

Healthy household plumbing



The U.S. Environmental Protection Agency requires all water providers to include in the report this important language about lead, regardless of levels occurring in water samples:

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.

EWEB 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 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 (1-800-426-4791) or at epa.gov/safewater/lead.

Notes on Regulated Contaminants

The following provides additional information about regulated contaminants that were detected:

Chlorine: EWEB adds chlorine to its water during the disinfection process to disinfect against microbial contaminants such as Giardia and E.coli.

Copper: Copper is found in natural deposits as ores containing other elements. It also is widely used in household plumbing materials. The EPA requires water systems to control the corrosiveness of their water if the level of copper at home taps exceeds an Action Level. However, no samples taken by EWEB in the most recent compliance period were greater than the Action Level of 1.3 ppm for copper.

Fluoride: Fluoride is a naturally occurring trace element in water. EWEB does not add fluoride to the water.

Radiological Contaminants: Most drinking water sources contain very low levels of radioactive contaminants, most of which are naturally occurring and low enough not to be considered a public health concern. When the Fukushima Nuclear plant was damaged by an earthquake and subsequent tsunami in 2011, some radioactive materials were released into the environment. Monitoring stations detected miniscule quantities of radionuclides associated with the release. The levels detected were thousands of times below any level of public health concern.

Turbidity: Turbidity is a measure of the cloudiness of the water. The typical cause of turbidity is tiny particles of sediment in the water. Turbidity alone has no health effects. However, turbidity can interfere with disinfection. EWEB's filtration process effectively removes turbidity.

Total Organic Carbon: A measure of naturally occurring organic contaminants in water.

Additional monitoring

EWEB completed an Initial Distribution System Evaluation (IDSE) in 2008-2009 to determine where the highest levels of disinfectants and disinfection byproducts were found in our water distribution system.

Disinfectants are an essential element of drinking water treatment because of the barrier they provide against waterborne disease-causing microorganisms. Disinfection byproducts (DBPs) form when disinfectants used to treat drinking water react with naturally occurring materials in the water (e.g., decomposing plant and other organic material).

Risk assessment information

In August 2000, EWEB completed a Drinking Water Source Protection Plan to protect the McKenzie River as the sole source of drinking water for Eugene.

As part of this plan, a risk assessment was conducted that identifies and prioritizes various sources that may threaten the health of the river. In May 2001, EWEB launched an ambitious source protection program to evaluate these potential threats and implement mitigation strategies to safeguard Eugene's drinking water source.

More information about EWEB's Source Protection Program is available at eweb.org/waterquality/protection or by calling Karl Morgenstern at 541-685-7365.

The state allows EWEB to monitor for some contaminants, such as lead and copper, less than once a year because concentrations don't change much. Some data are more than a year old.



EUGENE WATER & ELECTRIC BOARD

2011 CONSUMER CONFIDENCE REPORT



Dear customer:

The Eugene Water & Electric Board is pleased to present you with the Consumer Confidence Report for 2011.

This report gives you a snapshot of last year's water quality. The key conclusion of the report is this: Your water met or exceeded all state and federal drinking water health standards. In fact, EWEB is proud to say that it has never violated a maximum contaminant level or any other water quality standard established by the U.S. Environmental Protection Agency.

The EPA requires all drinking water suppliers to prepare an annual water quality report and distribute it to customers. This report demonstrates that the quality of Eugene's drinking water is among the best in the United States.


Roger Gray, General Manager

Investments in water system improve reliability

The Eugene Water & Electric Board's ability to provide nearly 200,000 people and businesses with clean water from the McKenzie River depends on an efficient and modern water treatment and distribution system.

But the 800 miles of pipes, 26 enclosed reservoirs, the area's largest water filtration plant and other facilities that transport water to customers' taps are in need of reinvestment to ensure the continued reliable delivery of high-quality water.

That's why the utility five years ago ramped up efforts to address the backlog of repairs and replacement of aging infrastructure, parts of which date back to the early days of EWEB's founding in 1911.

Adopted in 2007, the Water Capital Improvement Plan calls for reinvesting \$130 million over the next decade to improve, repair and maintain the system.

EWEB isn't alone in its need to address an aging water system. The U.S. Environmental Protection Agency estimates water utilities need more than \$300 billion in upgrades.

Since 2009, the utility has replaced more than 6 miles of water distribution pipe that runs beneath Eugene streets. In 2012 alone, EWEB estimates it will install almost 2 miles of new distribution pipe

with major projects on Willakenzie Road, Taney Street, North Danebo Avenue and Marshall Avenue.

In addition to upgrading the distribution system that delivers water to customers' taps, EWEB has been steadily improving its Hayden Bridge Water Filtration facility.

Following an expansion completed in 2010 that increased water filtration capacity to 80.5 million gallons per day from 68 million gallons per day, the utility is now focused on a multi-year upgrade of its filtering systems.

In 2010 and 2011, the utility spent about \$2 million rebuilding three of its filters. This year and into 2013, EWEB will rebuild and upgrade three additional filters at about the same cost.

This summer, EWEB will begin a multi-year, \$3.5 million project to upgrade its raw water intake facilities. The work will include structural, mechanical and electric improvements as well as replacement of the intake screens. Portions of this facility were originally constructed in the 1940s.

Despite water rate increases over the past five years designed to cover the costs of these major improvements, EWEB water rates are still among the most inexpensive in the Northwest. Check out the comparison at eweb.org/waterrates.

Results of monitoring for REGULATED CONTAMINANTS

DISINFECTANTS	MRDL	MRDLG	HIGHEST DETECTION	DETECTION RANGE	PROBABLE SOURCE
Chlorine (ppm)	4	4	1.08	0.55-1.08	Water additive used to control microbes
LEAD & COPPER (Sampled at 50 residential sites in 2009)	MCL	MCLG	90TH PERCENTILE	SAMPLES EXCEEDING ACTION LEVEL	PROBABLE SOURCE
Copper (ppm)	AL=1.3	1.3	0.053	0	Corrosion of household plumbing systems Erosion from natural deposits
Lead (ppb)	AL=15	0	5	0	Corrosion of household plumbing systems Erosion from natural deposits
INORGANIC CONTAMINANTS	MLC	MCLG	HIGHEST DETECTION	DETECTION RANGE	PROBABLE SOURCE
Fluoride (ppm)	4	4	0.158	ND - 0.158	Erosion of natural deposits & discharge from fertilizer EWEB does not add fluoride to the water
DISINFECTION BYPRODUCTS	MCL	MCLG	HIGHEST ANNUAL AVERAGE	DETECTION RANGE	PROBABLE SOURCE
Total Trihalomethanes (ppb)	80	n/a	22.6	15.1 - 32.1	By-product of drinking water disinfection
HAA5 - Haloacetic Acids (ppb)	60	n/a	23.2	13.3 - 41.3	By-product of drinking water disinfection
TURBIDITY	MCL	MCLG	HIGHEST SINGLE MEASUREMENT	DETECTION PERCENTAGE OF SAMPLES <0.3 ntu	PROBABLE SOURCE
Turbidity (NTU)	TT<0.3 NTU	n/a	0.068	100%	Soil run-off
TOTAL ORGANIC CARBON	MCL	MCLG	ANNUAL AVERAGE	DETECTION RANGE	PROBABLE SOURCE
Total Organic Carbon (ppm)	TT	n/a	0.51	ND - 0.55	Naturally present in the environment
RADIOACTIVE CONTAMINANTS	MCL	MCLG	AMOUNT DETECTED	DETECTION RANGE	PROBABLE SOURCE
Alpha Emitters (pCi/L)	15	0	2.3	n/a	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	ND	n/a	Erosion of natural deposits
Uranium (ppb)	30	0	ND	n/a	Erosion of natural deposits

Results of monitoring for UNREGULATED CONTAMINANTS

EWEB conducted monitoring for treated water and our distribution system for unregulated contaminants on a quarterly basis in 2008. Unregulated contaminants are those that don't yet have a drinking water standard set by USEPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. This monitoring program is called UCMR2. These compounds included flame retardants, explosives and related compounds, and various degradation products of pesticides and herbicides. There were no detections for any of the compounds analyzed.

Important definitions for reviewing tables

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal (MCLG) as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant

allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Highest Detection: The highest single measurement detected for data.

Action Level (AL): The concentration of a contaminant, which if exceeded, triggers treatment.

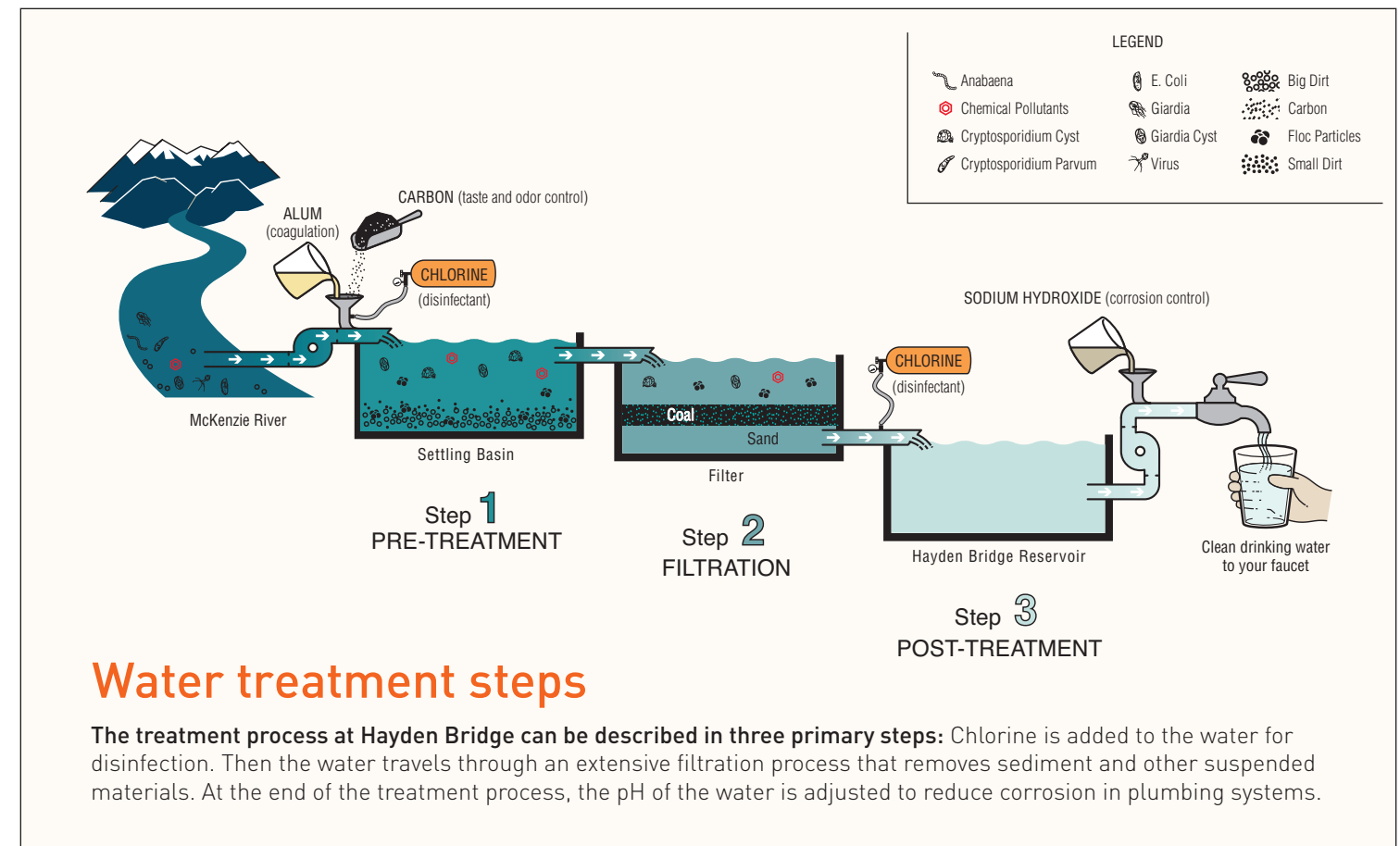
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

90th Percentile: This means that 90 percent of the samples collected were equal to or below the value reported.

Detection Range: This is the range of contaminant levels found in parts per million or billion (ppm or ppb). These units of measure describe the levels of detected contaminants.

Nephelometric Turbidity Units (NTU): A measure of water clarity.

Non-Detect (ND): Substance not detectable using current monitoring equipment.



What the EPA says about drinking water contaminants

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 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 sources of drinking water (both tap 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 in drinking water sources may include:

- Microbial contaminants, such as viruses and bacteria, which may come from wildlife or septic systems.
- Inorganic contaminants, such as salts and metals, which can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges, and farming.
- Pesticides and herbicides, which may come from a variety of sources such as farming and forestry activities, urban stormwater runoff, and home or business uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes, and also can come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants can occur naturally or can result from 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.

Information for immuno-compromised persons

Some people may be more vulnerable to microbial 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).

EWEB commissioners hold public meetings the first Tuesday of each month. For more information, go to eweb.org/boardmeetings