

Conserving Water with Local and Regional Programs

During 2013, North City Water District purchased 610 million gallons of water, with an unaccounted water rate of 8.1% throughout our distribution system.

We continue to participate in the Regional Water Conservation Program administered by the Saving Water Partnership (SWP), as one of a group of 18 utilities that purchases wholesale water from Seattle Public Utilities. The goal of the SWP's Regional Water Conservation Program is to save 15 million gallons per day (mgd) during 2011-2030.

North City Water District intends to reduce per capita water use from the current levels so that the total average annual retail water use of the members of the Saving Water Partnership is less than 105 MGD from 2013 through 2018, despite forecasted population growth.

The combined efforts by all the utilities participating in this program resulted in an annual retail water use of 93.1 mgd during 2013, which met the Regional Conservation Goal. North City Water District's customers helped achieve this goal by attending programs such as the "Savvy Gardener Class" we hosted last Fall, learning more about water conservation at our Educational Booths, and by utilizing the following programs:

- **36 households** within our District boundaries took advantage of the single family toilet rebate program.
- **1 church replaced 10 toilets and 4 urinals** as part of the Water Smart Technology Rebate program.



Working With Our Community: Local Water Education Efforts

North City Water District continues to take an active role in educating our community about water—from spearheading programs in local area classrooms, to hosting "Water Taste Test" education booths at neighborhood events that help our community understand the benefits and importance of choosing tap water instead of bottled water. Past and upcoming examples include:

- **April 26, 2014**
Healthy Kids Day at the Dale Turner Family YMCA in Shoreline: Water Education Booth
- **May 14, 2014**
Chamber of Commerce Business Fair: Water Education Booth
- **May 19 – 23, 2014**
Third annual "Fix a Leak Week" with local area schools
- **May 31, 2014**
Shoreline Science and Technology Fair: Water Taste Test and Education Booth
- **August 14, 2014**
North City Jazz Walk: Host + Water Education Booth
- **August 16, 2014**
Celebrate Shoreline Festival: Water Education Booth

Learn More About Water Quality

We at North City 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 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: 1.800.426.4791

TEST YOUR KNOWLEDGE: 3 Little Known Facts About Special Purpose Districts

1. What year were Special Purpose Districts initiated in our state?

1895 was the year of the first Special Purpose Districts: a Drainage District and a Diking District. Water Districts were first formed in 1913; Fire Protection Districts began in the 1930s.

2. Why did the State decide to create Special Purpose Districts?

To perform a single function (some perform a limited number of related functions) as a limited purpose local government that is separate from a city, town, or county government.

Special Purpose Districts provide an array of services and facilities including electricity, fire protection, flood control, health, housing, irrigation, parks and recreation, library, water service, sewer service and more recently stadiums, convention centers, and entertainment facilities.

3. How many Special Purpose Districts are there?

Washington state has more than 80 Special Purpose Districts. In the Shoreline / Lake Forest Park area alone, we are served by nine Special Purpose Districts including Water, Sewer, Fire, Library, Port, Ferry, Flood, Parks and Recreation, School (District #412), and the newest Special Purpose District, the City of Shoreline's Transportation Benefit District.

Most of these Special Purpose Districts appear on your property tax bills, with exception to the new Transportation Benefit District, which will appear when you license your vehicles. North City Water District (formerly Shoreline Water District) and Ronald Wastewater District do not have taxing authority.



Spray-type sprinklers



Rotor-type sprinklers



Adjusting the water direction and flow

Tune Up Your Irrigation System for Summer

Next to a leaky toilet, your home (or business, or school)'s irrigation system is often the #1 culprit in high water bills. With summer approaching, take a moment to tune up your system:

Spray-Type Sprinklers:

1. Remove the nozzle from each head and clean the screen with an old toothbrush.
2. Turn on the sprinklers and look for partially blocked nozzles. If the fan-shaped spray of water is not even and uniform, a grain of sand is likely stuck in the nozzle. Use a plastic or wood tool (like a toothpick) rather than a metal knife blade, because nozzles are easy to scratch, and scratches can ruin the spray pattern. Even better, replace the nozzle.
3. Using the adjustment screw on top of each nozzle, adjust the water direction. If the heads are creating a lot of mist, turn the screw clockwise. After adjusting, make sure the spray still goes all the way to the next sprinkler.

Rotor / Rotator-Type Sprinklers:

1. Turn on each valve, one at a time, and carefully inspect your irrigation system. Look for wet spots that could indicate a leaking irrigation pipe. Repair any leaks.
2. Replace the controller battery.
3. Straighten any sprinkler heads that are leaning to the side (leaning heads create dry spots and waste water).
4. Replace any broken or malfunctioning sprinklers with the same brand and model as the other sprinklers on the same valve circuit; note: most manufacturers use different flow rates in their sprinkler heads so it's important to get the same brand and model.

For a much more in-depth explanation of all irrigation systems and their proper tune-up steps, visit this website:

<http://www.irrigationtutorials.com/faq/tune-up.htm>

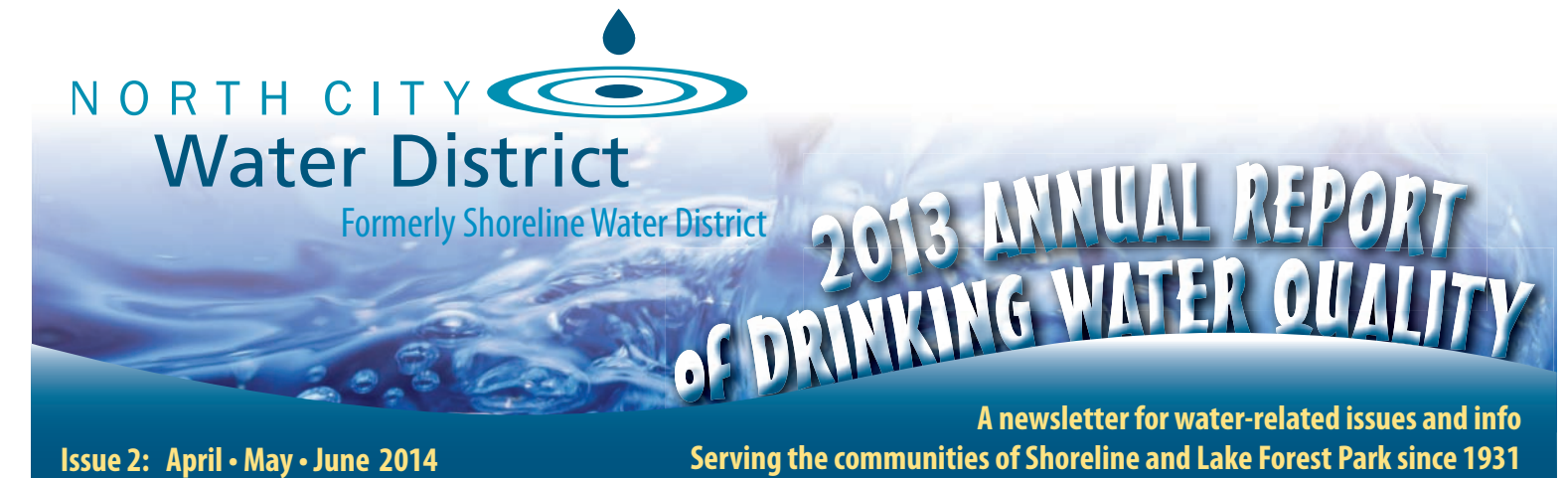
The North City Waves Newsletter is brought to you by North City Water District, and its Board of Commissioners:

Charlotte Haines (President), Ron Ricker (Vice President), and Larry Schoonmaker (Secretary).

Feel free to contact us at PO Box 55367, or 1519 NE 177th Street, Shoreline, WA 98155.

206.362.8100 • www.northcitywater.org

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From Our Board...

by Charlotte Haines, President

Welcome to the first annual Water Quality Report under our new name – North City Water District! Inside you'll find the excellent results from the continuous, 365 days a year monitoring of both of our water sources—the Tolt and Cedar River Watersheds. Although it's easy to take our area's clean, reliable water supply for granted, it's important to be prepared in the event of an emergency. With that in mind, North City Water District recently joined Puget Sound's "First to See" Emergency Support System. This novel program enables individuals to report problems and emergencies first hand via a free smart phone app, thereby alerting both the public and emergency experts who can share and organize an immediate response. Learn more and download the free app on the Puget Sound "First to See" website: firsttosee.org. In addition to supporting our community with emergency preparedness, we strongly believe in the importance of education. We're proud to report that one of our educational efforts—the annual Fix a Leak Week program—was nominated by the Washington State Dep't. of Health's Office of Drinking Water as an Outstanding Contribution for National Drinking Water Week!



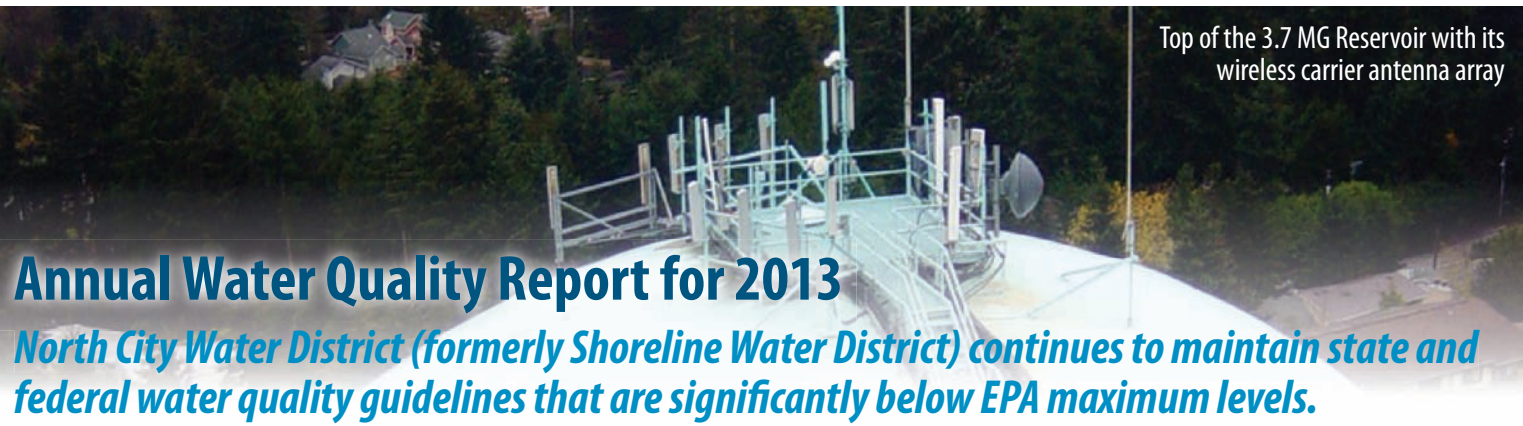
North City Waves Newsletter ~ a publication by North City Water District

- Annual Water Quality Report for 2013
- Water Test Results Tables
- North City Reservoir Project and Timeline
- Local and Regional Water Conservation
- Working with our Community
- Learn More About Water Quality
- 3 Facts about Special Purpose Districts
- How to Tune Up Your Irrigation System

Inside This Issue

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Annual Water Quality Report for 2013

North City Water District (formerly 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 North City 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 contaminants. 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. North City 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 EPA'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 1.800.426.4791.

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

Table 1: Water Quality Testing Results for 2013

Compounds that were not detected in 2013 are not included in these charts.

Types of Detected Compounds	Units	Primary Source	Ideal Goal (MCLG)	Max. Allowed (MCL)	Levels in the Cedar River Watershed Average	Levels in the Cedar River Watershed Range	Levels in the Tolt Watershed Average	Levels in the Tolt Watershed Range	Meets EPA Stds.?
RAW WATER									
Total Organic Carbon	ppm	Naturally present in the environment	NA	TT	0.8	0.4 to 1.4	1.3	1.2 to 1.4	Yes
Cryptosporidium*	#/100L	Naturally present in the environment	NA	NA	ND	ND	<1	ND to 2	Yes
FINISHED WATER SOURCE									
Turbidity	NTU	Soil runoff	NA	TT	0.4	0.2 to 2.7	0.06	0.04 to 0.14	Yes
Barium	ppb	Erosion of natural deposits	2000	2000	1.8	(one sample)	1.9	(one sample)	Yes
Bromate	ppb	Byproduct of drinking water disinfection	0	10	0.08	ND to 2	ND	ND	Yes
Fluoride	ppm	Water additive to promote strong teeth	4	4	0.8	0.7 to 0.8	0.8	0.7 to 0.9	Yes
SPECIFIC SAMPLES FROM NORTH CITY WATER DISTRICT'S DISTRIBUTION SYSTEM									
Total Trihalomethanes	ppb	Byproduct of drinking water disinfection	NA	80	Average: 33 Range: 19 to 37			Yes	
Haloacetic Acids (5)	ppb	Byproduct of drinking water disinfection	NA	60	Average: 35 Range: 18 to 38			Yes	
Chlorine	ppm	Water additive to control microbes	MRDLG =4	MRDL =4	Average: 0.7 Range: 0 to 1.3			Yes	

*Cryptosporidium was not detected in any samples from the Cedar River and in one sample from the Tolt (3 samples each supply)

Table 2: Lead and Copper Monitoring Results for the Tolt Watershed in 2011

None of the samples for the Cedar River Watershed are in North City Water District's area.

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.

EPA

United States Environmental Protection Agency

ppm: Parts per million.

ppb: Parts per billion.

NA: Not applicable.

ND: Not detected.



North City Reservoir: more than meets the eye

If you've been driving in the vicinity of 15th Avenue NE and NE 177th Street, you've no doubt noticed the work taking place on our 3.7 MG North City Reservoir. While it may appear to be nothing more than a repainting project, it's ever so much more, as shown in the timeline at bottom left.

However, repainting the reservoir was not a simple task, since it was home to a number of antennas owned by various wireless carriers in our area. In order to repaint the reservoir, all of these antennas had to be relocated—requiring months of discussions, negotiations, and agreements with each carrier.

A water reservoir serves two purposes: to hold water in reserve, and to maintain proper water pressure within a given service area. When we added a second water source in 2013 (Cedar River, in addition to our Tolt Watershed connection), we were able to take a fresh look at how water pressure was maintained throughout our system.

As of this writing, we've negotiated new, long-term antenna leases with each carrier, a large crane is installing a railing on top of the reservoir, onto which the wireless carriers will install their antennas. The new Pump Station will be going out to bid in May, awarded in July, and construction is anticipated to begin in the Fall.

Our studies showed that adding a new Pump Station, along with internal upgrades to our 3.7 MG reservoir, would provide enhanced water pressure for the least possible cost—despite having to demolish the old 0.4 MG reservoir to make room for the new Pump Station. Because crews would already be on site for the 3.7 MG reservoir's interior upgrades, it made sense to have it repainted at the same time.

So the next time you look up at the reservoir and admire its fresh coat of paint, remember it's just one of many improvements we've made recently to make our water operations more efficient, and to handle a large amount of water without building a new reservoir. If you have any questions about this project (or other projects), please call 206.362.8100.

2007	2008	2009	2010	2011	2012	2013	2014	2015
<ul style="list-style-type: none"> Begin lease discussions with wireless carriers re: 3.7 MG Reservoir Upgrade, new Pump Station and new Carrier Bldg. 	<ul style="list-style-type: none"> Begin Pump Station pre-design study 	<ul style="list-style-type: none"> Begin design of 3.7 MG Reservoir Upgrade project (interior and exterior) 	<ul style="list-style-type: none"> Continue lease negotiations with wireless carriers Begin discussions with the Health Department 	<ul style="list-style-type: none"> Plan, permit and demolish the 0.4 MG Reservoir Begin site planning and lot line adjustment Select new Pump Station designer 	<ul style="list-style-type: none"> Finalize and sign new carrier leases Obtain 1% financing for the Pump Station Project through Washington State's Drinking Water State Revolving Fund Begin designing the new Pump Station Select designer and design the Carrier Building 	<ul style="list-style-type: none"> Sign remaining wireless carrier leases Obtain permit and construct new Carrier Building Finalize design and obtain permit for 3.7 MG Reservoir Upgrade project 	<ul style="list-style-type: none"> Complete 3.7 MG Reservoir Upgrade project Obtain permit and begin constructing new Pump Station 	<ul style="list-style-type: none"> Complete Pump Station project