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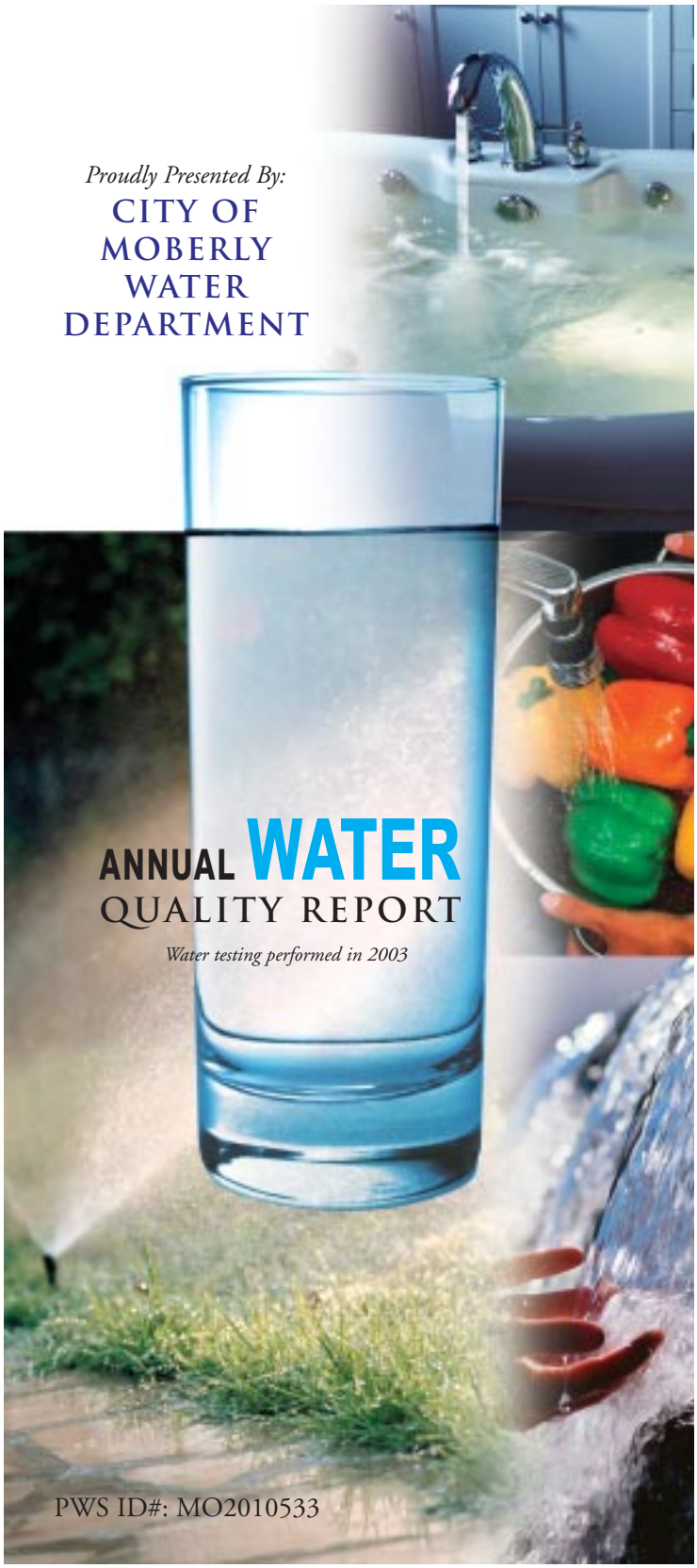
CITY OF MOBERLY WATER DEPARTMENT



ANNUAL WATER QUALITY REPORT

Water testing performed in 2003

PWS ID#: MO2010533

Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2003. 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 Mary West, Director of Public Utilities, at (660) 269-8705, ext. 2046.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the first and third Monday of each month beginning at 7 p.m. at City Hall, 101 W. Reed Street, Moberly, MO.

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.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but also can save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html.

Where Does My Water Come From?

The City of Moberly's water treatment plant draws water from Sugar Creek Reservoir, which is approximately a 365-acre lake. The Moberly Water Treatment Plant was constructed in 1972. Our treatment facilities provide roughly 620 million gallons of clean drinking water every year.

How Is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an upflow basin, where chemicals are added. The addition of these substances causes small particles to adhere to one another (called "floc") making them heavy enough to settle into a basin from which sediment is removed. Chlorine is then added for disinfection. Fluoride is added to prevent tooth decay. At this point, the water is filtered through layers of silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, the water is pumped to sanitized underground reservoirs, water towers, and into your home or business.

Water System of the Year

The City of Moberly was recognized by the Missouri Rural Water Association as Water System of the Year for 2003. The City was selected from several systems nominated after an evaluation team interviewed city staff, City Manager Collins, and Mayor Lawrence Rucker. A walk-through of the filter plant was also conducted. This is a very competitive award, with only a point or two difference between all of the systems. The City has been very busy improving its water system and daily operations. It was an honor to be recognized for our efforts.

Is It Safe to Drink Water from a Garden Hose?

No. 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 flush the hose before drinking or filling your pets' drinking containers. Hoses made with food-grade plastic will not contaminate the water. Check your local hardware store for this type of hose.

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 can acquire 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.

Lead in Drinking Water

Lead is a naturally occurring element in our environment. Consequently, our water supply is expected to contain small, undetectable amounts of lead. However, most of the lead in household water usually comes from the plumbing in your own home, not from the local water supply. The U.S. EPA estimates that more than 40 million U.S. residents use water that can contain lead in excess of the U.S. EPA's Action Level of 15 ppb.

Lead in drinking water is a concern because young children, infants and fetuses appear to be particularly vulnerable to lead poisoning. A dose that would have little effect on an adult can have a big effect on a small body. On average, it is estimated that lead in drinking water contributes between 10% and 20% of the total lead exposure in young children.

All kinds of water, however, may have high levels of lead. We maintain our drinking water supply at an optimum pH and mineral content level to help prevent corrosion in your home's pipes. To reduce lead levels in your drinking water you should flush your cold-water pipes by running the water until it becomes as cold as it will get (anywhere from five seconds to two minutes or longer) and use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.

For more information, please contact the National Lead Information Center at (800) LEAD-FYI and the Safe Drinking Water Hotline at (800) 426-4791.

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 requires 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 (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2003	2	2	0.042	0.042-0.042	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	2003	4	4	1.00	0.88-1.12	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)[1]	2003	60	NA	46	16.4-79.8	No	By-product of drinking water disinfection
Nitrate (ppm)	2003	10	10	0.36	0.36-0.36	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (ppm)	2003	TT	NA	2.8	2.46-3.61	No	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)[2]	2003	80	NA	49.5	22.4-103	No	By-product of drinking water disinfection
Turbidity (NTU)[3]	2003	TT	NA	0.25	0.04-0.25	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 30 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH %TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2001	1.3	1.3	0.136	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2001	15	0	8.6	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

SECONDARY SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2003	200	NA	56.5	56.5-56.5	No	Erosion of natural deposits

UCMR *We have been monitoring for unregulated contaminants under the Unregulated Contaminant Monitoring Rule (UCMR). The information obtained from this sampling will help the U.S. EPA determine the occurrence of these contaminants and whether or not they need to be regulated. You may request a summary of the UCMR results by contacting the water department.*

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE (LOW-HIGH)	TYPICAL SOURCE
Bromochloroacetic Acid (ppb)	2003	3.79	ND-7.26	By-product of drinking water disinfection
Bromodichloroacetic Acid (ppb)	2003	3.3	ND-5.97	By-product of drinking water disinfection
Bromodichloromethane (ppb)	2003	7.34	4.67-11.1	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2003	0.99	0.6-1.2	By-product of drinking water disinfection
Chloroform (ppb)	2003	39.6	15.8-90.5	By-product of drinking water disinfection
Dichloroacetic Acid (ppb)	2003	23.9	16.4-42.7	By-product of drinking water disinfection
Monochloroacetic Acid (ppb)	2003	1.21	ND-7.96	By-product of drinking water disinfection
Sulfate (ppm)	2003	41.6	41.6-41.6	Naturally occurring
Trichloroacetic Acid (ppb)	2003	20.96	ND-33.1	By-product of drinking water disinfection

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. Secondary MCLs (SMCL) are set to protect the odor, taste and appearance of drinking water.

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.

NA: Not applicable

ND: Not detected

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

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).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

[1] Haloacetic acid levels are measured at several sites in the city. The Maximum Contaminant Level (MCL) is a calculated figure based on an average of all samples aken in the city over the last 12-month period. One sample may exceed the MCL of 60 ppb, and the city is still in compliance. However, we make every attempt to stay under the 60 ppb at each sample point every month.

[2] Trihalomethane levels are measured at several sites in the city. The Maximum Contaminant Level (MCL) is a calculated figure based on an average of all samples taken in the city, over the last 12-month period. One sample may exceed the MCL of 80 ppb, and the city is still in compliance. However, we make every attempt to stay under the 80 ppb at each sample point every month.

[3] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.