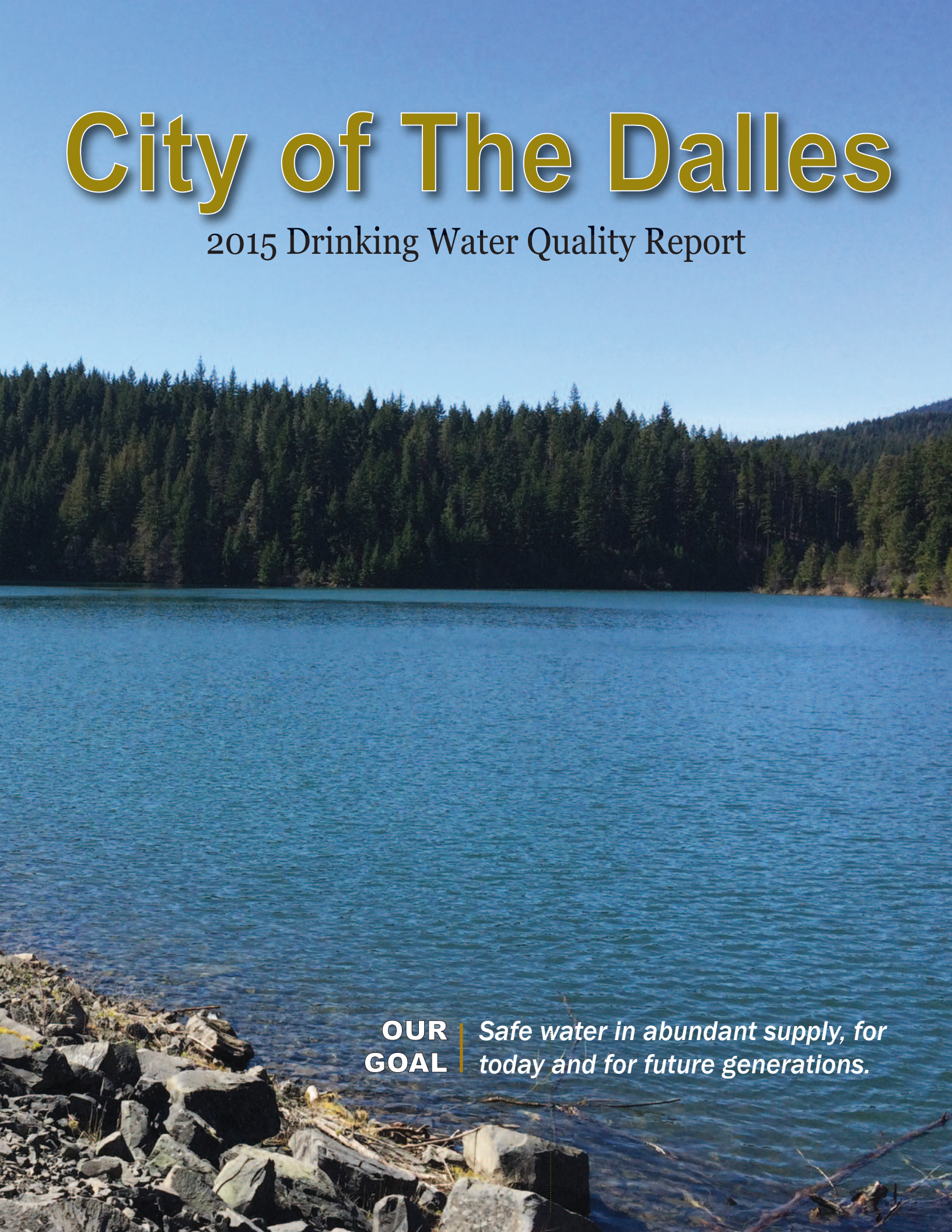


City of The Dalles

2015 Drinking Water Quality Report

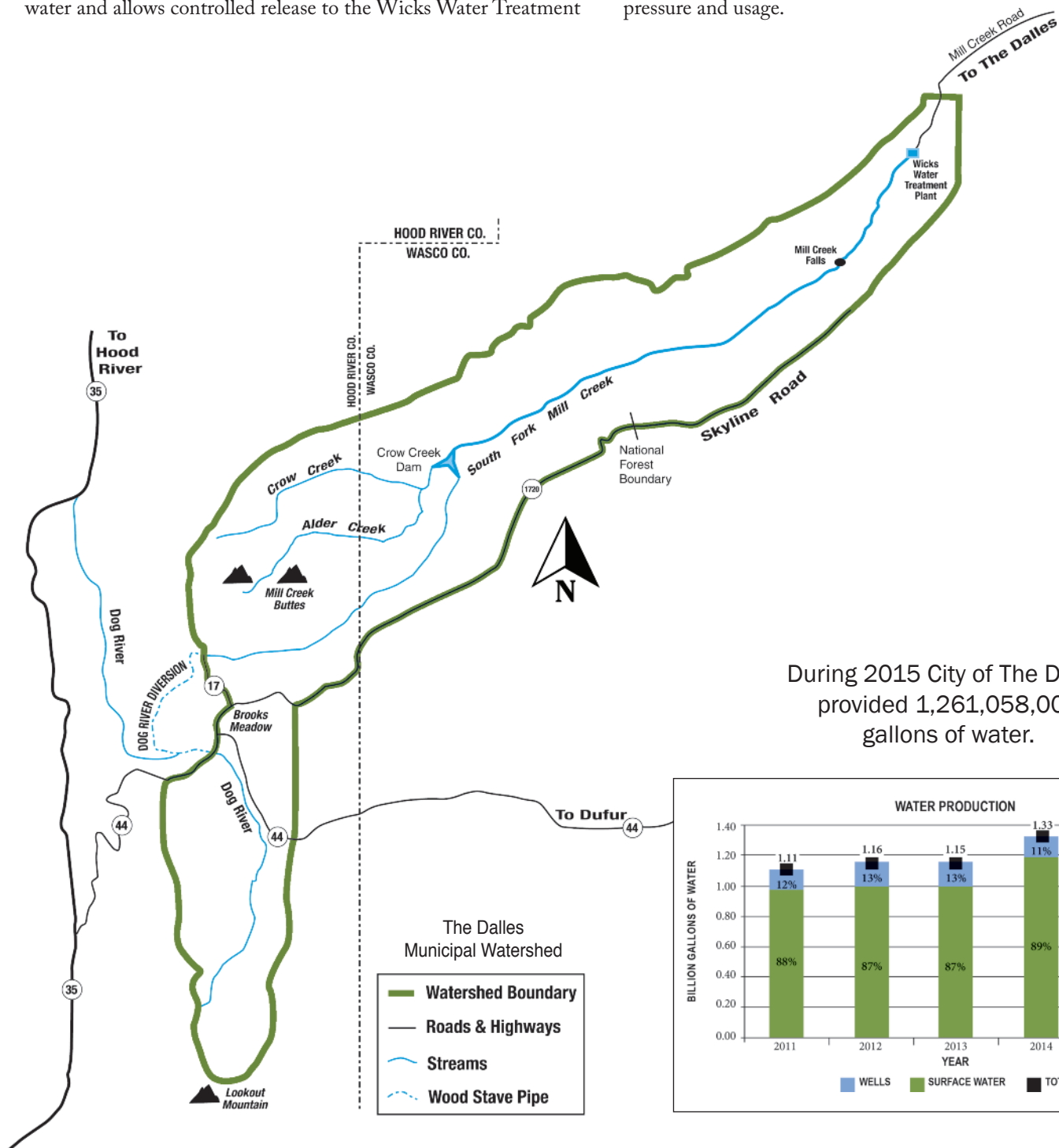


OUR GOAL | *Safe water in abundant supply, for today and for future generations.*

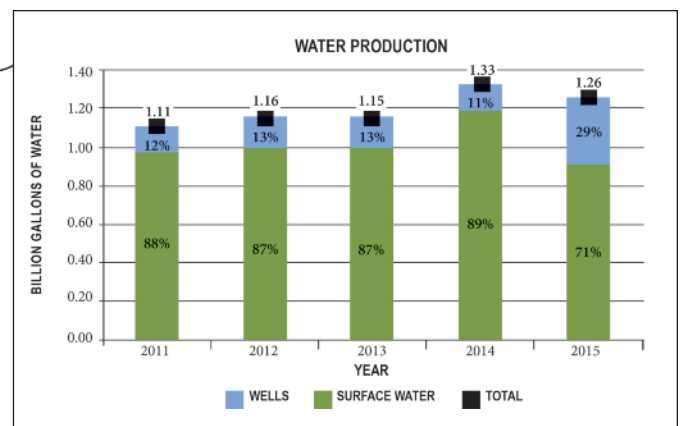
Where Does Our Drinking Water Come From?

Your drinking water is primarily treated surface water from The Dalles Municipal Watershed, with groundwater from one or more of the City's three wells supplementing the surface supply during the summer months. The Municipal Watershed is a 22,000 acre drainage basin southwest of The Dalles which collects water in the form of rainfall and snow melt into a single receiving stream and lake. This protected area collects water from the subdrainages of Dog River, Alder Creek, Crow Creek and the South Fork of Mill Creek for impoundment and storage by Crow Creek Dam. Built in 1967, the dam provides storage for 267 million gallons of water and allows controlled release to the Wicks Water Treatment

Plant located eight miles downstream from the dam. During the months of May through September, well water is used to supplement the treated surface water as needed. All three of the City wells draw water from the aquifer known as The Dalles Pool. Well and surface water mix in varying proportions in the distribution system and reservoirs. Two wells feed into the Garrison Reservoir, Jordan Well and Marks Well. Lone Pine Well feeds into the Intermediate and Columbia View Hts Reservoirs to serve the east side of town as far west as Morton Street. The dividing lines for the service areas are not distinct but vary depending on water pressure and usage.



During 2015 City of The Dalles provided 1,261,058,000 gallons of water.



Health Information

What's Not in the Water?

During 2015, 331 samples were taken during weekly sampling of the distribution system for coliform bacteria testing. All were negative for Total Coliform bacteria (naturally present in the environment) and E. coli (from human and animal fecal waste). The City's surface water and three well sources also undergo testing for the following contaminants, which were not detected except as noted in the tables on the adjacent page.

- Synthetic Organic Chemicals (SOCs), including pesticides, with none detected.
- Volatile Organic Chemicals (VOCs), including the disinfection by-products in the tables.
- Inorganic Chemicals (IOCs), such as fluoride, barium, and chlorine detected as noted in the tables.

Flush Tap for Best Water Quality

With the implementation of the Lead and Copper Rule (LCR) in 1992 the City began extensive testing for lead and copper at customers' taps that are the most likely to contain lead based on plumbing materials present and when the house was built. This testing was required to determine the number and frequency of sampling tests. Because of the water quality shown in the results from the early rounds of sampling, the City has been allowed to reduce its monitoring frequency to 30 samples every three years. Over 500 voluntary in-home samples have been collected over the past 22 years in compliance with the LCR and all have been well below the Federal Action Level (AL) of 15 parts per billion (ppb).

City water is made less corrosive by adding food-grade phosphates to produce a protective coating in the pipes. However, if you are concerned about lead from the plumbing materials in your home, please refer to the Environmental Protection Agency recommendations below.

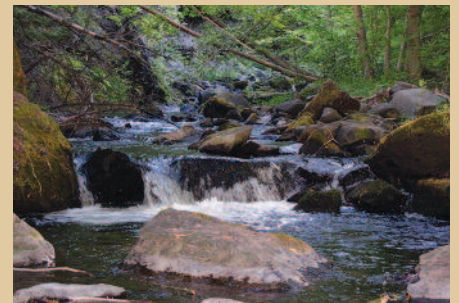
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials used in service lines and home plumbing. The City is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When water has been sitting for several hours in your home's pipes, you can minimize the potential for lead exposure by flushing your cold-water tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at (800) 426-4791 or visit www.epa.gov/safewater/lead.

Substances That Could Be In Water

The sources of drinking water (both tap and bottled water) can be surface water, such as streams and reservoirs, or groundwater, including springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Substances that may be present in source water include: microbial contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides; organic chemical contaminants, including synthetic and volatile organic chemicals; and radioactive contaminants, which can be naturally occurring or a result of human activity. To ensure that tap water is safe to drink, EPA issues regulations which limit the amount of certain contaminants in water provided by public water systems. US Food and Drug Administration regulations establish limits for contaminants in bottled water. More information about contaminants and potential health effects can be obtained by calling the **EPA Safe Drinking Water Hotline at (800) 426-4791 or visit www.epa.gov/safewater.**

Important Health Information

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



Questions?

For more information about this report, or for any questions relating to your drinking water, please contact Jo Kemper at the Public Works Department.
By phone: (541) 296-5401 ext 2005
By email: jkemper@ci.the-dalles.or.us

Source Water Assessment

The City's water sources have been evaluated for susceptibility to contamination. For information contact Larry McCollum at the Wicks Water Treatment Plant.
By Phone: (541) 298-2248 ext 5000
By email: lmccollum@ci.the-dalles.or.us

Opportunities for Public Participation:

The Dalles City Council meets on the 2nd and 4th Mondays at 5:30 pm in the Council Chambers at 313 Court Street. Check The Dalles Chronicle for meeting dates and agendas.

2015 Water Quality Summary What's in our drinking water?

During 2015, our water was tested by state- and federal-certified laboratories for many possible contaminants, including bacteria, turbidity, inorganic and organic chemicals, like the disinfection by-products. Only the materials that were *actually detected* are listed in the tables below. All of the others were *not detected*. **All substances detected were present at levels considered safe by the US Environmental Protection Agency and the State of Oregon Health Authority.**

Turbidity and Other Regulated Chemicals *(including inorganic, synthetic and volatile organic, chemicals; IOCs, VOCS)*

Substance	Units	Ideal Maximum (MCLG)	This much is allowed (MCL)	This much was found	Complies? (Is it OK?)	Major Sources Listed by EPA
Turbidity	NTU	Not Applicable	TT, 95% under 0.3	0.04 - 0.11; 100% comply	Yes	Particulate matter from soil runoff
Fluoride	ppm	4	4	0.26 - 1.04	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Barium	ppm	2	2	0.0056 - 0.038	Yes	Erosion of natural deposits
Total Organic Carbon	ppm	Not Applicable	TT	0.66 - 2.2	Yes	Naturally present in the environment
Chlorine	ppm	4 (MRDLG)	4 (MRDL)	0.9 - 1.2* <small>* range of monthly averages used to calculate compliance</small>	Yes	Water additive used to control microbes

Disinfection By-products *(DBPs, a subset of VOCs) (Four locations are sampled Quarterly)*

Substance	Units	Ideal Maximum (MCLG)	Highest Running Annual Average allowed, by location (MCL)	This much was found (Individual tests)	Highest 12-month Locational Running Average	Complies? (Is it OK?)
Total Trihalomethanes (TTHMs)	ppb	Not Applicable	80	8 - 26	22	Yes
Haloacetic Acids (HAA-5)	ppb	Not Applicable	60	4 - 30	25	Yes

Disinfection by-products (DBPs) are substances formed when water is chlorinated to protect consumers from disease-producing organisms. The challenge is to apply enough chlorine to kill microorganisms while keeping the by-products formed as low as possible.

Unregulated Contaminants

Substance	Units	Ideal Maximum (MCLG)	The range of detections	Average of detections	Major Sources Listed by EPA
Bromodichloromethane	ppb	0	1.0 - 3.6	1.6	By-product of chlorinating water
Chlorodibromomethane	ppb	60	2.6	2.6	By-product of chlorinating water
Chloroform	ppb	70	6.7 - 21.0	16.3	By-product of chlorinating water
Dichloroacetic Acid	ppb	0	1.5 - 6.8	5.2	By-product of chlorinating water
Trichloroacetic Acid	ppb	20	2.2 - 11.0	8.2	By-product of chlorinating water
Sodium	ppm	Not Applicable	7.9 - 43	28	Erosion by natural deposits
Chlorate	ppb	Not Applicable	39	39	Agricultural defoliant or desiccant
Chromium-6	ppb	Not Applicable	0.070 - 0.098	0.084	Naturally occurring element; used in industrial processes
Strontium	ppb	Not Applicable	69 - 70	69.5	Naturally occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium	ppb	Not Applicable	0.50 - 0.53	0.52	Naturally-occurring element; used in industrial processes

Lead and Copper Sampling *(Sampled in June 2015, next round Summer 2018)*

Substance	Units	Ideal Maximum (MCLG)	Action Level (AL)	90th Percentile	Homes exceeding the Action Level	Complies? (Is it OK?)	Source of Contaminant
Lead	ppb	0	15	1	0 of 32 (0%)	Yes	Corrosion of household plumbing
Copper	ppb	1.3	1.3	0.09	0 of 32 (0%)	Yes	Corrosion of household plumbing

The 90th percentile is the highest result found in 90% of the samples when they are listed in order from lowest to highest results. EPA requires testing for lead and copper at customers' taps most likely to contain these substances based on when the house was built. Because of the quality shown by these and previous results, the City has been allowed to reduce testing to 30 samples every three years.

Key to Technical Terms

MCLG - Maximum Contaminant Level Goal The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL - Maximum Contaminant Level The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available water treatment technology.
MRDLG - Maximum Residual Disinfectant Level Goal The level of residual disinfectants in drinking water at which no adverse health effects are likely to occur.
MRDL - Maximum Residual Disinfectant Level The highest level of residual disinfectants in drinking water, as an annualized average, set as close to the health goals as feasible.

TT - Treatment Technique A required process intended to reduce the level of a contaminant in drinking water.
AL - Action Level The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
ppm - Parts per million One part of a contaminant is present for every million parts of water.
ppb - Parts per billion One part of a contaminant is present for every billion parts of water.
ND - Not Detected No detection above the analytical method detection level.
NTU - Nephelometric Turbidity Unit Standard unit to measure water clarity.
Turbidity - Clarity of water, measured to evaluate filtration effectiveness.

Dog River Pipeline

Since the early 1900s, this pipeline has carried much of the water that supplies our community.

The **Dog River pipeline** is an important component of the municipal water system that supplies The Dalles. The 3.5-mile long, 20-inch diameter, wood stave pipeline was constructed in the early 1900s using milled pieces of Douglas Fir secured with heavy galvanized wire and sealed with tar. The Dog River pipeline diverts water from Dog River to combine with waters from two other creeks to supplement streamflow in South Fork Mill Creek. The existing pipeline carries approximately 54% of the City's annual water supply that is eventually treated at Wicks Water Treatment Plant and delivered to the community for residential, commercial, and industrial uses.



Dog River

The pipeline has served its need for more than a century, but currently it is deteriorating, leaking, and at risk of catastrophic failure. Using the 2014-2015 data and estimating a current leakage rate of 15%, replacement of the pipeline will conserve about 126 million gallons of water per year, and therefore reduce the amount of water that must be diverted from Dog River to meet municipal water demands. The Dog River Pipeline Replacement Project is scheduled to ramp up in the next couple of years, with completion scheduled by 2018. The City's plan to replace the wooden pipeline with ductile iron pipe includes the voluntary installation of fish screens and possibly upstream fish passage structures where none currently exist.



Repair band used to fix leak on the Dog River Pipeline

Lone Pine Well Enhancement Project

During the summer months the surface water supply is not able to meet the total need of the City's drinking water customers; the Lone Pine Well is one of three City wells used to supplement the treated surface water supply from the Wicks Water Treatment Plant. Lone Pine is the newest of the three City wells, constructed in 1979, and it has primarily served the east side of town. In an effort to optimize the potential use of the water from Lone Pine Well, City engineers developed computerized hydraulic models to explore the possibilities of moving more of the Lone Pine water into the lower elevation portions of town, and west into the downtown areas. It was determined, and verified through field tests, that by adjusting various valves between pressure zones it is possible to make wider use of the Lone Pine water.

Enhancements to Lone Pine Well will allow the City to meet increased residential, commercial and industrial demands with water that is lower in mineral content than the City's other two wells.

The Lone Pine Well Enhancement Project, which includes a cooperative funding component, will commence in 2016 with completion anticipated by May 2017. The City's plan will increase the capacity of the Lone Pine Well from about 1600 to 3000 gallons per minute (2.3 to 4.3 million gallons per day). This project, in conjunction with the Dog River Pipeline Replacement Project, is intended to help meet future water system demands and defer the need for more expensive source development projects.



City of The Dalles

Public Works Department
1215 West 1st Street
The Dalles, OR 97058
www.thedalles.com

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A message about the importance of this Water Quality Report:

Este informe contiene información muy importante sobre su agua potable. Tradúscalo o hable con un amigo quien lo entienda bien.

Continuing Our Commitment

Once again we are proud to present our annual water quality report. This issue covers all testing performed between January 1 and December 31, 2015. As in years past, we are committed to delivering the highest quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and planning for the future, while continuing to serve the needs of all of our water users.



Partnership For Safe Water

City of The Dalles has been a member of the Partnership for Safe Water since 1997. Members of this nationwide partnership, which includes six drinking water organizations and about 230 water utilities throughout the United States, seek water system excellence by optimizing operations rather than relying solely on significant capital improvements. The Wicks Water Treatment Plant has achieved the Director's Award each year for 15 years for meeting goals for continuous improvement and producing high quality drinking water.

What phone number do I call for help with water issues?

Contact the Public Works Department

(541) 296-5401 (Monday - Friday, 7 am - 4 pm)

- Emergency water shutoff
- Water quality, low pressure, leak investigation
- Assistance with meter insulation
- Backflow prevention assembly installation/testing

For after hours water emergencies:

Contact the On Call Service person at (541) 980-7703.

Contact the Finance Department at City Hall

(541) 506-2031 (Monday - Friday, 8 am - 5 pm)

- Billing questions
- Questions about initiating water/sewer service
- Request to discontinue water/sewer service
- Leak concerns related to high water bills

To sign up for service

Customers must go in person to City Hall at 313 Court Street between 9 am and 4:30 pm.

Applications for service can be found at thedalles.com/watersewerbilling