



the **savvy** gardener

FREE SAVVY GARDENER CLASSES!
Presented by the Saving Water Partnership and Cascade Water Alliance

Discover how to create a beautiful, healthy and waterwise garden!

Class	Presenter	Location	Date and Time
Northwest Gardens without Automatic Sprinklers.....	Marianne Binetti ...	Blakely Hall, Issaquah	June 1: 10:30 am - Noon
Favorite Northwest Natives for Sun and Shade.....	Greg Rabourn	Sammamish Plateau Water & Sewer.....	June 8: 10 - 11:15 am
Sustainable Garden Design	Jessi Bloom	Sammamish Plateau Water & Sewer.....	June 8: 11:30 am - 12:45 pm
Wildlife Friendly Gardening: Beauty & Sustainability.....	Emily Bishton	Sammamish Plateau Water & Sewer.....	June 8: 1:00 - 2:30 pm
Rain Barrels and Drip Irrigation: a Perfect Pairing	Carey Thornton	Woodinville Water District.....	June 8: 10:00 am - Noon
Edible Landscapes for the Homeowner	Jessi Bloom	Tibbets Creek Manor, Issaquah.....	June 11: 6:00 - 7:30 pm
Fall Fireworks in the Garden	Susie Egan.....	Shoreline Water District.....	Sept. 19: 6:00 - 7:30 pm

For more information about these classes, visit the Saving Water Partnership website at: www.savingwater.org/savvygardener/

8 Great Water-Saving Gardening Tips

The following tips can lead to a beautiful garden as well as savings in the pocket:

- **Group plants with similar water needs:** Grouping plants allows you to water more efficiently. If you need to water some plants more, you can do it in one small area of your garden.
- **Water deep and less often:** Check how much you need to water by using a shovel, trowel, or soil corer to locate moist soil. If you find that the root zone is dry, it is time to water.
- **Water early or late in the day:** Less water will be lost to evaporation at these times of the day than during the hotter part of the day.
- **Wet and wait:** Water tends to pool or run off dry soil. To help ensure the plants absorb water, briefly water the soil, wait 20 minutes, then water again deeply. This allows water to penetrate soil and seep down to roots.
- **Apply water to the roots, not the foliage:** Watering the roots reduces evaporation and the risk of plant disease. Using tools that direct water to the roots—like a water wand or a drip irrigation system—will help keep water where it is most useful.
- **Pay close attention to your containers:** Terra cotta clay containers are beautiful, but the dry out quickly so check them often. Shallow containers and small diameter containers also lose moisture faster than larger, deeper ones. Drip irrigation can work well for keeping groups of containers watered.
- **Check your in-ground irrigation system:** To adjust watering times to reflect the changing water needs of plants, visit www.iwms.org and learn how to use the Seattle-area Water Index. Inspect your irrigation system monthly while it is running for leaks and breaks.

Upcoming Events

The Solar Fest at Shoreline Community College: July 27 – 10:00 am to 6:00 pm

Ridgecrest Neighborhood Association Ice Cream Social in Paramount Park: August 15 – 6:00 pm to 8:30 pm



Working With Our Community: Fix-A-Leak Contest with Local Area Schools

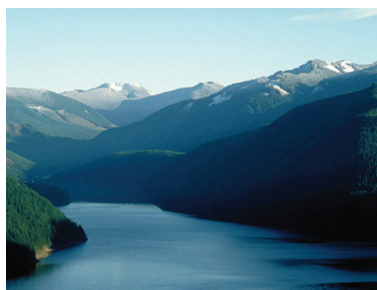
Once again, Shoreline Water District issued a challenge to the elementary students in Shoreline and Lake Forest Park, this time partnering with the Saving Water Partnership to sponsor the 2nd Annual Fix a Leak Week Challenge.

We began by approaching the Shoreline School District, King's Elementary School and Shoreline Christian School to get their students involved. In the challenge, we asked students to test their toilets for leaks with the help of their parents. Together, they placed dye strips in the tank of their toilet, waited a little while, and then checked the toilet bowl. If there was any coloring in the bowl, it indicated a leak. The school with the highest percentage of participation would be the winner and the individual classrooms with the highest percentage of participation would receive a special prize.

King's Elementary School has won the challenge for the 2nd year in a row with an overwhelming 89% of their students participating! This is double their percentage of

participation last year. In King's Elementary alone, 11 individual classrooms had 100% participation. However their school was not the only school with 100% classroom participation: Highland Terrace Elementary had 4 classrooms and Shoreline Christian had 2 classrooms with 100% participation.

As a result, overall participation in the challenge almost doubled! We are proud of the students and parents who took the time to learn more about water conservation and look forward to seeing which school wins the challenge next year!



What's New About Our Water?

It's sourced from two watersheds now, rather than just one!

In January 2012, Shoreline Water District completed a new connection with the Seattle Public Utilities NW regional supply which draws water from both the Tolt and Cedar River Watersheds. This project was many years in the making, having involved extensive negotiations with SPU, review of multiple alternatives to improve water quality within the immediate area, and the installation of a second connection to the NW regional supply, which was done during the construction of the King County Brightwater transmission tunnel for maximum efficiency and minimal disruption.

Our new Cedar River source offers an excellent back-up as well as increased reliability for our ratepayers' water supply.

If you've never visited the Cedar River Watershed, their Education Center is open on weekends year-round for a gorgeous, fascinating, and educational family outing. Still not sure? Get more info and check out the watershed slideshow here:

www.seattle.gov/util/EnvironmentConservation/OurWatersheds/CedarRiverWatershed/index.htm

Learn More About Water Quality

We at Shoreline Water District encourage public interest and participation in the decisions that affect our drinking water. If you would like to learn more about our water, have questions about its quality, or would like to know what you can do to help keep our water supply clean, safe and abundant, please don't hesitate to contact us at (206) 362-8100, or visit one of our Board of Commissioners meetings (every first, second, and third Tuesday of each month at 3:00 pm at our District office, or you can contact any one of the following organizations:

Seattle Public Utilities

Phone: 206-634-3000

Website: http://www.seattle.gov/util/About_SPU/Water_System/Water_Quality/index.asp

United States Environmental Protection Agency (EPA)

Phone: 1-800-426-4791

Website: <http://www.epa.gov/safewater>

Washington State Department of Health (DOH):

Phone: 1-800-521-0323

Website: <http://www.doh.wa.gov/ehp/dw/>

Safe Drinking Water Hotline

Phone: 1-800-426-4791



SHORELINE Water District
Excellence in Water Quality for Over 80 Years



2012 ANNUAL REPORT OF DRINKING WATER QUALITY

A special publication including water-related news and info
Serving the communities of Shoreline and Lake Forest Park since 1931

Issue 2: April • May • June 2013

From Our Board...

by Larry Schoonmaker, President

As part of our water system plan and with the increased redevelopment activities, Shoreline Water District faces a significant challenge to upgrade its relatively aged and undersized water system facilities while providing cost-effective and efficient water service for its customers. The District found that it was more cost effective to provide a secondary connection to Seattle Public Utilities system than constructing a new reservoir to provide the water supply our customers need during peak usage periods. The District began communications with Seattle Public Utilities several years ago and finally, early in 2012, a connection was made to a new (to us) source of supply. This new sub-regional system has water that comes from either the Tolt or the Cedar River. The District will begin reporting water quality information from both system beginning this newsletter as our customers will want to know about both sources. Its one way we at the district, continue to look out for our customer. If you have questions or comments on this report, or how the District can serve you better, please let us know.

Sincerely, *Larry Schoonmaker*

Shoreline Waves Newsletter ~ a publication by Shoreline Water District

Become a savvy gardener with FREE classes sponsored by the Saving Water Partnership and Cascade Water Alliance.



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The Shoreline Waves Newsletter is brought to you by Shoreline Water District, and its Board of Commissioners: Larry Schoonmaker (President), Charlotte Haines (Vice President), and Ron Ricker (Secretary). Feel free to contact us at PO Box 55367, or 17534 - 15th Avenue, Shoreline, WA 98155 (interim location). (206) 362-8100 • www.shorelinewater.org



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Photo courtesy of Friends of the Cedar River Watershed: cedarriver.org

Annual Water Quality Report for 2012

Shoreline Water District continues to maintain state and federal water quality guidelines that are significantly below EPA maximum levels.

All About Your Water

Who: Your drinking water is regulated by the Environmental Protection Agency (EPA), who sets drinking water quality standards, establishes testing methods and monitoring requirements for water utilities, sets maximum levels for water contaminants, and requires utilities to give public notice whenever a violation occurs. Your drinking water is tested frequently both by Shoreline Water District and Seattle Public Utilities, our supplier, to ensure that high quality water is delivered to your home.

What: 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

When: Your water is continuously monitored 365 days a year.

Where: Your water comes from both the Tolt and Cedar River Watersheds.

How: Last year your drinking water was tested for over 200 compounds and additional contaminates. Tests are done before and after treatment and while your water is in the distribution system. The Tables presented on the following page list all of the contaminants detected in the most recent required water testing and compare them to the limits and goals set by the EPA and the State of Washington to ensure your tap water is safe. Not shown are more than 200 additional contaminants that were tested for, but not detected, in your drinking water. If you would like to see a list of these other compounds or if you have other water quality questions, do not hesitate to contact us. Please note: asbestos monitoring is not required for our District because all the asbestos pipe in our distribution system was replaced prior to 1991.

The Best News: Your water falls safely within state and federal guidelines for each and every contaminant, significantly below the EPA's levels.

Lead and Copper Monitoring Results

Our regional water supply does not contain lead or copper. However it is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing.

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. Shoreline 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 by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791, or visit their website at: www.epa.gov/safewater/lead

People With Special Concerns

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. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

If you would like to learn more about your water, or if you have questions about its quality, please don't hesitate to contact Shoreline Water District at (206) 362-8100.

Table 1: Water Quality Testing Results for 2012

Types of Detected Compounds	Units	Primary Source	Ideal Goal (MCLG)	Max. Allowed (MCL)	Levels in the Cedar River Watershed		Levels in the Tolt Watershed		Meets USEPA Stds.?
					Average	Range	Average	Range	
RAW WATER									
Total Organic Carbon	ppm	Naturally present in the environment	NA	TT	0.7	0.4 to 1.1	1.2	1.1 to 1.4	Yes
Cryptosporidium	#/100L	Naturally present in the environment	NA	NA	ND	ND	ND	ND	Yes
FINISHED WATER SOURCE									
Turbidity	NTU	Soil runoff	NA	TT	0.3	0.2 to 2.3	0.06	0.04 to 0.28	Yes
Barium	ppb	Erosion of natural deposits	2000	2000	1.8	(one sample)	1.9	(one sample)	Yes
Cadmium	ppb	Erosion of natural deposits	5	5	ND	(one sample)	0.35	(one sample)	Yes
Fluoride	ppm	Water additive to promote strong teeth	4	4	0.8	0.7 to 0.9	0.8	0.7 to 0.9	Yes
Nitrate	ppm	Erosion of natural deposits	10	10	0.02	(one sample)	0.13	(one sample)	Yes
SPECIFIC SAMPLES FROM SHORELINE WATER DISTRICT'S DISTRIBUTION SYSTEM									
Total Trihalo-methanes	ppb	Byproduct of drinking water disinfection	NA	80	Average: 34 (all samples)		Range: 30 to 39 (all samples)		Yes
Haloacetic Acids (5)	ppb	Byproduct of drinking water disinfection	NA	60	Average: 32 (all samples)		Range: 17 to 36 (all samples)		Yes
Chlorine	ppm	Water additive to control microbes	MRDLG =4	MRDL =4	Average: 0.76 (all samples)		Range: 0.0 to 1.32 (all samples)		Yes

Table 2: Lead and Copper Monitoring Results for the Tolt Watershed in 2012

Lead and Copper Sampling Program and Units	Ideal Goal MCLG	Action Level ¹	Results of 2011 Samplings ²	# Homes Exceeding Action Level	Typical Sources in Drinking Water
Lead, ppb	0	15	6	0 of 53	Corrosion of household plumbing systems. Samples collected in homes within the Tolt water service area.
Copper, ppm	1.3	1.3	0.16	0 of 53	

¹ The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

² 90th percentile: 90 percent of the samples were less than the values shown.

Table Definitions

Maximum Contaminant Level (MCL)

The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected risk to health.

Maximum Residual Disinfectant Level (MRGL)

The highest level of a disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a drinking water disinfectant below which there is no known or expected risk to health.

Nephelometric Turbidity Unit (NTU)

Turbidity is a measure of how clear the water looks. The MCL that applied to the Tolt supply was 0.3 NTU for at least 95% of the samples in a month.

Treatment Technique (TT)

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

USEPA

United States Environmental Protection Agency

ppm:

Parts per million.

ppb:

Parts per billion.

NA

Not applicable.

ND

Not detected.



New electromagnetic meter, part of our automated meter reading system

New Meters Save Time and Money, and Improve Safety!

In March of this year, Shoreline Water District's Board of Commissioners initiated yet another improvement in the efficient delivery of drinking water by signing Resolution 2013.03.15: approving the purchase of new Sensus IPERL Electro-magnetic Flow meters.

Saving Time & Money: With the old meters, operations staff were required to physically read water meters on each and every customer's service line. The District crew was spending considerable hours each month reading water meters. Once we are finished replacing the approximately 5,000 meters, the District will spend less than 1 day each month reading meters—giving us more time to focus on other maintenance needed in the system.

Improving Safety: Walking from structure to structure to read the water meters has long been a risk to our employees' safety—particularly alongside busy roadways such as Bothell Way or 15th Avenue NE. These new meters can be scanned for an electronic reading from up to 200 feet away... resulting in a faster process with significantly reduced safety risks.

Whether in the field or in the office, Shoreline Water District strives to continually improve our level of efficiency with the goal of delivering the best water service possible.

Conserving Water with Local and Regional Programs

During 2012, Shoreline Water District purchased 501 million gallons of water, with an unaccounted water rate of less than 4% throughout our distribution system, thus meeting one of our **local** water conservation goals. The Board of Commissioners will adopt new six year goals for 2013 – 2018 later this summer.

To meet **regional** goals, we participate in the Regional Water Conservation Program administered by the Saving Water Partnership (SWP), which set a goal of saving 11 million gallons per day (mgd) of cumulative annual average saving from 2000-2010, which was increased to a saving target of 15 mgd cumulative annual average savings from 2011-2030.

As one of a group of 18 utilities that purchases wholesale water from Seattle Public Utilities, Shoreline Water District addressed this target by adopting a six year goal of saving 5.98 mgd throughout the combined SWP service area during 2007-2012 (we are currently working to establish new goals beginning in 2013). In 2012, the Saving Water Partnership achieved an estimated 0.78 mgd of annual average savings. Cumulative savings 2007 through 2012 are 5.39 mgd toward the 6-year total of 5.98 mgd. District customers helped us reach these goals by utilizing the following programs:

- **56 residents** within our District service area boundaries took advantage of the single family toilet rebate program.
- **One multifamily complex** replaced 3 toilets as part of the Multifamily toilet replacement program.
- **6 businesses replaced 27 washers** as part of the Laundry Wise multifamily clothes washer program.
- **One family** participated in the Residential Water Efficient Irrigation Program.

Since 1990, the population served by the Saving Water Partnership has grown by 17% while total water consumption has declined by 29%. As a result, **we use 39% less water per person than we did in 1990**. Thanks to water-efficient fixtures, new practices in landscaping, and business and residential conservation efforts, we've been able to reduce per-person water consumption by 14% in the past 6 years, from 92.2 to just 83.6 gallons per day.

Our water consumption is as low as it was in the late 1950s, even though our population has grown by more than eighty percent. Key factors that have contributed to a 19 percent reduction in regional water use since 2000 include 1) conservation programs; 2) improving the way the our water system is operated (repairing pipelines quickly, cleaning reservoirs, annually operating all our valves and hydrants); 3) setting water rates that encourage the wise use of water; and 4) adopting building codes that make efficient plumbing fixtures the norm.