Annual Drinking Water Quality Report

CITY OF MEDICAL LAKE

June 24, 2011

The City of Medical Lake is pleased to announce that the water provided to you meets or exceeds all federal and state requirements for safe drinking water. The following is our 2010 Annual Water Quality Report. The City wants to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water.

The City's water is drawn from four deep wells. Three of our wells are located Northwest of Medical Lake, near Espanola. Two of these wells, located at the intersection of Hallett Road and Ladd Road, are approximately 440 feet deep. The water that comes from these two wells is produced, treated and stored by the Department of Social and Health Services, Consolidated Support Services. The third well, which is located on Lehn Road, is 964 feet deep and is owned and operated by the City of Medical Lake. The fourth well is located at Craig Road and State Route 902 and is 1400 feet deep. This well is also owned and operated by the City of Medical Lake. The water from the Craig well and the Lehn well is produced, treated and stored by the City of Medical Lake. Our water is drawn from two aquifers, the Wanapum and the Grande Ronde.

Spokane County Water District #10 (aka Four Lakes Water District #10) has an 8" water main intertie between the Four Lakes Craig Road well site and the City of Medical Lake Craig Road well site which was installed in 2006. Four Lakes applied for and received an Emergency Drought Grant to construct an Emergency Drought Intertie with the City of Medical Lake. This Intertie can send water, in an emergency, either direction. City of Medical Lake also has an intertie with Spokane County Water District # 16 (aka Strathview Water District # 16). The intertie is a wholesale water supply connection.

The City of Medical Lake was also successful in lowering its Craig Road Well pump by 140 feet in the summer of 2006 and in doing so can now pump approximately 700 GPM from it compared to 550 GPM prior to lowering the pump.

The Department of Social Health Services, Consolidated Support Services branch completed a Six Year Water Plan in 2007 that is available from their office in Medical Lake. The plan provides more information such as potential sources of contamination. The City of Medical Lake completed a Six Year Water Plan in April 2008 and is available at 124 South Lefevre Street, Medical Lake, WA. Copies of both reports are also available from the Washington State Department of Health at 16201 East Indiana Avenue, Suite 1500, Spokane Valley, WA 99216-2830.

Questions regarding this report may be directed to either Doug Ross, Public Works Director / City Administrator at 565-5050 or Daniel Dorshorst, P. W. Maintenance Supervisor at 299-7715**.** We want our valued customers to be informed about their water utility. To learn more about City Business, please attend any of our regularly scheduled City of Medical Lake Council Meetings, held upstairs in the City Hall council chambers on the first and third Tuesdays of each month at 6:30 PM**.** You may also visit our city web site at www.medical-lake.org .

The City of Medical Lake routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2010. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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

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.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

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. Turbidity in excess of 5 NTU is just noticeable to the average person.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain condition.

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

Treatment Technique (TT) - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - (mandatory language) The “Maximum Allowed” (MCL) is 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 - (mandatory language) The “Goal”(MCLG) is 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.

Maximan Residual Disinfectant Level Goal (MRDLG) - (mandatory language) 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 disifectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL) - 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.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria 73 samples collected and tested. (City of M.L.) 36 samples collected and Tested. (DSHS-CSS) 12 samples collected and tested. (SCWD#16) - Strathview	N			0	5% of Monthly samples are positive	Naturally present in the environment
3. Turbidity 2009 (DSHS-CSS) (SO 4 - Wells 1&2) 2007 (City of ML) (SO 6 - Well 3) 2010 (City of ML) (SO 5 - Well 4)	N	 0.30 0.96 ND	NTU	n/a	TT	Soil runoff
Radioactive Contaminants						
GrossBeta 2003 (City of ML) (S0 5 - Well 4)	N	 ND	Pci/l	0	50	Decay of natural and man-made deposits
4. GrossAlpha 2003(City of ML) (SO 5 - Well 4) 2010(City of ML) (SO 6 – Well 3) 2009 (DSHS-CSS) (SO 4 - Wells 1&2)	N	 1.88 ND 1.59	PCi/1	0	15	Erosion of natural deposits
136. Radium 228 2008 (City of ML) (SO 6 - Well 3) 2008 (City of ML) (SO 5 - Well 4) 2009 (DSHS - CSS} (SO 4 - Wells 1&2)	N	 0.67 1.01 1.05	PCi/l	0	5	Erosion of natural deposits
6. Radon (City of ML)12-14-99	N	 235±25	PCi/1	0	300	Erosion of natural deposits
Inorganic Contaminants						

Fluoride 2003 (DSHS-CSS) (SO 4 - Wells 1&2) 2007 (City of ML) (SO 6 - Well 3) 2010 (City of ML) (SO 5 - Well 4)	N	 0.49 0.541 0.227	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (as Nitrogen) 2010 (DSHS-CSS) (SO 4 - Wells 1&2) 2010 (City of ML) (SO 6 - Well 3) 2010 (City of ML) (SO5 - Well 4)	N	 <0.5 ND 1.44	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Copper 2009 (DSHS-CSS) (SO 4 - Wells 1&2) 2007 (City of ML) (SO 6 - Well 3) 2010 (City of ML) (SO 5 - Well 4)	N	 <0.002 ND 0.00127	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead 2009 (DSHS-CSS) (SO 4 - Wells 1&2) 2007 (City of ML) (SO 6 - Well 3) 2010 (City of ML) (SO 5 - Well 4)	N	 <0.002 ND ND	ppb	0	AL= 15ppb	Corrosion of household plumbing systems; Erosion of natural deposits.
Chlorine City of Medical Lake Spokane County Water District # 16 - Strathview	N	 .395 (0.0-.79) .37 (.20-.55)	ppm	MRDLG = 4	MRDL = 4	Water additive used to control microbes.
Synthetic Organic Contaminants including Pesticides and Herbicides						

All SOC's Craig Well (So5) 8-15-06 Lehn Well (So6) 8-15-06	N	 ND ND				
Volatile Organic Contaminants						
Haloaccectic Acids (HAA) Well 1+2 (So4) (118 W. Hancock Street) 2010 Well 4 (So5) (1040 E. Stanley Drive) 2010 Well 3 (So6) (524 S. Hallett Street) 2010 Well #4 (So5) (10915 S. Granite View Lane) S. C. W. D. # 16 - Strathview 2010	N	 ND ND ND ND	ppb	n/a	60	By-product of drinking water chlorination
TTHM [Total trihalomethanes) Well 1+2 (So4) (118 W. Hancock Street) 2010 (DSHS-CSS) Well 4 (So5) (1040 E. Stanley Drive) 2010 (City of ML) Well 3 (So6) (524 S. Hallett Street) 2010 (City of ML) Well 4 (So5) (10915 S. Granite View Lane) S. C. W. D. # 16 - Strathview 2010 Lehn Well - (So6) 2007 Craig Well - (So5) 2010	N	 6.60 6.12 6.53 8.77 2.0 1.32	ppb	n/a	100	By-product of drinking water chlorination

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

We constantly monitor the water supply for various constituents. We have detected radon in the finished water supply in four out of four samples tested. The Environmental Protection Agency (EPA) has been working on the development of a regulation for radon since 1983 and formally proposed a standard in 1991. The EPA reproposed the standard in August of 1999 and systems will need to be in compliance by August 2003.

Water systems participating in a multimedia mitigation program will have until February 2005 to comply. Exposure to air transmitted radon over a long period of time may cause adverse health effects.

The predominant health effect of concern for the radon regulation is lung cancer as a result of radon released from the drinking water into indoor air. Statistics by the National Academy of Sciences implicate cigarette smoking as the cause of the vast majority of lung cancers. These statistics indicate also that radon in indoor air from all sources causes approximately 12% of lung cancers (mostly among smokers); and radon in indoor air attributable to drinking water causes approximately 0.1 % of lung cancers (again mostly among smokers). Nonetheless, there is technical and scientific evidence indicating that drinking water with high levels of radon constitutes a health threat.

Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.

We are proud that your drinking water meets or 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.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 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 the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Water Use Efficiency Rule - In 2003 the Washington State Legislature passed the Municipal Water Law, which directed the Department of Health (DOH) to adopt a rule that establishes water use efficiency (WUE) requirements for all municipal water suppliers. The water use efficiency rule will help conserve water for the environment and future generations as well as enhance public health by improving water system efficiency and reliability.

The Water Use Efficiency Rule requires the following: Meter all wells (production and service) and interties; The collection of all consumption and production data; Inclusion of a WUE Plan in the Six Year Water Plan; Set WUE goals through a public meeting process: Submission of annual performance reports; and meet a 10% leakage standard. The City has complied with these requirements to date, and will continue to work on full compliance. We have included a separate report on where we are at and where we are going in regards to our Water Use Efficiency Program.

The City of Medical Lake would like to thank you for being a responsible and courteous water customer in allowing us to continue providing you with clean quality water. In order to maintain a safe and dependable water supply, the City from time to time needs to make improvements and repairs that will benefit all of our customers. These improvements and repairs are sometimes reflected as rate structure adjustments. The City of Medical Lake would like to thank you for your patience and understanding.