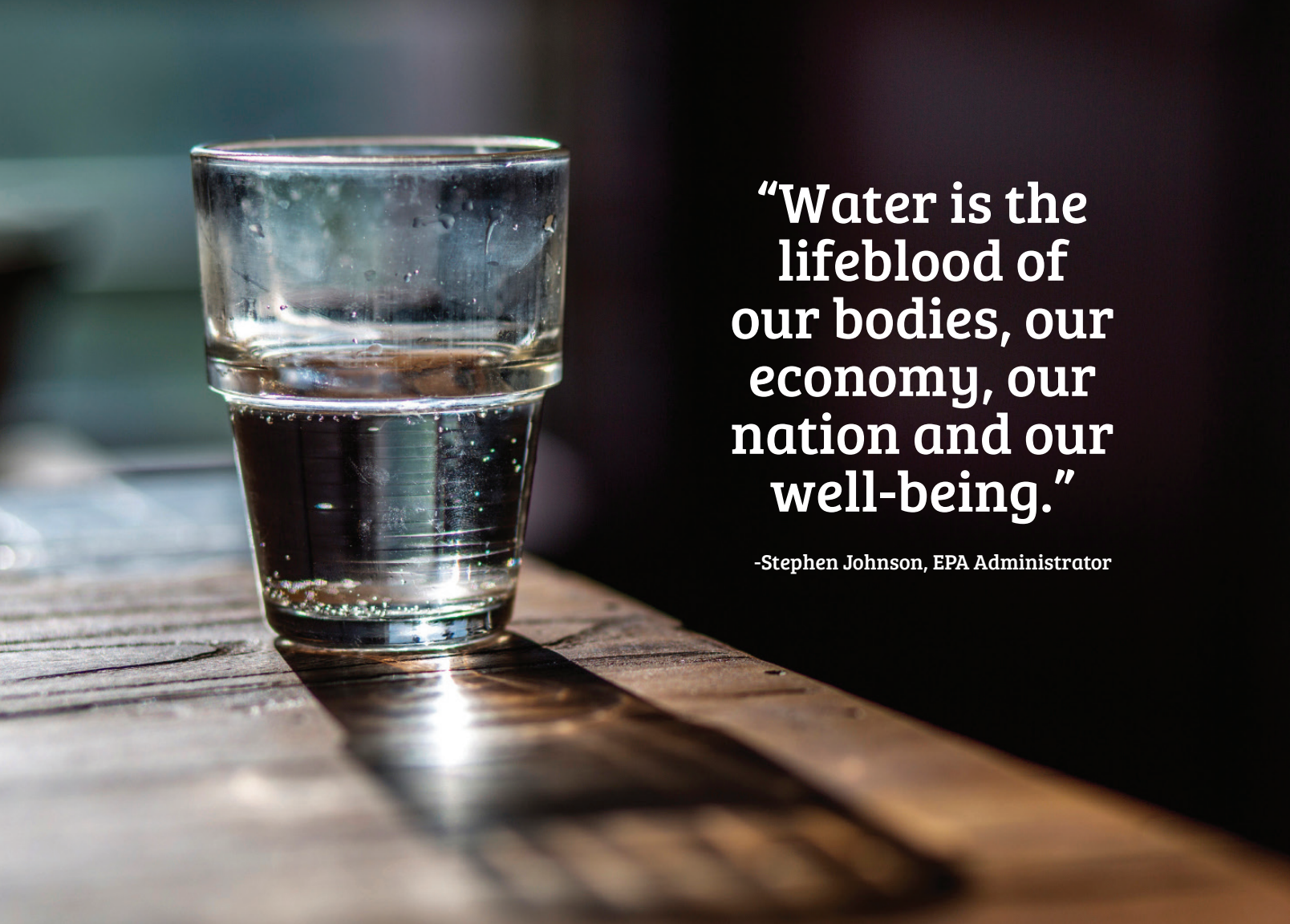
CITY OF KENT

2015 Water Quality Report

This report contains important information about your drinking water.

PWS ID 381501

KENT
WASHINGTON



"Water is the lifeblood of our bodies, our economy, our nation and our well-being."

-Stephen Johnson, EPA Administrator

Committed to Delivering the Highest Quality Water

The City of Kent again provides to all our customers our annual Water Quality Report. This edition summarizes the water quality testing completed from January through December, 2015.

This report is provided to you to comply with federal and state drinking water regulations. We are required to provide this report by July 1 of each year.

The purpose of this report is to provide you with a summary of where your water comes from and how your water was treated and tested during 2015. We continue our commitment to delivering high quality drinking water.

We remain diligent in meeting the challenges of water source protection, conservation and community education while continuing to serve the needs of all water users in a fiscally responsible manner.

For questions related to your drinking water, call **253.856.5600**. You may also contact the Washington State Department of Health, Office of Drinking Water at **253.395.6750**.

Environmental Protection Agency and City Staff

To ensure the tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) regulates the amount of certain contaminants in drinking water provided by public water systems. To provide the same protection for public health, the U.S. Food and Drug Administration establishes regulations that set limits for contaminants in bottled water.

The sources of tap and bottled water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or human activity.

Tap and bottled water may reasonably be expected to contain small amounts of contaminants.

However, the presence of contaminants does not necessarily indicate the 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**.

The City of Kent Water Division is staffed by professionals certified by the Washington State Department of Health to pump, treat, store, and distribute your drinking water. For more information on the Washington State Department of Health Operator Certification Program, visit **doh.wa.gov** or call **1.800.525.2536**.

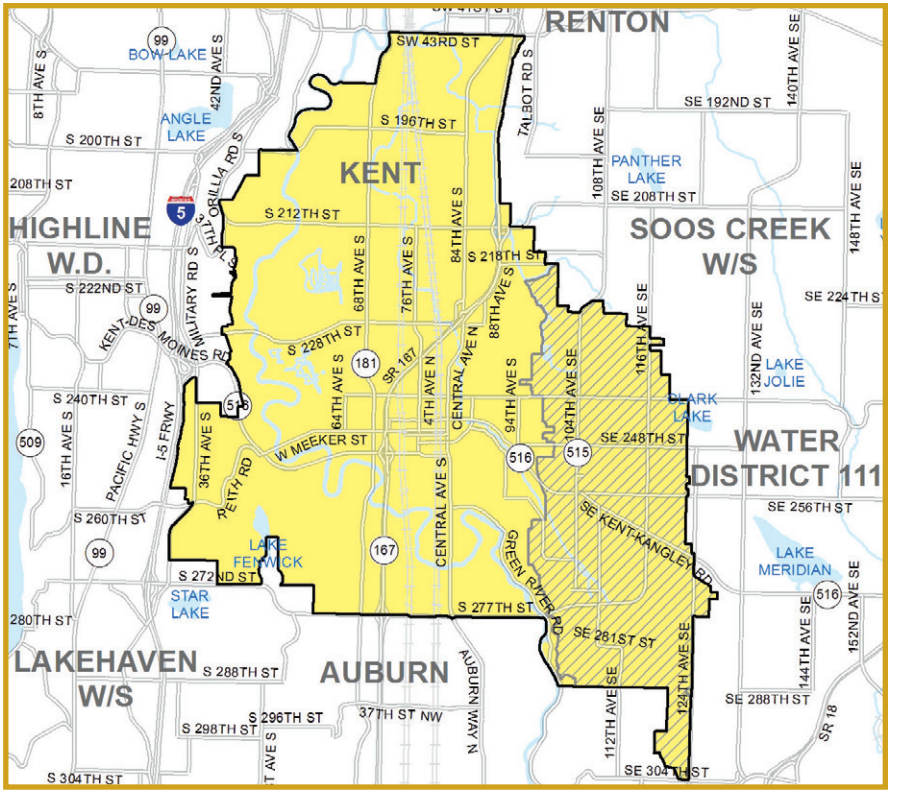
Multiple Water Sources

The City's primary water supplies come from either a spring or well drilled into an underground aquifer (a natural underground water reservoir).

To provide for future growth and water system demands, the City has a partnership with Tacoma Water, Covington Water District, and Lakehaven Utility District to obtain surface water from the Green River through the Regional Water Supply System.

Kent also has a number of interties linking our water system with all of our neighboring water providers to provide emergency service among water providers. Water providers include the Cities of Auburn, Renton, Tacoma, and Tukwila as well as Water District #111, Highline Water District, and Soos Creek Water & Sewer District.

Customers may notice slight taste differences due to the operation of these various sources and interties, but these water providers must meet the same rigorous standards as the City of Kent.



City of Kent Water Service Area

Shaded area indicates the primary portion of Kent's water system influenced by the Regional Water Supply System (RWSS) in 2015. Water quality monitoring results provided in this report include the RWSS water quality in our system. For more information on the Regional Water Supply System, visit: **MyTPU.org/TacomaWater/water-quality**

How is My Water Treated and Purified?

The primary treatment methods for water supplied to Kent customers are chlorination, fluoridation, and pH adjustment.

- **Chlorine** is used for disinfection of the water supply. Chlorine kills germs and micro-organisms that may be in the water supply and acts as a protective barrier from any recontamination while water is in the distribution system. The average level of free available chlorine in your drinking water is 0.75 parts per million (ppm).
- **Sodium Fluoride** is added to the water supply to aid in the prevention of tooth decay. Fluoride levels are maintained at an average of 0.83 ppm.
- **Sodium Hydroxide** is added to the water supply to raise pH levels. pH levels (a measurement of acidity) are adjusted to make the water less corrosive on plumbing and reduce the amount of lead and copper that can dissolve into drinking water.

The City of Kent also obtains water from the City of Tacoma. Tacoma's water supply is surface water coming from the Green River in Southeast King County. It is also disinfected with chlorine, fluoridated, and pH adjusted with sodium hydroxide. Tacoma also uses ozone to control taste and odor. This report includes Tacoma's water quality in our system.

For more information on Tacoma Water, visit:
mytpu.org/tacomawater/water-quality

Tacoma Green River Filtration Facility

Unwanted Medicine Return Program

Pharmaceuticals and personal care products, abbreviated as PPCPs, are a group of compounds consisting of human and veterinary drugs (prescription or over-the-counter) and consumer products such as perfumes, lotions, sun-screens, house cleaning products, and others. These compounds have been detected in trace amounts in surface water, drinking water, and wastewater in Europe and the United States.

Pharmaceuticals can enter the water when they are flushed down toilets, put into sinks, thrown into the garbage, or when humans or animals pass drugs through their bodies. Excretion of medicines that pass through our bodies is the largest source of the pollution and is more difficult to prevent from entering sewage or septic tanks.

To date, scientists have found no evidence of adverse human health effects from PPCPs in the environment. However, the EPA is committed to investigating PPCPs and developing strategies to make sure the health of both the environment and the public is protected.

Help keep pharmaceutical chemicals out of water by returning unwanted medicines.

For information on disposing of unwanted medicines visit **TakeBackYourMeds.org**. For more information about PPCPs in water, visit **EPA.gov/ppcp**.

Protecting Our Groundwater

Several aquifers supplying Kent's water are shallow and receive most of their water through rainfall trickling through the ground into the aquifer. Making them susceptible to contamination from above ground activities.

Kent's **Wellhead Protection Program** ensures our groundwater sources are regularly monitored to provide a high quality water supply. By monitoring how the water flows underground and where potential sources of contaminants are located, we can be better prepared to respond in the event of an emergency or contamination.

Growth has the potential to impact groundwater resources by creating impervious surfaces which concentrate pollutants and decrease aquifer recharge rates. Growth also leads to additional pesticide and fertilizer use that could impact water quality and quantity. The City reviews land use applications to ensure development will not have a negative impact on groundwater resources. New developments are encouraged to maintain a no-net-loss in aquifer recharge.

For more information on the Wellhead Protection Program, call **253.856.5527**.

Integrated Pest Management (IPM) provides alternatives for farmers, golf course managers, parks departments, school districts, public works crews, and homeowners to control nuisance plants and insects. Alternatives in IPM are provided to decrease environmental impacts and to help protect groundwater. For example, instead of spraying an entire playfield for weeds, spot spraying may be used to save money and to reduce the amount of herbicide used.

Water System Protection: Cross Connection Control

What is a "cross connection?"
A cross connection is a permanent or temporary piping arrangement which can allow drinking water to be contaminated by a non-potable (not safe to drink) source if a backflow condition occurs.

What is "backflow?"
Backflow is water flowing in the opposite direction of its normal flow. Backflow can allow contaminants to enter the drinking water system through cross connections.

The City has a cross Connection Control Program to ensure we maintain high water quality. To protect your water from contamination, backflow prevention assemblies are used. These assemblies vary in size, shape, value, and location; however, they all prevent backflow conditions.

To learn more about cross connection control, backflow prevention, or backflow assembly testing, call **253.856.5500** or visit **KentWA.gov/cross-connection-control-program**

For a list of Washington State Department of Health approved backflow assembly testers, visit **instruction.greenriver.edu/wacertservices**.

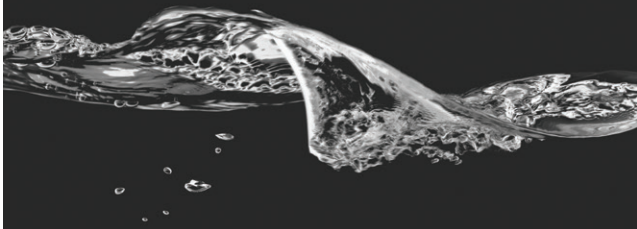
Be mindful of cross connection concerns:

- Wash basins and service sinks
- Hose bibs (garden hose faucets)
- Chemical sprayers attached to hoses
- Lawn irrigation systems
- Water Features ornamental landscape ponds
- Auxiliary water supplies
- Laboratory and aspirator equipment
- Processing tanks
- Boilers
- Water recirculation systems
- Swimming pools
- Solar heat systems
- Fire sprinkler systems
- Hazardous chemicals or biological processes
- RV wastewater (black water) dumping stations

Did You Know?

There is the same amount of water on Earth as there was when the Earth was formed. The water from your faucet could contain molecules that dinosaurs drank.

Nearly 22% of indoor home water use comes from doing laundry. Save water by adjusting the settings on your machine to the proper load size.



Building for Today

Key accomplishments in 2015:

- Cleaned and inspected a 6-million gallon water reservoir
- Installed infrastructure improvements for the new 640 Pressure Zone in our upper East Hill area that included three new pressure reducing stations
- Upgraded fire hydrants that were served by undersized water supplylines
- Installed dedicated water sample stations throughout our distribution system
- Replaced approximately 1,400 feet of aging and undersized water main in the water distribution system
- Completed design and began construction on a back-up power supply at a primary water source

The Water Section continues implementation of a system wide water main cleaning, unidirectional flushing, valve exercise and water service line/water main replacement program, as well as other related maintenance to improve water quality and system reliability.

Pressure Reducing Station installation

Planning for Tomorrow

The next few years will see many new system improvement projects:

- Pumping and piping improvements will increase water pressure in our upper 590 Pressure Zone on the East Hill for a new pressure zone
- Water main and fire hydrant replacements
- Interior cleaning and inspection of water storage reservoirs and coating improvements
- Design/installation of back-up emergency power supply for our water sources
- Design/implementation of habitat conservation measures for our Clark Springs source
- Inlet/outlet control upgrades at water reservoirs

Backup Power Generator installation

Water Use Efficiency Goals

State law requires municipal water suppliers to use water more efficiently in exchange for water right certainty and flexibility to help meet future demand. The Legislature directed the Department of Health to adopt an enforceable Water Use Efficiency (WUE) program, which became effective on January 22, 2007.

Kent's Water Use Efficiency Program strives to reduce water used by public agencies (city facilities, schools, etc.) between June and August by 0.5% each year, with a total reduction goal of 3% over a 6-year period. The program also aims to keep water loss at less than 6% per year (Municipal Water Law standard is 10%). Water loss (Unaccounted for water) is an inherent element of water system management which can never be eliminated entirely due to meter inaccuracies, water theft, and undetected system leakage.

Results:
Water use for the period of June-August 2015 rose 28.5% compared to the same period in 2014. Significant drought conditions and above average temperatures increased demand for water throughout the system. Compared to the inception of this goal in 2007, overall water use for the period of June-August increased 22.5%. After a few years of decreasing use, this too can be attributed to the unusually dry and warm conditions in 2015.

The City met its goal of maintaining 6% or less lost water for the year, with a 4.2% distribution system leakage percent achieved. The average lost water rate is 3.8% since 2007.

To view the entire 2015 Water Use Efficiency Report, visit **KentWA.gov.**

Kent Water Facts

Sources

16 wells

2 springs

1 surface (Tacoma Water)

2.811 billion gallons of water produced

10,119 routine water quality tests performed

Storage

9 water reservoirs

23.2 million gallons of storage for peak demand & fire flow

6 pump stations

7 pressure zones

Distribution

67,380 water customers served

14,833 water service connections

287 miles of water main

8,821 water valves

2,913 fire hydrants

Monitoring Water Quality

Thousands of water samples were taken in 2015 to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows those contaminants that were detected in the water. Because the concentrations of certain substances do not change frequently, the State requires us to monitor for these substances less than once per year. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES	Unit	Year Sampled	MCL (Maximum amount allowed)	MCLG (Ideal amount or less)	Concentration in sample		Compliance	Major Sources
Substances	*				**Maximum Result**	**Sample Range**		
EPA REGULATED								
Chlorine	ppm	2015	MRDLG=4	na	1.34 ppm	0.31–1.34 ppm	Yes	*Water additive used to control microbes*
Haloacetic Acids (HAAs)	ppb	2015	60 ppb	na	11 ppb	<1.0–11.0 ppb	Yes	*By-product of drinking water disinfection*
Nitrate	ppm	2015	10 ppm	10 ppm	1.5 ppm	<0.5–1.5 ppm	Yes	*Runoff from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits*
TTHMs (Total Trihalomethanes)	ppb	2015	80 ppb	na	28.6 ppb	<0.5–28.6 ppb	Yes	*By-product of drinking water disinfection*
Radium 228	pCi/L	2015	5 pCi/L	0	1.6 pCi/L	<1.0–1.6 pCi/L	Yes	*Erosion of natural deposits*
Gross Beta Particles	pCi/L	2015	50 pCi/L	0	7.98 pCi/L	<3.0-7.98 pCi/L	Yes	*Decay of natural & man-made deposits*
EPA REGULATED (Secondary)								
Iron	ppm	2015	0.3 ppm	na	0.005 ppm	0.001-0.005 ppm	Yes	*Erosion of natural deposits*
Manganese	ppm	2015	0.05 ppm	na	0.121 ppm	0.001-0.121** ppm	Yes	*Erosion of natural deposits*
DOH (State) REGULATED								
Fluoride	ppm	2015	4 ppm	2 ppm	1 ppm	0.51-1.0 ppm	Yes	*Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories*
Turbidity	ntu	2015	not regulated	not regulated	0.89 ntu	0.002-0.89 ntu	Yes	*Soil runoff/pipe sediments and minerals*
MICROBIAL STANDARDS IN DISTRIBUTION SYSTEM								
Total Coliform	na	2015	<5% positive	0	0%	0%	Yes	*Sampling technique; coliforms are naturally present in the environment*
UNREGULATED								
Sodium	ppm	2015	not required	na	18.0 ppm	<5.2-18.0 ppm	na	*Erosion of natural deposits*
Hardness	ppm	2015	not required	na	130 ppm	10-130 ppm	na	*Erosion of natural deposits*

**Tacoma Supply Only

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. People with compromised immune systems such as those with cancer, HIV/AIDS patients undergoing chemotherapy, organ transplant recipients, some elderly and infants can be at increased risk from infections. These people should seek advice from their health care providers about drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available by calling the EPA's Safe Drinking Water Hotline at ***1.800.426.4791.***

***Table Definitions:**

MCL (Maximum Contaminant Level): *The highest level of a substance that is allowed in drinking water.*

MCLG (Maximum Contaminant Level Goal): *The level of a substance in drinking water below which there is no known or expected risk to health.*

MRDL (Maximum Residual Disinfectant Level): *The highest level of a disinfectant allowed in drinking water.*

NA: Not applicable. NTU (Nephelometric Turbidity Units): *Measurement of the clarity, or turbidity, of water.*

pCi/L (Picocuries per Liter): *Unit of measurement used for radiological contaminants.*

ppb (parts per billion): *One part substance per billion parts water (or micrograms per liter).*

ppm (parts per million): *One part substance per million parts water (or milligrams per liter).*

SUBSTANCES THAT MAY BE PRESENT IN DRINKING WATER INCLUDE:

- Microbial contaminants, such as viruses and bacteria from septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, from agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. They can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation.

Lead and Copper Monitoring

Since our last water quality report there has been a lot of news reports regarding high levels of lead in Flint Michigan's drinking water. Does the City of Kent drinking water have the same problem? No. The City of Kent has a rigorous corrosion control program in place that helps ensure that the same problem does not occur within our water system.

The drinking water system is monitored continuously through water quality analyzers and tested daily to maintain a non-corrosive pH level. In October 2015 the city tested the lead and copper levels in 43 homes throughout our water system. The results of this sampling showed our corrosion control efforts are working. All samples came back with lead & copper levels well below the EPA regulatory action levels. These samples are collected every 3 years as required by the Department of Health. Another round of sampling will occur in 2018.

Substance	Unit	Year Sampled	AL	MCLG	Amount Detected (90%)	No. Of Homes Above AL	Compliance
Copper	ppm	2015	1.3 ppm	1.3 ppm	0.29 ppm	0	Yes
	Major Sources of Copper: *Corrosion of some household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives*						
Lead	ppm	2015	0.015 ppm	0	0.0022 ppm	0	Yes
	Major Sources of Lead: *Corrosion of some household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives*						

Table Definitions:

AL (Action Level): *The concentration which triggers treatment or other requirements which a water system must adhere to.*

MCLG (Maximum Contaminant Level Goal): *The level below which there is no known or expected risk to health.*

ppm (parts per million)*: One part substance per million parts water (or milligrams per liter).*

Lead: In Washington, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water remains in pipes, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children.

Reduce potential exposure to lead: For taps that have not been used for 6-hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. Use the flushed water for watering plants, washing dishes or general cleaning. Only use water from the cold-water tap for drinking, cooking and making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your water, you may wish to have your water tested. Information is available from the EPA's Safe Drinking Water Hotline at **1.800.426.4791** or at **epa.gov/safewater/lead.**

Conservation Tips

To conserve water inside your home:

- Fix leaking faucets, pipes, and toilets or replace them with water-saving devices.
- Wash only full loads of dishes or laundry; do not use the toilet for trash disposal. Take shorter showers and don't let the water run while shaving or brushing teeth.

Conserving outdoors:

- Water the lawn and garden in the morning or evening, only as needed. Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses and use water-saving nozzles. Wash your car using water from a bucket, and save the hose for rinsing.

For more information, call **258.856. 5549**, or visit **WaterUseItWisely.com** or **EPA.gov/WaterSense**

Water conservation measures are another tool in protecting our water supply. Not only do they conserve water, but can also save money by reducing your water bill.

To reduce water use in your yard, please visit the Kent's Natural Yard Care website at **KentWA.gov/NaturalYardCare**

Buying a new toilet? Make it a Water Sense model and you may qualify for a $50 rebate! Water Sense toilets use 20% less water than the current federal standard, while still providing equal or superior performance. To participate, you must be a City of Kent water customer and be replacing a pre-1993 installed, high volume toilet. For a list of EPA Water Sense-certified toilets, visit **EPA.gov/WaterSense/Product_Search.html**.

Save water and energy with a new high-efficiency, Energy Star washer and you may qualify for $75 rebate! For a list of eligible washers, visit **EnergyStar.gov**.

For More Information

Public Works Water Utility
253.856.5600 • 7:00 a.m. – 4 p.m. weekdays
(For emergencies or general water questions including quality, leaks or pressure)

During non-working hours, emergency calls are answered by staff who will contact a water utility employee.

For non-emergencies that can wait until the next business day, visit **KentWA.gov** and make a "request for service". A water utility employee will contact you the next business day.

We want to know what you think.

Click here to take our online water quality survey.

City Administration
City Council 253.856.5712
Mayor Office 253.856.5700

Utility Billing
Questions, Shutoffs 253.856.5200

Permit Center
Plumbing/Permits 253.856.5300
Water Meter Permits 253.856.5300
Planning Services 253.856.5454

Spill Hotline
City of Kent,
Public Works Operations 253.856.5600

EPA Hotlines
Safe Drinking Water 1.800.426.4791
Radon 1.800.SOS.RADON
epa.gov/safewater, waterwiser.org

WA State Dept. of Health, Office of Drinking Water
NW Operations 253.395.6750
doh.wa.gov/ehp/dw

City Council Meetings 253.856.5712
The Council meets on the 1st and 3rd Tuesday of each month at 7 p.m. Meetings are held in the Council Chambers of Kent City Hall, 220 Fourth Avenue South. Please feel free to participate—your input is always welcome!

Public Works Committee 253.856.5500
City Council Public Works Committee meetings are on the 1st and 3rd Mondays of every month at 4 p.m.

Kent's Lifeline Program 253.856.5200
Low income seniors and disabled residents may qualify for Kent's Lifeline Program and reduced utility rates.