delivering you with **Safe Drinking Water**. To get that water to your homes the water needs to be treated, pumped and stored for your use. Then it needs to travel through 124 miles of water main to get it to all of our customers. This is all done at the cost of less than a penny a gallon.

#### SOURCE SUSCEPTIBILITY

The Washington Department of Health has determined the District's well source is rated as "low susceptibility" for contamination. This is due to the fact that the District's ground water source is in a confined aquifer.

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## 2013 Water Quality Monitoring Results KING COUNTY WATER DISTRICT No. 90

Detected Compounds	Units	EPA's Allowable Limits		Levels in Cedar Water		Levels in Tolt Water		KCWD 90 Well Field		Typical Sources
		MCLG	MCL	Average	Range	Average	Range	Average	Range	
<b>Raw Water</b>										
Total Organic Carbon	ppm	NA	TT	0.8	0.4 to 1.4	1.3	1.2 to 1.4	NA	NA	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	ND	ND	<1	ND - 2	NA	NA	Naturally present in the environment
<b>Finished Water</b>										
Turbidity	NTU	NA	TT	0.4	0.2 to 2.7	0.06	0.04 to 0.14	NA	NA	Soil runoff
Barium	ppb	2000	2000	1.8	(one sample)	1.9	(one sample)	NA	NA	Erosion of natural deposits
Bromate	ppb	0	10	0.08	ND - 2	ND	ND	NA	NA	By-product of drinking water disinfection
Fluoride	ppm	4	4	0.8	0.7 to 0.8	0.8	0.7 to 0.9	0.83	0.62 - 1.00	Water additive, which promotes strong teeth
Total Trihalomethanes	ppb	NA	80	24	17.7 -28.9	NA	NA	24	17.7 - 28.9	By-products of drinking water chlorination
Haloacetic Acids(5)	ppb	NA	60	25	14.3 -29.4	NA	NA	25	14.3 - 29.4	
Chlorine	ppm	MRDLG =4	MRDL = 4	Average = 0.70 Range = 0.30 to 1.36				0.93	0.54 -1.23	Water additive used to control microbes

\*Cryptosporidium was not detected in any of the 3 samples from the Cedar and one detected out of 4 samples from the Tolt.

### Lead and Copper Monitoring Results KCWD No. 90 Residences

Parameter and Units	MCLG	Action Level+	2013 Results*	Homes Exceeding Action Level	Source
Lead, ppb	0	15	1.9	0 of 30	Corrosion of household plumbing systems
Copper, ppm	1.3	1.3	0.076	0 of 30	

\* 90th Percentile: i.e. 90 percent of the samples were less than the values shown.  
+ The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.



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. KCWD No. 90 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 <http://www.epa.gov/safewater/lead>.

#### 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 2013 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 2013 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**



## REQUIRED ADDITIONAL HEALTH INFORMATION

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap 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 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:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can, also come from gas stations, urban stormwater runoff and septic systems.
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

## CONSERVATION PROGRAM RESULTS

The Saving Water Partnership (SWP) – which is made up of KING COUNTY WATER DISTRICT NO. 90 and its 18 water utility partners – 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 105 mgd 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, the Saving Water Partnership met the goal, using 93.1 mgd<sup>1</sup>.

<sup>1</sup>Water utilities in Washington State are required to set a six-year water conservation goal by the WA State Department of Health.

## PREVENTING WATER WASTE

King County Water District No. 90 produced and purchased 559 million gallons of treated drinking water in 2013. Of this amount 30 million gallons were lost to leakage; representing a leakage rate of 5.4%, which is considered relatively low.



## MONEY SAVING TIPS

Here's what you can do to prevent or reduce leaks, which could save households up to \$200 per year!

- Replace worn toilet flappers.
- Replace worn washers and gaskets in faucets, showerheads and hoses.
- Look for unusually damp or green patches in your yard - these could be a sign of a leak.
- Check irrigation systems each spring for freeze damage and broken parts.
- Visit [www.savingwater.org](http://www.savingwater.org) or call 206/684-7283 for other water saving advice.



## WHAT DO CONSERVATION AND FISH HAVE TO DO WITH EACH OTHER?

Water conservation helps salmon, as well as your pocketbook. The foundation for healthy salmon populations is healthy habitat – including the quantity and quality of water in the streams that support them. Your actions to conserve water help protect this precious freshwater habitat for salmon and other species that live in and around our streams. Thank you for all you're doing to conserve water. It makes a difference!

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We encourage public interest and participation in our district's decisions affecting drinking water. Regular Board meetings occur on the first and third Tuesdays of the month at 4:45 p.m. at the District Office. The public is welcome to attend. The District hopes this report has been of help to you. Should you have questions or concerns about drinking water quality, please call King County Water District No. 90 at 425-255-9600, Monday through Friday, 8:00 a.m. to 4:30 p.m. For additional information please see the FAQ section of our website. [www.kcwd90.com](http://www.kcwd90.com)

King County Water District No. 90  
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