Clark Public Utilities

WATER QUALITY REPORT FOR 2017

AS A CLARK PUBLIC UTILITIES WATER CUSTOMER

Your water exceeds the highest standards set for drinking water quality. It comes delivered to your home at a fraction of the cost of bottled water. Four gallons of water from your tap cost just a penny, while a single gallon of bottled water from the store can cost upward of $1.29. And by using tap water, you're saving money and not filling up landfills with plastic bottles!

This annual report provides details about the water you drink every day as one of our 34,204 Clark Public Utilities water customers. The bottom line: **The quality of your water is excellent.**

We test our water supply wells for the presence of more than 100 substances, and this report includes a chart showing you the levels of several regulated and non-regulated substances we detected in 2017. Our goal is to meet your need for a clean, plentiful supply of drinking water at a reasonable cost, while providing long-term management of our precious water resources.

Clark Public Utilities

Please contact us at **360-992-8022** or at **mailbox@clarkpud.com** if you have questions about any of the information in this water quality report. You also may contact the EPA Drinking Water Hotline at 1-800-426-4791.

WATERSHED RESTORATION

Our water utility supports one of the strongest watershed restoration and enhancement efforts in the state. We sponsor and participate in many projects to improve and protect our water quality, restore streams, enhance fish populations and educate children and adults alike about habitat and watershed stewardship. If you are a landowner along Salmon Creek and would like have your stream restored call 360-992-8577.

Since 1992, our StreamTeam volunteers have planted more than 940,000 trees to restore 473 acres of land along 19 miles of stream length. To volunteer, call our StreamTeam coordinator at 360-992-8585.

STREAM TEAM
CLARK PUBLIC UTILITIES

WATER USE EFFICIENCY PLAN

As part of Municipal Water Law and in the spirit of conservation and stewardship, Clark Public Utilities implemented a water use efficiency plan in 2008. As part of that plan, the following conservation goals were set:

- **Supply-side water conservation goal** — Reduce annual leakage from the water distribution system to 8.5 percent.
- **Demand-side water conservation goal** — Reduce average residential annual water consumption by a minimum of 1 percent.

In 2017, we accounted for all known water uses in each of the three water systems addressed in this report to determine water leakage amounts within each water distribution system. The Regional Water System supply-side goal was met in 2017. The leakage rate for 2017 was 8.4 percent, consistent with last year's results. The Yacolt Water System leakage for 2017 was 8.8 percent, down from 2016's 15 percent. The Amboy Water System leakage for 2017 was 8 percent, similar to 2016's 9 percent. We continue to improve our operational water usage tracking (water main flushing, water treatment, and source meter calibration) and work with the fire departments to help us to account for their usage as well. We make every effort to minimize leakage on all three water systems to ensure our water supplies are used efficiently.

The demand-side (customer usage) conservation goal has been achieved by all three water systems. We appreciate our customers' efforts to use our precious groundwater resource wisely.

WATER CONSERVATION TIPS

Conservation efforts help maintain a reliable, low-cost water supply that benefits current and future residents. Conservation also saves you money, especially in the summer months when water use is higher.

OUTDOOR CONSERVATION

- Water your lawn in the early morning or evening.
- Use a hose with a shut-off nozzle when watering plants or washing your car.
- Place a two- to four-inch layer of mulch around plants and trees to reduce evaporation.
- Install a trickle or drip irrigation system for a slow, steady supply of water to the plant roots.

INDOOR CONSERVATION

- Run your dishwasher only when it's full.
- Wash only full loads of laundry.
- Fix leaky faucets immediately.
- Take shorter showers and use less water in your bath.
- Check toilets for leaks.
- Install water-efficient toilets, faucets and shower heads.

A MESSAGE ABOUT WATER QUALITY

As water travels over land or through the ground, it dissolves naturally occurring minerals and may pick up substances resulting from human activity or the presence of animals.

Substances that may be present in source water include: biological contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides; organic chemicals from industrial or petroleum use; and natural or man-made radioactive materials.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, but ***their presence 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 (800-426-4791).

People should consider ***all stream water and other surface water*** as not safe for drinking unless it's properly treated. Children are most likely to drink from surface water and need to be made aware of this health risk by their parent(s) or guardian.

WATER QUALITY SUMMARY

Clark Public Utilities' Regional Water System

Substance (measuring unit)	Highest Level Allowed (MCL)	Range of Level Detected	MCLG	Typical source of Contaminant
REGULATED AT THE WELL				
Barium (ppm)	2	ND – 0.08	2	Naturally occuring mineral, manufacturing, copper smelting
Copper (ppm) (2014)	1.3 (AL)	ND – 0.05	1.3	Naturally occuring mineral
Fluoride (ppm)	4	ND – 0.24	4	Naturally occurring mineral
Nitrate (ppm)	10	ND – 2.8	10	Runoff from fertilizer use; leakage from septic tanks, sewage; erosion of natural deposits
Arsenic (ppb)	10	ND – 5	0	Naturally occurring mineral
Total Chromium (ppb)	100	ND – 2	100	Erosion of geologic deposits
Gross Alpha (pCi/L)	15	ND – 0.76	0	Erosion of geological deposits
Radium 228 (pCi/L)	5	ND – 1.43	0	Erosion of geological deposits
REGULATED IN THE DISTRIBUTION SYSTEM				
Total Trihalomethane (ppb)	80	ND – 1.1	NA	Chlorination by-products
REGULATED AT THE CONSUMERS' TAP				
Lead (ppm)	0.015 (AL)	<0.001 – 0.012	0	Household plumbing
Copper (ppm)	1.3 (AL)	<0.02 – 0.43	1.3	Household plumbing
ADDITIONAL SUBSTANCES OF CUSTOMER INTEREST				
Sodium (ppm)	not regulated	5.4-14 Average 8.8	NA	Occurs naturally in soils
Calcium (ppm)	not regulated	6.8-33 Average 17.8	NA	Occurs naturally in soils
Hardness (ppm)	not regulated	24-120 Average 78	NA	Occurs naturally in soils

WATER QUALITY EXCEEDS HIGHEST STANDARDS

Water is perhaps Clark County's most valuable natural and economic resource. Our health and the quality of our environment depend on access to clean water.

Your Clark Public Utilities water supply meets or exceeds all state and federal requirements for quality, and our top priority is to maintain an excellent level of quality in the water you drink. Our ongoing efforts to provide you with a healthy water supply include:

- Regularly testing all of our wells and distribution system — we do this more frequently than required by the state health department. Last year we tested 2,177 bacteriological samples, and we were only required to test 1,047.
- Checking water quality weekly at key locations throughout our distribution system.
- Testing for heavy metals, bacteria, organic compounds and other contaminants. Both the state health department and independent laboratories conduct these tests.
- Routinely inspecting our above-ground water storage reservoirs.

We keep our water as pure as possible, adding only a trace of chlorine necessary to ensure the water delivered to your home is free of harmful bacteria. We don't add any other chemicals such as fluoride to the water you drink.

Since virtually all water used in Clark County is well water, keeping contaminants out of surface water is critical, because those contaminants can eventually make their way into the groundwater that supplies area wells. Here are some easy things you can do to help prevent groundwater pollution:

- Don't dump motor oil, paint and other toxic materials into storm drains.
- Avoid or limit the use of herbicides, pesticides and fertilizers.
- Don't dump yard debris or grass clippings into ravines, ditches or streams.

WATER QUALITY SUMMARY

Clark Public Utilities' Amboy Water System

The Amboy supply well draws water from a highly productive aquifer that lies beneath Chelatchie Prairie. The water system was constructed and put into service in 1994 as a result of efforts by residents, business owners, Fire District 10 and the Amboy School. A 120,000-gallon storage reservoir provides fire flow capacity.

Substance (measuring unit)	Highest Level Allowed (MCL)	Range of Level Detected	MCLG	Description & Origin of Substance
REGULATED AT THE WELL				
Copper (ppm)	1.3 (AL)	0.004	100	Naturally occuring mineral
Nitrate (ppm)	10	0.85	10	Runoff from fertilizer use; leakage from septic tanks, sewage; erosion of natural deposits
REGULATED IN THE DISTRIBUTION SYSTEM				
Total Trihalomethane (ppb)	80	0.76	NA	Chlorination by-products
REGULATED AT THE CONSUMERS' TAP				
Lead (ppm) (2015)	0.015 (AL)	<0.001 – 0.002	0	Household plumbing
Copper (ppm) (2015)	1.3 (AL)	<0.02 – 0.63	1.3	Household plumbing
ADDITIONAL SUBSTANCES OF CUSTOMER INTEREST				
Sodium (ppm)	not regulated	7.3	NA	Occurs naturally in soils
Calcium (ppm)	not regulated	13.9	NA	Occurs naturally in soils
Hardness (ppm)	not regulated	50	NA	Occurs naturally in soils

GLOSSARY OF TERMS

Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers additional treatment measures by the public water system.

Parts Per Billion (ppb) – Unit of measurement.
One part per billion is comparable to one penny out of $10,000,000.

Parts Per Million (ppm) – Unit of measurement. Equivalent to milligrams per liter.
One part per million is comparable to one penny out of $10,000.

Picocuries Per Liter (pCi/L) – Unit of measurement for radioactivity.

Maximum Contaminant Level (MCL) – The highest level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there are no known or expected risks to health.

NA – Not applicable

ND – Not detected

WATER UTILITY SERVICES

The Clark Public Utilities water services team works to provide you with excellent service. Our office is located at 8600 NE 117th Avenue in Orchards, and you can visit us there from 7 a.m. to 4 p.m. on weekdays, or contact us by phone at 360-992-8022. For after-hours emergencies, you can call the utility's general customer service number at 360-992-3000.

In addition to providing your water service, our staff can:

- Test your water if you have concerns about water quality.
- Provide information on home water treatment units, backflow protection devices and many other water-related items.
- Offer advice and suggestions for finding leaks in your water system.
- Provide information on backflow assembly installation and testing for lawn irrigation systems. Without a backflow assembly, your irrigation system could endanger the health of a household, neighborhood or community. Call us at 360-992-8589.

SPECIAL 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* are available from the Safe Drinking Water Hotline (800-426-4791).

WATER QUALITY SUMMARY

Clark Public Utilities' Yacolt Water System

The town of Yacolt water system merged with Clark Public Utilities in November 2000. Our water sources are Well No. 403, located at the town park at 312 W. Humphrey Street, and Well Nos. 405 and 407 at the North Clark Little League ballfields, 202 W. Christy Street. The town has a wellhead protection plan available through Clark Public Utilities that provides more information about our water sources. These wells draw water from a shallow aquifer that occurs 25 to 95 feet below the ground's surface. Please call us at 360-992-8022 for more information.

Substance (measuring unit)	Highest Level Allowed (MCL)	Range of Level Detected	MCLG	Description & Origin of Substance
REGULATED AT THE WELL				
Nitrate (ppm)	10	2.3 – 2.6	10	Runoff from fertilizer use; leakage from septic tanks, sewage; erosion of natural deposits
Total Chromium (ppb)	100	ND – 2	–	Erosion of geological deposits
REGULATED IN THE DISTRIBUTION SYSTEM				
Total Trihalomethane (ppb)	80	ND – 0.84	NA	Chlorination by-products
REGULATED AT THE CONSUMERS' TAP				
Lead (ppm) (2015)	0.015 (AL)	<0.001 – 0.002	0	Household plumbing
Copper (ppm) (2015)	1.3 (AL)	<0.02 – 1.3	1.3	Household plumbing
ADDITIONAL SUBSTANCES OF CUSTOMER INTEREST				
Sodium (ppm)	not regulated	6.53	NA	Occurs naturally in soils
Calcium (ppm)	not regulated	11.9	NA	Occurs naturally in soils
Hardness (ppm)	not regulated	39.3	NA	Occurs naturally in soils

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. Clark Public Utilities 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 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 Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

EPA has proposed establishing an MCL for radon in drinking water. Radon is a gas that has no color, odor or taste. It's created by the natural radioactive breakdown of uranium in the ground. Breathing radon indoors is the primary public health risk of this gas. We tested our supply wells for radon in 2006, and found levels of this gas ranging from 155 to 610 picocuries per liter (a unit of measurement for radiation). Call the EPA Drinking Water Hotline at 1-800-426-4791 for additional information.

FAST FACTS ABOUT YOUR WATER UTILITY

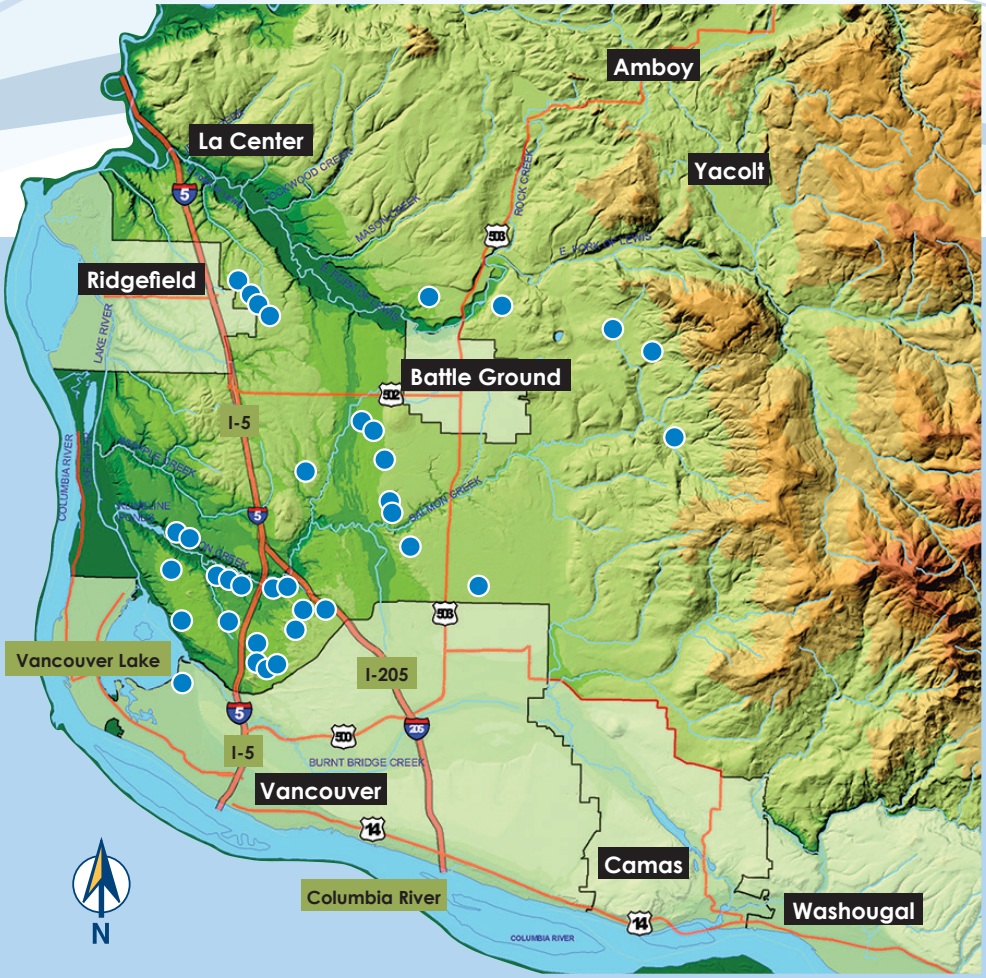
- **History**
  Utility formed in 1950; one of the 10 largest water utilities in the state
- **Customers**
  34,204 homes and businesses
- **Service area**
  220 square miles, including most unincorporated parts of Clark County, the city of La Center and the town of Yacolt
- **Distribution lines**
  821 miles
- **Average annual use per residential customer**
  88,601 gallons
- **Monthly rates**
  The utility's board of commissioners adopted a block rate structure effective January 1, 2008, and again on February 1, 2012, to encourage water conservation.

Block 1: $1.85 per 100 cubic feet up to 1,800 cubic feet of consumption

Block 2: $2.40 per 100 cubic feet for 1,801 to 3,600 cubic feet of consumption

Block 3: $2.95 per 100 cubic feet for more than 3,600 cubic feet of consumption

The rates and consumption levels shown are based on a standard $^{5}/_{8}$ x $^{3}/_{4}$ meter. Residential and commercial rate block volumes vary based on meter size (100 cubic feet = 748 gallons).



CLARK PUBLIC UTILITIES' WATER SERVICE AREA AND WATER SUPPLY WELLS

Clark Public Utilities gets its water from 35 groundwater wells. Four aquifers are the source of water for these wells: Recent Alluvial Aquifer, Troutdale Aquifer, the deep Sand and Gravel Aquifer and fractured basalt formations.

Note to customers in Yacolt and Amboy: Your water comes from different sources than listed on this map. See charts inside for details.