

Water Quality Report

City of Lacey,
Washington

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Drinking Water



WHAT'S THAT SMELL?



On your clothes

If your clothes seem to smell a little funky after they come out of the washer and dryer, the foul odor is likely coming from your washing machine, and not the water! High efficiency washing machines are so air-tight that water gets trapped in them between washes and bacteria begins to thrive, which can stink up your clean clothes.

TIP! ALWAYS leave the door cracked open after a wash has finished (for at least several hours or more) to allow the moisture to escape the machine.

More is NOT better with detergent.

Using too much detergent can also leave terrible smells in your washing machine and on your clothes. If you have a high efficiency washing machine, make sure you choose a detergent with the high efficiency logo on it and use the lowest recommended amount.

TIP! Run an empty load with hot water using ½ cup of vinegar poured directly into the drum. Repeat this at least every couple months to keep your washing machine fresh.



Flush What?

Your hot water heater! An improperly maintained hot water tank can lead to hot water that smells foul (sometimes like rotten eggs), tastes funny and comes out of the tap looking a little brown or even black.



Near your sink

If the water coming out of your tap seems to emit a foul odor, it is most likely your drains, and not the water! Kitchen drains are a common source of odor due to food particles building up and creating a "bacteria haven" in your pipes.

TIP! Note: You can use this method for any sink, bathtub or shower drain in your home.



-  1 Remove the sink stoppers from your drain (wash these stoppers often with the rest of your dishes to keep bacteria from living on them, too)
-  2 Pour 1/2 - 1 cup of baking soda down each drain
-  3 Wait about 15 minutes, then pour 1/2 cup of white vinegar down each drain. Cover drain with rag for added effectiveness. While you wait, remove and clean the faucet screens.
-  4 Wait for a minute to let the fizzy reaction die down, then flush each drain with hot water for at least 30 seconds.

Note: If you are unsure about flushing your hot water tank, the user's manual will have detailed instructions for how to drain and refill your tank properly. If you don't have the manual, you can often find a copy online for your model or you can call a licensed plumber.

TIP! Flush your hot water tank regularly; once a year should be about right.

A Message From the Mayor:

I am pleased to announce that Lacey's drinking water met or exceeded all regulations and mandates established by the Environmental Protection Agency for 2011. Lacey water customers receive the highest quality drinking water, while also becoming part of the community-wide effort to conserve and protect our water resource. I am proud to be part of such an important effort.

Please take the opportunity to read and learn about the quality of our community's drinking water, the importance of conserving water and some tips for maintaining the plumbing and fixtures in your home. Information contained in this report allows Lacey's water customers, specifically those with special health considerations, to make informed decisions about the water they use every day.

If you have any questions regarding the community's drinking water, or the information contained in this report, please contact your Lacey Water Utility at 360-491-5600.

Sincerely,

Mayor Virgil Clarkson



FOR MORE INFORMATION

- About Lacey's distribution system or to report problems, call the Lacey Maintenance Service Center at 360-491-5644.
- About your utility bill, call Lacey Utility Billing at 360-491-5616.
- About drinking water safety, call the EPA Safe Drinking Water Hotline at 1-800-426-4791 or visit www.epa.gov/safewater.

TO GET INVOLVED

- Join us for a Utilities Committee meeting on the first Tuesday of each month at 11:00 a.m. at Lacey City Hall, 420 College Street S.E. in Lacey. The committee discusses a variety of issues regarding our stormwater, drinking water, and wastewater utilities.
- Public attendance at City Council meetings is also welcome. The Council generally meets the second & fourth Thursday of the month January through October and the first and third Thursdays for November and December. Meetings begin at 7:00 p.m. at Lacey City Hall.
- Call 360-491-3214 to check the agenda of upcoming meetings or check our web site at www.ci.lacey.wa.us/video. Meetings are also video recorded and available online (live and archived).

FREE Hose Timers*



Have you ever turned on your sprinkler and forgot about it? For those who

water their lawns with a hose and sprinkler, these hose timers will shut off automatically to save you water and money. They are simple to use and connect to any standard outdoor hose bib.

Limit 1 per household. Bring your bill or account # to Lacey City Hall. See below for more info.



FREE Soil Moisture Sensors*

Overwatering your lawn not only wastes water, it can also cause disease. A soil moisture sensor is a device that will show you when the soil is ready to be watered to prevent overwatering and wasting money.

Limit 1 per household. Bring your bill or account # to Lacey City Hall. See below for more info.



FREE Smart Watering DVD*

(for irrigation systems)

Are you ready to become sprinkler savvy? Beautiful Landscapes

Though Smart Watering will walk you through several easy tips for maintaining the beautiful yard you desire, while also keeping your water bill to a minimum.

Limit 1 per household. Bring your bill or account # to Lacey City Hall. See below for more info.

Indoor and Outdoor Water Saving Kits*

Indoor kits include:

High efficiency shower head, faucet aerators and toilet leak detection tablets.

Outdoor kits include:

Heavy duty adjustable hose nozzle and hose repair kit.

Limit 1 kit of each type, per household. Bring your bill or account # to Lacey City Hall. See below for more info.

OTHER WATER SAVING PROGRAMS:



High Efficiency Toilet Program*:

City of Lacey water customers could be eligible for FREE High Efficiency Toilets (HETs) to replace older, water guzzling models (most installed before 1994 qualify).

Visit www.ci.lacey.wa.us/water-conservation for more info.



WashWise Program*:

The City of Lacey and the LOTT Clean Water Alliance are offering a \$50 rebate for purchasing a qualifying high-efficiency washing machine.

Visit www.ci.lacey.wa.us/water-conservation for more info.

To learn more about these programs and find out if you are eligible, visit www.ci.lacey.wa.us/water-conservation

*Available ONLY to Lacey water or wastewater customers while supplies last. Redeem your coupons by bringing your bill or account number to Lacey City Hall, 420 College St SE: Monday-Friday 8am – 5pm and start saving water today.

2011 WATER QUALITY RESULTS FOR THE CITY OF LACEY WATER SOURCES PUBLIC WATER SYSTEM ID #43500Y

Contaminant	Highest Level Allowed (MCL)*	Goal Not to Exceed (MCLG)*	Highest Level Detected	Lowest Level Detected	Date of Highest Level Detected	Typical Source of Contaminant
Nitrate ¹ (ppm)*	10	10	7	<1	9/7/11	Septic systems, fertilizer, animal waste
Total Coliform Bacteria	5% samples/ month	0% samples/ month	0% of samples			Naturally occurring in environment
Fluoride ² (ppm)*	4	4	0.3	<0.2	8/17/09	Geology, natural weathering
Total Trihalomethanes ³ (ppb)*	80	NA	15	<0.5	10/6/11	Reaction between chlorine and organic matter in drinking water
Total Haloacetic acids ⁴ (ppb)*	60	NA	11	<0.5	4/6/11	
Chlorine Residual (ppm)*	4	4	.97	.20	9/14/11	Added as a disinfectant to the water system

¹ Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

² Lacey does not add fluoride. ³ Running annual average for total trihalomethanes in 2011 was 3.9 ppb. ⁴ Running annual average for total haloacetic acids in 2011 was 1.6 ppb

SECONDARY STANDARDS REGULATED BY EPA FOR AESTHETICS (TASTE, SMELL OR COLOR, FOR EXAMPLE)

Contaminant	Highest Level Allowed (MCL)*	Goal Not to Exceed (MCLG)*	Highest Level Detected	Lowest Level Detected	Date of Highest Level Detected	Typical Source of Contaminant
Chloride (ppm)*	250		24	5	1/25/11	
Iron (ppb)*	300	NA	200	<10	3/19/11	
Manganese (ppb)*	50	NA	80	<2	8/17/09	Geology, natural weathering
Sulfate (ppm)*	250		13	3	7/18/11	
Conductivity (µmhos/cm)*	700	NA	363	84	10/4/11	

REGULATED BY THE STATE AT THE CUSTOMER'S TAP (RESULTS FROM 2011)

Contaminant	Action Level	Goal Not to Exceed (MCLG)*	90% percentile	# samples over action level	Sample Date of Highest Level	Typical Source of Contaminant
Copper (ppb)*	1300	1300	843	0 samples	9/20/11	Corrosion of household plumbing
Lead (ppb)*	15	0	4	1 samples	9/20/11	

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. The City of Lacey 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 drinking water, consider having a commercial water laboratory analyze a water sample from your tap. 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.

Health information about your water. What you should know.

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 (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 (1-800-426-4791).

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

reservoirs, springs, and wells. City of Lacey tap water is pumped from underground 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.

For these reasons, the City of Lacey continually monitors our drinking water before it is delivered to your tap. The City also treats your drinking water with chlorine to help ensure that you are receiving the highest quality possible.

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

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791), or by visiting the EPA's Safe Drinking Water Hotline Page online at: www.epa.gov/safewater.



***IMPORTANT DRINKING WATER DEFINITIONS**

ppb (Parts per Billion), **ppm** (Parts per Million), **µmhos/cm** (Micromhos per Centimeter), **NA** (Not Applicable)

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.

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.

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

NTU: Nephelometric Turbidity Units

2011 WATER QUALITY RESULTS FOR THE CITY OF OLYMPIA WATER SOURCE, MCALLISTER SPRINGS

Contaminant	Highest level allowed (MCL)*	Goal Not to Exceed (MCLG)*	McAllister Springs Water Amount Detected	Range of Results (Low - High)	Typical Source of Contamination
Cryptosporidium	N/A		Zero	N/A	Fecally contaminated water
Giardia Lamblia	99.9% removal		Zero	N/A	
Fecal Coliform Bacteria	90% of samples had fewer than 20 bacteria per 100 milliliters of water	Zero	100% of samples had fewer than 20 bacteria per 100 milliliters of water	0 organisms	
Total Coliform Bacteria	90% of samples must have fewer than 100 bacteria per 100 milliliters of water	Zero	100% of samples had fewer than 100 bacteria per 100 milliliters of water	0-36 organisms	Naturally occurring in the environment
Turbidity (NTU)*	5	1	0.863	.010-1.28	Soil runoff

WATER SUPPLY SYSTEM (OR TAP WATER) AFTER CHLORINATION

Contaminant	MCL*	MCLG*	City of Olympia Water Average Amount Detected	Range of Results (Low - High)	Typical Source of Contamination
Total Coliform Bacteria	95% of samples must have zero detections	Zero	Zero	Zero	Naturally occurring in the environment
Chlorine residual (ppm)*	4	0.05	0.86	0.32-1.74	Added as a disinfectant to the water system
Haloacetic Acids (ppb)*	60	Zero	1.15	<1.0 - 5.9	Reaction between chlorine and organic matter in drinking water
Total Trihalomethanes (ppb)*	80	Zero	4.54	<0.5 - 14.7	

INORGANIC COMPOUNDS

Contaminant	MCL*	MCLG*	City of Olympia Water Average Amount Detected	Range of Results (Low - High)	Typical Source of Contamination
Nitrates (ppm)*	10	5	1.0	<0.1-2.41	Septic systems, fertilizer, animal wastes
Arsenic (ppb)*	10	10	1.0	N/A	Naturally occurring and human activities
Barium (ppb)*	2,000	2,000	3.0	N/A	Naturally occurring in the environment

REGULATED BY THE STATE AT THE CUSTOMER'S TAP (RESULTS FROM 2009)

Contaminant (unit)	Action Level*	City of Olympia Water Amount Detected	Number of sites found above the AL	Range of Results (Low - High)	Typical Source of Contamination
Copper (ppm)*	1.3	90% of the homes tested had copper levels less than 0.907 ppm	Zero sites above AL out of 35 sites sampled	0.027-1.005	Corrosion of household plumbing
Lead (ppb)*	15	90% of the homes tested had lead levels less than 6 ppb	Zero sites above AL out of 35 sites sampled	0 - 25	

Action Level for Copper: 90% of the homes tested must have levels less than 1.3 ppm detected. **Action Level for Lead:** 90% of the homes tested must have levels less than 15 ppb detected.

Where Does Lacey's Water Come From?

Most of the water that you use in your home comes from 19 different wells found across the City that withdraw groundwater from three underground aquifers. An aquifer is a natural, underground layer of rock or sand that yields water. Groundwater is found in the spaces between the rock and sand. Additional water is purchased from the City of Olympia's water system to help meet high demands. The water purchased from Olympia comes from McAllister Springs, which is a surface water source.

Where Did Lacey's Water Go?

95.3%	CITY CUSTOMERS WITH METERS	2.1 billion gal.
1.6%	AUTHORIZED CITY USES*	36.5 million gal.
3.1%	DISTRIBUTION SYSTEM LEAKAGE	70 million gal.

*Authorized uses include: street sweeping, water line flushing, treatment facility maintenance and other related activities.

**Distribution System Leakage (DSL) refers to all water that could not be accounted for, and is attributed to water main breaks, theft of water and other unknown water losses. The state requires that utilities of Lacey's size maintain a DSL of less than 10%.

Residents in South Lacey May Notice a Change in Water This Summer



The City of Lacey's Water Utility is finishing the construction of a new drinking water treatment facility for a well located in Capital City Golf Club Estates. The treatment facility was constructed to increase the pH of the water to be similar to other wells in the vicinity, and will reduce the potential for water from this well to react with your home plumbing. If you live in south Lacey or along Yelm Highway, you will likely receive water from this treatment facility when it becomes functional in early

summer. Most residents should not notice any change in the water, but those with home or commercial water treatment systems, or chemically treat water for uses such as hot tubs or fish tanks, are advised to check whether a change in water pH will affect your treatment. If you have any questions, please contact Lacey Public Works at (360) 491-5600.

Mandatory Outdoor Watering Schedule for ALL LACEY WATER CUSTOMERS

Addresses ending in EVEN numbers

0 2 4 6 8

water: **Sundays, Tuesdays,
and Thursdays**

Addresses ending in ODD numbers

1 3 5 7 9

water: **Saturdays, Mondays,
and Wednesdays**

**FRIDAY is a non-watering day for
ALL Lacey water customers!**

For more information on the outdoor watering policy, or to
request a variance or exemption, call Lacey Water Resources
at 360 491-5600 or visit www.ci.laceywa.us/odd-even



*Shaping
our community
together*

CITY
OF **LACEY**

Water Resources 420 College St. S.E. Lacey, WA 98503

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