



WATER QUALITY REPORT 2024

Umpqua Basin Water Association, Inc. is pleased to present you with the Annual Water Quality Report for 2024.

This report gives you a brief look at last year's water quality.

Our constant goal is to provide you a safe and dependable supply of drinking water. We want to help you understand the efforts we make to continually improve the water treatment process and to protect our water resources. We are committed to ensuring that you receive:

"Drinking Water You Can Trust"

ABOUT THE WATER SYSTEM

Umpqua Basin Water Association is a large, privately owned, non-profit rural drinking water co-operative serving approximately 9,599 people through 22 reservoirs and 14 pump stations, supplying 290 miles of pipeline covering some 100 square miles of land lying west and north of Roseburg. Our 3,692 service connections are composed primarily of rural residential users together with 96 commercial, industrial, and public users.

Umpqua Basin Water Association has a full-treatment water plant located on the banks of the North Umpqua River next to Brown's Bridge on Garden Valley. During 2024, over 518 million gallons of water was processed through the treatment plant for an average of 1.42 million gallons per day. The plant is operated by well trained and State Certified staff. The technology and expertise at the treatment facility allows Umpqua Basin Water Association to consistently exceed all current water quality standards efficiently.

If, after reading this report, you have questions or would like more information, please call us at (541) 672-5559, 8:00AM to 4:30PM, Monday to Friday. We want our valued customers to be informed about their water utility. Copies of this report may be reviewed at the Association office.

OUR WATER SOURCE

All water treated and delivered by Umpqua Basin Water Association is surface water taken from the North Umpqua River. Surface water refers to water that comes from an above ground source such as a lake, river, stream, or reservoir. We are quite fortunate in that the North Umpqua River is one of the highest quality surface water sources in the entire State of Oregon. It is a high volume, fast flowing, low temperature river that originates nearly 100 miles to the east, high in the snowfields of the Cascade Mountains, at Maidu Lake. There is relatively little industrial, commercial, agricultural, or residential activity along its banks and the vast majority of the river's 1400 square mile watershed lies within the Umpqua National Forest.

CHECKING FOR ORGANISMS

Our drinking water is disinfected to kill any microorganisms that might be present. Additionally, because of the potential they pose for immediate illness, checking for the presence of microbiological contaminants is done on a frequent basis throughout our water distribution system.

Testing for coliform bacteria is the primary measure used to confirm the microbial quality of drinking water. Although coliforms themselves do not pose a health threat, they are a good indicator of whether other potentially harmful bacteria might be present. During the year 2024, a total of 120 samples were collected from 29 sampling points within the water distribution system and analyzed for coliform bacteria. None were found to contain coliforms.

DISINFECTION BY-PRODUCTS

Harmful compounds can be formed from reactions between chlorine and organic material. Chlorination is carefully monitored to keep these by-products to a minimum while insuring that disinfection is achieved. Trihalomethanes and Haloacetic acids are the regulated disinfection by-products found in our water.

CHLORINE RESIDUAL

Although there are a variety of methods by which water can be disinfected, some chlorination is utilized by most water systems, including ours. This allows some of the chlorine to remain in the water, providing protection all the way to the customer's tap. Regulations specify that the average chlorine residual levels in the distribution system can be no more than 4.0 ppm. Our residuals are typically below 1.00 ppm as the water leaves the treatment plant.

RADIOACTIVE CONTAMINATES

As they deteriorate, certain minerals give off radiant energy in various forms. This can be released from the ground and from water that has been exposed to these substances. These contaminants can occur naturally or can result from oil and gas production and mining activities.

TESTING THE WATER

As water passes over the land, it dissolves naturally occurring minerals and may pick up substances related to human activity or the presence of animals. This may include microbial organisms such as viruses and bacteria, inorganic substances such as minerals and salts, pesticides and herbicides, organic chemicals such as petroleum products and radioactive substances. All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of contaminants in drinking water does not necessarily indicate that the water poses a health risk.

The Environmental Protection Agency (EPA) establishes drinking water standards based on possible health effects that could result from exposure to a wide variety of substances, along with specific testing schedules for these substances. The Food and Drug Administration establishes comparable regulations for bottled water. Of the approximately 120 substances we test for, most have never been found in our water. Our water consistently surpasses the compliance limits by a wide margin. 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.

LEAD AND COPPER

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

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. UBWA is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact UBWA at 541-672- 5559. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure are available at <http://www.epa.gov/safewater/lead>.

LEAD AND COPPER SERVICE LINE INVENTORY

In October of 2024, UBWA completed the initial Lead Service Line Inventory in accordance with EPA's revised Lead and Copper Rule. The 2021 Revised Lead and Copper Rule requires that all Oregon state public water systems develop a complete inventory of all service line materials, including both public and private segments. UBWA is committed to complying with the EPA's efforts to reduce exposure to lead through drinking water.

The Oregon Health Authority has concluded that service lines installed after 1985 are considered non-lead, since this is when the lead ban was enacted in Oregon. Per Oregon policy, if a water system has no current or historical records or knowledge of public lead service line use, a private galvanized line is classified as non-lead.

Based on statistical guidance from Oregon Health Authority, UBWA physically inspected 742 private drinking water service lines throughout our system to get a random, yet representative sample of service lines built prior to 1986. UBWA found zero lead service lines in these inspections.

Statistically, remaining non-inspected service lines are likely made with a non-lead material, with a 95% confidence level. Lead is not introduced through the treatment processes UBWA uses to keep your drinking water safe. For additional information on the health effects of lead, please visit the Environmental Protection Agency's website: www.epa.gov/lead.

Unregulated Contaminant Monitoring Data UCMR 5

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this data is available. Please reach out to UBWA if you are interested in the results.

TURBIDITY

The Nephelometric Turbidity Unit (NTU) is a measure of the clarity of the water. One of the most important ways to measure how well a treatment process is performing is by turbidity analysis. Turbidity has no health effects, however, high turbidity could interfere with the disinfection process and provide a medium for bacterial growth. The standard for turbidity is 0.3 NTU. Turbidity in excess of 5 NTU's is just noticeable to the average person. Umpqua Basin Water Association's finished water had an average turbidity of 0.014NTU in 2024 and never exceeded 0.019 NTU.

SPECIAL HEALTH CONCERNS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or with other immune system disorders, some elderly people, and some 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 their risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline 800-426-4791. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Contaminants do not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline 1-800-426-4791.

JANUARY 1, 2024 to DECEMBER 31, 2024 WATER QUALITY TEST RESULTS-PRIMARY STANDARDS

| Variable | MCL | MCLG | Maximum Reported Value | Range | Complies? | Typical Source |
|---|--|--|--|--------------------|-----------|--|
| Turbidity (Finished Water) | TT=95% of sample <0.5 NTU | N/A | 0.019NTU | 0.014- 0.019NTU | YES | Soil runoff & stream sediment |
| Total Trihalomethanes | 80 ppb | 0 ppb | 27.9 ppb | 23.5 - 27.9 ppb | YES | By-product of disinfection process |
| Haloacetic Acids | 60 ppb | 0 ppb | 25.0 ppb | 18.3 - 25.0 ppb | YES | By-product of disinfection process |
| Chlorine Residual | 4.0 ppm (MRDL) | 4.0 ppm (MRDLG) | 1.44ppm | 0.65 ppm - 1.44ppm | YES | Treatment additive for disinfection |
| Microbiological Analysis | Coliform may be present in 5% of monthly samples | Coliform may be present in 5% of monthly samples | 0% | 0% of 120 Samples | YES | Naturally present in the environment |
| 2022 Nitrite | 1ppm | 1 ppm | ND | N/A | YES | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits. |
| 2024 Nitrate | 10 ppm | 10 ppm | 0.16 ppm | 0-0.16 ppm | YES | Runoff from agricultural activity. |
| 2019 Arsenic | .010 ppm | 0 ppm | .0011ppm | N/A | YES | Erosion of natural deposits; runoff from orchards, glass and or production waste. |
| 2018 Radium 226/228 | 4.42 pCi/L | 0 pCi/L | 0 pCi/L | N/A | YES | Erosion of natural deposits |
| 2022 Asbestos | 7.0 MFL | 7.0 MFL | ND | N/A | YES | Decay of asbestos cement water mains; Erosion of natural deposits |
| 2024 Lead | Action level-90 th percentile=15ppb | Action level-90 th percentile=15ppb | Rnd 1 90 th percentile 3 ppb Rnd 2 90 th percentile 6 ppb | 3 - 6 ppb | YES | Household pipes & plumbing. Erosion of natural deposits. |
| 2023 Copper | Action Level-90 th percentile=1.30ppm | Action Level-90 th percentile=1.30ppm | Rnd 1 90 th percentile .113 ppm Rnd 2 90 th percentile .045 ppm | .045 - 0.1113 ppm | YES | Household pipes & plumbing. Leaching from wood preservatives. |
| 2022 Synthetic Organic Chemicals | Varies | Varies | ND | Varies | YES | By-products from industrial processes and petroleum products |
| 2024 Volatile Organic Chemicals | Varies | Varies | ND | Varies | YES | By-products from industrial processes and petroleum products |

GLOSSARY OF ACRONYMS AND DEFINITIONS

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

Hardness - An indication of the amount of dissolved minerals in water. The EPA uses the following scale: less than 75 ppm=soft; 75-150 ppm=moderately hard; 150-300 pm=hard; over 300 ppm=very hard; Umpqua Basin Water Association's water is considered moderately soft.

Maximum Contaminants Level (MCL) – 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.

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.

Millions Fibers Per Liter (MF).

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

ND– Not Detected at or above the MRL (minimum reporting limit)

Pico curies per liter (pCi/L) – A measure of radioactivity. One curie is the activity of one gram of radium. There are one trillion (1,000,000,000,000) Pico curies in one curie.

Parts per million (ppm) – One ppm equates to one milligram per liter (mg/l). One ppm corresponds to one minute in two years or one penny in \$10,000.

Parts per billion (ppb) – One ppb equates to one microgram per liter (mcg/l). One ppb corresponds to one minute in 2000 years or one penny in \$10,000,000.

Primary Standards – Legally enforceable standards issued by the EPA. Primary standards limit the levels of specific contaminants that are allowed to be present in public drinking water.

Secondary Standards – Non-enforceable guidelines regarding contaminants that may cause cosmetic or esthetic effects in drinking water.

Saturation Index (SI) – This measure describes the corrosive property of water. Umpqua Basin Water Association's water is considered mildly aggressive.

Synthetic Organic Chemicals (SOC) – Examples include herbicides and insecticides.

Volatile Organic Chemicals (VOC) –Examples include petroleum-based chemicals, industrial by-products and dry cleaning solvents.

Total Organic Carbon (TOC) – Carbon is a precursor to disinfection by-products.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water. It may be required by the EPA or the Oregon Department of Human Services.