

# CITY OF VANCOUVER

# Water Quality

## REPORT

## About this report

IN THE early 1990's the City of Vancouver Water Division began publishing the Annual Water Quality Report. As part of the federal Safe Drinking Water Act of 1996, the U.S. Environmental Protection Agency (EPA) now requires all water utilities to provide their customers with an annual water quality report. Beginning with this report, the format will vary from those of past years to ensure the information presented meets the new Federal requirements.

*This report provides a summary of information regarding the City of Vancouver's water quality for 1998.*

Please take time to read this newsletter and learn about the exceptional drinking water supplied by your local utility. You will find that the City of Vancouver supplies safe, high quality well water that meets or is better than all federal and state standards. We are proud of our water and the service we provide to our customers. For questions about the quality of your drinking water or about this report, call 696-8177 or e-mail us at:

[norm.kramm@ci.vancouver.wa.us](mailto:norm.kramm@ci.vancouver.wa.us)





# Water Quality Summary

The City of Vancouver analyzed water for over 150 different substances, some regulated and some not regulated. The substances listed below are REGULATED and were detected in Vancouver's water during 1998. All are below levels allowed by federal and state agencies. Additional information on chemical analysis of your water can be obtained by calling City Water Operations at 696-8177.

## ◆ Health Related (Primary) Standards

Primary standards are intended to protect public health against substances in the water that may be harmful to humans if consumed for long periods of time. EPA standards are set at levels that protect our most sensitive population, such as infants and the elderly.

Contaminant	Highest Level Allowed (MCL)	Highest Level Detected	Range of Level Detected	MCLG	Potential Sources of Contaminant
<b>Inorganic</b>					
Arsenic (ppb)	50	1.2	0 - 1.2	N/A	Erosion of natural deposits.
Barium (ppm)	2.0	.026	0 - .026	2.0	Erosion of natural deposits.
Copper (ppm)	AL = 1.3	0.94	0 - 0.94	1.3	Erosion of natural deposits, corrosion of household plumbing systems.
Fluoride (ppm)	4.0	1.3	0.8 - 1.8	4.0	Water additive which promotes strong teeth.
Lead (ppm)	AL = .015	.0011	0 - .0011	0.0	Erosion of natural deposits, corrosion of household plumbing systems.
Nitrate (ppm)	10.0	4.8	0 - 4.8	10	Erosion of natural deposits, septic systems, sewage, pesticides.
Sodium (ppm)	AL = 20	14.0	6.7 - 14.0	<sup>1</sup> AL = 20	Erosion of natural deposits.
<sup>2</sup> Maximum total Trihalomethane (potential) (ppb)	100	13.0	3.3 - 13.0	0	By-products of disinfection with chlorine, combined with organic matter.

<sup>1</sup> A recommended level of concern for those on diets with daily sodium intake restrictions.

<sup>2</sup> This test was performed in 1999.

## Volatile Organic Compounds

1,1,1- Trichloroethane (ppb)	200	5.9	0 - 5.9	200	Industrial chemical
1,1-Dichloroethylene (ppb)	7	1.7	0 - 1.7	7	Industrial chemical

## Physical Characteristics

Turbidity (NTU)	1	0.5	0 - 0.5		Sediments, clay, silt
pH	6.5 - 8.5	7.88	6.87 - 7.88	6.5 - 8.5	Natural occurring

## Bacteriological

Total Coliform Bacteria	Less than 5% of monthly samples	0.6% of monthly sample	0 - 0.6%	0%	Contamination by mammals
-------------------------	---------------------------------	------------------------	----------	----	--------------------------

## ◆ Aesthetic (Secondary) Standards and Other Characteristics

Secondary standards are established to ensure aesthetic qualities of water such as taste, odor or clarity. These standards govern substances that may influence consumer acceptance of water, rather than health related effects.

## Inorganic

Chloride (ppm)	250	7.5	4.2 - 7.5	N/A	Natural occurring - Chlorination byproduct
Sulfate (ppm)	250	13.0	1.3 - 13.0	N/A	Natural occurring
Zinc (ppm)	5	.02	0.0 - 0.2	N/A	Natural occurring

## Physical Characteristics

Conductivity (umhos/cm)	700	210	110 - 210	N/A	Natural occurring
Total Dissolved Solids (ppm)	500	300	180 - 300	N/A	Natural occurring

## Radionuclides

Beta Emitters (pCi/L)	50	3	0 - 3.0	N/A	Natural occurring
-----------------------	----	---	---------	-----	-------------------

## ◆ Unregulated Test Results

The results below are for substances which are not regulated.

Contaminant	Test Results	Test Results Range
Calcium (ppm)	38	16 – 38
Magnesium (ppm)	11	8.0 – 11.0
Silica (ppm)	54	43 – 54
Bromodichloromethane (ppb)	1.3	0 – 1.3
Bromoform (ppm)	0.8	0 – 0.8
Chloroform (ppm)	1.9	0 – 1.9
Dibromochloromethane (ppm)	1.0	0 – 1.0
Alkalinity (ppm)	120	74 – 120
Dissolved Oxygen (ppm)	10	8.3 – 10.0
Hardness (ppm)	140	65 – 140
Radon (pCi/L)	545	0 – 545
<sup>1</sup> Uranium (pCi/L)	0.3	0 – 0.3
Trichlorofluoromethane (ppb)	0.7	0 – 0.7

<sup>1</sup> Proposed limit is 30 pCi/L

## ◆ Federal Information Collection Rule Results

The results below are those required under the Federal Information Collection Rule. At this time, no regulations have been determined for these compounds.

Contaminant	Maximum Test Result	Test Results Range
1,1,1-Trichloropropanone (ppb)	0.0	-
1,1-Dichloropropanone (ppb)	0.0	-
Bromochloroacetic Acid (ppb)	1.8	0 - 1.8
Dibromoacetic Acid (ppb)	1.1	0 – 1.1
Dichloroacetic Acid (ppb)	5.9	0 – 5.9
Trichloroacetic Acid (ppb)	0.0	-
Disinfectant Residual (ppm)	1.52	0.510 – 1.52
Chloral Hydrate (ppb)	1.5	0 – 1.5
Chloropicrin (ppb)	1.1	0 – 1.1
TOX Total Organic Halides (ug Cl-/L)	0.0	-
Bromochloroacetonitrile (ppb)	0.5	0 – 0.5
Dibromoacetonitrile (ppb)	1.1	0 – 1.1
Dichloroacetonitrile (ppb)	0.0	-
Trichloroacetonitrile (ppb)	0.0	-
Bromodichloromethane (ppb)	3.7	0 – 3.7
Bromoform (ppb)	2.0	0 – 2.0
Chloroform (ppb)	5.3	0 – 5.3
Dibromochloromethane (ppb)	2.5	0 – 2.5

## ◆ Other Contaminants

**Lead and Copper** - Test results are below action levels. However, these metals can enter drinking water in your home through corrosion of household plumbing and plumbing fixtures. Infants and young children are typically more vulnerable to lead in drinking water than adults. Lead levels at your tap could be higher than at other homes because of the plumbing material. If you are concerned about lead levels in your water, you may want to have your water tested.

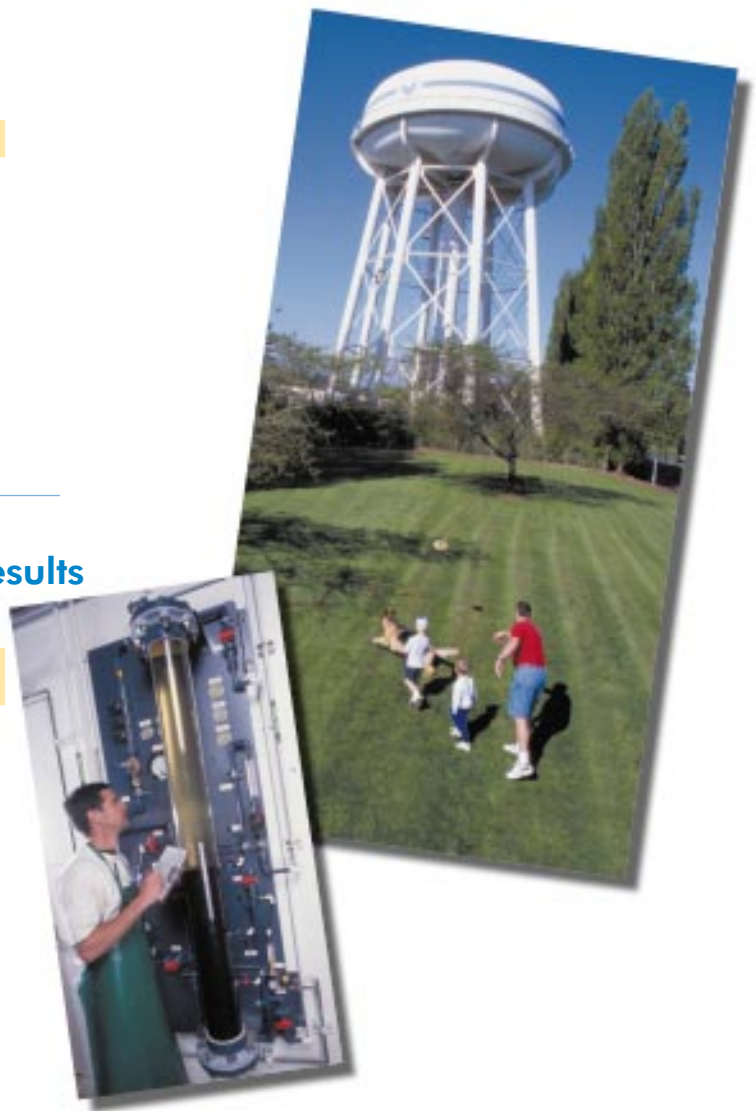
You can reduce your lead exposure by:

- Flushing plumbing if water has been standing in the pipes for more than six hours. Run water until cold (about 30-60 seconds).
- Use only cold water for cooking, drinking and making baby formula.
- Using only lead-free solder when making plumbing repairs.
- When replacing plumbing, use lead-free faucets and plumbing components. The Safe Drinking Water Act requires faucets and plumbing components sold after August 6, 1998 to be "lead-free."

**Bacteriological** – The City of Vancouver Water Division collects weekly samples from throughout our service area to test for coliform bacteria. Most coliforms are not harmful, but they can indicate that other disease-causing organisms may be present. If testing indicates that a routine sample appears to contain coliforms, a set of repeat samples is collected and analyzed. This includes further testing to determine whether any disease-causing organisms are also present. It is extremely rare for any coliforms to be detected in your water supply. In Vancouver, repeat testing has never found further evidence of bacteriological contamination.

### Terms and Definitions

**AL:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow. **EPA:** United States Environmental Protection Agency. This federal agency enforces the Safe Drinking Water Act nationwide. **WDOH:** Washington State Department of Health. This state agency enforces the Safe Drinking Water Act within the State of Washington. **MCL:** Maximum Contaminant Level. The highest level of a contaminant allowed in drinking water. MCL's are set as close to ideal levels as current treatment technology allows. **ppb:** Parts per billion. One ppb equals one milligram per 1000 liters. **ppm:** Parts per million. One ppm equal one milligram per liter. **THM:** Trihalomethanes are the total concentration of a series of chlorinated organic compounds. These disinfection byproducts are unavoidable and are caused by a chemical reaction between chlorine and naturally occurring organic matter in the water. **MCLG:** Maximum Contaminant Level Goal. The level of contaminant in drinking water below which there is no known or expected health risk. MCLG's allow for a margin of safety. Only Primary Standards have MCLG's because Secondary Standards are not set for health reasons. **pCi/L:** picocuries per liter. The unit of measurement for radionuclides. **NTU:** Nephelometric Turbidity Unit. The unit of measurement for turbidity. **umhos/cu:** Ability of water to conduct electricity based on mineral content and temperature of water.



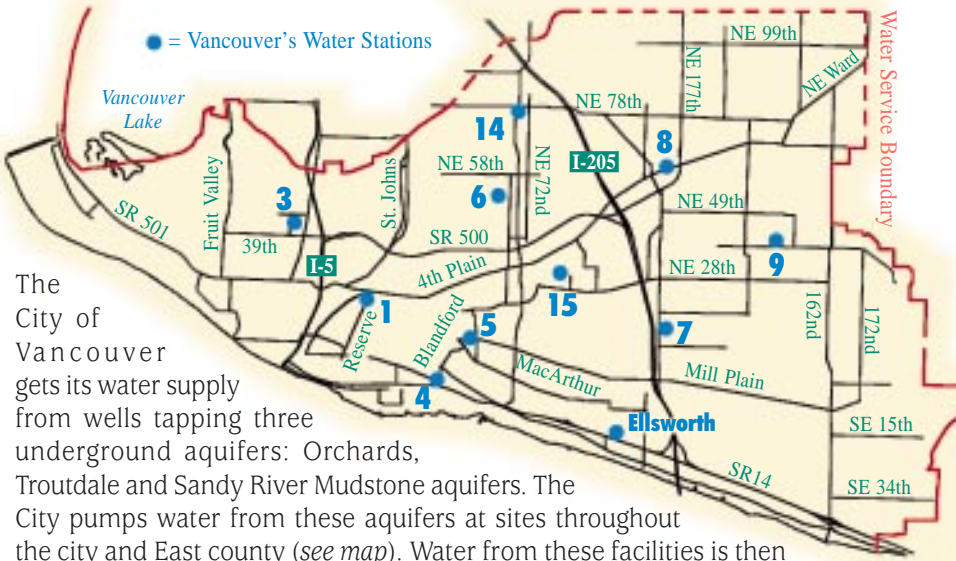
## Y2K Update

City of Vancouver, Water Operations has been studying the potential effects of the Year 2000 change on water system operations. We are taking steps to ensure that water service will not be interrupted. Additional information about the City's Y2K plans is available at [www.ci.vancouver.wa.us](http://www.ci.vancouver.wa.us)

## Special Information Available

Some people may be more vulnerable than the general population to contaminants in drinking water. Immuno-compromised people, such as those with cancer undergoing chemotherapy; people 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 from their health care providers about drinking water. Guidelines from the EPA and Centers for Disease Control, on appropriate means to lessen the risk of infection by bacterial contaminants, are available from the Safe Drinking Water Hotline at 1-800-426-4791.

# Where does Vancouver get its water?



The City of Vancouver gets its water supply from wells tapping three underground aquifers: Orchards, Troutdale and Sandy River Mudstone aquifers. The City pumps water from these aquifers at sites throughout the city and East county (see map). Water from these facilities is then delivered to the common distribution system. In 1996, the City developed a Wellhead Protection Program as part of its Water System Comprehensive Plan. This program aims to prevent groundwater contamination. A copy of the plan is available by calling the City Operations Center Services at (360)696-8243.

## Safe drinking water Q & A

### Why does the water sometimes smell like chlorine?

Chlorine must be added to water as protection against disease-causing bacteria. The amount used is at the minimum level needed to maintain detectable levels throughout the distribution system. If you taste or smell chlorine, simply fill an open pitcher with water and set aside; the chlorine will evaporate within an hour. Refrigerate the water for drinking or cooking.

### If I have a water filter, how often should I change it?

Water filters should be changed according to the manufacturer's recommendation, or sooner. Filters that are not changed frequently enough can collect

and grow bacteria, causing water quality to deteriorate, possibly causing illness.

### Is bottled water okay to store for emergencies?

No. Bottled water is a good source of drinking water during emergencies, but it does not store well. Because it generally doesn't contain a disinfectant, microbes grow in it over time.

### Is it okay to use hot tap water for cooking?

No. Use cold water. Hot water is more likely to contain rust, copper and lead from the household plumbing and water heater. These contaminants generally dissolve into hot water faster than into cold.



## Want to know more?

EPA - Safe Drinking Water Hotline

800-426-4791 or [www.epa.gov/OW](http://www.epa.gov/OW)

City of Vancouver, Water Quality

696-8177 or [www.ci.vancouver.wa.us/opcenter/wq.html](http://www.ci.vancouver.wa.us/opcenter/wq.html)

Information on "Lead Free" Faucets

800-NSF-MARK or [www.nsf.org](http://www.nsf.org)

## Attention: Non-English speaking customers

This report contains important information about your drinking water. Translate it, or speak with someone who can translate it for you.

**Spanish** - Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien.

**French** - Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.

**Russian** - Этот документ содержит важную информацию о Вашей питьевой воде. Пожалуйста, переведите этот документ или обратитесь к кому-нибудь, кто сможет объяснить его Вам.

**Vietnamese** - Bản tường trình này bao gồm tin tức quan trọng về nước bạn uống. Xin vui lòng dịch ra hoặc nói với người có thể giải thích cho bạn.

VANCOUVER CITY COUNCIL: Mayor Royce E. Pollard • Rose F. Besserman • Pat Jollota • Dan Tonkovich • Jim Moeller • Jeanne Harris • Jack Burkman • City Manager Vernon E. Stoner



City of Vancouver  
210 East 13th Street  
Vancouver, Washington 98660

PRSR STD  
U.S. Postage  
Paid  
Permit No. 728  
Vancouver, WA

Postal Customer

ECRWSS