

ANNUAL WATER QUALITY REPORT

Water testing performed in 2008



CITY OF MOSCOW, IDAHO



PWS ID#: 2290023

Meeting the Challenge

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2008. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

Irrigation Audits

The City of Moscow will be offering free irrigation audits again this year. The audits collect and present information concerning the uniformity of application, precipitation rate, and general condition of an irrigation system and its components. We are there to give you information and direction about your system and ways to conserve water. For a complete audit, your system needs to be functioning at its best with all heads adjusted properly and have timers working. For information, check out the Irrigation Association Web site, www.irrigation.org, under consumer's information. There is a lot of good information on how to hire a contractor, and your Bill of Rights in regards to irrigation contractors. Please contact Tom Luther, CLIA, or Nichole Baker, Conservation Specialist, at (208) 882-3122.

Substances That Could Be in 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 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.

Important Health Information

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 Moscow 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 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 Hotline or at www.epa.gov/safewater/lead.

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.



Source Water Assessment

A Source Water Assessment for the City of Moscow was completed in 2001. The assessment determined that Wells #2 and #3 have overall high susceptibility risk ratings, while Wells #6, #8, and #9 have lower susceptibility scores than Wells #2 and #3. A copy of the Source Water Assessment can be obtained from the State of Idaho Department of Environmental Quality (DEQ). The City of Moscow has never had a sample exceed the Maximum Contaminant Level (MCL) from any of the identified sources for possible contamination. For more information, contact the DEQ at (208) 799-4370.

Questions?

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

Chief Operator Gary Smith – (208) 883-7109

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

Water Manager Tom Scallorn – (208) 883-7106

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

Q & A

flush the hose before drinking or filling your pets' drinking containers. There are hoses made with "food-grade" plastic that will not contaminate the water. Check your local hardware store for this type of hose.

What makes water Hard?

If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be hard. Hard water dissolves soap readily, so making lather for washing and cleaning is difficult. Conversely, water containing little calcium or magnesium is called soft water.

What's growing in my pet's water bowl?

Dog and cat owners often notice the appearance of black or pink growths in their pet's water bowl. These growths come from various types of mold in the air—not the water. Similar growths can also be found on showerheads and shower curtains. Wash your pet's water bowl frequently and be sure to have plenty of fresh water available at all times.

Is it safe to drink water from a garden hose?

Substances used in vinyl garden hoses to keep them flexible can get into the water as it passes through the hose. These chemicals are not good for you nor are they good for your pets. Allow the water to run for a short time in order to



Do you know someone in our community that is making an effort to save water through efficient landscaping? If so, now is the time to nominate innovative landscaping for the Moscow Wisescape Award. This program has been initiated to recognize those individuals, households, businesses, public buildings, or anyone in Moscow that sets a great example for aesthetics and resource conservation. Entries, due September 15, will be selected for recognition on one or more of the following:

Design: Is it aesthetically pleasing? Does it limit traditional turf? Does it use efficient irrigation?

Reduction of resources: Does it save water and require less mowing? Is there a reduction of yard waste? Reduced labor, pesticides, and fertilizer use?

Soil: Are soil enhancements, such as compost and mulches, used?

Plant selection: Are the plants suitably selected and placed within the landscape?

Nominees must be Moscow residents, must follow Moscow water ordinances and resolutions, and may be self-nominated or nominated by someone else. The Mayor will select those that inspire others through their Wisescape landscaping. For a nomination form and questions, please contact the Water Department at 883-7114 or at 201 North Main St. You may also go to the Wisescape Web site at www.ci.moscow.id.us/pw/WaterConservation/Wisescape.asp to print out a nomination form.

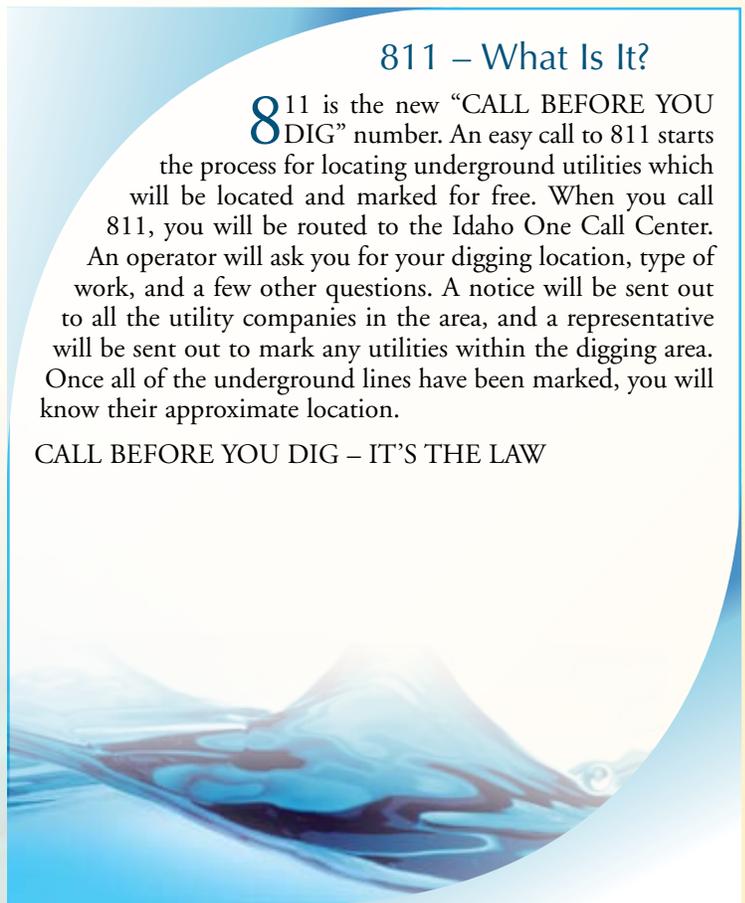
Lead and Copper Sampling

The City of Moscow will be performing lead and copper sampling during the summer of 2009 as required. Out of a pool of 60 preselected homes, a total of 30 homes will be chosen to be sampled. Results from the 2009 sampling will be sent to each homeowner according to a new government requirement and will be included in the 2009 Water Quality Report that will be published in 2010.

811 – What Is It?

811 is the new "CALL BEFORE YOU DIG" number. An easy call to 811 starts the process for locating underground utilities which will be located and marked for free. When you call 811, you will be routed to the Idaho One Call Center. An operator will ask you for your digging location, type of work, and a few other questions. A notice will be sent out to all the utility companies in the area, and a representative will be sent out to mark any utilities within the digging area. Once all of the underground lines have been marked, you will know their approximate location.

CALL BEFORE YOU DIG – IT'S THE LAW



“WELL-INFORMED CUSTOMERS
ARE OUR BEST ALLIES.”

Fun Water Facts

Water acts as a natural insulator to regulate the earth's temperature.

- One inch of rainfall drops 7,000 gallons, or nearly 30 tons of water, on a 60 feet x 180 feet piece of land.
- The record of consecutive days with no measurable precipitation is 352 days, in Sentinel, AZ (February 1901–January 1902).
- The world's rainiest place is Mt. Wai'ale'ale, Kauai, Hawaii. During an average year, there are only 15 dry days.
- The water in Lake Tahoe could cover a flat area the size of California 14 inches deep. This amount of water is enough to supply everyone in the United States with 50 gallons of water per day for five years.
- Nevada is the driest state in the nation, with an average annual rainfall of only about seven inches.
- The average daily production of treated water in the United States is about 40 billion gallons.
- About 300 billion gallons of water a day are used untreated for agriculture and commercial purposes.
- If every household in America had a faucet that dripped once each second, 928 million gallons of water a day would leak away.
- It takes 300 million gallons of water to produce a single day's supply of newsprint in the United States.
- 2,072 gallons of water are used to make four new car tires.
- The United States consumes water at twice the rate of other industrialized nations.



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)	2008	80	NA	2.43	NA	No	By-product of drinking water chlorination

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2006	1.3	1.3	0.04	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2006	15	0	6	0/30	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.

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).

