

2011

# City of The Dalles Drinking Water QUALITY REPORT



Photo credit: Bob Koch

## 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, 2011. 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.

## Our Goal

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

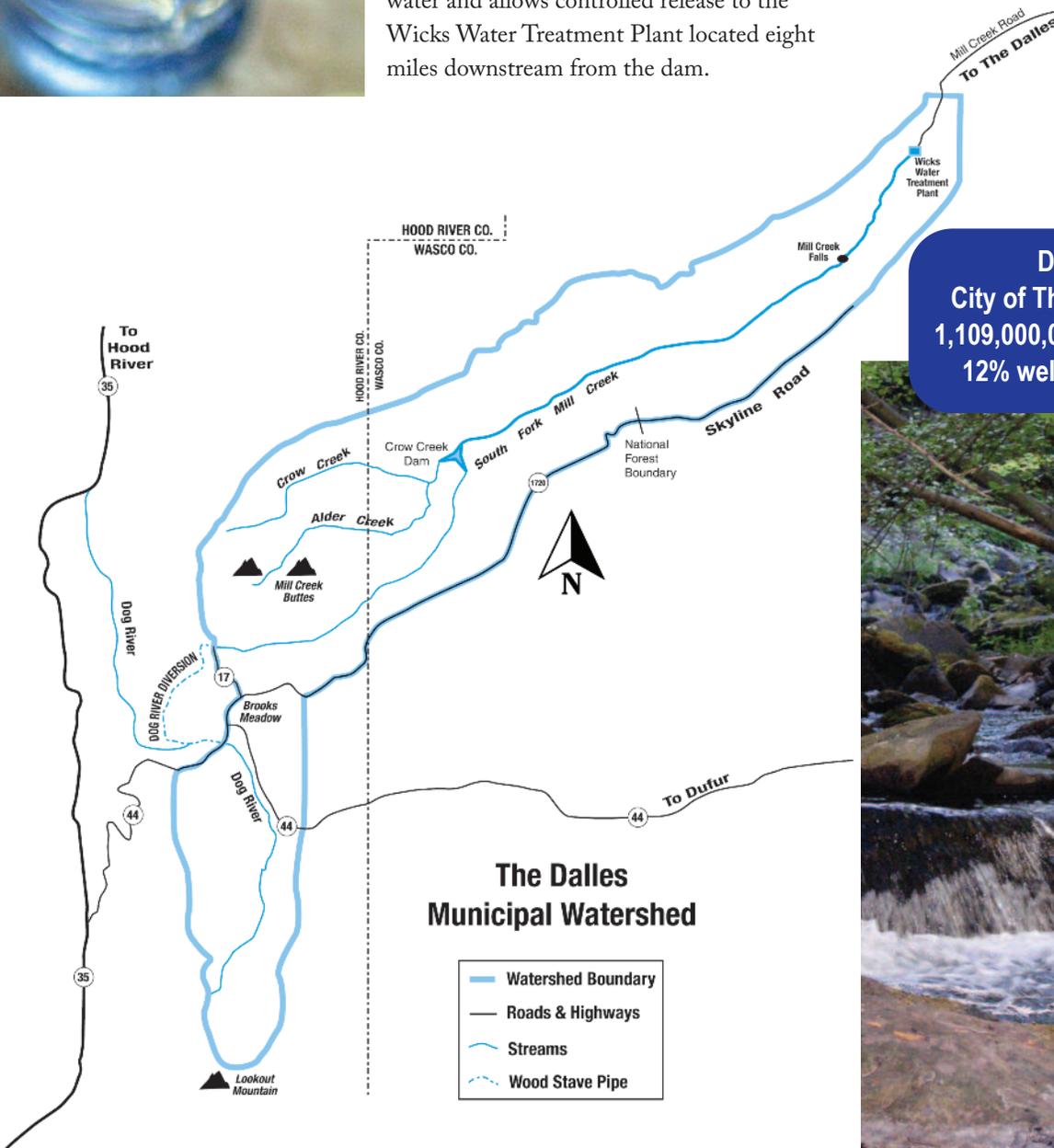
# DRINKING WATER

## Come From?

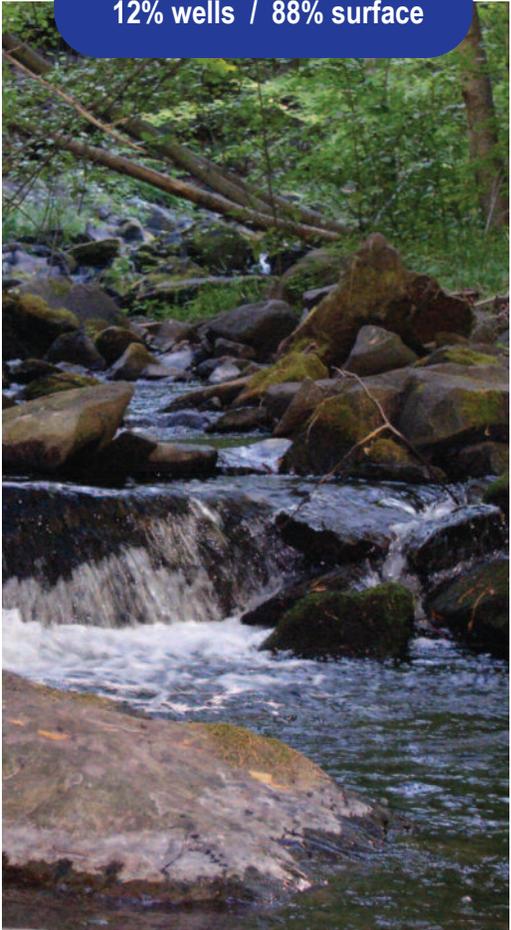


Your drinking water is primarily treated surface water from The Dalles Municipal Watershed, with groundwater from one or more of the City's three wells supplementing the surface supply during the summer months. The Municipal Watershed is a 22,000 acre drainage basin southwest of The Dalles which collects 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 storage in 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 June 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 2011  
 City of The Dalles provided  
 1,109,000,000 gallons of water  
 12% wells / 88% surface



# SUMMARY

## What's in Our Drinking Water?



During 2011, our water was tested by state-certified laboratories for many possible contaminants, including bacteria, turbidity, inorganic and organic chemicals, and disinfection byproducts. 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 EPA.**

City of The Dalles consistently delivers water that meets and surpasses all federal and state drinking water regulations.

### Turbidity and Other 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   | NA                   | TT<br>95% under 0.3        | 0.027 - 0.142<br>100% comply | Yes                   | Particulate matter from soil runoff                          |
| Fluoride  | ppm   | 4                    | 4                          | Surface 0.5<br>Wells 0.7     | Yes                   | Added to strengthen teeth; also, erosion of natural deposits |

### Byproducts of Drinking Water Chlorination *Four locations are sampled quarterly*

| Substance             | Units | Ideal Maximum (MCLG) | Highest Running Annual Average allowed (MCL) | This much was found (Individual tests) | Highest 12-month Running Average | Complies? (Is it OK?) |
|-----------------------|-------|----------------------|--|--|----------------------------------|-----------------------|
| Total Trihalomethanes | ppb   | NA                   | 80   | 9.2 - 21.4                             | 17                               | Yes                   |
| Haloacetic Acids      | ppb   | NA                   | 60   | 2.8 - 31.3                             | 24                               | Yes                   |

Disinfection Byproducts 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 byproducts formed as low as possible.

### Unregulated Contaminants

| Substance            | Units | Ideal Maximum (MCLG) | This much is allowed (MCL) | This much was found              | Major Sources Listed by EPA     |
|----------------------|-------|----------------------|----------------------------|----------------------------------|---------------------------------|
| Bromodichloromethane | ppb   | 0                    | No individual MCL          | Surface 0.6                      | Byproduct of chlorinating water |
| Chloroform           | ppb   | No MCLG              | No individual MCL          | Surface 7.5                      | Byproduct of chlorinating water |
| Sodium               | ppm   | No MCLG              | No individual MCL          | Surface 6.1<br>Wells 19.2 - 44.8 | Erosion of natural deposits     |

### Lead and Copper Sampling *Sampled in August 2009; next due in 2012*

| 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                | 0               | 0 of 30 (0%)                     | Yes                   | Corrosion of household plumbing |
| Copper    | ppm   | 1.3                  | 1.3               | 0.12            | 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 results, the City has been allowed to reduce testing to 30 samples every three years.

|  |  |  |  |  |
|--|--|--|--|--|
|  | <h4>Key to Technical Terms</h4> <p><b>Maximum Contaminant Level Goal (MCLG)</b> 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.</p> | <p><b>Maximum Contaminant Level (MCL)</b> 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.</p> | <p><b>Treatment Technique (TT)</b> A required process intended to reduce the level of a contaminant in drinking water.</p> | <p><b>Action Level (AL)</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.</p> |
|--|--|--|--|--|

### What's NOT in Our Water?

During 2011, 320 samples 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 table.

- Synthetic Organic Chemicals, including pesticides, with none detected.
- Volatile Organic Chemicals, including the disinfection byproducts in the table.
- Inorganic Chemicals, with only fluoride and sodium detected as noted in the table.

### 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 Karen Skiles at the Public Works Department.

By phone: 541.506.2005

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

### Oregon's Drinking Water Program:

For information on all water systems in Oregon, including the City of The Dalles system, visit the Oregon Health Authority's Drinking Water Program data access page at: <http://170.104.63.9>



### 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.

**Parts per million (ppm)**  
One part of a contaminant is present for every million parts of water.

**Parts per billion (ppb)**  
One part of a contaminant is present for every billion parts of water.

**Not Applicable (NA)**  
EPA has not established MCL Goals for these substances

**Nephelometric Turbidity Unit (NTU)**  
Standard unit to measure water clarity.

**Turbidity**  
Cloudiness of water, measured to evaluate filtration effectiveness.

## Protecting OUR WATER SYSTEM

### Does water ever flow backwards through the water pipes?

As long as water is under pressure in a delivery system, it will only flow in one direction. But can it flow the opposite way from its intended direction? The answer is yes, and when it does it can cause disastrous results.

### What would cause water to flow backwards?

Water will always flow toward the point of lowest pressure, but drops in water pressure are not uncommon in a water system. If a water main should break, or if firefighters open hydrants to battle a nearby blaze, pressure in the water mains can drop dramatically, causing a reversal of flow.

### Why can a reversal of flow cause disastrous results?

If a household's water plumbing is connected by hose or pipe to another fluid or gas, that contaminant can be siphoned back into the water mains during a water pressure drop. Actual backflow incidents have been documented throughout the country when the end of a garden hose has been submerged in a hot tub or swimming pool, inserted into a car's radiator to flush out the antifreeze, or attached to a pesticide sprayer. Other actual incidents have involved ethylene glycol antifreeze from a school's air conditioning system which sent eight teachers to the hospital; dirty, soapy water from a carwash being pumped through several city blocks; and connection of a water hose to flush out a propane gas tank which caused several homes to explode and burn.

### Are there rules to protect people from backflow of contaminants?

State regulations require water systems to have cross connection control programs in place to prevent backflow incidents. Programs must include inspections to identify actual or potential cross connections, elimination of the cross connections where possible, and oversight of the installation and testing of backflow prevention assemblies where the cross connections cannot be avoided.

### When would a cross connection be unavoidable?

Examples of common cross connections that must be equipped with backflow protection are the connection of water lines to fire sprinkler systems, automatic irrigation systems, solar heating systems and boilers.

### Are any permits required to install a backflow assembly?

The City has a "no fee" permit system in place. The permit can be obtained at the Public Works Department office at 1215 West 1st Street or from the City's website at [www.thedalles.com](http://www.thedalles.com). In addition, a plumbing permit from the Oregon Building Codes Division is required when plumbing work is done.

### What do I need to know about testing of backflow assemblies?

Backflow assemblies must be tested at the time of installation, annually after installation, after repair, and after relocating. In Oregon the tests must be done by trained and certified backflow testers and the test reports provided to the water system.

*Adapted from Backflow Management Inc. materials with permission*



### What will happen if I don't have my assembly tested?

Both state regulations and city ordinance require termination of water service for failure to comply with cross connection control rules, including installation, maintenance and testing of assemblies.

**For more information about the City's Cross Connection Control program, please contact the Public Works Department office at (541) 296-5401.**



“ A major benefit of belonging to the Partnership for Safe Water is the message it sends your customers...you care about them and are taking extra steps to assure them high quality drinking water. ”

Bill Lauer / Partnership Program Manager

### Partnership for Safe Water

*The City is a member of the Partnership for Safe Water, a nationwide voluntary effort between six drinking water organizations and about 230 water utilities throughout the United States, whose primary goal is achieving excellence in water system operation by optimizing operations rather than relying solely on significant capital improvements. The Wicks Water Treatment Plant joined the Partnership about 10 years ago and has received the Director's Award each year for meeting the requirements. The City has also enrolled as a charter member of the newly-offered Distribution System part of the program.*



## City of The Dalles

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The Dalles, OR 97058  
www.thedalles.com

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## Excellence in Communications Award

Each year the Public Works Department prepares a Water Quality Report for mailing to all who receive water from the City of The Dalles water system. While certain basic information is required by federal and state drinking water regulations, we strive to use an attractive format to make the report readable and to convey the professionalism of those who serve the public by their work with the city water system.

Recently staff entered last year's Water Quality Report in a contest sponsored by the Pacific NW Section of the American Water Works Association. In that contest, our report competed in the "Small Utilities" category against water systems up to three times as large as ours from three states – Oregon, Washington and Idaho. The result – our report was ranked in a tie for first place and chosen to receive the Excellence in Communications award.

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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.