



Oregon City
Public Works
122 South Center St.
Oregon City, OR
97045-2935

water for life

данный рапорт содержит важную инФормацию о вашей питьевой воде. переведите его или проконсультируйтесь с тем, кто его понимает.

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

Resources

- City of Oregon City: www.orcity.org
- City Hall (625 Center Street): 503.657.0891
- Oregon City Public Works (122 S Center Street): 503.657.8241
- Questions about your utility bill: 503.657.8151
- To report a water leak: 503.657.8241
- OC Request!: <http://user.govoutreach.com/oregoncity/faq.php>
- South Fork Water Board: www.sfwb.org
- Clackamas River Water Providers: www.clackamasproviders.org, 503.723.3511
- Clackamas River Basin Council: www.clackamasriver.org, 503.303.4372
- Greater Oregon City Watershed Council: www.gocwc.org, 503.427.0439
- OR Health Authority: <http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/Pages/index.aspx>
- Oregon Department of Environmental Quality: www.oregon.gov/DEQ
- Environmental Protection Agency: www.epa.gov
- EPA Safe Drinking Water Hotline: 1.800.426.4791
- Metro: www.oregonmetro.gov
- Regional Coalition for Clean Rivers and Streams: <http://cleanriversandstreams.org>
- OSU Extension Service: www.extension.oregonstate.edu
- Clackamas County Soil and Water Conservation District: www.conservaiondistrict.org
- Drinking water quality questions/concerns: Gail Johnson: gjohnson@orcity.org, 503.657.8241 x2107
- Stormwater questions/concerns: Eric Hand: ehand@orcity.org, 503.657.8241 x2102

You are encouraged to participate in City decisions that may affect water quality. City Commission meetings are held at City Hall, 625 Center Street, Oregon City, the first and third Wednesday of each month, starting at 7:00 pm. Find meeting agenda information or watch archived videos of public meetings at www.orcity.org.



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OREGON CITY

water ²⁰¹⁴ quality

REPORT



Data presented is based on monitoring results from the calendar year 2013.

OREGON CITY
water 2014
quality
 REPORT



Mountainview Reservoir
 (capacity 10.5 million gallons)



Welcome.

By reading this report we hope you will:

- understand where your drinking water comes from,
- be able to make informed choices about your drinking water,
- understand how your everyday activities affect water quality, and
- make informed choices about improving water quality.

Oregon City's drinking water comes from the Clackamas River. The Clackamas River watershed begins on the slopes of Olallie Butte near Mount Hood, and flows nearly 83 miles from its headwaters (elevation 6,000 feet); it encompasses 940 square miles.

Unlike the City of Portland's Bull Run watershed, the Clackamas River watershed is completely unprotected. The watershed crosses two counties and includes federal, state and private lands. It is 72% publicly owned, 25% privately owned and 3% tribally owned. To learn about contamination risks to our drinking water source go to the Source Water Assessment Report (April 15, 2003) at <http://tinyurl.com/ncauzz3>.

In 2010, the Clackamas River Water Providers (CRWP) completed a Drinking Water Protection Plan for the Clackamas River. The purpose of this plan is to provide us with a road map of potential strategies and programs to implement over the next decade, and beyond, to preserve the Clackamas River as a high quality drinking water source. You can read the plan and learn more about the CRWP by going to www.clackamasproviders.org.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, 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.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

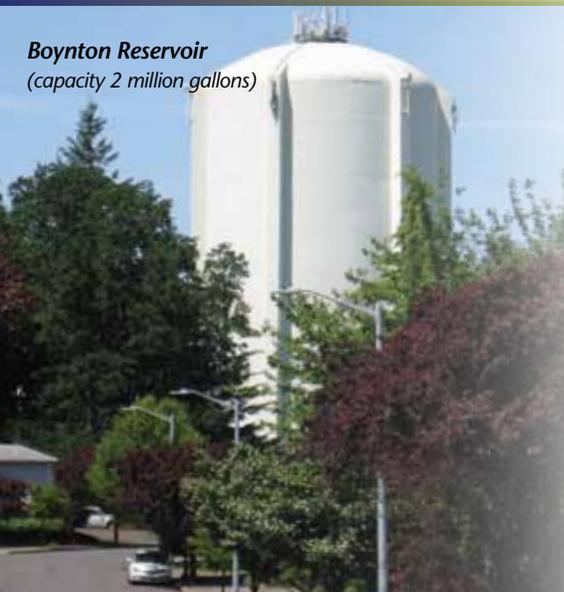
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.



The Clackamas River

Boynnton Reservoir
 (capacity 2 million gallons)



An Important Message from the EPA

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 **EPA's Safe Drinking Water Hotline** at **1.800.426.4791**.

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** at **1.800.426.4791**.

Monitoring and Compliance

Your drinking water is made safe to drink by "conventional treatment" at the South Fork Water Board (SFWB) Treatment Plant, located in the Park Place area of Oregon City. Learn about the treatment process and SFWB by visiting their website at www.sfwb.org.

You can see our most recent test results in the data tables included in this report. We are required to report only those substances that were present at detectable levels. We are

allowed to monitor for some contaminants less than once per year, therefore some of the data can be more than one year old.

You can view all monitoring results and compliance records by visiting the Oregon Health Authority SDWIS Data Online website at <https://yourwater.oregon.gov/>.

Search by water system name or ID#:
Oregon City – OR4101511
South Fork Water Board – OR4100591

You play an important part in helping to keep your drinking water safe. Learn about our Cross Connection/Backflow Prevention Program by visiting here:

<http://tinyurl.com/qyxe4cp>



Monitoring for Unregulated Contaminants in Drinking Water

Substance/Contaminant (Unit of Measure)	MCL	Oregon City Measurement	Sample Date	Major Sources in Drinking Water
UNREGULATED CONTAMINANTS*				
Sodium (ppm)	20**	7.1	2/5/13	Erosion of natural deposits; added during treatment (soda ash)
Bromodichloromethane (ppb)	–	2.0	7/16/13	By-product of chlorine disinfection, combined with organic matter
Chloroform (ppb)	–	13.8		

* Monitoring for unregulated contaminants helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants in the future.

** Recommended maximum level.

For answers to

Frequently Asked Questions

about your Drinking Water, go to <http://www.orcity.org/publicworks/drinking-water-faqs>

Important Information About Lead



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. South Fork Water Board and Oregon City are 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.



Results of Monitoring for Regulated Contaminants

Substance/Contaminant (Unit of Measure)	MCL (MRDL)	MCLG (MRDLG)	Oregon City Measurement or Average (Range)	Sample Date	Major Sources in Drinking Water	Violation?
DISINFECTANT RESIDUAL, DISINFECTION BY-PRODUCTS, AND BY-PRODUCT PRECURSORS						
Chlorine (ppm)	(4)	(4)	0.94 (0.21 - 1.34)	2013	Water additive used to control microbes	No
Haloacetic Acids (ppb) Stage 1	60	N/A	31.3 (22.7 - 37.3)	2013	By-product of disinfection with chlorine, combined with organic matter	No
Total Trihalomethanes (ppb) Stage 1	80	N/A	31.6 (30.1 - 34.4)			
In November 2013 "Stage 1" quarterly disinfection by-product sampling was replaced with "Stage 2" quarterly sampling, as directed by EPA and Oregon DWS. Stage 1 results at Oregon City's four sampling locations were averaged together for an "annual running average". Under Stage 2, results for each of our four locations will be individually averaged to produce four "locational annual running averages".						
Haloacetic Acids (ppb) Stage 2	60	N/A	40.4 (38.8 - 40.4)	11/12/13	By-product of disinfection with chlorine, combined with organic matter	No
Total Trihalomethanes (ppb) Stage 2	80	N/A	56.6 (39.0 - 56.6)			
Total Organic Carbon* Raw Water (ppm)	TT	–	1.37 (0.77- 3.69)	2013	Naturally present in the environment	No
Total Organic Carbon* Finish Water (ppm)	TT	–	0.79 (0.50 - 1.34)			
MICROBIOLOGICAL CONTAMINANTS						
Total Coliform Bacteria (presence/absence)	1 positive monthly sample	0	1	2013 (30 samples each month)	Naturally present in the environment	No
On November 5, 2013 one routine bacteriological sample tested positive for total coliform bacteria. As required by state regulation and the Oregon City Coliform Sampling Plan, three additional samples were taken on November 6, 2013 – one at the original location testing positive, one upstream within five service connections of the original, and one downstream within five service connections of the original. All repeat samples were negative for total coliform bacteria.						
Turbidity ** (NTU)	TT=0.3 in 95% of samples	–	(0.02 - 0.22)	2013	Soil runoff	No
INORGANIC CONTAMINANTS						
Nitrate (ppm)	10	10	0.7	2/5/13	Fertilizer run-off, septic, sewage, erosion	No
Lead (ppb) (Tier 1 homes)	AL=15	0	90th% = N/D	2012	Corrosion of household plumbing Erosion of natural deposits	No
Copper (ppm) (Tier 1 homes)	AL=1.3	1.3	90th% = 0.068			
SECONDARY STANDARDS***						
Chloride (ppm)	250	–	5.1	2/5/13	Erosion of natural deposits	No
Iron (ppm)	0.3	–	0.031			
Total Dissolved Solids (ppm)	500	–	60			
Zinc (ppm)	5	–	0.048			

*Total Organic Carbon (TOC) has no health effects, however TOC provides a medium for the formation of disinfection by-products.

**Turbidity is a measure of cloudiness caused by suspended particles in the water. It is monitored because it is a good indicator of the effectiveness of the filtration system. Turbidity is monitored continuously, every 2 hours during treatment plant operation. 100% of samples tested were below the treatment technique level of 0.3 NTU.

Definitions

AL: Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL: Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment 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. MCLGs allow for a margin of safety.

MRDL: Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

N/A: Not Applicable. No maximum contaminant level goal has been set for disinfection by-products.

N/D: Not Detected. Results were below the laboratory reporting limit. Minimum reporting limit for lead is 2 ppb.

ppb: Parts per billion. A measure of the concentration of a substance in a given volume of water. One part per billion corresponds to one penny in \$10,000,000.

ppm: Parts per million. A measure of the concentration of a substance in a given volume of water. One part per million corresponds to one penny in \$10,000.

TT: Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.

90th Percentile: The highest result found in 90% of the samples when listed in order from the lowest to the highest results.

*** Secondary standards are guidelines for contaminants that may cause aesthetic effects in drinking water.

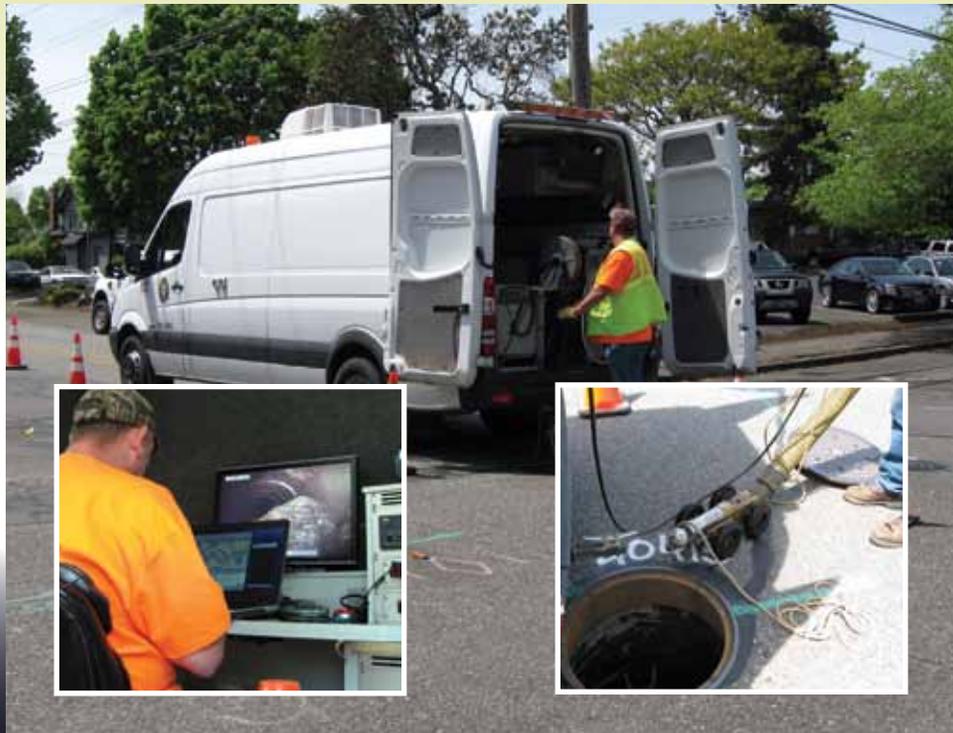
2013 System Improvement Projects

Project Name **Ductile Iron Pipe (Length in Feet)**

Pipe Diameter	2"*	4"	6"	8"	10"
Clairmont Way			100	60	2200
Lincoln Street		265	40		
Madison Street	40		48	996	
Ogden/Brighton				364	
Polk Street		160			
Total (Length in Feet)	40	425	188	1420	2200

* Copper Pipe

Drinking water pipelines have an average life expectancy of 75 years. Replacement of aging pipelines is essential for us to continue providing reliable, high quality water to our customers and to ensure adequate flow for firefighting activities. A percentage of rate-payer revenue is used to fund our replacement program.



Catch Basin Cleaning

it's a dirty job, but someone has to do it!

A stormwater catch basin is an underground concrete structure that collects stormwater runoff. Catch basins, also called storm drains or curb inlets, can be round or rectangular and are typically fitted with a slotted grate.

As stormwater is collected in a catch basin, sediment and debris settle to the bottom of the basin. Cleaner water then flows up to the outlet pipe, eventually reaching the Clackamas or Willamette Rivers.

Oregon City has 4,192 public catch basins, most of which are located along our city streets. Our goal is to inspect and clean 33% each year. We surpassed that amount last year, cleaning 1,757.



Stormwater Management

In Oregon City's urban setting impervious surfaces such as buildings, streets, parking lots and sidewalks prevent rain water and snow melt from soaking into the ground. Resulting stormwater runoff, if not managed properly, sends pollution directly into our wetlands, streams and rivers.

Oregon City has an obligation, and commitment, to comply with the requirements of our National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Discharge Permit. Our current permit, issued March 16, 2012 by the Oregon Department of Environmental Quality (DEQ), lists numerous programs and tasks required of the city as we work to prevent stormwater pollution and improve stream and river health.

You can find much more information about our ongoing stormwater programs and read our annual reports, submitted to DEQ by November 1st each year, by going here: www.orcity.org/publicworks/npdes-documents-page.

Video Inspection Van

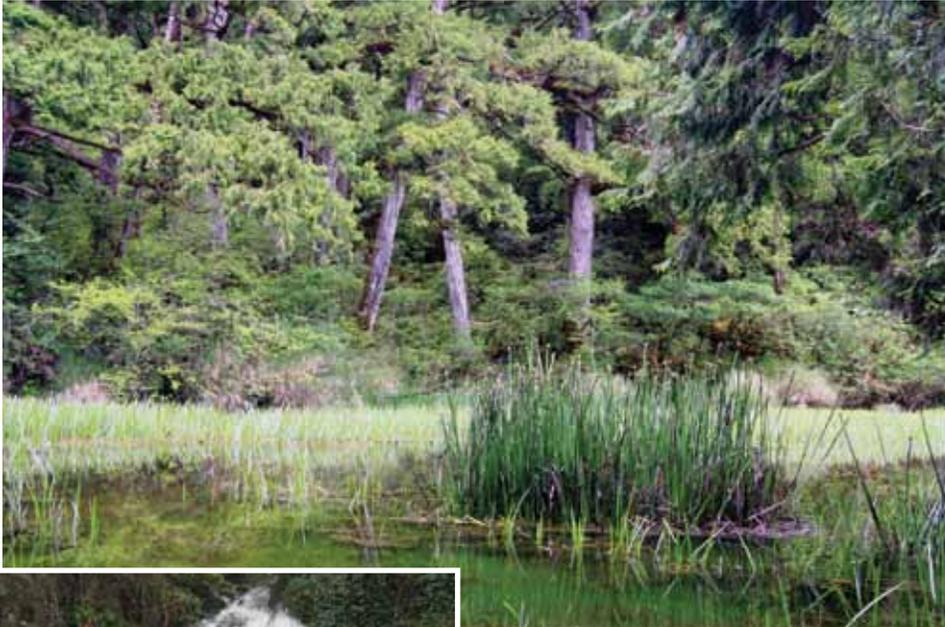
Underground Diagnostics

When utilities are underground it can be a challenge to diagnose a problem or assess their condition. Luckily, Oregon City Public Works has a high-tech tool, a pipeline video inspection van. A self-propelled remote camera is placed into storm and sewer pipes providing detailed pictures that are used to help manage the city's infrastructure.

The stormwater collection system benefits by finding obstructions that could lead to flooding events and by discovering "cross connections" – improperly constructed piping that sends sewage directly into the storm system rather than where it belongs, the wastewater treatment plant. If a cross connection is found it is immediately corrected, eliminating that source of pollution.

Riparian Health

Does a stream flow through your property? Learn what you can do to protect and improve the vegetation and trees alongside the water. A healthy riparian area has many benefits, including filtering sediment and pollutants from stormwater runoff and providing shade to cool stream water temperature. Elevated water temperature can negatively impact coldwater fish and other coldwater aquatic species. Visit here <http://conservationdistrict.org/resources/stream> for more information.



Coffee Creek Falls

Macroinvertebrate Assessment

In the fall of 2013 Oregon City, along with five of our NPDES MS4 co-permittees, participated in a macroinvertebrate assessment of select streams within our jurisdictions. Sampling was conducted in Coffee and Singer creeks. To read the report visit <http://tinyurl.com/ojju4h>.



Dog Pots

Pick up after your pets!

Several of Oregon City's parks are equipped with "Dog Pots" that provide litter bags and a nearby trash can for disposal. Thank you for cleaning up after your pet!



Pollution Prevention

Each of us contributes to stormwater pollution. Each of us can take steps to reduce our impact. What can you do to improve the health of Oregon City's streams and rivers?

- **Lawn and garden care** – skip the weed and feed. Chemicals are harmful to children and pets. Rain can wash chemicals off your lawn and into storm drains and streams. Use slow release fertilizers or compost to add nutrients. Native plants need less water and maintenance. Learn more here: <http://cleanriversandstreams.org>
<http://www.oregonmetro.gov/index.cfm/go/by.web/id=24309>
<http://extension.oregonstate.edu/gardening/>
- **Vehicle care** – maintain your vehicles to reduce oil and fluid leaks. Consider using EcoBiz-certified mechanics who use environmentally safe and healthy practices. Use a commercial car wash or wash your vehicle on the lawn to prevent runoff of soap and grime. <http://www.ecobiz.org>
- **Roof treatments** – use alternatives to chemical treatment for moss and lichen removal. Typical chemical treatments contain copper, zinc and iron sulfate metals that are harmful to our waterways and aquatic life. Prevent moss growth by keeping debris and leaves off the roof; sweep or use a blower to remove debris once or twice a year. Prune back overhanging tree branches to reduce shade and moisture – this will slow moss buildup.
- **Pressure washing** – be stream friendly when cleaning your home, deck, sidewalk and driveway. Pollutants from cleaning activities can flow into storm drains and ditches directly into our rivers and streams. Sweep sidewalks and driveways and place the sweepings into the garbage. If you do pressure wash, divert the runoff toward grassy or planted areas.
- **Pick up after your pets** – proper disposal of pet waste helps to minimize bacteria in our city's streams. Pet waste can contain pathogens such as Giardia, E. coli, Salmonella and Campylobacter – these can cause illness in humans, especially children and the elderly. Always pick up after your pet when on walks, avoid children's play areas, and remember to pick up in your own yard, too.