

# Highline Water District

## 2011 CCR

### Consumer Confidence Report



*Providing safe, clean water to  
residents of South King County  
since 1946*

# Highline Water District is pleased to provide our 2011 Consumer Confidence Report (CCR)

This report describes the sources of your drinking water and how it compares to stringent standards set by regulatory agencies. Please take a few minutes to read through and familiarize yourself with the quality of water you use every day. If you have any questions please, contact our Operations Supervisor at 206-592-8920.

## The Facts on Contaminants

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. As water travels over the surface of the land or through the ground, naturally-occurring minerals and, in some cases radioactive materials, dissolve in the water. Water can also



pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water are microbes, pesticides, herbicides, organic and inorganic chemicals, and radioactive materials. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline: 1-800-426-4791

## Immuno-Compromised Persons

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:



*Environmental Protection Agency  
Safe Drinking Water Hotline  
(800-426-4791)*

## Sources of Supply

On average, approximately 75 percent of Highline Water District's water comes from Seattle Public Utilities - Cedar River supply. The remaining supply comes from Highline Water District's groundwater wells.

Seattle Public Utilities Cedar River Treatment Plant has significantly improved water quality and safety. Musty, earthy taste and odors have been reduced while safety has increased by the destruction of harmful organisms. Water from the District's three wells - Angle Lake (So3), Des Moines Well (So2), and Tyee Well (So4), is directed to one of two treatment plants where it is filtered, treated and tested before it is blended with water from Seattle.

## Physically Protected Sources

To preserve the high quality of water that originates in the Cedar River Watershed, recreational, agricultural and industrial activities in the area are not permitted. According to the Washington State Department of Health (DOH), all surface water has been rated highly susceptible, but the vulnerability is low due to the watershed protection afforded by Seattle Public Utilities' (SPU's) Comprehensive Watershed Protection Plan.

Highline's groundwater sources are protected by naturally occurring "confining layers" of material above the water bearing aquifer. This "restricted use" and "confining layers" protect the watershed and raw water quality from degradation and is the primary reason the DOH classified this water source as having "low vulnerability" to contamination. For a complete copy of the source water assessment, contact the regional DOH Drinking Water Office at (253) 395-6750.

## Setting Drinking Water Standards

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) adopts regulations setting water quality standards for public water systems. "Primary Standards" pertain to contaminants that could pose a health problem such as arsenic, while "Secondary Standards"



pertain to aesthetic concerns such as iron and manganese. The Department of Health Drinking Water Division has been given the responsibility to ensure both primary and secondary water quality standards are met in Washington State. The Federal Food and

Drug Administration and The Washington Department of Agriculture regulate contaminants in bottled water and are responsible for providing a similar level of public health protection.

## Seattle Public Utility - Cedar River Supply

Although the water supply is aggressively protected, it goes through a treatment process to ensure that it is safe to drink. Before the water reaches Highline Water District, it goes through the six treatment steps outlined below:

- \* The water is screened to remove debris.
- \* Fluoride is added for dental health.
- \* Lime is added to control corrosion of plumbing materials.
- \* Ozone is added to disinfect the water.
- \* Water passes through Ultra Violet Light to destroy harmful organisms.
- \* Chlorine is added to provide a disinfectant residual.

## Highline Water District - Well Water

Highline Water District pumps water from three wells and treats the water at two facilities. The District's treatment consists of the following:

- \* The water is filtered through greensand to remove low levels of manganese and iron.
- \* Chlorine is added to provide a disinfection residual.
- \* Fluoride is added for dental health.
- \* Sodium Hydroxide is added to control corrosion of plumbing materials.

## Lead in Drinking Water

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.

Highline Water District 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 - 1-800-426-4791, or on-line at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

MEASURED AT CUSTOMER'S TAP							
2010 RESULTS							
Tested Compounds	Unit	MCLG	90th Percentile Action Level	**90th Percentile	# Of Homes Over Action level	Compliance	Source
Lead		0	15	2	2	YES	Corrosion of household plumbing
Copper		1.3	1.3	0.18	0	YES	Corrosion of household plumbing

## Footnotes and Definitions

*Cryptosporidium was not detected in any samples from the Cedar River.	<b>NTU</b> - Nephelometric Turbidity Unit: Turbidity is a measure of how clear the water looks.
**Average represents the 90th percentile (2010) 90% of the samples were less than the values shown.	<b>TT</b> - Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
<b>MRDL</b> - 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.	<b>ppm</b> - One part per million
	<b>+</b> - The value reported reflects naturally occurring chromium and not hexavalent chromium
<b>MRDLG</b> - Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.	<b>NA</b> - Not Applicable
	<b>ppb</b> - One part per billion
<b>MCLG</b> - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.	<b>ND</b> - Not Detected
<b>MCL</b> - Maximum Contaminant Level: The highest level of contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.	<b>AL</b> - Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

# Contaminant Detection Tables

CONTAMINANTS FOUND IN YOUR TAP WATER		AMOUNT FOUND IN YOUR TAP WATER				IS YOUR WATER SAFE?	
		EPA Allowable Limits				Levels In Source Water	
Detected Com- pounds	UNIT	MCLG	MCL	AVERAGE	RANGE	COMPLIANCE	MAJOR SOURCES
<b>MEASURED AT THE CEDAR RIVER WATER SOURCE - Raw Water</b>							
Turbidity	NTU	NA	TT	0.4	0.2 - 2.9	YES	Soil Runoff
Total Organic Carbon	ppm	NA	TT	0.7	0.3 - 1.2	YES	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	ND	ND	YES	Naturally present in the environment
<b>MEASURED AFTER CEDAR RIVER WATER TREATMENT - Finished Water</b>							
Fluoride	ppm	4	4	0.8	0.6 - 1.0	YES	Additive that promotes strong teeth
Barium	ppb	2000	2000	1.4	One sample	YES	Erosion of natural deposits
Nitrate	ppm	10	10	0.09	One sample	YES	Erosion of natural deposits
Chromium+	ppb	100	100	0.2	One sample	YES	Erosion of natural deposits
<b>MEASURED IN THE HWD DISTRIBUTION SYSTEM</b>							
Total Trihalometh- anes	ppb	NA	80	33	20 - 55	YES	By-product of chlorination
Haloacetic Acids	ppb	NA	60	27	20 - 39	YES	By-product of chlorination
Chlorine	ppm	4	4	1.10	.25 - 1.79	YES	Water additive used to control microbes
Total Coliform	%	0	5%	Highest month	ND	YES	Naturally present in the environment
<b>LEVELS IN HWD AFTER TREATMENT</b>							
Nitrate	ppm	10	10	ND	One Sample	YES	Erosion of natural deposits
Fluoride	ppm	4	4	0.9	.7 - 1.1	YES	Additive that promotes strong teeth

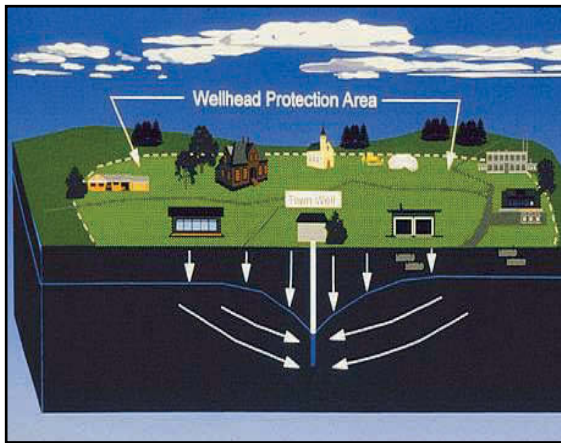
This table shows all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Upon request, we will provide you with a list of compounds we looked for but did not find. **See page 7 for footnotes and definitions.**





## Well Head Protection

The District's Wellhead Protection Program monitors the types of businesses and activities that surround our wells to protect this hidden resource. The District notifies property owners, and regulatory agencies of the



District's water source locations, to help prevent potentially harmful contaminants from polluting our water. These exercises contribute to the **"low vulnerability"** the Water District's groundwater has to contamination.

On average, each person in the region uses about 93 gallons of water each day throughout the year. Many of us use a large amount of water for outdoor activities such

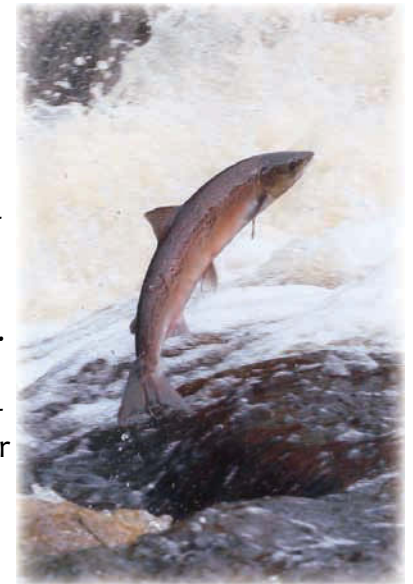


as gardening, washing cars, pressure washing and watering the lawn.

The year-round average for outdoor water use is 30 gallons per day (gpd). Summertime use averages 85 gpd.

Indoor water use accounts for the rest of our daily averages. Toilets top the chart at 19 gallons per person per day. Showers and clothes washers are a close second at 13 gallons per person per day. Think about the many ways you can conserve water.

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.



## Conservation in Highline Water District

Highline Water District (HWD) customers have continued to do their part with water conservation. Conservation saves you money, protects fish and wildlife, and helps ensure a reliable future supply despite regional growth and climate uncertainty.



HWD has adopted the Seattle Regional Conservation Program water savings target. HWD is one of a group of 18 utilities that purchase wholesale water from Seattle Public Utilities (SPU) and is part of the Regional Water

Conservation Program administered by SPU. This Saving Water Partnership set a regional conservation target of 11 MGD of cumulative annual average savings from the years 2000 through 2010 and a savings target of 15 MGD cumulative annual average savings from the years 2011 through 2030. The six-year portion from 2007 – 2012 is HWD's adopted water use efficiency goal and totals 5.98 MGD of cumulative savings.

In 2011, the Regional Water Conservation Program achieved an estimated 1,400,000 gallons per day of water savings – enough to supply 9,400 single family homes. In the last five years, the Saving Water Partnership has collectively saved about 4.61 million gallons per day (MGD) toward the 2012 goal of nearly 6 MGD.

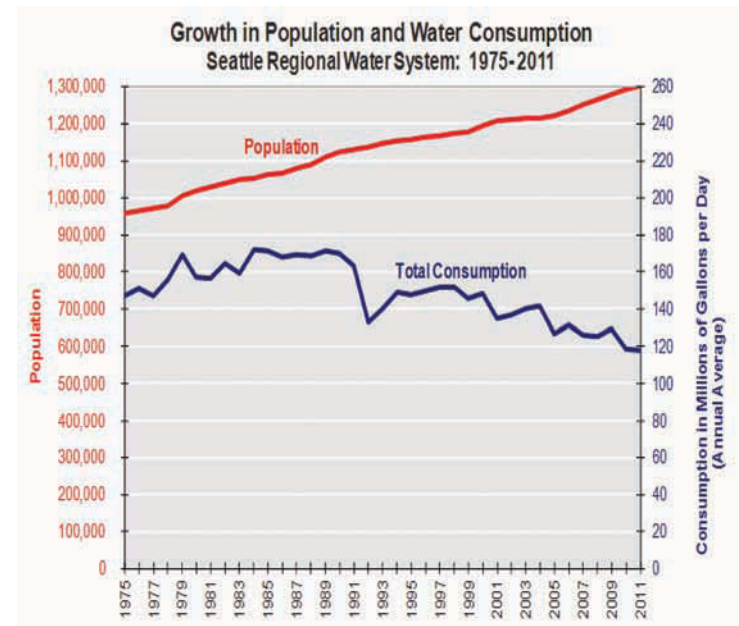
To learn ways to save water in your home or business, visit [www.savingwater.org](http://www.savingwater.org) or call 206-684-7283 for other water saving advice.

## Water Use Efficiency

During 2011, Highline Water District produced and purchased a total of 2,151,662,392 gallons of water for our customers. Authorized consumption of this water totaled 1,992,670,504 gallons with a water loss of 158,991,888 gallons for a Distribution System Water Loss of 7.4%. The Washington State Department of Health has set a goal of less than 10% for water loss.

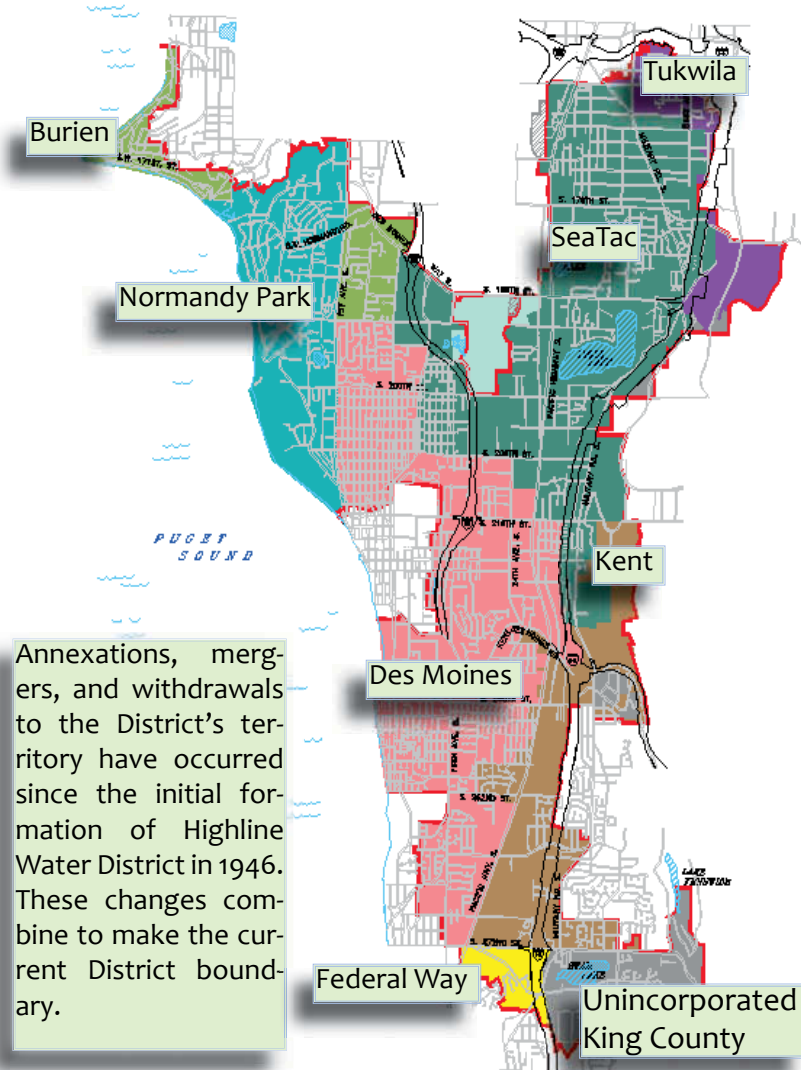
Highline continues its extensive effort to determine the causes of the water loss. Primary areas of concern include:

- \* Water meter discrepancies
- \* Fire Department uses
- \* Old, leaking water pipes
- \* Leaking hydrants
- \* Unauthorized connections
- \* Water theft from hydrants





# Highline Water District



## Mission Statement

The Board of Commissioners and employees of Highline Water District take seriously our duties to deliver the highest quality water available at the most economical price. We pledge to continue our aggressive policy of maintaining and protecting your investment in district facilities and equipment.



Highline Water District-System ID # 406506

Highline Water District is located south of Seattle, WA and generally extends from just east of Interstate Highway 5 on the east to the Puget Sound

on the west, and from State Route 518 on the north to South 284th Place on the south. The District lies within portions of the cities of Burien, Des Moines, Federal Way, Kent, Normandy Park, SeaTac, and Tukwila. Portions of the District are also within the limits of unincorporated King County. Regular Board Meetings are held the 1st Wednesday each month at 9:00 AM, the 3rd Wednesday each month at 4:00 PM, and the Workshop meeting is held the 4th Tuesday each month at 9:00 AM. All meetings are open to the public. The District office is located at 23828 30th Ave S., Kent, WA. Please call 206-824-0375 for driving directions.

## Board of Commissioners and Contact Personnel:

**Vince Koester, Board President**

**Daniel Johnson, Secretary**

**Gerald R. Guite, Commissioner**

**George Landon, Commissioner**

**Kathleen Quong-Vermeire, Commissioner**



**Matt Everett, General Manager**

**Jeremy DelMar, P.E., Engineering and Operations Manager**

**Debbie Prior, Finance Manager**

**Mike Becker, Operations Supervisor**



CCR compiled by Polly Daigle, Project Coordinator  
For questions or more information please call 206-592-8924



Highline Water District  
23828 30th Ave S  
Kent, WA 98032

PRSR7 STD  
US POSTAGE PAID  
SEATTLE WA  
PERMIT #1293



This report contains important information about your drinking water. Please have someone translate this information for you, or speak with someone who understands it.

Этот отчет содержит важную информацию о питьевой воде. Пожалуйста, попросите кого-нибудь перевести эту информацию для вас, или говорить с кем-то, кто понимает.

Este informe contiene información importante sobre su agua potable. Por favor, que alguien traduzir esta información para usted, o hablar con alguien que lo entienda.

這份報告包含有關飲用水的重要信息。請有人為你翻譯這個信息，或口話的人了解它。

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng có một người nào đó dịch thông tin này cho bạn, hoặc nói chuyện với một người hiểu nó.

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