



Annual Drinking Water Quality Report 2002

UMPQUA BASIN WATER ASSOCIATION

4972 Garden Valley Road • Roseburg, OR 97470

You will be pleased to know that in 2002, Umpqua Basin Water Association, Inc. met all federal and state drinking water standards. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to 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***”.

Umpqua Basin Water Association is a large privately owned, non-profit rural drinking water system serving approximately 9300 people through 240 miles of pipe covering some 100 square miles north and west of Roseburg. Our 2900 service connections are composed primarily of rural residential users together with 50 commercial and public users.

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 State of Oregon. It is a high volume, fast flowing, low temperature river that originates ± 100 miles to the east in the snowfields of the Cascade Mountains. There is relatively little industrial, agricultural, or residential activity along its banks and the vast majority of the river's watershed is within the Umpqua National Forest.

Umpqua Basin Water Association has a modern full-treatment water plant located on the banks of the North Umpqua River in Garden Valley. The plant is operated by a well trained and state certified staff. The technology and expertise at this facility allows us to consistently exceed all current water quality standards efficiently. Plant production for 2002 was 375 million gallons with daily production ranging from 470 thousand gallons to 2 million gallons.

If you have any questions about this report or concerning your water utility, please contact our customer service representative at 672-5559, 8:00 a.m. to 4:30 p.m., Monday through Friday. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Board of Director meetings. They are held on the second Tuesday of the month at 12:00 noon at the Association offices, 4972 Garden Valley Rd., Roseburg. Please call prior to attending to confirm scheduling and agenda.

Drinking water, included 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 drinking water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency (EPA) “*Safe Drinking Water Hotline*” at 1-800-426-4791.

Water Quality Table

The water quality data on the following table lists the contaminants that we detected monitoring in the calendar year 2002. The presence of these contaminants in the water does not indicate that the water poses a health hazard and there were no violations of the water quality standards. Definitions of the terms and abbreviations used in the table are listed below the table.

Contaminant	MCL	MCLG	Maximum Reported Level	Range	Major Sources	Meets Regulations?
Turbidity	0.5 NTU	N/A	0.105 NTU	0.025 - 0.105 NTU	Soil Runoff & Stream Sediment	Yes
Total Trihalomethanes	80 ppb	0 ppb	33.7 ppb	28.0 – 33.7 ppb	By-products of chlorination process	Yes
Total Haloacetic Acids	60 ppb	0 ppb	45.0 ppb	13.0 – 45.0 ppb	By-products of chlorination process	Yes
Microbiological Analysis	Coliform may be present in 5% of monthly sample		0 Detected	0% of 108 samples tested positive	Naturally present in environment	Yes
Lead	Action Level – 90 th percentile 15 ppb		90 th percentile 12.9 ppb	ND – 32.0 ppb	Household pipes and plumbing	Yes
Copper	Action Level – 90 th percentile 1300 ppb		90 th percentile 337 ppb	ND – 602 ppb	Household pipes and plumbing	Yes

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

Treatment Technique (TT) – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water. A treatment technique may be required by either the EPA or the Oregon Health Department.

Maximum Contaminant Level – The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are enforceable level set as close to the MCLGs as feasible in light of the best available treatment technology.

Maximum Contaminant Level Goal – The “Goal” (MCLG) is the level of a contaminant, in drinking water, below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

Nephelometric Turbidity Unit (NTU) – Nephelometric turbidity unit is a measure of the clarity of the water. One of the most important ways to measure how well a water treatment process is performing is by turbidity analysis. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for bacterial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

The standard for turbidity is 0.50 NTU. Turbidity in excess of 5 NTU is just noticeable to the average person. Umpqua Basin Water Association’s finished water has an average turbidity of 0.037 NTU and never exceeds 0.50 NTU.

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

Parts per billion (ppb) or Micrograms per liter – One part billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Non-Detects (ND) – Laboratory analysis indicates that the constituent is not present.

Water samples – Water samples are routinely collected from different sampling stations around the system and tested in state certified labs to make sure the water is safe for your consumption. These samples must meet standards set by the Oregon Health Division (OHD) and the U.S. Environmental Protection Agency (EPA). The microbiological tests we perform analyze the water for the presence of indicator organisms called “coliform bacteria”. If the indicator organism is detected, there is a potential that other pathogenic (disease causing) organisms may be present. Umpqua Basin Water Association’s system is well protected against microbiological contamination. The water we provide contains a small amount of chlorine in it to maintain a disinfectant capability. The OHD and EOA provide guidelines on MCLs for this type of testing. The MCL for coliform bacteria is no more than one (1) coliform-positive test per month out of the nine (9) samples we take each month. Umpqua Basin Water Association does very well with this requirement, as we’ve had ZERO (0) positive samples for the past eight years.

Lead and Copper – There is no lead or copper in the Association’s water supply. However, these metals can enter the drinking water supply through corrosion within the water distribution system or household plumbing. Therefore, additional regulations were adopted in 1991 calling for supplemental testing to occur at the taps of those customers considered being at highest risk for leaching of these substances into their water. Our findings, based on several rounds of testing in June 2002, were that our water did not tend to promote significant leaching of these minerals. The 90th percentile results for lead were 12.9 ppb and copper was 337 ppb. The action level for lead is 15 ppb and copper is 1,300 ppb. We will be testing once again in June 2005.

Cryptosporidium – Cryptosporidium is a microscopic organism that is naturally present in bodies of water throughout the world. We have been voluntarily testing both source water and finished water for the presence of Cryptosporidium since 1994. We detected this constituent in seven (7) out of 30 source water samples tested and zero (0) out of 30 finished water samples tested.

Do I need to take special precautions? 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 (1-800-426-4791).

Umpqua Basin Water Association also tests finished water for both Arsenic and Nitrate, neither has been detected at reportable levels. EPA is reviewing drinking water standard for arsenic because of concerns that it may not be stringent enough. Arsenic is a naturally occurring mineral thought to cause cancer in humans at high concentrations. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age and can cause “blue baby syndrome”. Nitrate typically occurs in surface waters as a result of agricultural runoffs. Again, neither of these contaminants has been detected.

In 2002, due to a change in field personnel and the attendant duty requirements, the annual test for Nitrate was overlooked. We have subsequently done the required testing and, as in many previous years, no Nitrate was detected. We regret the oversight and have taken measures to see that it doesn’t occur again. Technically, we are in violation for chemical non-reporting in the year 2002, and are required to report the violation to our customers.

WHAT YOU SHOULD KNOW ABOUT WEST NILE VIRUS



WHAT IS WEST NILE VIRUS?

West Nile Virus (WNV) is a disease carried by mosquitoes from certain birds to people. The virus was first detected in the United States in 1999 in New York City, and by October 2002 had spread to forty-four other states.

Most people infected with WNV have a mild illness with no symptoms but the virus can cause more severe illness in older people and in people with suppressed immune systems. This serious illness is called encephalitis, which means an inflammation of the brain.

HOW DO PEOPLE GET WEST NILE VIRUS?

West Nile Virus is passed to people and animals by mosquito bites. Only certain kinds of mosquitoes carry the virus, and very few mosquitoes are actually infected. A mosquito gets the infection by feeding on a bird or a person that has the virus in their blood. The WNV lives in the mosquito and is passed on to a new host when the insect bites the next person or animal. The virus is most often passed from May to October when mosquitoes are in greatest numbers.

WHAT ARE THE SYMPTOMS OF WEST NILE VIRUS IN PEOPLE?

Most people infected with WNV do not show any symptoms at all. Those who do become ill have symptoms of headache, body aches, nausea and often a rash or swollen lymph nodes. In a few cases the infection may progress to encephalitis.

The time between infection and first symptoms is between 5 to 15 days. About one in one hundred fifty people infected with WNV will require hospital care. Those hospitalized will be mostly older people over 50 years of age. The death rate of those seriously ill is about 5%. There is no specific treatment for WNV, only prevention. Those who enter the hospital will get general care of diet and rest and have the staff and equipment nearby in case the symptoms of encephalitis develop.

WHICH ANIMALS GET WEST NILE VIRUS?

Birds

An infected mosquito can bite any animal, but only a few will get WNV. The disease infects birds, horses, and other animals as well. Wild birds are most often linked to the spread of WNV. More than 70 kinds of birds can be infected but the most severe illness is found among corvine birds. Corvine birds include crows, ravens, jays and magpies, but American crows are the birds most often found dead from WNV.

Horses

Horses also can become infected with WNV. Unlike birds, all kinds of horses seem to be equally at risk to the virus. Signs that a horse may be infected include loss of control in balance and in movement. There is a vaccine available for horses against WNV. Contact your veterinarian for additional information about WNV, the vaccine and other kinds of encephalitis that infect horses.

WEST NILE VIRUS PREVENTION AND CONTROL

Avoid outside activity at dawn and dusk during the mosquito season (May to October). This is particularly important for older people and people with suppressed immune systems.

Wear long pants and long sleeves when outside, and apply insect repellent containing Deet.

Make sure that doors and windows have tight fitting screens and do not have holes or tears in them. Kill mosquitoes that have entered your house.

Drain standing water on private property and clean up discarded cans, tires, and containers that hold water where mosquitoes may lay their eggs. If there is a pond where mosquitoes are frequently found, stock it with mosquito eating fish called Gambusia following Oregon Department of Fish & Wildlife guidelines.

Make sure that gutters on the roof are not backing up with water. Each fall and spring, clean gutters of leaves and any material that might back up water in them.

FOR INFORMATION ON WEST NILE VIRUS:

Oregon Department of Human Services

<http://www.dhs.state.or.us/publichealth/acd/wnile/index.cfm>

***Oregon West Nile Virus Toll-Free Information Line
(English and Spanish)***

1-866-703-4636 (1-866-703-INFO)

Oregon Department of Fish & Wildlife

<http://www.dfw.state.or.us/IE/IEResources.htm>

Centers for Disease Control and Prevention

<http://www.cdc.gov/ncidod/dybid/westnile/index.htm>

FOR INFORMATION ON PESTICIDE USAGE:

US Environmental Protection Agency

<http://www.epa.gov/pesticides/factsheets/skeeters.htm>

National Pesticide Information Center

<http://npic.orst.edu>

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