# ON TAP

*"Drinking Water You Can Trust"*

Vol. 16 Issue 1 March 1, 2001

## *"2000 - The Year in Review"*

2000 was an excellent year for Umpqua Basin Water Association. Our membership continued to grow with the addition of 60 new members bringing our total membership to 2750, a 2.2% growth.

Our distribution system expanded by 1067 feet with an extension of the four-inch line down Daisy Lane at a total cost of $10,500. We also expanded service into the San Souci Heights sub-division with 1580 feet of four-inch and 845 feet of six-inch pipe for a total cost of $36,580. These two projects, for a combined cost of $47,080, were paid for by the developers at no cost to the Association.

Several projects were completed that improved system performance and value by upgrading old or undersized lines. These projects included the Tabor Lane, Laurel Oaks and DuMar Acres 2 inch main line upgrades, the Donruss Road 6 inch main upgrade, the Orchard Lane and Strickland Canyon 4 inch main upgrades. These upgrades put over 5400 feet of new pipe into service and cost a total of $69,060. Your Association also completed maintenance projects on telemetry and communication systems that cost $7400.

Early planning work was started to design and build a new reservoir in Garden Valley to improve pressure zone operations and to provide critical storage capacity. Total cost of this planning was $5207.

In October work began on the Water Treatment Plant Improvement Project. This project is described in the Water Treatment Plant Facility Plan that Black & Veatch, a contract professional engineering firm, completed and delivered to the Association late in 1999. The project scope included an aluminum geodesic dome roof to replace the clearwell roof. Additionally, the piping interior to the clearwell was modified to provide better dilution of the disinfection chemical, ultra-sonic meters were set on the two lines leaving the plant for better water production accountability. Finally the project added advanced turbidity and particle counting instrumentation to improve filter performance and help us comply with new surface water treatment regulations. The 2000 year costs for this project were $176,032.

The funding for the $257,700 worth of projects completed in 2000 came from the capitol improvement and funded depreciation accounts of your Association. No borrowing or financing was required.

## *"Year 2001 Projects"*

Upcoming projects for 2001 include replacement of 2920 feet of 12 main line pipe between Old Garden Valley Road and Del Rio. The project is precipitated by widening of the county right-of-way to facilitate road improvements required by development of a sub-division on adjacent property on the west-side of Garden Valley Road. Also planned for this year is a project to place approximately 2500 feet of 12-inch pipe in a new road up to the site of a new water storage reservoir off of Old Garden Valley Road. The water tank itself will be constructed on this site in a future project. Additionally, we plan to begin work on replacing 10,500 feet of 2" mainline with a new 6" mainline serving Upper Cleveland Rapids Rd. We plan to continue to make improvements and upgrades to the distribution system to improve system performance. Some of these improvements will be for pump station and storage facilities and others will be for distribution lines and valving. In addition to the distribution system projects, we also plan to make improvements in treatment plant performance by integrating instrumentation installed during the recent plant improvement project into process control functions.

## *"Thanks to our Members"*

We wish to thank you for your excellent support and compliance with the by-laws, rules and regulations of the Association. We would also like to take this opportunity to thank you, the members, for your excellent response regarding problems in the system. Many times you are the first indication that we may have a problem. We fill out a customer service communication form every time a customer calls to report a possible leak or has a question or concern about water quality, pressure fluctuations or any other customer service request. We follow up on the communication and report back to the reporting customer with a copy of the written report of disposition of the request or concern. In 2000 we had 161 total customer service communications. Sixty-six were for leak repairs, fifty-three were for pressure problems, thirty-one were for customer service and eleven were for water quality concerns. Your questions and concerns are important to us and we will continue to follow-up on member communications and report corrective actions to the reporting members.

## *"Meter Access"*

Umpqua Basin Water Association (UBWA), from time to time, runs into problems accessing your water meter. Access to the water meter is not only important to UBWA, but it is also important for our customer. UBWA needs access to the meter service at least monthly to read it and periodically to repair it. Our customers need access to the meter service to check water usage, repair the service or shut-off the service in case of a leak.

It is the responsibility of our customers to provide UBWA access to the water meter. The most common access problems are: Tall weeds or grass, shrubbery or brush, fences, locked gates and dogs. When the meter reader encounters an access problem, he makes note of the location and type of access problem encountered and reports it to the office.

If the access problem is because of tall overgrown vegetation, a sticker is adhered to the customer's bill that reads "PLEASE CLEAR GRASS & WEEDS AROUND METER. THANKS". If in the following month, when the meter is read, the access problem still exists, a letter would be sent to the customer advising them of the problem and notifying them to clear the access within fourteen days. If after fourteen days the access problem still exists, UBWA will clear the access at the customer's expense.

The meter setting provides the member with an emergency water shut-off in the event other shut-off valves fail or are non-existent. It is in the best interest of the member and UBWA staff to maintain the meter box setting in a clean, safe and accessible condition. Your help in this regard is greatly appreciated.

# *Annual Drinking Water Quality Report*

***Umpqua Basin Water Association, Inc.***

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water we deliver to you every day. 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 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 9000 people through 220 miles of pipe covering some 100 square miles north and west of Roseburg. Our 2750 service connections are composed primarily of rural residential users together with 46 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.

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 Directors meetings. They are held on the second Tuesday of the month at 12:00 noon at the Association offices, 4972 Garden Valley Rd., Roseburg.

Umpqua Basin Water Association routinely monitors for constituents in your drinking water according to Federal and State laws. The following Water Treatment Analysis Tables show the results of our monitoring for the period of January 1$^{st}$ to December 31$^{st}$, 2000**.** In some cases, we have been allowed to test for a particular constituent less often than once a year. In those cases, the data presented in the table are from the most recent testing done in accordance with the reduced monitoring regulations. The table is a listing of all constituents tested for, the MCL's for the constituents, the test results from your water supply and the reasons for regulation.

Water quality results are often times difficult to understand, let alone interpret. Following are some definitions and examples to help clarify the results reported in the table:

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

***Langelier Index (LI)*** – A means of expressing the degree to which water will either tend to dissolve or deposit calcium carbonate. A "0" score is neutral, negative numbers indicate the degree to which the water is dissolving, and positive test results reflect the tendency to leave deposits.

***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 in $10,000.

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

***Parts per trillion (ppt) or Nanograms per liter (nanograms/l)*** - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

***Parts per quadrillion (ppq) or Picograms per liter (picograms/l)*** - One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

***Picocuries per liter (pCi/L)*** - Picocuries per liter is a measure of the radioactivity in water.

***Million Fibers per Liter (MFL)*** - Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

***Nephelometric Turbidity Unit (NTU)*** - Nephelometric turbidity unit is a measure of the clarity of 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 water has an average turbidity of 0.017 NTU and never exceeds 0.50 NTU.

***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.

***Maximum Contaminant Level*** - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are an enforceable level set as close to the MCLGs as feasible in light of the best available treatment technology and cost/benefit considerations. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

***Maximum Contaminant Level Goal*** - The "Goal"(MCLG) is the level of a contaminant, not necessarily achievable, below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

***Inorganic Contaminants*** – Inorganics are created both by man-made processes as well as naturally occurring. They get into the water supply by the run-off or leaching into the surface water sources. Umpqua Basin Water Association tests for 7 different inorganics and has found none detected in our water.

***Synthetic Organic Chemical*** - Testing for synthetic organic chemicals is a prudent way to test for any industrial or agricultural source contamination. SOCs are herbicides, insecticides and pesticides. Umpqua Basin Water Association tests for 42 different SOCs and has found none detected in our water.

***Volatile Organic Chemicals*** - Volatile organic chemicals are used in many industrial solvents. VOCs pose a possible health risk because a number of them are known to be or are probable carcinogens (cancer causing agents). Umpqua Basin Water Association tests for 37 VOCs (in addition to THMs) and have found none detected in our water.

***pH*** – The degree of acidity or alkalinity of a solution. Values between 0 and 7 indicate acidity and readings between 7 and 14 indicate alkalinity. With a value of almost 7, our finished water is essentially neutral.

***Trihalomethanes/Haloacetic Acids*** - Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are produced in the course of water treatment as by-products of the chlorination/disinfection process. Some THMs and HAAs are thought to be carcinogens at certain levels. The MCL for total THMs is 80 ppb. Umpqua Basin Water Association (UBWA) is well under the MCL with a measurement of 15 ppb. There is currently no requirement for UBWA to test for the HAAs and therefor no MCL. However, UBWA does quarterly testing to build a data base in case of future regulations.

***Hardness*** - There are no distinctly defined levels of what constitutes hard or soft water. The amount of hardness affects how easily soap will lather up. The harder the water, the less lather for a given amount of soap. Hardness is typically measured as dissolved calcium carbonate (CaCO3) with amounts above 130 ppm considered hard. Umpqua Basin Water Association's water ranges from 20 to 30 ppm and is considered moderately soft. Expressed in grains per gallon (g/gal), our water ranges from 1.2 to 1.8 g/gal of hardness.

# *"Water Quality Analyses"*

| Contaminant (units) | MCLG | MCL | Results | Major Sources in Drinking Water |
|---|---|---|---|---|
| **Oregon Secondaries (mg/L)** | | | | |
| Aluminum (ppb) | N/a | 50 to 200 | 17 | Erosion of natural deposits; Water treatment chemicals |
| Arsenic (ppb) † | N/a | 50 | ND | Natural deposits; Runoff from orchards, glass and electronic production wastes |
| Barium (ppm) † | 2 | 2 | ND | Discharge of drilling wastes; Discharge from metal refineries; Natural deposits |
| Bromate †† | N/a | n/a | ND | By-product of drinking water disinfection |
| Cadmium (ppb) † | 5 | 5 | ND | Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints |
| Calcium (ppb) †† | N/a | n/a | 6000 | Erosion of natural deposits |
| Chloride (ppb) | N/a | 250,000 | 6,000 | Erosion of natural deposits |
| Chromium (ppb) † | 100 | 100 | ND | Discharge from steel and pulp mills; Erosion of natural deposits |
| Color | N/a | 15 | ND | |
| Copper (ppb) | 1,300 | AL=1,300 | ND | Corrosion of household plumbing systems; Erosion of natural deposits |
| Fluoride (ppm) | N/a | 4 | ND | Erosion of natural deposits; Discharge for fertilizer and aluminum factories |
| Iron (ppb) | N/a | 300 | ND | Erosion of natural deposits |
| Langeliers Index (LI) | N/a | n/a | -2.6 | Non-Corrosive |
| Lead (ppb) †† | 0 | AL=15 | ND | Corrosion of household plumbing systems; Erosion of natural deposits |
| Magnesium (ppb) †† | N/a | n/a | ND | Erosion of natural deposits |
| Manganese (ppb) | N/a | 50 | ND | Erosion of natural deposits |
| Mercury [inorganic] (ppb) † | 2 | 2 | ND | Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland |
| Nitrate [as Nitrogen] (ppm) | 10 | 10 | 0.4 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| PH | N/a | 6.5 to 8.5 | 6.9 | |
| Selenium (ppb) † | 50 | 50 | ND | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines |
| Silver (ppb) | N/a | 100 | ND | Erosion of natural deposits |
| Sodium (ppb) † | N/a | n/a | 2,900 | Erosion of natural deposits |
| Sulfate (ppb) | N/a | 250,000 | ND | Erosion of natural deposits |
| Surfactants (MBAS) (ppb) | N/a | 500 | ND | Detergents and foaming agents |
| Total Alkalinity (ppm) †† | N/a | n/a | 22 | Erosion of natural deposits |
| Total Dissolved Solids (ppm) | N/a | 500 | 64 | Erosion of natural deposits |
| Total Hardness (ppm) | N/a | 250 | 26 | Erosion of natural deposits |
| Total Solids (ppm) †† | N/a | n/a | ND | Erosion of natural deposits |
| Zinc (ppm) | N/a | 5 | ND | Erosion of natural deposits |

| **Synthetic Organic Contaminates (SOC)** | | | | |
|---|---|---|---|---|
| Di(2-ethylhexyl) adipate (ppm) | N/a | 0.4 | 0.0013* | Discharge from chemical factories |
| Di(2-ethylhexyl) phthalates (ppm) | N/a | 0.006 | 0.0011* | Discharge from chemical factories |

* Presence of these chemicals is believed to have originated in the sampling line plumbing, not the source water. Additional testing for four consecutive quarters, to verify corrective action of replacing sample tap plumbing flexible line with solid copper line, is currently underway.

| **Trihalomethanes (THM)** | | | | |
|---|---|---|---|---|
| Bromodichloromethane (ppb) | N/a | n/a | 2.9 | By-product of drinking water chlorination |
| Bromoform | N/a | n/a | ND | By-product of drinking water chlorination |
| Chlorodibromomethane | N/a | n/a | ND | By-product of drinking water chlorination |
| Chloroform (ppb) | N/a | n/a | 21 | By-product of drinking water chlorination |
| Total trihalomethanes (ppb) | 0 | 80 | 23 | By-product of drinking water chlorination |

| **Haloacetic Acids (HAA)** | | | | |
|---|---|---|---|---|
| Bromoacetic Acid (ppt) | N/a | n/a | ND | By-product of drinking water chlorination |
| Bromochloroacetic Acid (ppt) | N/a | n/a | ND | By-product of drinking water chlorination |
| Chloroacetic Acid (ppt) | N/a | n/a | ND | By-product of drinking water chlorination |
| Dibromoacetic Acid (ppt) | N/a | n/a | ND | By-product of drinking water chlorination |
| Dichloroacetic Acid (ppt) | N/a | n/a | 7,000 | By-product of drinking water chlorination |
| Trichloroacetic Acid (ppt) | N/a | n/a | 7,000 | By-product of drinking water chlorination |

| **Microbiological Contaminants** | | | | |
|---|---|---|---|---|
| Total Coliform Bacteria | 0 | * | 0 | Naturally present in the environment |
| Fecal Coliform and *E. coli* | 0 | ** | 0 | Human and animal fecal waste |

* - Presence of coliform bacteria in 5% of monthly samples,

** - A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive

# *"Additional Information"*

***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 the 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 EPA 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 six 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 were that our water did not tend to promote significant leaching of these minerals. The $90^{th}$ percentile results for lead were 5.0 ppb and copper was 950 ppb. The action levels for lead is 15 ppb and copper is 1,300 ppb.

***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 four (4) out of 22 source water samples tested and zero (0) out of 22 finished water samples tested. We believe it is important for our customers to know that Cryptosporidium may cause serious illness in immuno-compromised persons such as 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. These people are encouraged to seek advice about their drinking water from their health care providers.

***What does all this mean?*** As you can see by the table, our system had no violations. We also tested this year for Volatile Organic Contaminates (VOCs). No regulated or unregulated contaminates were detected. We're proud that your drinking water consistently exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels. Umpqua Basin Water Association is committed to providing safe high quality drinking water to the nearly 9,000 people we serve. We shall continue to work hard to ensure that our customers receive *"drinking water you can trust"*.

All drinking water, including bottled water, can reasonably be expected to contain 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 Hot Line" at 1-800-426-4791.*

# *“Ways You Can Save Water Every Day”*

Clip this page and post it where you can see it to remind you how you can help conserve water.

# *"Thirty-fifth Annual Meeting"*

Umpqua Basin Water Association, Inc. will be holding its Thirty-fifth Annual Meeting at the **Riversdale Grange Hall** on Thursday evening, March 15, 2001, at 7:30 p.m. The agenda includes the election of three (3) Board Members, an update on the current status of the Association, an oral report of the recently completed Water Treatment Plant Upgrade Project, and an opportunity for questions, answers and general discussion.

Names of the nominees for the Board Member positions are posted in the office of the Association. Copies of the Annual Financial Statement will be available at the Annual Meeting or from the Association's office upon request.

***This is your Association***. Please join us for the 2001 Annual Meeting and exercise your right to vote and be heard. Light refreshments will be served.

**Umpqua Basin Water Association, Inc.**

| District | Director | Area Served | Term Expires |
|---|---|---|---|
| **1** | **John Stenbeck** | **Garden Valley West / Lower Garden Valley** | ***March 2001** |
| 2 | Dick Lewis | San Souci / Braunda / Colonial | March 2003 |
| 3 | Doyle Shaver | Lookingglass / Happy Valley | March 2003 |
| 4 | Mike Brinkley | Melrose | March 2002 |
| 5 | Don Bentz | Fisher / Garden Valley | March 2002 |
| **6** | **Frank Schuchard** | **Wilbur / College** | ***March 2001** |
| **At-Large** | **Mike Luttrell** | **Entire System** | ***March 2001** |

*** - Director positions up for election**

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