FORT LEONARD WOOD DRINKING WATER QUALITY REPORT 2004

Under the Consumer Confidence Reporting Rule of the Safe Drinking Water Act, community water systems are required to annually report water quality information to the public. This report provides information on the sources of drinking water and presents results of water quality monitoring performed in 2004.

DRINKING WATER INFORMATION

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. It can also pick up substances resulting from animal or human activity.

Classes of contaminants that could be present include:

- Microbial: Such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic: Such as salts and metals that can be naturally-occurring or the result of stormwater runoff, industrial or domestic wastewater discharges, oil or gas production, mining, or farming. Some naturally occurring salts and metals could be radioactive.
- Organic: Include volatile and synthetic chemicals that are by-products of industrial processes or petroleum production. They can also come from gas stations, urban stormwater runoff, and septic systems.

HEALTH INFORMATION

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 United States Environmental Protection Agency's (U.S. EPA's) Safe Drinking Water Hotline (1-800-426-4791).

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. Guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants in drinking water are available from the EPA's Safe Drinking Water Hotline and the Center for Disease Control (CDC).

For more information on Fort Leonard Wood's drinking water, contact the Chief of Environment, Energy and Natural Resources at (573) 596-0882 or visit the Environmental Directorate's website at:

http://www.wood.army.mil/DPWENV/

SOURCE AND TREATMENT

Fort Leonard Wood's drinking water is a blend of river and well water. Over ninety-seven percent of the water is from the Big Piney River. Before being distributed, this water is treated to comply with drinking water quality standards at the Fort's water treatment plant. At the plant, this water is first treated by chemical coagulation and sedimentation to lower the concentration of suspended solids and naturally occurring metals. The water is then filtered; fluoridated, to help prevention of tooth decay; and disinfected with chlorine.

The remaining water is pumped from the Potosi Dolomite aquifer over one thousand feet underground. Due to its purity, this water is not treated to remove suspended solids, as with the river water. However, it is chlorinated before being blended with the treated river water.

MONITORING RESULTS

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the amount of certain contaminants. Fort Leonard Wood routinely monitors for these potential contaminants to demonstrate drinking water safety. Over the past year, more than eleven thousand tests were completed for contaminants and included both regulated and unregulated contaminants.

Regulated contaminants are those which have safe levels assigned to them by the U.S. EPA or Missouri Department of Natural Resources.

Unregulated contaminants do not have prescribed safety levels, but are monitored to ensure that treatment is effective by adequately responding to ever changing environmental conditions. Testing targeted:

- Two types of microbes;
- Thirty-one metals;
- Eight pesticides and herbicides; and
- Fifty-nine volatile organic compounds.

A summary of highest positive results from all of the tests is included in the following table.

Fort Leonard Wood has not had a drinking water violation during the past eight years of publishing this report, including 2004. Your drinking water meets or surpasses all standards of quality and safety established by the U.S. EPA and the Missouri Department of Natural Resources.

Interested parties are invited to visit Fort Leonard Wood's Environmental Division's web page where the 2004 Drinking Water Quality Report has been posted, see the "Safe Drinking Water Reports" link.

FORT LEONARD WOOD DETECTED DRINKING WATER CONTAMINANTS - 2004*

REGULATED CONTAMINANTS						
Inorganic	**MCL**	**MCLG**	**Peak**	**Range**	**Violation**	**Typical Source**
Alpha Emitters (2002)	15	0	1.0	1.0	No	Decay of natural and man-made deposits.
Barium	2	2	0.03	0.03	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride	4	4	1.1	0.65 – 1.1	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate	10	10	0.62	0.62	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion from natural deposits.
Volatile Organic	**MCL**	**MCLG**	**Average**	**Range**	**Violation**	**Typical Source**
HAA	60	---	29	24 – 34	No	Disinfection by-product.
TTHM	80	---	29	29 – 30	No	Disinfection by-product.
Physical Property	**MCL**	**MCLG**	**Peak**	**Measurements below MCL (%)**	**Violation**	**Typical Source**
Turbidity	3	3	1.8	100	No	Soil erosion can cause water in the Big Piney to become cloudy. Monitoring ensures the effectiveness of filtration.
HOUSEHOLD SAMPLING						
Inorganic	**MCL**	**MCGL**	**Average**	**Number of Samples Exceeding MCL**	**Violation**	**Typical Source**
Copper	1.3	1.3	0.04	0	No	Corrosion of household plumbing systems; erosion of natural deposits; and leaching from wood preservatives.
Lead	15	0	0.001	0	No	Corrosion of household plumbing systems; erosion of natural deposits.
UNREGULATED CONTAMINANTS						
Inorganic	**SS**		**Peak**	**Range**		**Typical Source**
Aluminum	5		7	7		Natural dissolution from minerals in bedrock; water treatment; industrial and agricultural activities.
Sulfate	2		0.11	0.11		Natural dissolution from minerals in bedrock; industrial and agricultural activities.
Chloride	25		0.74	0.74		Natural dissolution from minerals in bedrock; industrial and agricultural activities.

* If monitored less than annually, year that monitoring was completed is included in parenthesis, i.e. (2001).

Definitions:

HAA: ***Haloacetic acids***, chlorinated and/or brominated organic compounds resulting as by-products of disinfecting treatment.

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 below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

SS: ***Secondary Standard***, contaminant levels below which would not affect the taste, odor, color, staining of water, and/or scale-forming tendencies of the water.

TTHM: ***Total Trihalomethanes***, chlorinated methane (organic) compounds resulting as by-products of disinfecting treatment.