

KING COUNTY WATER DISTRICT No. 90

WATER QUALITY REPORT

2012 REPORT FOR THE YEAR 2011

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.



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 2011, KCWD 90 distributed 513 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, worked on emergency power, pumps and vault improvements and installed new mains to support increased future demand for service.

SOURCE SUSCEPTABILITY

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.



CONSERVATION PROGRAM/ WATER USE EFFICIENCY

WASTING LESS, ENJOYING IT MORE

No one likes to waste things, especially something as precious as our great drinking water. And you, our residential and commercial customers, continue to do a great job of conserving water. In 2011, we saved an estimated 1.4mgd as part of the Saving Water Partnership (a group of local water utilities that purchase water from Seattle and King County), enough water to supply 9,400 single-family homes or more than all the customers of KCWD 90. In the past 5 years, we've collectively saved about 4.6mgd toward our 2012 goal of nearly 6mgd. Conservation saves you money, protects fish and wildlife, and helps ensure a reliable future supply even as our region grows. We're doing our part as well: Our leakage rate in 2011 was 6.7%, low compared with most other water utilities. Go to <http://savingwater.org> for more conservation information.

LOOKING FOR WAYS TO SAVE MONEY?

Stop buying expensive bottled water. Water from your tap is safe to drink and tastes good too. The water from your tap costs less than 1 cent per gallon. That means you could refill a 16oz plastic bottle from the tap in your home 8 times for less than a penny. Please use a better container than reusing a plastic bottle.

BENEFITS OF TAP WATER

- Your tap water comes from a protected watershed and wells
- Your tap water is treated by filtering, ozonation, and ultraviolet light as needed
- Tested for hundreds of contaminants
- And delivered 24/7 to your faucet in your home

KCWD 90 REBATE PROGRAM SAVINGS

- Single Family Toilet Program: 14 - \$30 rebates
- WashWise "Washing Machine" Program: 86 - \$100 rebates
- Water Efficient Irrigation Program: 1 - \$149.95 rebate

SAVVY GARDENER CLASSES



These classes are brought to you by the Saving Water Partnership and Cascade Water Alliance. The free classes are designed to inspire gardeners while sharing practical advice on creating and maintaining healthy, beautiful landscapes that are good for you and good for the environment. Go to <http://savingwater.org> for more information.

REQUIRED ADDITIONAL HEALTH INFORMATION

To ensure that tap water is safe to drink, the Department of Health and the 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 both tap and 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) or online at: www.EPA.gov/safewater.

Sources of drinking 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 human activity. Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses, parasites 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 organic chemicals, 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.



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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

King County Water District No. 90
BOARD OF COMMISSIONERS
Dick Gidner
Byron Murgatroyd
Sam Amira

DISTRICT MANAGEMENT
Thomas Hoffman, District Manager
Josh Deraitus, Operations Manager
Darcey Peterson, Finance Manager

OUR OFFICE IS LOCATED AT:

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Phone: 425-255-9600 • Fax: 425-277-4128

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).



WATER QUALITY REPORT FOR YEAR 2011

KING COUNTY WATER DISTRICT No. 90 COMPOUND LEVELS

		EPA'S ALLOWABLE LIMIT		LEVELS IN CEDAR WATER		LEVELS IN TOLT WATER		KCWD 90 WELL #1 & WELL #2		
Detected Compounds	Units	MCLG	MCL	Average	Range	Average	Range	Average	Range	Typical Sources
RAW WATER										
Total Organic Carbon	ppm	NA	TT	0.7	0.3 - 1.2	1.3	1.2 - 1.6	NA	NA	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	ND	ND	ND	ND	NA	NA	Naturally present in the environment
FINISHED WATER										
Arsenic	ppb	0	10	ND	1 sample	ND	1 sample	0.39	1 sample in 2009	Erosion of natural deposits
Barium	ppb	2000	2000	1.4	1 sample	1.2	1 sample	ND	1 sample in 2009	Erosion of natural deposits
Chlorine	ppm	MRDLG = 4	MRDL = 4	NA	NA	NA	NA	0.86	0.79 - 0.92	Water additive used to control microbes
Chromium**	ppb	100	100	0.2	1 sample	0.2	1 sample	ND	ND	Erosion of natural deposits
Fluoride	ppm	4	4	0.80	0.6 - 1.0	0.8	0.4 - 1.1	0.80	0.75 - 0.87	Water additive which promotes strong teeth
Haloacetic Acids (5)	ppb	NA	60	--	--	--	--	18	14 - 25	By-product of drinking water disinfection
Nitrate	ppm	10	10	0.09	1 sample	0.11	1 sample	ND	1 sample	Erosion of natural deposits
Total Trihalomethanes	ppb	NA	80	--	--	--	--	22	15 - 26	By-product of drinking water disinfection
Turbidity	NTU	NA	TT	0.4	0.2 - 2.9	0.06	0.04 - 0.15	NA	NA	Soil Runoff

***Cryptosporidium:** For the Cedar, Crypto was detected in 0 out of 3 samples collected. For the Tolt, Crypto was detected in 0 of the 3 samples collected in 2010.

****Chromium:** The values reported reflects naturally occurring total chromium and not hexavalent chromium.

LEAD AND COPPER IN KING COUNTY WATER DISTRICT No. 90 RESIDENCES

Compound	Units	EPA STANDARDS		WATER DISTRICT 90		Typical Sources
		MCLG	Action Level +	90th Percentile* Action Level +	# Exceeding Action Level +	
Lead	ppb	0	15	3.9	0 of 30	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.082	0 of 30	Corrosion of household plumbing

Water quality data for non-regulated parameters, such as pH, alkalinity, hardness, and conductivity, is available on our web site at <http://www.kcwd90.com/forms.php> Once you get to this web page, click 2011 Water Quality Analysis Data.

* 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. KCWD90 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 at: www.epa.gov/safewater/lead.

WHAT DO THE TABLES MEAN?

The tables represent the results of the District's water quality analysis. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. The tables contain the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement.

KEYS & DEFINITIONS TO TABLES

ACTION LEVEL: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a system must follow.

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 (eg. chlorine, chloramines, chlorine dioxide).

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 2009 is 5 NTU, and for the Tolt it was 0.3 NTU for at least 95% of samples in a month. 100% of the samples from the Tolt in 2009 were below 0.3 NTU.

NA: Not Available

ND: Not Detected

#/100L: # per 100 Liters

ppm: 1 part per million = 1 mg/L

1 ppm: 1000 ppb

ppb: 1 part per billion = 1 ug/L