

Highline Water District is pleased to provide our 2010 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 drink every day. If you have any questions, please contact our Water Quality Specialist at 206-592-8920.

The Facts on Contaminants



The sources of drinking water (both tap and bottled water) include streams, rivers, lakes, ponds, reservoirs, springs and wells. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. A contaminant is defined as any foreign substance in water including minerals. 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.

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)

Source 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 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 water shed 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

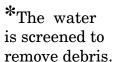
and manganese. The Department of Health Drinking Water Division has been given the responsibility to ensure both primary and secondary water quality standards are met in Washington State. The Federal Food and Drug Administration regulates contaminants in bottled water and is responsible for providing a similar level of public health protection.

Water Treatment

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
treatment steps
outlined below.





Landsburg Division Dam

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- * 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.

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Highline Water District - Well Water

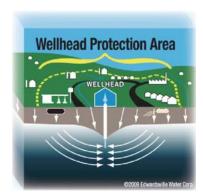
Highline Water District pumps water from three wells and treats the water at two facilities. The District's treatment consists of the following:



Tyee Treatment Plant

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

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 measures aid in keeping the water district groundwater sources safe. Our Wellhead Protection Program helps to ensure our ability to provide our customers with safe, clean water.

Water Quality

Disinfectants have been added to the water for many years to ensure the water is free of many harmful organisms. While disinfectants help to maintain the safety of the water, they can also mix with natural materials to form "Disinfection Byproducts" (DBP's) that may pose health risks. In 2008, Highline Water District completed the Initial Distribution System Evaluation (IDSE) that was required by the Environmental Protection Agency (EPA) in the Stage II Disinfectant By-products Rule (D/ DBA). After analyzing sample data using the criteria provided by the EPA, an IDSE report was written and approved by the EPA. Monitoring for Stage II D/DBP begins in June, 2012.



Cryptosporidium & Giardia

Cryptosporidium is a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. These disease-causing organ-

isms are com-

in the natural

environment

and in most

sources.

Sources of

surface water

Cryptosporid-

ium and Giar-

dia (another

disease-causing organism)

include deer,

elk and small

mammals that

live within the

watersheds.

Chlorination

is very effective in treating against Giardia but is

monly found



Typical Watershed Setting ineffective against Cryptosporidium.

Construction of the Cedar River treatment facility in 2004 provided an effective treatment process for destroying Cryptosporidium.

Health officials recommend those concerned about Cryptosporidium should consult with their health care providers about using tap water for cooking or drinking. For more information on Cryptosporidium, call the EPA's Safe Drinking Water hotline at (800) 426-4791.

Lead & Copper in Drinking Water

Elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead found 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. If your water has been sitting for several hours and you have lead or copper piping, you can minimize the potential for lead or copper exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

If you are concerned about lead or copper in your water, you may wish to have your water tested. Information on lead or copper in drinking water, testing methods, and steps you can take to minimize exposure. is available by contacting Highline Water District's Water Quality Specialist at 206-592-8920, the Safe Drinking Water Hotline at 1-800-426-4791, or on-line at www.epa.gov/safewater/lead.

MEASURED AT CUSTOMER'S TAP											
2010 RESULTS											
Tested Com- pounds	Unit	MCLG	90th Per- centile Action Level	**90th Per- centile	# Of Homes Over Ac- tion level	Com- pliance	Source				
Lead	ppb	0	15	2	2	YES	Corrosion of household plumbing				
Copper	ppm	1.3	1.3	0.18	0	YES	Corrosion of household plumbing				

Definitions Chart - page 10

"Water links us to our neighbor in a way more profound and complex than any other."

- John Thorson, Administrative Law Judge -

Footnotes & Definitions							
for charts on pages 9, 12 & 13							
* Samples taken from the Cedar River	NTU - Nephelometric Turbidity Unit: Turbidity is a measure of how clear the water looks.						
** Average represents the 90th percentile (2010)	TT - Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.						
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.	ppm - One part per million						
MRDLG - 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	NA—Not Applicable						
do not reflect the benefits of the use of disinfectants to control microbial contaminants.	ppb —One part per billion						
MCLG - Maximum Contaminant Level Goal: The level of a con- taminant in drinking water below which there is no known or expect- ed risk to health. MCLG's allow for a margin of safety.	ND - Not Detected						
MCL - Maximum Contaminant Level: The highest level of con- taminant that is allowed in drink- ing water. MCL's are set as close to the MCLG's as feasible using the best available treatment tech- nology.	AL - Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.						

Cross Connection Precautions

A connection between your drinking water pipes and a source of contamination is called a *Cross-Connection*. Examples of cross connection include irrigation systems, photo developing equipment, dialysis machines, and nearly every hose-end applicator used with lawn and garden chemicals.

Cross-connections are dangerous because they provide opportunities for contaminates to be pulled back into the water system.



Backflow Device

To help protect our water:



Backflow Assembly Tester

- *Avoid using hose-end applicators for landscape chemicals.
- *Install a backflow prevention assembly when a potential risk is present.
- *Test backflow prevention assemblies annually, as required by the State Health Department, with a Washington State-Certified Backflow Assembly Tester.

*Make repairs to backflow prevention assemblies when testing indicates a failure.

www.Highlinewater.org/forms Or give our Backflow Specialist a call at 206-592-8920

^{*}For a list of Certified Back-flow Assembly Testers, please visit our website:

Contaminant Detection Tables

CONTAMINANTS FOUND IN YOUR TAP WATER			AMOUNT FOUND IN YOUR TAP WATER			IS YOUR WATER SAFE?			
		EPA Allowab	le Limits	Levels In S		Source Water			
Detected Compounds	UNIT	MCLG	MCL	AVERAGE	RANGE	COMPLIANCE	MAJOR SOURCES		
MEASURED AT THE CEDAR RIVER WATER SOURCE									
Turbidity*	NTU	NA	TT	0.4	4.5	YES	Soil Runoff		
Total Organic Carbon*	ppm	NA	TT	0.9	0.4 - 1.8	YES	Naturally present in the environment		
Cryptosporidium	#/100L	NA	NA	ND	ND	YES	Naturally present in the environment		
MEASURED AFTER CEDAR RIVER WATER TREATMENT									
Arsenic	ppb	0	10	0.5	One sample	YES	Erosion of natural deposits		
Fluoride	ppm	4	4	0.95	0.7 - 1.1	YES	Additive that promotes strong teeth		
Barium	ppb	2000	2000	1.8	One sample	YES	Erosion of natural deposits		
Nitrate	ppm	10	10	0.02	One sample	YES	Erosion of natural deposits		
Chromium	ppb	100	100	0.8	One sample	YES	Erosion of natural deposits		
MEASURED IN THE HWD DISTRIBUTION SYSTEM									
Total Trihalomethanes	ppb	NA	80	30	16 - 38	YES	By-product of chlorination		
Haloacetic Acids	ppb	NA	60	24	18 - 28	YES	By-product of chlorination		
Chlorine	ppm	4	4	1.03	ND - 1.99	YES	Treatment additive		
LEVELS IN HWD AFTER TREATMENT									
Nitrate	ppm	10	10	ND	One sample 2010	YES	Erosion of natural deposits		
Fluoride	ppm	4	4	1.01	0.8 - 1.1	YES	Additive that promotes strong teeth		
Total Coliform	%	0	5%	Highest month	ND	YES	Naturally present in the environment		

Definitions located on page 10

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.

Highline Water District Water Loss

During 2010 Highline Water District supplied 2.18 billion gallons of drinking water to its customers. Of this amount, approximately 8.19% was unaccounted 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



A Leaking Water Main

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. It makes a difference!

How Much Water Did We Use?

The decade from 2000 to 2010 saw the Seattle regional water service area's population grow by 9 percent. So wouldn't you expect that our water use would grow too? In fact, regional water use is going down. We're using the same amount of water in the region as we did in the late 1950's. *That's a tremendous accomplishment by everyone who lives and works here.*

You, your neighbors, businesses and institutions, have collectively reduced water use by changing behaviors, fixing leaks, and installing water efficient equipment. Other factors that have contributed to a 20% reduction in regional water use since 2000 include:

*Improving the way the water system is operated.

*Setting water rates that encourage the wise use of water.

*Adopting building codes that make efficient plumbing fixtures the norm.

The regional water conservation program – including Seattle Public Utilities (SPU) and 17 surrounding

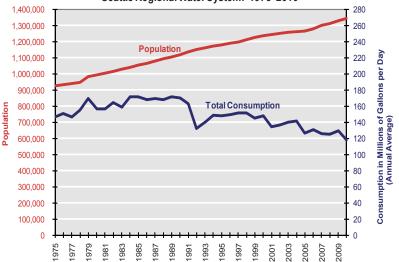


Low Flow Showerhead

water utility partners in the Saving Water Partnership - achieved an estimated 570,000 gallons per day of water savings in 2010 alone. Since the beginning of the program in 2000, we have saved an estimated 9.6 million gallons per day (mgd). When extra conservation efforts funded through-

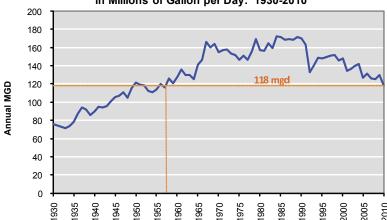
out the Partnership are included, the region is saving more than 10 mgd. To put that into perspective, that's enough water to serve the annual drinking water needs for the entire city of Bellingham, Washington, which has a population of 80,000. Thank you for all you do!

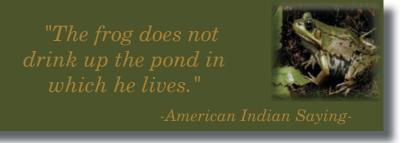
Growth in Population and Water Consumption Seattle Regional Water System: 1975-2010



Highline Water District recognizes that growth, and a steadily increasing population, place significant demands on our regional water supply. Using water wisely is a vital part of sustaining our water needs. New water source development is expensive and can take many years. Conserving water year-round helps ensure an adequate supply of water for people and all the creatures that share it.

Total Seattle Regional Water System Annual Demand in Millions of Gallon per Day: 1930-2010





Save Water Inside Your Home

Top 4 things you can do indoors to save water and money:

- 1. *Replace Old Toilets*. Replacing an old toilet with a new WaterSense model saves an average household of four approximately 27 gallons per day (GPD).
- 2. Replace Old Washing Machines. Upgrading to a new WashWise qualified machine saves an average two person household 15 gallons per day. WashWise certified machines also save energy and use less detergent.
- 3. Replace Your Showerhead. Showering is one of the top uses of residential water in the United States, representing approximately 17% of indoor water use. When you switch out your old shower head, the water you save is simply the difference in the flow rates. Compared to 2.5 gpm, by selecting a new 2.0 gpm lowflow shower head you will save 20% water usage. 1.75 gpm shower head saves 30%. Choose 1.5 gpm to save 40%, and 1.25 gpm to save 50%.
- 4. Fix Those Leaks! Water running freely is money wasted! For example, one home with 3 faucets, each dripping 5 drips per minute equals 21,600 drips per day, or 1.43 gallons per day, or 520 gallons per year, or an average of 10 baths! Often you can make the repairs yourself, saving even more money!



Save Water Outside Your Home

- 1. *Check Your Sprinkler System.* Check you irrigation system frequently and adjust sprinklers so only your lawn is watered and not the house, sidewalk, or street. Install a rain shut-off device on your automatic sprinklers to eliminate unnecessary watering.
- 2. *Check for Service Line Leaks.* Locate your meter box (a good thing to know in the event of an emergency). Make sure no water is running inside or outside

the house. Remove the meter box lid and look at the face of the meter. If the "second hand" or the triangle on the face of the meter is moving, water is going though the meter. Next turn off the water at your house. If the dials on the meter stop turning, the leak is inside your home. If the



dials continue to move, the leak is in your service line. Unless you see water pooling in your yard, service line leaks are hard to find and may require a plumber to assist you in finding and repairing the leak.



3. Adjust Your Lawn
Mower to a Higher Setting. Longer grass shades
root systems and holds
soil moisture better than a
closely clipped lawn. Weed
your lawn and garden regularly. Weeds compete with

other plants for nutrients, light, and water.

4. Winterize Outdoor Spigots. When temps dip to 32 degrees F, prevent pipes from bursting or freezing by disconnecting the garden hose and wrapping the faucet with insulation or a foam faucet cover.

Conservation Rebate Incentives

- The Single Family WaterSense Toilet Rebate Program surpassed its modest goal in 2010. The rebate program is continuing in 2011.
- The Multifamily WaterSense Toilet Replacement Program has upgraded 32,700 toilets in 1,610 buildings since 2000.
- The Saving Water Partnership (SWP) has completed its participation in the WashWise program after 13 years and more than 90,000 rebates issued for efficient clothes washers. Our region saved more than 1.5 million gallons of water each day as a result.
- The SWP completed water conservation financial incentive projects with 112 businesses in 2010.
- More than 150 rain sensors were installed by customers to make sure their irrigation systems don't run when it's raining.

During 2010, Highline Water District customers participated in the following Rebate Programs:

- Multifamily Toilet Rebate Customers: 4 completed projects with 29 total toilets replaced
- Single Family Toilet Program \$30.00 rebate May December, 2010: 20 toilets replaced.
- WashWise Rebate Customers: 337 washing machine rebates
- Single Family Residential 2010 Water Efficient Irrigation Program: 2 Customers participated resulting in \$273.00 of rebates
- Multifamily Showerhead Program: 3 Completed Projects 573 total showerheads replaced and 777 total aerators replaced

For information on Rebate Programs available in 2011, go to www.savingwater.org.

Why is Water Conservation Important?

Conserving water year-round is the right thing



to do for many reasons:

* The Greater Seattle area depends heavily on the melting winter snow pack to supply water to the Cedar River Watershed throughout the year.

*Water Conservation helps us be prepared for the uncertainties of climate change, drought years and low snow levels.

* Water Conservation helps us protect drinking water supplies for future generations. Using water wisely is a vital part of sustaining our water needs. New water source development is expensive and can take many years. Conserving water yearround helps ensure an adequate supply of water for people and all the creatures that share it.



* Water Conservation is vital in maintaining healthy rivers with ample clean water essential for healthy salmon populations. Everything you do to use water wisely – washing full loads, turning off the faucet, taking shorter showers, choosing plants that are right for the site, watering the lawn no more than it needs, adding mulch to garden areas - helps keep water in our rivers and streams.

Education & Awareness

Highline Water District strives to educate cus-



SeaTac International Days

tomers of all ages about the continuing need to use our water resources wisely. Participation in community fairs during 2010 provided District personnel the opportunity to answer questions and share printed materials regarding proven conservation measures. Topics included

drought resistant plant selection, how to discover and

repair leaky plumbing, and how to start your own compost bin. Our mascot, Willy Water, provided a fun opportunity for kids of all ages to learn ways they can contribute to the conservation effort. Our poster/calendar contest offered 4th and 5th grade students a chance to creatively display

what they learned by creating their own conservation

message and poster. Winning posters were used to produce our 2011 water conservation calendar.

Throughout this report we have illustrated the steps **Highline Water District** takes to provide the safest water possible for its customers. With your help,



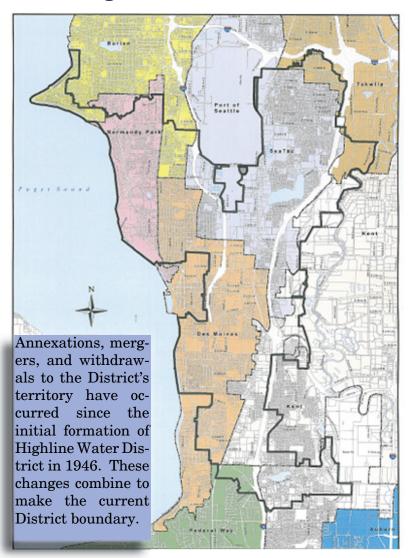
District Mascot, Willy Water



District Staff Providing Education and Quality Customer Service

we will continue to provide fresh and safe water to our District customers for many years to come! Even the smallest effort to conserve and protect our water makes a **BIG** difference!

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 office

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.

Highline Water District is a municipal corporation organized under the laws of the State of Washington (Title 57 RCW) and was formed following a special election held on August 12, 1946. The District operates as a Special Purpose District governed by a five member Board of Commissioners elected by the citizens of the District. Current Commissioners are:

Gerald Guite, Board President
Daniel Johnson, Commissioner
Vince Koester, Secretary
George Landon, Commissioner
Kathleen Quong-Vermeire, Commissioner



Matt Everett, General Manager Jeremy DelMar,P.E., Engineering Manager Debbie Prior, Finance Manager Mike Becker, Water Quality 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 206-824-0375 Regular Board Meetings:

1st Wednesday each month 9:00 AM

3rd Wednesday each month 4:00 PM

Board Workshop Meeting 4th Tuesday each month 9:00 AM All board meetings are

open to the public

DISTRICT THOU

PRSRT STD
US POSTAGE PAID
SEATTLE WA
PERMIT #1293

MAILING ADDRESS LINE 1
MAILING ADDRESS LINE 2
MAILING ADDRESS LINE 3
MAILING ADDRESS LINE 4
MAILING ADDRESS LINE 5