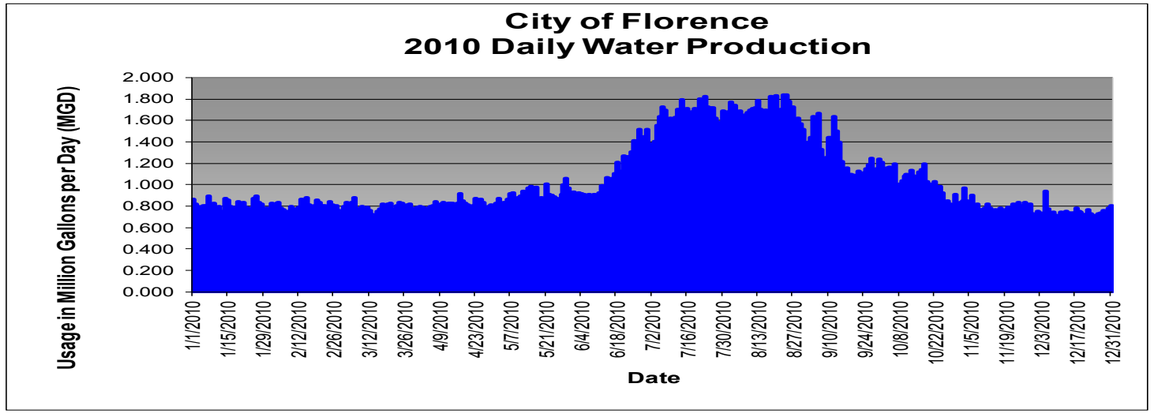
Water Treatment System - Your Dollar at Work!

Every part of the water treatment system requires daily monitoring; fine tuning; regular inspections; scheduled and preventative maintenance (as funding allows); and frequent upgrades & modifications. There are 12 groundwater wells; 9 filters (three biological and six greensand); one chlorine contact chamber; 56 motor operated valves; 8 chemical storage tanks; 23 pump & motor systems; four air handling systems, six air pressure tanks; 22 air/vacuum relief valves; 11 flow meters; 36 water level indicators; three backwash lagoons; and numerous check valves, shut off valves, flow control valves together with miles of pipeline and fittings all working to provide pure water before the first customer is served.

Photo to left is of one of our highly trained and skilled plant operators performing a repair of a malfunctioning control valve at the water treatment plant.

The photo to the left is of a section of pipe at the water treatment plant where the paint coating has failed due to age and humid conditions. The photo to the right is of the pipe gallery after receiving a coat of fresh paint.



Special Health Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice from their health care providers about their drinking water.

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. Please call their office if you have questions.

? ? ? Frequently Asked Questions ? ? ?

If water is cloudy when it comes out of the tap but then clears up, is it safe to drink? Yes, it is safe to drink. Cloudiness is usually dissolved air that is being released. The air is under pressure from the water system. When it comes out of the tap, the pressure is removed and bubbles form.

What is the water pressure at my house? Most homes receive water at a pressure of 40-80 pounds per square inch (psi), but the minimum standard is 20 psi. Low water pressure is often a symptom of restricted water flow. This is usually a build-up in older, galvanized, household plumbing.

City of Florence
2010 Water Quality Report

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Letter From the Director

Our mission is to provide you with safe, reliable, cost-effective water and outstanding customer service in an environmentally sensitive manner. This report describes the ways we fulfill our mission and demonstrates our commitment to our customers.

As a water supplier, the City of Florence is required to provide an annual Consumer Confidence Report (also know as a Water Quality Report) which informs our customers of the location of our water sources, the programs implemented to maintain the quality of the water, and the water analyses undertaken to ensure that the water delivered to you our customers is safe and of the highest quality. This report provides you with water quality data for the calendar year starting from January 1, 2010 to December 31, 2010.

Although this report is suppose to cover the 2010 calendar year, the March 11, 2011 tsunami and nuclear power plant disaster has been a topic of discussion here on the west coast. The latest information regarding radiation from the tsunami damaged nuclear power reactors in Japan indicate there are no health threats anywhere on US land from radiation. There are 100 EPA monitoring sites in the US and the EPA has added additional sites in Alaska, Guam and Hawaii since the March 2011 Japan tsunami. The good news is that there have been no detections made in Oregon.

Beginning July 1, 2011, the City of Florence will be raising it's water and stormwater rates. For the typical residential customer using 1,000 cubic feet of water, the total utility bill increase is $6.94 per month or 8.9%. Even with the water rate increase, Florence's tap water is an excellent value. While the cost of water varies depending on the amount you use, a reasonable average is less then a half-cent per gallon. Compare this to some other common beverages you may purchase:

Bottled iced tea: 16 oz. for $1.19 = $9.52 per gallon
Premium bottled water: 16 oz. for $1.59 = $12.72 per gallon
Fresh Oregon milk: 64 oz. for $1.59 = $3.18 per gallon
Blended Canadian whiskey: 59.3 oz. for $30 = $64.76 per gallon
Oregon mircobrewed beer: 6 12-oz bottles for $7.59 = $13.49 per gallon
City of Florence tap water (average*): 748 gallons for $3.47 = $0.0046 per gallon

Best of all, unlike the other products listed above, Florence tap water is delivered directly to your home.

The City is committed to providing outreach programs to spread the message regarding the value of water and ways to conserve it. I invite you to read this report and welcome comments. If you have any questions regarding water quality, please call us at 541-997-4106.

Sincerely,

Mike Miller
Public Works Director

* The average rate for a single-family home using 1,000 cubic feet or 7480 gallons per month: $15.47 base fee, 1,000 units at $0.0182 and $1 well rehab fee. Actual cost varies based on amount of water used.

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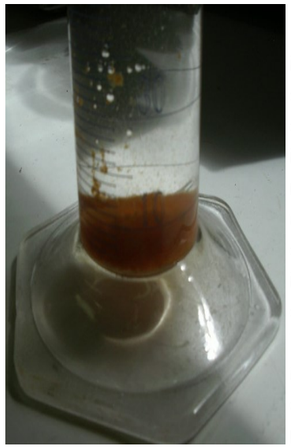
The City of Florence is proud of the high quality of our water supply, which meets or exceeds all state and federal water quality requirements. If you have any questions regarding your water quality or about information presented in this report, please call us at the Water Treatment Plant 541-997-7370 or the Public Works Department 541-997-4106 or visit our website at www.ci.florence.or.us. This report contains important information about your community's water system. Have it translated or speak to a friend that understands it well. Este informe contiene information muy importante. Traduscalo o hable con un amigo quien lo entienda bien.

Issued June 2011

Did You Know.....

In 2010, the City of Florence supplied water to approximately 8,466 consumers within the city's water service area (new population figure from 2010 US Census). The water these customers received came from 12 dunal wells located just north of the City's water treatment plant at 2450 Willow Street. The well field is city owned and consists of approximately 80 acres of carefully managed land as recommended in the City's well head protection plan.



The City of Florence water system uses two filter systems in a series to remove the iron from the raw groundwater. Three biological filters and six greensand filters comprise our filter system and these filters can treat up to three (3) million gallons of water per day (3 mgd). The City's supply of raw groundwater contains dissolved iron in the range of 6-9 parts per million (ppm) before treatment. The water treatment plant, located at 24th and Willow oxidizes and removes all but 0.01 ppm through the treatment process. As water flows through the treatment plant, 90% of the iron is removed through the use of biological oxidation and filtration. Air is injected into the water to increase the level of dissolved oxygen and the naturally occurring iron bacteria assist in oxidation through various metabolic processes. The sand filters then separate the oxidized iron and bacteria from the water. The filtered water is then chlorinated to chemically oxidize the water and kill any residue bacteria, then potassium permanganate is added to the chlorinated water providing additional oxidation before the final filtration with greensand and anthracite coal. The color and odor of the water is removed with the iron and the final product is cool, wet, colorless, odorless and tastes great!

For more information, or to arrange a tour of the facility, please contact Dan Graber, PE at the Water Treatment Plant, phone 541–997-7370.

Lead in Drinking Water

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 Florence 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, 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 Website at http://www.epa.gov/safewater/lead.

Drinking Water Fluoridation

The City of Florence has been adding fluoride to its water service since the early 1960's. The purpose of fluoridating the City's drinking water is to improve dental health for consumers of Florence water. According to the U. S. Center for Disease Control (CDC) and the U.S. Department of Health and Human Services, widespread use of fluoride has been a major factor in the decline in the prevalence and severity of tooth decay in the United States. When used appropriately, fluoride is both safe and effective in preventing tooth decay.[1]

[1] MMWR published by the Epidemiology Program Office, CDC and U.S. Department of Health and Human Services

Water Quality Testing

Ongoing water quality testing continues to be one of the highest priorities for the City's drinking water program in its commitment to provide premium and safe drinking water to residents. The City collects nine microbiological samples per month in addition to samples required by the Oregon Health Department and the Environmental Protection Agency to ensure that the city's drinking water meets state and federal standards.

Our Test Findings

The City of Florence routinely checks, as required by the EPA, 42 Volatile Organic Compounds, 42 Synthetic Organic Chemicals and 16 Inorganic Chemicals. The City also takes nine Bacterial Samples at multiple locations throughout the City every month. The charts below show the results of our most recent testing. In addition, the City tested 24 homes in representative areas throughout the City for lead and copper. We are pleased to report that none of the homes exceeded the Action Levels as determined by the EPA. For those citizens concerned about sodium levels, currently the sodium level in our water is 32.1 mg/L.

Drinking water, including bottled water, may be reasonably 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 EPA's Safe Drinking Water Hotline 1-800-426-4791 or by visiting their web site at www.epa.gov/ow.

Inorganics and Bacteria						
Parameter	**Units**	**Goal MCLG**	**Allowed MCL**	**Detected in the City's Water**	**Complies with State**	**Major Sources**
Fluoride	ppm	4	4	0.70	Yes	Water additive which promotes strong teeth; erosion of natural deposits
Nitrate	ppm	10	10	0	Yes	Erosion of natural deposits
Nitrite	ppm	1	1	0	Yes	Erosion of natural deposits
Total Coliform	No units	0	0	0	Yes	Naturally present in the environment
By-Products of Drinking Water Chlorination						
Total Trihalomethanes	ppb	n/a	80	25.3	Yes	By-product of Chlorination

Lead and Copper Sampling						
Parameter	**Units**	**Goal MCLG**	**Allowed MCL—or Action Level**	**90th Percentile**	**Complies with State**	**Major Sources**
Copper	ppm	1.3	1.3	ND	Yes	Corrosion of household plumbing
Lead	ppb	0	15.0	ND	Yes	Corrosion of household plumbing

* Based on 90% of homes tested being at or lower than the reporting limit. For lead and copper, a water supply is in compliance with the drinking water standards if 90% of the samples are less than or equal to the Action Level.

Definitions

ND: None Detected

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

Maximum Contaminant 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.

Parts per Million (ppm) and Parts per Billion (ppb): with increasing technology, contaminants can be detected in extremely small quantities. A part per million (ppm) means that one part of a particular contaminant is present for every million (1,000,000) parts of water. Similarly, parts per billion (ppb) indicate the amount of a contaminant per billion (1,000,000,000) parts of water.