




## DRINKING WATER QUALITY REPORT 2014



CITY OF

# THE DALLES





A TOTAL OF NEARLY  
**11,400 ACRES**  
WERE BURNED

**O**n August 16, 2013 three separate lightning-caused fires occurred near The Dalles that eventually combined into what became the Government Flat Complex Fire. The largest of the three, the Blackburn Fire, started inside the City's Watershed raising the concern of potential impacts on the primary drinking water source for the City's 12,500 water customers.

A total of nearly 11,400 acres were burned of which 5,400 acres were within the City's Municipal Watershed. The burned Watershed area reached from the Wicks Water Treatment Plant upstream on the South Fork Mill Creek for 4 miles. The burned area was all downstream of the 267 million gallons of raw water storage in the Crow Creek Reservoir; as such it was spared any fire related impacts.

There were concerns during the fire for the safety and operations of the treatment plant. Structural fire crews and equipment were staged around the clock at the plant to provide immediate fire suppression services if needed. On August 19, 2013 the fire crested over the ridge adjacent to the treatment plant and began a slow advance downslope. Fire crews on site were able to use the creek as a fire line, stopping the burn adjacent to the plant by the next morning, with no damage to any of its infrastructure. Due to the efforts of the fire crews and the plant operations staff, the Wicks Water Treatment Plant was fully operational throughout the entire event, continuously providing safe drinking water to the City's residents.

During and immediately after the event, water quality concerns were assessed and monitored with no public health issues arising. The use of fire retardants was closely monitored to prevent any adverse impacts to water quality. During the fire, some residents reported a "smoky" taste and odor in the water after a period of high-intensity burning in the Watershed. While these tastes and odors did not affect the safety of the City's drinking water, additional treatment and blending of sources was implemented by the City's Public Works Department to address these issues.

After the fire there were concerns of soils stability related to potentially increased erosion, landslides and debris flows impacting water quality and quantity and intensity of the stream flows. Two significant water



quality events have occurred since the fire that impacted the water treatment plant. The first was related to a rain-on-snow event in February 2014 and the second was during August of 2014 when a thunderstorm "gully washer" passed over the burned area. Both events washed enough soils into the creek from the burned areas to increase the turbidity (a measurement of the water clarity) from less than 10 turbidity units to about 1700 turbidity units within a few hours. Both events were effectively addressed by water treatment staff and no dirty water was ever discharged from the plant to the City's customers.

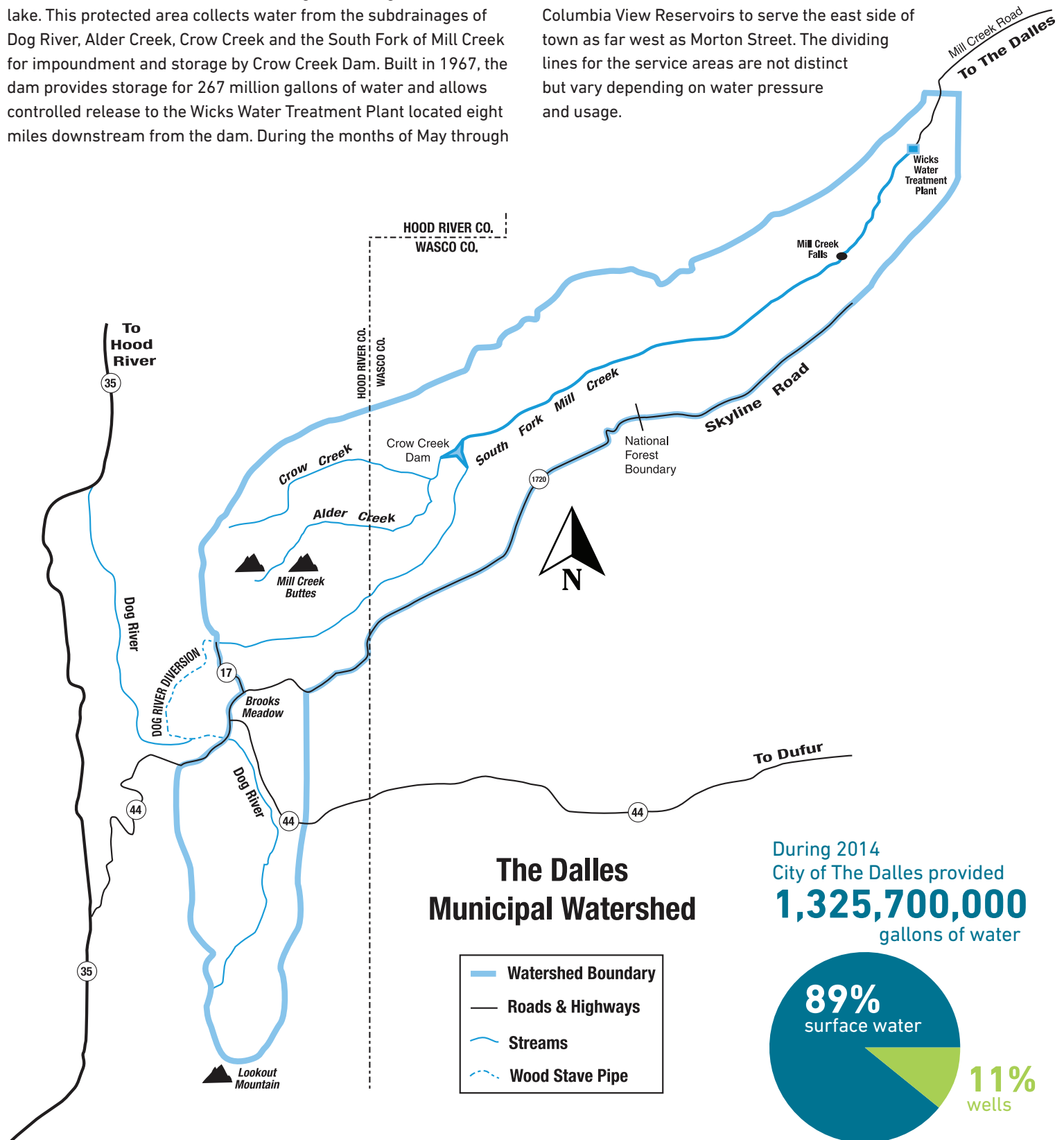
Immediately following the fire, by working closely with the Wasco County Soil and Water Conservation District and other partners, a Watershed Post-Fire Rehabilitation Plan was developed to help restore the burned areas and reduce the risks to water quality. Aerial grass seeding of selected burned areas was conducted in the fall of 2013 (immediately after the fire) and 2014. In the spring of 2014 the City began salvage logging in stands where the trees had been killed by the fire as well as contour falling of trees in the burned area. In the spring of 2015 replanting with Ponderosa Pine and Douglas Fir seedlings was initiated to restore the conifer component of burned tree stands as part of the long-term stabilization plan.

With the steps taken by the City in managing the watershed since the fire, along with the cooperation of Mother Nature, the Watershed is recovering. However, with this year's absence of a normal snow pack and projected drought conditions through the summer and fall there is a reasonable forecast for another severe fire season. As you visit the areas surrounding your Municipal Watershed please be aware of the fire dangers and be responsible stewards of the environment that supplies your clean, safe drinking water.

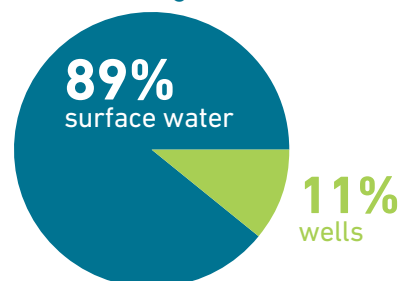
# WHERE DOES OUR DRINKING WATER COME FROM?

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 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 2014  
City of The Dalles provided  
**1,325,700,000**  
gallons of water





# Health Information

## What's NOT in Our Water?

During 2014, 314 coliform samples for the year were taken during weekly sampling of the distribution system for coliform bacteria testing. All were negative for Total Coliforms (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, including pesticides, with none detected.
- Volatile Organic Chemicals, including the disinfection byproducts in the tables.
- Inorganic Chemicals, such as fluoride, barium, nitrate, chromium and chlorine detected as noted in the tables.

## Flush Tap for Best Water Quality

Since 1992 the City has done extensive testing for lead at customers' taps that are most likely to contain lead based on when the house was built. Because of the water quality shown by these results, the City has been allowed to reduce testing to 30 samples every three years.

City water is made less corrosive by adding polyphosphate 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 EPA 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 and components associated with service lines and home plumbing. City of The Dalles 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 from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://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 rivers, lakes, 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 from 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's Safe Drinking Water Hotline at (800) 426-4791 or by visiting [www.epa.gov/safewater](http://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 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) 506-2005

By email:  
[jkemper@ci.the-dalles.or.us](mailto: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](mailto: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.



# 2014 WATER QUALITY SUMMARY

**What's in our drinking water?** During 2014, 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 REGULATED CHEMICALS

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 - 0.15;	Yes	Particulate matter from soil runoff
Fluoride	ppm	4	4	0.12-0.72	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Barium	ppm	2	2	0.0058 - 0.041	Yes	Erosion of natural deposits
Nitrate (measured as Nitrogen)	ppm	10	10	ND - 0.16	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Chromium, Total	ppb	100	100	ND - 0.25	Yes	Discharge from steel and pulp mills; Erosion of natural deposits
Total Organic Carbon	ppm	Not Applicable	TT	0.40 - 2.2	Yes	Naturally present in the environment
Chlorine	ppm	MRDLG - 4	MRDL - 4	0.95 - 1.15*	Yes	Water additive used to control microbes

\* range of monthly averages used to calculate compliance

## BYPRODUCTS OF DRINKING WATER CHLORINATION (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	12 - 27	22	Yes
Haloacetic Acids (HAA-5)	ppb	Not Applicable	60	15 - 28	27	Yes

Disinfection byproducts (DBPs) are substances formed when water is chlorinated to protect customers from disease-producing organisms. The challenge is to apply enough chlorine to kill microorganisms while keeping the byproducts formed as low as possible. The City had a single technical violation by missing the reporting deadline for the 2nd-quarter 2014 DBPs. While the report was late by a few days all constituents were well within the health limits. This technical violation posed no health risk to our consumers.

## UNREGULATED CONTAMINANTS

Substance	Units	Ideal Maximum (MCLG)	The range of detections	Average of detections	Major Sources Listed by EPA
Bromodichloromethane	ppb	0	0.9 - 2.0	1.3	Byproduct of chlorinating water
Chloroform	ppb	60	10.9 - 24.7	15.4	Byproduct of chlorinating water
Monochloroacetic Acid	ppb	70	ND -1.3	0.1	Byproduct of chlorinating water
Dichloroacetic Acid	ppb	0	4.8 - 13.4	8.1	Byproduct of chlorinating water
Trichloroacetic Acid	ppb	20	7.6-13.6	10.3	Byproduct of chlorinating water
Monobromoacetic Acid	ppb	Not Applicable	ND - 4.2	1.6	Byproduct of chlorinating water
Sodium	ppm	Not Applicable	6.7 - 45	28.7	Erosion of natural deposits
Chlorate	ppb	Not Applicable	ND - 1800	134.6	Degradation byproduct of sodium hypochlorite used for disinfection. Agricultural defoliant or desiccant;
Chromium-6	ppb	Not Applicable	ND - 0.22	0.101	Naturally-occurring element; used in industrial processes
Molybdenum	ppb	Not Applicable	ND - 3.7	0.9	Naturally-occurring element found in ores and present in plants, animals and bacteria
Strontium	ppb	Not Applicable	60 - 160	89	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	ND - 1.0	0.56	Naturally-occurring elemental metal; used in industrial processes

## LEAD AND COPPER RULE (30 samples every three years)

Substance	Units	Ideal Maximum (MCLG)	Action Level (AL)	90th Percentile	Homes exceeding the AL	Complies (Is it OK?)	Major Sources Listed by EPA
Lead	ppb	0	15	0	0 of 30 (0%)	Yes	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.09	0 of 30 (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 for every million parts of water

**ppb** - parts per billion - one part of a contaminant 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



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

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97301

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.

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

### Contact the Public Works Department

Call (541) 506-2001 (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

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

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

To sign up for service – Customers must go in person to City Hall at 313 Court Street between 9 am and 4:30 pm.

## 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 14 years for meeting goals for continuous improvement and producing high quality drinking water.



## Our Goal

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

### 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, 2014.

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.