

ANNUAL
WATER
QUALITY
REPORT

Water testing performed in 2006

Proudly Presented By:

CITY OF MOSCOW
WATER DEPARTMENT



PWS ID#: 2290023

When Should I Water My Lawn?

Watering in the early morning, before 10 a.m., will save water and be more efficient. This will minimize the loss of water and ensure that the highest portion of the water is available to the plants. Watering in the evening is thought to increase the possibility of disease and is less efficient; more evaporation is likely. The city irrigation ordinance requires that watering occur after 6 p.m. and before 10 a.m. To water your lawn efficiently, it is necessary to apply the water evenly. One deep watering that fully penetrates the root zone is better than several shallower waterings. The Moscow Water Department will be happy to assist you and conduct a free irrigation audit. Please contact Tom Luther at 892-8624 to schedule your audit. The results of the audit will assist you in saving money and in using water more efficiently.

Fluoride

In 1944 a New York dentist, Doctor David Ast, began a 10 year study of fluoridation and the effectiveness of fluoridated drinking water in preventing tooth decay. Ast called for adding fluoride to New York City's water, which was finally done in 1965. Dr. Ast died February 3rd of this year at the age of 104.

Moscow has naturally occurring fluoride in the water we pump from below the Palouse. These fluoride levels are different for each well and range from 0.42 ppm to 1.4 ppm. Well waters are mixed in the distribution system as tanks fill and release water back to the customers tap. The maximum contaminant level (MCL) for fluoride is 4.0 mg/l. Most dentists recommend fluoride levels of 1.0 ppm. For more information on fluoride consult your family dentist about additional fluoride treatment that your children may need.

Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2006. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

For more information about this report, or for any questions relating to your drinking water, please call one of the following people:

Utility Operations Supervisor David Richardson — (208) 883-7108

Chief Operator Gary Smith — (208) 883-7109

Water Manager Tom Scallorn — (208) 883-7106

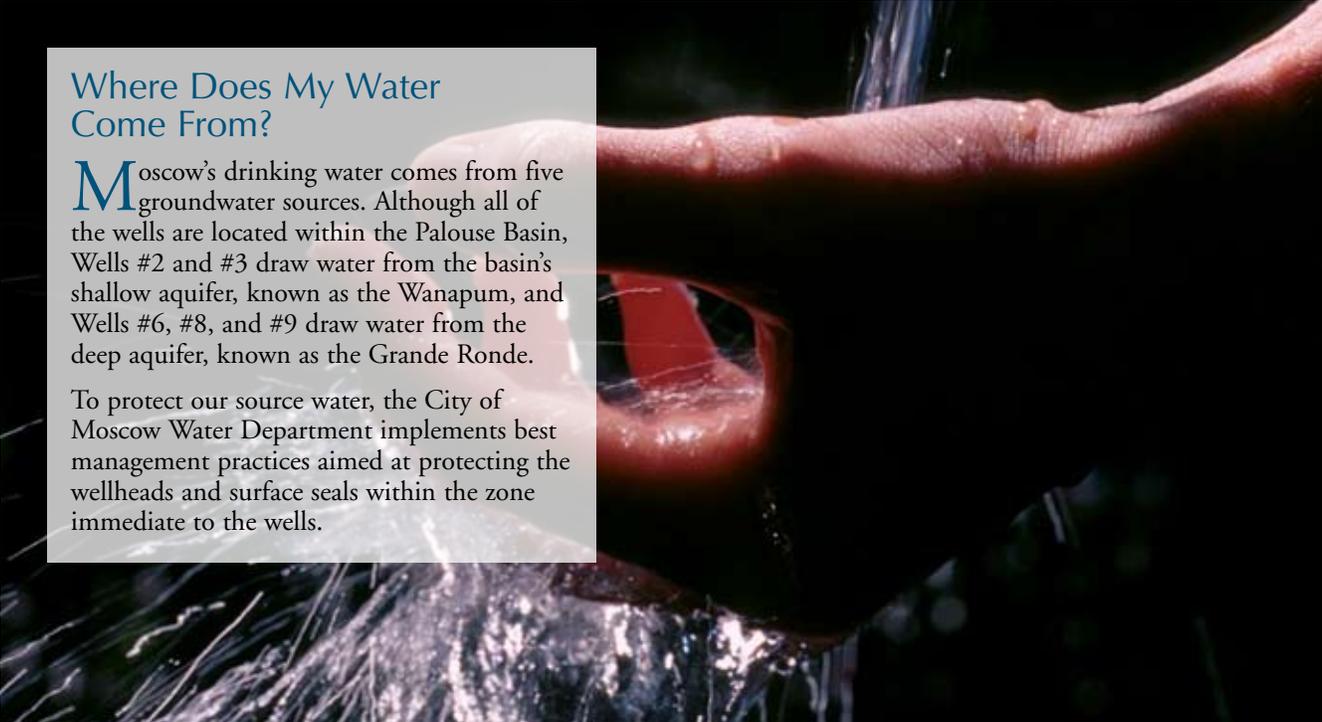
Public Works Director Les MacDonald — (208) 883-7028

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

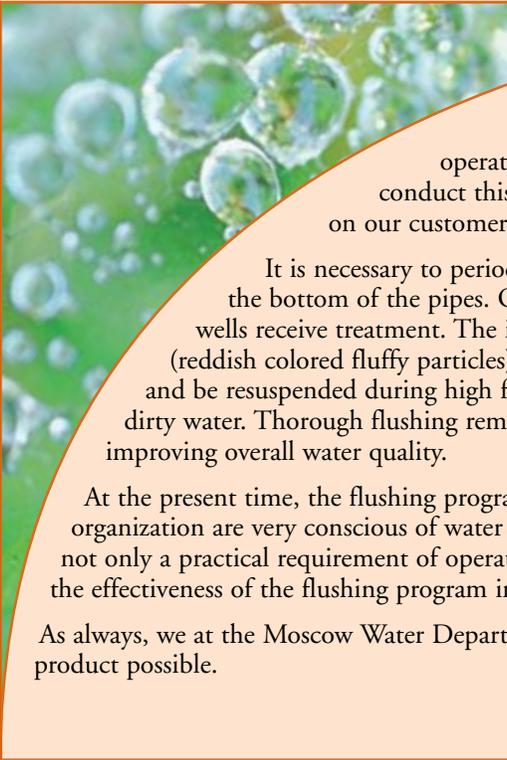




Where Does My Water Come From?

Moscow's drinking water comes from five groundwater sources. Although all of the wells are located within the Palouse Basin, Wells #2 and #3 draw water from the basin's shallow aquifer, known as the Wanapum, and Wells #6, #8, and #9 draw water from the deep aquifer, known as the Grande Ronde.

To protect our source water, the City of Moscow Water Department implements best management practices aimed at protecting the wellheads and surface seals within the zone immediate to the wells.



Hydrant Flushing

The Moscow Water Department has implemented a hydrant flushing program as a normal part of its operation and maintenance function. The Water Department has elected to conduct this flushing from 10:00 p.m. to 6:00 a.m. in order to lessen the impact on our customers.

It is necessary to periodically flush the water distribution system to remove sediment from the bottom of the pipes. Our available well water is high in iron and manganese, and not all wells receive treatment. The iron and manganese reacts with the added chlorine to create a floc (reddish colored fluffy particles) that will settle in the piping system during normal flow conditions and be resuspended during high flow periods. This resuspended floc, or sediment, results in red or dirty water. Thorough flushing removes the majority of this sediment from the piping systems, thereby improving overall water quality.

At the present time, the flushing program is scheduled to be done in the spring and again in the fall. We as an organization are very conscious of water conservation and make every attempt to conserve; however, flushing is not only a practical requirement of operating a water utility but also a regulatory one. We will closely monitor the effectiveness of the flushing program in an effort to minimize the amount of water used as much as possible.

As always, we at the Moscow Water Department strive to supply you, our customers, with the highest quality product possible.

Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water 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, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Are You Aware of What a Cross-Connection Is?

The public water supply can become contaminated by accident through unprotected connections to the water system. These potentially hazardous connections are called cross-connections. A cross-connection is any actual or potential physical connection between a water supply line and any pipe, vessel or machine that contains or could contain hazardous fluids, solids or gases. A cross-connection incident can occur when the pressure in the public water supply drops because of water main breaks or heavy demand (fire), causing contaminants to be siphoned from equipment or from contaminated piping systems; this is called backsiphonage. Backpressure caused by pressure exceeding the supply pressure can also force contamination into the system, causing a cross-connection incident.

A potentially hazardous cross-connection that could affect the health of a family or community occurs every time an outdoor water hook-up is used without a backflow prevention device. Contaminants such as fertilizer, insecticides or herbicides commonly used in garden sprayers can be drawn into your water supply or the public water supply if a backflow incident should occur. Residential irrigation systems that are not properly protected are another potential source of contamination. Community water systems are at risk from unprotected residential connections as well as from commercial applications. Appropriate backflow protection is achieved by using backflow prevention assemblies and devices that are matched to the degree of hazard.

The protection of Moscow's water supply is of critical importance to both the City of Moscow and its citizens. For more information or if you have any questions about possible cross-connections, please contact Tod Gosselin at tgosselin@ci.moscow.id.us or by calling 883-7111.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2002	15	0	2.52	0.5–4.8	No	Erosion of natural deposits
Beta/Photon Emitters ¹ (pCi/L)	2002	50	0	4.12	3.0–5.6	No	Decay of natural and man-made deposits
Fluoride (ppm)	2002	4	4	0.76	0.4–1.3	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
TTHMs [Total Trihalomethanes] (ppb)	2006	80	NA	1.6	NA	No	By-product of drinking water chlorination

Tap water samples were collected from 30 sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2006	1.3	1.3	0.4	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2006	15	0	6	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

¹The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

Table Definitions

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

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal):

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

Source Water Assessment

A Source Water Assessment for the Wells used in the City of Moscow to provide your drinking water was done in 2001. City Wells 2 and 3 are in the shallower aquifer called the Wanapum and produce about 30% of our water. City Wells 6, 8 and 9 are in the deeper aquifer and supply about 70% of our water. A copy of the assessment which identifies the relative susceptibility to possible contamination is available upon request. Samples collected from Moscow's wells have never found the presence of contamination that exceeds the allowed levels, yet occasionally trace amounts of a few contaminants may be detected.

For further information you may contact the Moscow Water Department at (208) 882-3122 or the Department of Environmental Quality at (208) 799-4370.