# 2014 WATER QUALITY REPORT



**THIS HAS BEEN ANOTHER BIG YEAR** for both the customers and employees of Tacoma Water. Just one year after the centennial of establishing Tacoma's Green River water supply, we marked another major milestone: filtering our primary water source.



Tacoma Water Superintendent

Since 2012, Tacoma Water has been building the Green River Filtration Facility in east King County. That facility is now done, and filtered water is flowing through our two major pipelines to people in Tacoma, south King County and throughout Pierce County.

We were able to bring that important improvement to you thanks to extraordinary project management from our own team as well as the design and construction teams we worked with. They built a plant that's uniquely suited to handle our water supply, infrastructure and future needs. And, the filtration facility cost about \$30 million less than the original budget estimate. That cost savings and the low-interest loans we secured to fund the project will result in lower long-term rates than we'd originally anticipated.

### Long-term benefits

Filtering the water provides one more level of safety for everyone who drinks it. Filtration also allows us to use the Green River year round. In the past, when stormy conditions turned up sediment and debris in the river, we turned to our wells instead of using river water. Now, we won't need to do that nearly as often in the winter.

The Green River has been a high-quality, low-cost water source for the last 100 years and, with this new treatment, it will provide an even safer, cleaner and more reliable supply for generations to come.

The milestone of delivering filtered Green River water to our customers is certainly the highlight of 2014, but not the only progress made. Significant work throughout Tacoma Water advanced our management of aging infrastructure, use of new technology and financial sustainability. I'm pleased to note that Tacoma Water staff continues to work with pride and a commitment to providing you clean, reliable water now and in the future.



### MAKING SECURITY A PRIORITY

From simple fixes like improved signage to complex projects like protecting the water system from an earthquake, Tacoma Water is taking a hard look at security and a range of vulnerabilities in its system.

The examination is called a vulnerability assessment, and it's the new standard in analyzing an organization when it comes to all types of hazards, such as:

- Terrorism and vandalism
- Unintentional man-made acts, like a chemical spill or train crash
- Acts of nature, like an earthquake
- Cascading events, like an earthquake that causes a landslide
- Power outages, epidemics
- Connection failures, like the failing of a pipeline that feeds pump stations

### The Alaska Street Reservoir in Tacoma.

Tacoma Water is working with a consultant on the assessment, which started with visits to dozens of our facilities. The focus was on two areas – one security minded, like improvements to cameras, alarm systems and locks. The second involved looking at the structural side of things from a seismic perspective. We have to ask: Can we bring things up to standard? Is this structure beyond its useful life?

The plan for moving forward will contain a prioritized list of ways to better secure the system and improve reliability with recommendations ranked by what's most critical and cost effective.

Based on that analysis, the utility will get a better understanding of how much money it will cost to increase our resiliency, and then we'll start asking those hard questions about cost and value. A structure can be built to survive almost anything, but it can cost a great deal of money. As stewards of rate payers' money, we have to spend the right amount of money to get the right amount of reliability.

# 2014 WATER QUALITY REPORT 3

### TREATING THE WATER, THEN AND NOW

In 1913, Tacoma Water first provided drinking water from the Green River, adding only chlorine for disinfection.

We were following the revolutionary trend started a few years before across the country, where water suppliers were experimenting with ways to treat the water to improve public health. In 1908, the water supply in Jersey City, New Jersey, became the first to benefit from a continuous use of chlorine for drinking water disinfection. The use of chlorine in drinking water quickly spread.

With the addition of chlorine, Tacoma's drinking water and the health of its customers dramatically improved. Our original chlorine treatment system was fairly simple and operated effectively for many years. Then, in 1974, new standards required Tacoma Water to address the dirt and sediment that at times made the Green River cloudy, especially during storms. As a result, groundwater wells were drilled in the Green River watershed, and a new chlorine system, storage tank and well water blending system were built in 1978.



*Exterior of the Tacoma Water Supply Purification Plant with Department of Public Utilities staff in 1932. This building is still standing.* 

In response to a public vote, additional treatment facilities were built to add fluoride in the early 1990s. Shortly thereafter, in 1996, Tacoma Water began raising the pH of the water by adding small amounts of caustic soda, which helped prevent household plumbing corrosion.

In 2005, a new chemical treatment building was completed at Tacoma Water Headworks, replacing the gas chlorine system with a liquid system that was much safer for staff to operate. In 2007, ozone treatment was added to the mix to improve taste and odor and provide even better disinfection.



Chlorine gas feed equipment inside the Tacoma Water Supply Purification Plant at the Green River in 1926.

In 2006, the water treatment landscape was poised to change again, this time in response to a federal requirement to treat for the organism cryptosporidium. In early 2010, the decision was made to build the Green River Filtration Facility, and construction began in 2012. Tacoma Water began providing filtered water to customers on Dec. 16, 2014.

# UPDATE BRINGS IMPROVEMENTS TO WATER INTAKE

In 2014, a quiet but critical construction project was going on right next door to the Green River Filtration Facility, one that will help the new facility perform at its peak capacity all year long.

Over the course of the year, we improved the intake facility, which captures incoming river water and brings it to the filtration facility.



A little background: About 95% of Tacoma Water's supply comes from the Green River; the rest comes from the river's North Fork well system and wells in South Tacoma. Prior to construction of our new Green River Filtration Facility, we relied on that North Fork well water during the winter months, when the Green River is muddy with sediment and debris stirred up by storms.

As we worked to design and build the filtration facility, we needed to make sure that the intake was robust enough to handle Green River water all year, no matter the weather or water conditions.

With the improvements, we have:

- Ensured fish screens are highly reliable during periods of high turbidity and debris collection
  - The screens that prevent fish from entering the water system can get clogged with debris in the winter, leaving it in danger of failing. The old brush system took 30 minutes to complete a cleaning cycle, which was too long when the river is especially dirty. The new brush system takes three minutes to clean the screen.



The Green River and intake facility in east King County.

- Routed incoming sediment back to the river
  - Flow vanes were added to the settling basin to improve its efficiency.
  - A water jet system stirs up sediment and debris that collects in the fish bypass channel so that it is carried back to the river.
  - A sediment collection system was installed behind the fish screens to route any sediment passing through the screens back to the river.
- Improved reliability of the fish trap and sort facility
  - Water to operate the trap and sort facility is supplied by the intake. By increasing the reliability of the intake, we made the fish trap and sort facility more reliable.

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# YOUR WATER: FILTERED AT THE SOURCE

Yesterday's water was good. Today's is better. That's thanks to Tacoma Water's new Green River Filtration Facility, which brings improved reliability, quality and safety to the drinking water.

Until now, the Green River — Tacoma Water's primary water source for the last 100 years — was one of the few remaining unfiltered surface water supplies in the U.S. But in 2006, the Environmental Protection Agency required that water utilities provide treatment to protect against cryptosporidium, a pathogen that can cause disease in humans.

To determine its course, Tacoma Water embarked on a rigorous analysis of treatment options and widespread public outreach. That work resulted in the decision to filter the water and was followed with an ambitious plant construction schedule of about two and half years. At the end of 2014, Tacoma Water had completed its largest capital project in history—one that can deliver up to 168 million gallons of filtered water in a day.





Photos, left to right: Plate settlers help settle particles out of the water; 108-inch valve that isolates flow into a transmission pipeline; tank where 3 million gallons of well water can be held before it's filtered; the completed filtration plant.

As a result of filtration, the water is improved in these ways:

- It's protected from many contaminants, including cryptosporidium
- It has less sand and silt
- It will be more reliable

While the estimated price tag for the filtration facility started out at \$217 million, it will come in around \$187 million, with partnering utilities paying for about one-third of the costs.

Filtering the water provides one more level of safety over the long term for everyone who drinks it.



### PROVIDING THE WATER — AN OPERATOR'S PERSPECTIVE

When I started working with Tacoma Water in 2002, the Green River Headworks staff was pretty small; we had three operators, a part-time mechanic and five watershed management staff members. To treat the water, we used a gas chlorination system, fluoride and caustic feed systems, and a well water blending system that had served us since the late 1970s. Our fish handling facility construction was well underway. Pipeline 5, which would double the amount of water we could supply, was almost complete.

Since then, we've completed several more projects that make the Green River source more reliable and improve the quality of water we deliver to our customers. We've added ozone for

taste and odor control and a new chemical feed facility.

Of course, we've just completed the filtration facility — a water treatment milestone, and a thrill for me personally. Not many people get to be part of starting up a plant, and it's something that I take a lot of pride in.

With those improvements, we needed to increase our operations and maintenance staff from the original five members to 16 and become a 24/7 operation. Though the complexities of bringing our customers high-quality water have increased, so has the quality of water we deliver. I'm proud to be part of this hard-working team.



JEFF BOLAM

Water Treatment Supervisor

### FOCUS ON OPERATION AND MAINTENANCE

Now that the Green River Treatment Facility is fully operational, the focus will change to making the most of how it's run and maintained. Instead of concentrating on specific pieces of equipment, we'll think more about maintaining the system as a whole. It's a subtle shift, but an important one that requires an understanding of each process in the filtration facility and the importance of each piece of equipment.

While the plant was being built, a Tacoma Water team of mechanics, engineers, operators and support staff documented the various processes and equipment in it. Particular attention was paid to the reason a piece of equipment might fail and what the consequence of failure would be.

The team identified required equipment maintenance and stored that information in an electronic system. The system will allow tracking of equipment history, failures, testing measurements, maintenance activities and costs of equipment, enabling us to make better decisions to keep the system running. That type of work is changing how we plan and prioritize our work.



By performing the right task at the right time, Tacoma Water is better able to produce safe, reliable drinking water while providing the highest value to customers. Water pumps at the filtration facility have equipment installed on them that allows us to detect and track defects. We use that data to decide whether it's better to fix the equipment or replace it.

# KEEPING YOU HEALTHY

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 Safe Drinking Water Hotline, (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 also available from the Safe Drinking Water Hotline, (800) 426-4791.



### DELIVERING YOUR WATER

Most of your water comes from the Green River in east King County. The Green River Watershed is a 231-squaremile forested area that serves as a collection point for melting snow and seasonal rainfall in an uninhabited area of the Cascade Mountains between Chinook and Snoqualmie passes. Tacoma Water owns about 11% of the watershed land along the river.

Through agreements with other landowners, we limit watershed access and carefully control activities, such as recreation, road maintenance and logging.

We supplement the Green River supply with groundwater from more than 20 additional wells to meet peak summer demands. Most are in Tacoma city limits.

# REPORTING CHEMICALS IN YOUR WATER

The water quality table here shows substances we identified at the water source, treatment plant and distribution system during our most recent sampling. The table does not include the other 59 volatile organic chemicals and 55 synthetic organic chemicals we tested for—including many industrial chemicals, herbicides and pesticides—but did not find.

\*\* Arsenic level of 7ppb was detected in the Portland Avenue Well in 2013. This source was not used in 2014.

For more information, contact us at (253) 502-8215 or waterquality@cityoftacoma.org.

### DEFINITIONS

(MCL) Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available technology.

(MCLG) 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.

ppm – one part per million

ppb – one part per billion

NTU - Nephelometric Turbidity Unit is a standard to measure water clarity.

AL – Action Level is the concentration which, if exceeded, triggers treatment or other requirements which a water system must follow. Action Levels are reported at the 90th percentile for homes at greatest risk.

MRL – Minimum Reporting Level, also known as Method Reporting Limit: The smallest amount of a substance that can be reliably quantitated in a sample.

ND - Not Detected, result was below the laboratory minimum detection level.

 $\Pi$  – Treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

\* Violations

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Finished water turbidity exceeded the 5 NTU limit on 11/19/2014 for approximately 6 minutes. The high turbidity water was collected and disposed of at the McMillin Reservoir complex. Only 7 customers closest to the Tacoma Water Treatment Facility were affected and were immediately notified. No other Tacoma Water customers were affected.

Tacoma Water entered into an agreement with the Washington State Department of Health under a notice of correction for a treatment technique violation, failure to install treatment for cryptospodium, under Title 40 Code of Federal Regulations 141.713 and Washington Administrative Code 246-290-025. Proper public notification was issued to all customers in this report last year, and individually to all new customers over the last year. Tacoma Water has met all requirements with the completion and acceptance of the Water Filtration Facility.

### REGULATED AT THE GROUNDWATER SOURCES

Highest Level

Detected

Highest Level Allowed (MCL)

Constituent

Arsenic Barium Chromium	10 ppb 2 ppm 100 ppb	7 ppb** 0.070 ppm 2 ppb	0 2 ppm 100 ppb	0 - 7 ppb 0 - 0.070 ppm 0 - 2 ppb	Yes Yes Yes	Natural erosion Natural erosion Natural erosion
Ethylbenzene	700 ppb	0.82 ppb	700 ppb	0 - 0.82 ppb	Yes	Industrial contamination
Nickel	100 ppb	3 ppb	100 ppb	0-3 ppb	Yes	Natural erosion
Nitrate	10 ppm	4.73 ppm	10 ppm	0 - 4.73 ppm	Yes	Agricultural uses, septic
Total Xylenes	10 ppm	0.0055 ppm	10 ppm	0 - 0.0055 ppm	Yes	Industrial contamination
Trichloroethylene	5 ppb	1.7 ppb	0	0 - 1.7 ppb	Yes	Industrial contamination
R-228	5 pCi/L	1.3 ± 0.3 pCi/L	0	0 - 1.3 ± 0.3 pCi/L	Yes	Decay of natural deposits

Ideal Goals

(MCIG)

Range of Level Detected

or # exceed AI

Regulation Met?

Potential Sources

of Contaminant

# UNREGULATED AT THE GROUNDWATER SOURCES

Chloroform	not regulated	1.16 ppb	not regulated	0 - 1.16 ppb Average 0.25 ppb	not regulated	Industrial contamination
EPA UNRE	GULATED C	ONTAMINAN	T MONIT	ORING (UCM	R3)	
Chlorate	not regulated (MRL = 20 ppb)	24 ppb	not applicable	24 ppb (1 sample)	NA	Agricultural uses, disinfection byproduct
Chromium (total)	100 ppb ( <i>MRL = 0.2 ppb</i> )	0.3 ppb	100 ppb	0.3 ppb (1 sample)	NA	Natural erosion
Hexavalent Chromium (Cr-6)	not regulated (MRL = 0.03 ppb)	0.26 ppb	not applicable	0.26 ppb (1 sample)	NA	Natural erosion
Strontium	not regulated (MRL = 0.3 ppb)	120 ppb	not applicable	120 ppb <i>(1 sample)</i>	NA	Natural erosion
Vanadium	<i>not regulated</i> ( <i>MRL = 0.2 ppb</i> )	2.9	not applicable	2.9 (1 sample)	NA	Natural erosion
REGULATED AT THE TREATMENT PLANT						
Fluoride Turbidity	4 ppm 5 NTU	2.03 ppm 6.76 NTU	4ppm not applicable	0.71 - 2.03 ppm 0.02 - 6.76 NTU	Yes No*	Treatment additive Soil erosion

### REGULATED IN THE DISTRIBUTION SYSTEM

Disinfection byproducts	Highest running annual average allowed	Our running annual average	MCLG	Range of level Detected	Regulation Met?	Potential sources of contaminant
Total Trihalomethane	80 ppb <i>average</i>	19.1 ppb <i>average</i>	not applicable	0.67 - 46 ppb	Yes	Disinfection interaction
Haloacetic Acid	60 ppb <i>average</i>	20.9 ppb <i>average</i>	not applicable	0 - 43 ppb	Yes	Disinfection interaction
Bromate	10 ppb	0	0	0	Yes	Disinfection interaction

### REGULATED AT THE CONSUMERS' TAP

Lead & Copper: sampled in 2013; required once every 3 years	90% of taps sampled must be below action level	90% of taps sampled were at or below this level	MCLG	<i># of sites above the AL</i>	Regulation Met?	Potential sources of contaminant
Lead	15 ppb AL	10 ppb	0	3 of 50 sites	Yes	Household plumbing
Copper	1.3 ppm AL	0.223 ppm	1.3ppm	zero of 50 sites	Yes	Household plumbing
Total Coliform	< 5% positive	0.001 %	0	3 of 2165 sites	Yes	Sampling technique

### FINDING SUBSTANCES IN YOUR WATER

Tap water and bottled water sources include rivers, lakes, streams, reservoirs, springs and wells. As water travels over or through the ground, it dissolves naturally occurring minerals and can pick up other substances resulting from the presence of animals or human activity. Those substances may include inorganic material such as salts and metals, synthetic and volatile organic material from industrial processes, storm water runoff and septic systems, and pesticides and herbicides from agriculture and residential uses To ensure your drinking water is safe, the EPA and/or the Washington State Board of Health prescribe regulations that limit the amount of certain contaminants in public water systems.

#### ORGANISMS

#### Cryptosporidium (KRIP-toe-spo-RID-ee-um)

Cryptosporidium is another microscopic organism commonly found in open surface water sources. Swallowing cryptosporidium can cause diarrhea, fever and other stomach and abdominal symptoms. We tested the Green River for cryptosporidium on a monthly basis from 2001 - 2012. Samples were collected and analyzed using the best available method approved by the EPA. We did detect cryptosporidium in the untreated Green River three times during this 12-year period. We have had no reported instances of cryptosporidium-related health problems in our service area. We will again monitor for cryptosporidium in 2015.

#### Giardia (GEE-are-DEE-uh)

Giardia lamblia is a microscopic organism commonly found in open-surface waters such as rivers, lakes and streams. Like other water systems that use open surface water sources, federal and state regulations require us to treat Green River water for Giardia. We kill Giardia effectively with disinfecting chemicals like chlorine and ozone.

### GASES

### Radon

Radon is a naturally occurring radioactive gas. Breathing radon can cause lung cancer in humans. Ninety-eight percent of detected radon comes from indoor air generally released from soil beneath homes. Radon can release from tap water, but in much smaller guantities – only about 1% of radon exposure comes from drinking water.

We test for radon in our groundwater sources. Federal guidelines require drinking water to contain no more than 4,000 picocuries per liter (a picocurie is a measure of radiation). We took 111 samples and tested them between 1992 and 2014. Findings show an average of 291 picocuries per liter. Our largest single test shows 530 picocuries per liter.

### MINERALS

#### Lead & Copper

Studies cited by the EPA show swallowing lead or copper can cause health problems, especially in pregnant women and young children. Lead and copper found in drinking water usually come from home plumbing. Some homes have higher levels than other homes. Water with a low pH can cause copper to dissolve directly from pipes into water and lead to dissolve from solder used to join copper pipes. Lead-based solder was banned in 1986, but small amounts of lead can still be found in many brass-plumbing fixtures and can slowly dissolve into water after standing in pipes for a long time.

Federal and state drinking water rules establish "action levels" allowable for lead and copper in water samples collected from homes. At least 90% of samples may have no more than 0.015 milligrams of lead in one liter of water and no more than 1.3 milligrams of copper per liter. Once every three years, we sample at least 50 homes for lead and copper. The most recent sampling was completed in 2013. Results show our system met action levels for both lead and copper, however, we found a few homes with elevated levels of lead. Though we meet regulatory requirements, we will continue to monitor and adjust pH levels to reduce corrosion in pipes. We will sample again for lead and copper in 2016.

Pregnant women and young children can be more vulnerable to lead in drinking water than the general population. If you have concerns about lead levels in the water at your home, have your water tested. Running water between 30 seconds and two minutes after it sits stagnant in the pipe for a few hours can help clean the tap and reduce the amount of lead and or copper in your water.

A change in the temperature of water will also tell you when fresh water arrives.

Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at www.epa.gov/ safewater/lead.

#### Sand & Silt

Because we take our water from the Green River, which was an unfiltered water source, pipeline shutdowns and fire flows from hydrants can stir up sand and silt that sits in the bottom of water mains throughout the water supply system. Even though this water is treated, turbid events like these can cause water to appear visually unpleasant, but it remains safe.

#### Yellow Water

Throughout the past seven years, you might have experienced slightly yellow water late in the summer. We saw this only in isolated areas in the past. however, it was more widespread in 2007. In response, we conducted extensive testing of our Green River water supply to determine the cause.

In 2007, and to a lesser extent in 2008-2014, our tests showed a seasonal increase in levels of the dissolved minerals manganese and iron in the Green River water supply. Chlorine and ozone treatment cause these minerals to become visible by giving them a vellow tint. Drinking water rules label iron and manganese as "secondary," or aesthetic. contaminants that can cause objectionable appearance or taste. They do not have any harmful health effects at the levels we found.

We also reviewed how changes in the environment affect the color of water. Increased storage in the watershed may have caused an increase in the mineral levels found in 2007-2014. We work to minimize the impacts of vellow water, and while the recently completed Green River Filtration Facility will greatly reduce the impact of these minerals, very low amounts of manganese can still impart a slight color to the water.

# TREATING YOUR WATER

We treated the Green River Supply with four chemicals in 2014: chlorine, fluoride, caustic soda and ozone.

#### Unregulated Contaminant Monitoring Rule 3 (UCMR3)

UCMR3 sampling is conducted for unregulated contaminants for which the EPA has not established drinking water standards. This sampling assists the EPA in determining the occurrence of certain compounds/substances and if regulation is warranted. Tacoma Water conducted Assessment Monitoring (List 1) and Screening Survey (list 2) sampling. Detections are summarized in the water quality table on page 10. Please note that while we did detect some contaminants in our source water the levels detected were well below that known or believed to be a health concern. For additional information on the UCMR3 please visit the EPA UCMR3 website at http://water.epa.gov/lawsregs/ rulesreas/sdwa/ucmr/ucmr3 or contact the EPA's Safe Drinking Water Hotline at 800-426-4791 or contact Tacoma Water at (253) 502-8215.

- in the water

- the customer

Treating water with chemical disinfectants, chlorine and ozone is important to protecting your health when water is drawn from a surface supply like the Green River. Placing disinfecting chemicals in water kills germs and microorganisms, making it safe to drink.

### FLUORIDE

Tacoma voters approved fluoride treatment in 1988 and 1989 because of the dental health benefits it provides. The Tacoma City Council then enacted an ordinance directing fluoridation of the water supply. We currently fluoridate at a level of 0.7 ppm.

### CHLORINE

Chlorine is our primary disinfection treatment. While does an excellent job of killing the microorganisms that may be harmful to you, chlorine also reacts with natural organic material commonly found in surface water sources like lakes, rivers and streams. This reaction forms compounds called "disinfection byproducts." We must meet drinking water standards for two groups of disinfection byproduct compounds. Byproduct levels found in water depend primarily on:

The amount of natural organic material

The amount of chlorine used to treat the water The amount of time it takes water to reach

Byproduct levels vary throughout the year. Byproducts often increase during the warmest months when the water supply has its highest levels of natural organic material and chemical reactions happen faster. We work to minimize byproduct levels and have adjusted portions of our system operations. We have placed new covered storage tanks at McMillin Reservoir. replacing the last of our open reservoirs. This will improve water quality and help reduce disinfection byproducts. Filtration will remove a percentage of the natural organic material, further reducing byproducts.

### CAUSTIC SODA

We treat our Green River water supply with caustic soda to raise the pH (a measurement of acidity) of the water, to make it less corrosive on plumbing and reduce the amount of lead and copper that can dissolve into drinking water.

### OZONE

We treat the Green River water supply with ozone. Algae and other organic material in the river can create objectionable taste and odor in drinking water. Ozone effectively destroys objectionable taste and odors that can occur in the water and provides disinfection benefits to help ensure water remains safe to drink.

Ozone gas is generated when pure oxygen gas is exposed to electricity in an ozone generator. After ozone gas is created, it is combined with water and injected into pipeline reactors at the Green River Headworks. Ozone only lasts for a few minutes in the water, and is not present in the water supply when it leaves the treatment site.



# WATER SMART

Water conservation makes it possible to use existing supplies more efficiently and provides opportunities to develop our regional water supply and fish enhancement programs. This helps ensure enough water remains available regionally to meet your needs and the needs of our community, as well as those of fish, animals and the environment.

The Washington State Department of Health requires municipal water suppliers to establish a water conservation goal and report on its progress annually. Tacoma Water's conservation goal is to reduce the amount of water each person uses by 8.4% between Jan. 1, 2011, and Jan. 1, 2018. With the focus on "smart use" of water, we know that working together we can achieve that goal. Please see *TacomaWater.com/smart* to learn ways you can be "water smart."



### TACOMA PUBLIC UTILITY BOARD

The Tacoma Public Utility Board is the governing and policy-making body for Tacoma Water. To become involved in water quality decisions, you may participate in public meetings, held on the second and fourth Wednesdays of each month at 6:30 p.m. in the Tacoma Public Utilities Auditorium, 3628 S. 35th St. in Tacoma.

### YOUR WATER QUALITY REPORT

This report contains information about your drinking water.

Congress and the EPA require us to inform you annually about your drinking water and its impacts. Although most content in this report is required, we are pleased to share additional helpful information about your water and the work we do to get it to you.

We produced and mailed this report for about 37 cents per customer.

### CONTACT INFORMATION

Rates Water Quality (253) 502-8215 waterquality@ cityoftacoma.ord

(253) 502-8913 National Radon Hotline (800) 55-RADON (800) 557-2366

Conservation (253) 502-8<u>723</u> Washington State conservation@ Department of Healt citvoftacoma.org doh.wa.gov/ehp/dw

**Cross Connection** U.S. Environmental Control/Backflow Protection Agency Safe Drinking Water Prevention (253) 502-8215 lotline backflow@ (800) 426-4791 cityoftacoma.org epa.gov/safewater

The hotline and EPA website offer information about drinking water contaminants and their potential health effects as well as guidelines from the U.S. Centers for Disease Control about appropriate ways to reduce the risk of infection b cryptosporidium and other microbial contaminants. Both sources lso offer information about lead in drinking water, testing methods and steps you can take to minimize exposure.

# 2014 WATER QUALITY REPORT

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