

For immediate release
January 7, 2011

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Fluoride in Omaha Drinking Water

The U.S. Department of Health and Human Services (HHS) and the U.S. Environmental Protection Agency (USEPA) distributed a press release January 7 regarding new scientific assessments related to community water fluoridation.

Key elements include:

- HHS is proposing that the recommended level of fluoride in drinking water can be set at the lowest end of the current optimal range (0.7 parts per million) to prevent tooth decay.
- EPA is initiating review of the maximum amount of fluoride allowed in drinking water.

Metropolitan Utilities District customers voted May 14, 1968 to authorize M.U.D. to add fluoride to the drinking water.

There is about 0.5 part per million (or milligrams per liter) in our water naturally. The District adds another 0.5 so the total is about 1.0 ppm.

One part per million is 1,000 parts per billion and corresponds to 1 minute in 2 years or 1 penny in \$10 thousand.

In 2008, the Nebraska Unicameral passed LB 245 which requires all Nebraska cities and towns with populations over 1,000 to add fluoride to public water systems.

M.U.D. will consult with the State of Nebraska Department of Health & Human Services regarding any adjustments to fluoride in its treatment process.

See more information about Omaha's drinking water quality in the 2009 water quality report at <http://www.mudomaha.com/water/water.quality.report.html>.

On the following pages:

- Basic information about fluoride and answers to common questions from the U.S. Environmental Protection Agency.
- U.S. Health Department and U.S. Environmental Protection Agency news release.
- American Dental Association statement.
- M.U.D. water quality report, 2009.

Basic Information about Fluoride in Drinking Water

(from U.S. Department of Environmental Protection Agency)

Maximum Contaminant Level (MCL) = 4 milligrams per Liter (mg/L) or 4 parts per million (ppm)

Maximum Contaminant Level Goal (MCLG) = 4 mg/L or 4 ppm

One part per million is 1,000 parts per billion and corresponds to 1 minute in 2 years or 1 penny in \$10 thousand.

EPA regulates fluoride in drinking water to protect public health. Fluoride may cause health problems if present in public or private water supplies in amounts greater than the drinking water standard set by EPA.

Health Effects

Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease (including pain and tenderness of the bones); children may get mottled teeth.

Sources of Contamination

Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories

EPA regulates fluoride in drinking water to protect public health. Fluoride may cause health problems if present in public or private water supplies in amounts greater than the drinking water standard set by EPA.

What is fluoride?

Fluoride compounds are salts that form when the element, fluorine, combines with minerals in soil or rocks.

Uses for fluoride.

Many communities add fluoride to their drinking water to promote dental health.

What are fluoride's health effects?

Exposure to excessive consumption of fluoride over a lifetime may lead to increased likelihood of bone fractures in adults, and may result in effects on bone leading to pain and tenderness. Children aged 8 years and younger exposed to excessive amounts of fluoride have an increased chance of developing pits in the tooth enamel, along with a range of cosmetic effects to teeth.

This health effects language is not intended to catalog all possible health effects for fluoride. Rather, it is intended to inform consumers of some of the possible health effects associated with fluoride in drinking water.

What are EPA's drinking water regulations for fluoride?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur. These non-enforceable health goals, based solely on possible health risks and exposure over a lifetime with an adequate margin of safety, are called maximum contaminant level goals (MCLG). Contaminants are any physical, chemical, biological or radiological substances or matter in water.

The MCLG for fluoride is 4.0 mg/L or 4.0 ppm. EPA has set this level of protection based on the best available science to prevent potential health problems. EPA has set an enforceable regulation for fluoride, called a maximum contaminant level (MCL), at 4.0 mg/L or 4.0 ppm.

MCLs are set as close to the health goals as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies. In this case, the MCL equals the MCLG, because analytical methods or treatment technology do not pose any limitation.

EPA has also set a secondary standard (SMCL) for fluoride at 2.0 mg/L or 2.0 ppm. Secondary standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water.

EPA recommends secondary standards to water systems but does not require systems to comply. However, states may choose to adopt them as enforceable standards. Tooth discoloration and/or pitting is caused by excess fluoride exposures during the formative period prior to eruption of the teeth in children. The secondary standard of 2.0 mg/L is intended as a guideline for an upper bound level in areas which have high levels of naturally occurring fluoride. The level of the SMCL was set based upon a balancing of the beneficial effects of protection from tooth decay and the undesirable effects of excessive exposures leading to discoloration.

Fluoride is voluntarily added to some drinking water systems as a public health measure for reducing the incidence of cavities among the treated population. The decision to fluoridate a water supply is made by the State or local municipality, and is not mandated by EPA or any other Federal entity.

The Centers for Disease Control and Prevention (CDC) provides recommendations about the optimal levels of fluoride in drinking water in order to prevent tooth decay. Information about CDC's recommendations can be found at: <http://www.cdc.gov/fluoridation/>

States may set more stringent drinking water MCLGs and MCLs for fluoride than EPA.

The drinking water standards are currently under review. The Safe Drinking Water Act requires EPA to periodically review the national primary drinking water regulation for each contaminant and revise the regulation, if appropriate. In 2003 and as part of the first Six Year Review, EPA reviewed the drinking water standard for fluoride and found that new health and exposure data were available on orally ingested fluoride.

EPA requested that the National Research Council (NRC) of the National Academies of Science (NAS) conduct a review of this data and in 2006, the NRC published their evaluation in a report entitled, Fluoride in Drinking Water: A Scientific Review of EPA's Standards. The NRC recommended that EPA update its fluoride risk assessment to include new data on health risks and better estimates of total exposure.

In March 2010 and as part of the second Six Year Review, the Agency indicated that the Office of Water was in the process of developing its health and exposure assessments to address the NRC's recommendations. The Agency finalized the risk and exposure assessments for fluoride in January 2011 and announced its intent to review the drinking water regulations for fluoride to determine whether revisions are appropriate.

How does fluoride get into my drinking water?

Some fluoride compounds, such as sodium fluoride and fluorosilicates, dissolve easily into ground water as it moves through gaps and pore spaces between rocks. Most water supplies contain some naturally occurring fluoride. Fluoride also enters drinking water in discharge from fertilizer or aluminum factories. Also, many communities add fluoride to their drinking water to promote dental health.

A federal law called the Emergency Planning and Community Right to Know Act (EPCRA) requires facilities in certain industries, which manufacture, process, or use significant amounts of toxic chemicals, to report annually on their releases of these chemicals. For more information on the uses and releases of chemicals in your state, contact the Community Right-to-Know Hotline: 800.424.9346.

EPA's Toxics Release Inventory (TRI) website provides information about the types and amounts of toxic chemicals that are released each year to the air, water, and land.

How will I know if fluoride is in my drinking water?

When routine monitoring indicates that fluoride levels are above the MCL, your water supplier must take steps to reduce the amount of fluoride so that it is below that level. Water suppliers must notify their customers as soon as practical, but no later than 30 days after the system learns of the violation. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

If your water comes from a household or private well, check with your health department or local water systems that use ground water for information on contaminants of concern in your area.

For more information on wells, go to EPA's website on private wells.

How will fluoride be removed from my drinking water?

The following treatment method(s) have proven to be effective for removing fluoride to below 4.0 mg/L or 4.0 ppm: distillation or reverse osmosis.

How do I learn more about my drinking water?

EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect the supply of safe drinking water and upgrade the community water system. Your water bill or telephone book's government listings are a good starting point for local information.

Contact your water utility. EPA requires all community water systems to prepare and deliver an annual consumer confidence report (CCR) (sometimes called a water quality report) for their customers by July 1 of each year. If your water provider is not a community water system, or if you have a private water supply, request a copy from a nearby community water system.

The CCR summarizes information regarding sources used (i.e., rivers, lakes, reservoirs, or aquifers), detected contaminants, compliance and educational information.

Find an answer or ask a question about drinking water contaminants on EPA's Question and Answer website or call EPA's Safe Drinking Water Hotline at (800) 426-4791

Secondary Drinking Water Regulations: Guidance for Nuisance Chemicals

Other Federal Departments and Agencies: Centers for Disease Control and Prevention, Community Water Fluoridation

FOR IMMEDIATE RELEASE

Friday, January 7, 2011

Contact: OASH ashmedia@hhs.gov 202-205-0143

EPA isa.jalil@epa.gov or 202-564-3226

HHS and EPA announce new scientific assessments and actions on fluoride

WASHINGTON – The U.S. Department of Health and Human Services (HHS) and the U.S. Environmental Protection Agency (EPA) today announce important steps to ensure standards and guidelines on fluoride in drinking water continue to protect the American people while promoting good dental health, especially in children. HHS is proposing that the recommended level of fluoride in drinking water can be set at the lowest end of the current optimal range to prevent tooth decay, and EPA is initiating review of the maximum amount of fluoride allowed in drinking water.

These actions will maximize the health benefits of water fluoridation to Americans by continuing to prevent tooth decay while reducing the possibility of children receiving too much fluoride.

“One of water fluoridation’s biggest advantages is that it benefits all residents of a community—at home, work, school, or play,” said HHS Assistant Secretary for Health Howard K. Koh, MD, MPH. “And fluoridation’s effectiveness in preventing tooth decay is not limited to children, but extends throughout life, resulting in improved oral health.”

“Today both HHS and EPA are making announcements on fluoride based on the most up to date scientific data,” said EPA Assistant Administrator for the Office of Water, Peter Silva. “EPA’s new analysis will help us make sure that people benefit from tooth decay prevention while at the same time avoiding the unwanted health effects from too much fluoride.”

HHS and EPA reached an understanding of the latest science on fluoride and its effect on tooth decay prevention and the development of dental fluorosis that may occur with excess fluoride consumption during the tooth forming years, age 8 and younger. Dental fluorosis in the United States appears mostly in the very mild or mild form – as barely visible lacy white markings or spots on the enamel. The severe form of dental fluorosis, with staining and pitting of the tooth surface, is rare in the United States.

There are several reasons for the changes seen over time, including that Americans have access to more sources of fluoride than they did when water fluoridation was first introduced in the United States in the 1940s. Water is now one of several sources of fluoride. Other common sources include dental products such as toothpaste and mouth rinses, prescription fluoride supplements, and fluoride applied by dental professionals. Water fluoridation and fluoride toothpaste are largely responsible for the significant decline in tooth decay in the U.S. over the past several decades. The Centers for Disease Control and Prevention named the fluoridation of drinking water one of the ten great public health achievements of the 20th century.

HHS’ proposed recommendation of 0.7 milligrams of fluoride per liter of water replaces the current recommended range of 0.7 to 1.2 milligrams. This updated recommendation is based on recent EPA and HHS scientific assessments to balance the benefits of preventing tooth decay while limiting any unwanted health effects. These scientific assessments will also guide EPA in making a determination of whether to lower the maximum amount of fluoride allowed in drinking water, which is set to prevent adverse health effects.

The new EPA assessments of fluoride were undertaken in response to findings of the National Academies of Science (NAS). At EPA’s request, in 2006 NAS reviewed new data on fluoride and issued a report recommending that EPA update its health and exposure assessments to take into account bone and dental effects and to consider all sources of fluoride. In addition to EPA’s new assessments and the NAS report, HHS also considered current levels of tooth decay and dental fluorosis and fluid consumption across the United States.

The notice of the proposed recommendation will be published in the Federal Register soon and HHS will accept comments from the public and stakeholders on the proposed recommendation for 30 days at CWFcomments@cdc.gov. HHS is expecting to publish final guidance for community water fluoridation by spring 2011.

You may view a prepublication version of the proposed recommendation at http://www.hhs.gov/news/press/2011pres/01/pre_pub_fm_fluoride.html. Comments regarding the EPA documents, Fluoride: Dose-Response Analysis For Non-cancer Effects and Fluoride: Exposure and Relative Source Contribution Analysis should be sent to EPA at FluorideScience@epa.gov. The documents can be found at http://water.epa.gov/action/advisories/drinking/fluoride_index.cfm

For more information about community water fluoridation, as well as information for health care providers and individuals on how to prevent tooth decay and reduce the chance of children developing dental fluorosis, visit <http://www.cdc.gov/fluoridation>. For information about the national drinking water regulations for fluoride, visit: <http://water.epa.gov/drink/contaminants/basicinformation/fluoride.cfm>

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ADA Applauds HHS Action on Recommended Fluoride Level in Drinking Water

WASHINGTON, Jan. 7, 2011 /PRNewswire-USNewswire/ -- The American Dental Association (ADA) today commended the Federal agencies responsible for public health and safety for recalibrating the ratio of fluoride to water that they consider optimal based on scientific evaluation and the full appreciation of fluoride received from all sources.

As a science-based organization, the ADA supports the Department of Health and Human Services' recommendation to set the level for optimally fluoridated water at 0.7 parts per million. This adjustment will provide an effective level of fluoride to reduce the incidence of tooth decay while minimizing the rate of fluorosis in the general population.

“This is a superb example of a government agency fulfilling its mission to protect and enhance the health of the American people,” said ADA President Dr. Raymond F. Gist, DDS. “We have always looked to the federal health agencies to guide us on this and other public health matters, and we will continue to do so. We applaud the Department of Health and Human Services for reaffirming the safety and efficacy of optimal community water fluoridation, with science on their side.”

The ADA will continue working with federal and state governments and other stakeholders to educate people about the health benefits of optimally fluoridated drinking water. The Association strongly urges communities that already are doing so to continue fluoridating water at the levels the government recommends as safe and optimal. Communities among the minority that still do not already optimally fluoridate their municipal water systems now should act on the government's reaffirmation and, more than ever, do so. People who live in non-fluoridated communities should talk to their dentists about other ways to enjoy the health benefits of fluoride, such as supplements or topical applications.

“Dentistry has succeeded in preventing disease better than any other area of health care,” said Dr. Gist. “Water fluoridation is one of our most potent weapons in disease prevention, and we want as many people as possible to have the benefits of this simple, safe, inexpensive and proven health care measure.

“The ADA has long advocated for all Americans to have the best possible oral health. The recommended levels for optimal fluoridation may be reduced, but the health benefits of fluoridation remain. The only real, known health risk is the dramatic increased levels of disease that are likely to afflict people without access to optimally fluoridated water.”

About the American Dental Association

The not-for-profit ADA is the nation's largest dental association, representing more than 157,000 dentist members. The premier source of oral health information, the ADA has advocated for the public's health and promoted the art and science of dentistry since 1859.

The ADA's state-of-the-art research facilities develop and test dental products and materials that have advanced the practice of dentistry and made the patient experience more positive.

For more information about the ADA, visit the Association's website at www.ada.org.



2009 Report

Water Quality

January 1-December 31, 2009

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcaolo ó hable con alguien que lo entienda bien.



Live Green. Think Blue.

Why this Report?

The Safe Drinking Water Act requires public water supply systems to send annual water quality reports to all customers, paid for by customers through water rates. For more information about our water operations, call 554.6666 or visit www.mudomaha.com.

Public Meetings

The M.U.D. Board of Directors meets at 9 a.m. the first Wednesday of every month at 1723 Harney St., Omaha. Visit our website or call 504.7147 for an agenda. Requests for special accommodations, alternative formats or sign language interpreters require a minimum of 72 hours advance notice. Call 504.7147 or TDD phone 504.7024.

M.U.D. serves 199,102 customers an average of more than 83 million gallons of water per day. As a customer of the Metropolitan Utilities District, you receive a high quality product that meets or surpasses every federal and state standard for safe drinking water.

Since we do not have the capability or resources to determine health risks of chemical compounds found in the water, we must rely on the EPA and Nebraska Health and Human Services to tell us what substances are a health risk—and if they are a health risk, what levels are safe for human consumption.

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations to limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) 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 contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health risks may be obtained by calling the EPA's Safe Drinking Water Hotline, 800.426.4791.

Source Water Assessment

The Nebraska Department of Environmental Quality (NDEQ) has completed the source water assessment which includes a wellhead protection area map, potential contaminant source inventory, vulnerability rating and source water protection information. To view the source water assessment or for more information, contact Customer Service, 402.554.6666; e-mail: customer_service@mudomaha.com.

Sources of Drinking Water

Sources of drinking water (tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Sources of M.U.D. tap water include the Missouri and Platte Rivers and the Dakota sandstone aquifer. These sources are categorized as surface water (Missouri River), groundwater under-the-direct-influence of surface water (Platte River), and groundwater. Water is pumped from intakes and wells maintained by the District.

On January 7, 2009, the District received an extension from the State of Nebraska for improvements at the Platte South Water Plant to meet groundwater under the direct influence of surface water regulations. The improvements, estimated at \$6 million, will be completed by the fall of 2010.



Protect the source — More than one million tons of hazardous waste enter the waters of our continent every year.

Treatment Process

We use chloramines in the water treatment process to kill bacteria that causes diseases like typhoid and cholera. Approximately 20 percent of water supply systems in the U.S., including Council Bluffs and Lincoln, use chloramine as a disinfection agent.

Chloramine, a mixture of chlorine and ammonia, does not dissipate through boiling or exposure to the air in open containers as rapidly as chlorine.

Chloraminated water is safe for warm-blooded animals to drink, including humans, kidney dialysis patients, pregnant women, infants, dogs, cats and birds, because their digestive systems neutralize chloramine before it reaches their bloodstreams.

Chloramine is toxic to cold-blooded animals, such as fish, reptiles, turtles and amphibians because it enters directly into their bloodstreams. Fish tank, aquarium and pond owners need to use filtration equipment or water treatment products to neutralize chloramines. These products are available at pet supply stores.

If you use a home kidney dialysis system, the water will need to be treated. Check with your equipment supplier and/or physician.

M.U.D. also adds fluoride to its treated water as directed by Omaha voter approval in May, 1968. Questions about drinking water? Call the EPA Safe Drinking Water Hotline or go to their website: <http://www.epa.gov/safewater>.



Crypto tests

We tested source and treated water for *Cryptosporidium* (Crypto) every month during 2009. We did not find Crypto in any of the raw (river) or finished (treated) water samples. Analysis was conducted by M.U.D. and Underwriters Laboratories.

Crypto, a protozoan parasite and one-celled animal, is too small to be seen without a microscope. It's common in surface waters (lakes and rivers), especially when these waters contain sewage or animal waste.

Safe Drinking Water Hotline

800.426.4791

www.epa.gov/safewater

Crypto must be ingested to cause infection. Symptoms include diarrhea, nausea and abdominal cramps. Most healthy individuals can overcome the infection within a few weeks.

We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Crypto may be spread through means other than drinking water.

Health Notes

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people—such as those with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some older adults and infants—can be particularly at risk from infections.

These people should seek advice about drinking water from their health care providers.

EPA and the Centers for Disease Control 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 (www.epa.gov/safewater).

Contaminants that may be present in source water:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water run-off, 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 storm water run-off and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also can come from gas stations, urban storm water run-off and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

M.U.D. is required to test for the following contaminants:

Acetochlor, Acetochlor ESA, Acetochlor OA, Alachlor, Alachlor ESA, Alachlor OA, Aldrin, Antimony, Arsenic, Asbestos, Atrazine, Barium, Benzene, Benzo(a)pyrene, Beryllium, Bromoform, Butachlor, Cadmium, Carbaryl, Carbofuran, Carbon Tetrachloride, Chlordane, Chloroform, Chromium, Coliform Bacteria, Copper, Cyanide.

Dalapon, Di(2-ethylhexyl)adipate, Dibromochloropropane, Dicamba, Dieldrin, Dimethoate, Dinoseb, Di(2-ethylhexyl)phthalate, Diquate, 2,4-D, Dioxin, Endothall, Endrin, Ethylene dibromide, Fluoride, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene.

o-Dichlorobenzene, Para-Dichlorobenzene, 1,2-Dichlorethane, 1,1-Dichloroethylene, Cis-1,2,-Dichloroethylene, Trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Monochlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene.

Gross Alpha (minus Uranium & Radium 226), Radium 226 plus Radium 228, Bromodichloromethane, Chlorodibromomethane.

Chlorobenzene, m-Dichlorobenzene, 1,1-Dichloropropene, 1,1-Dichloroethane, 1,1,2,1-Tetrachlorethane, 1,2,-Dichloropropane, Chloromethane, Bromomethane, 1,2,3-Trichloropropane, 1,1,1,2-Tetrachloroethane, Chloroethane, 2,2-Dichloropropane, o-Chlorotoluene, p-Chlorotoluene, Bromobenzene, 1,3-Dichloropropene.

3-Hydroxycarbofuran, Lead, Lindane, Mercury, Methomyl, Methoxychlor, Metolachlor, Metolachlor ESA, Metolachlor OA, Metribuzine, Bromochloroacetic acid, Dibromoacetic acid, Dichloroacetic acid, Monobromoacetic acid, Monochloroacetic acid, Trichloroacetic acid.

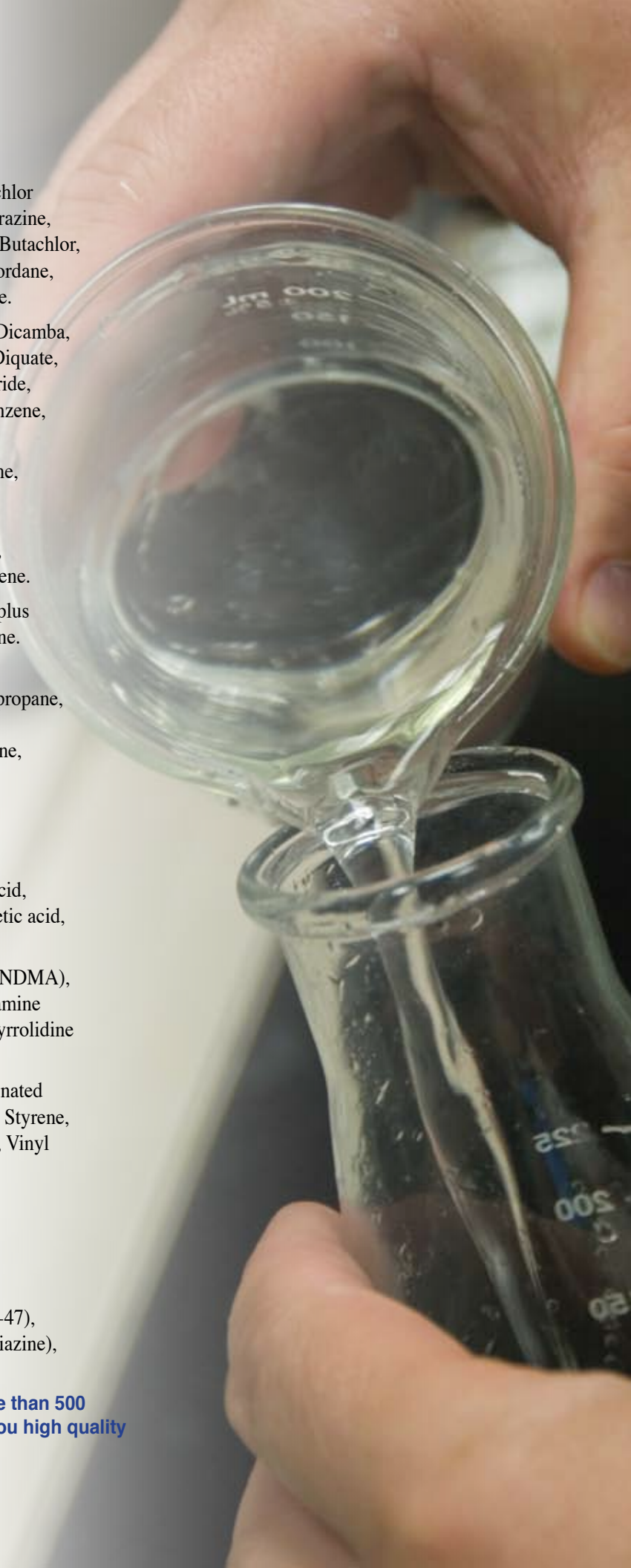
N-Nitrosodiethylamine (NDEA), N-Nitrosodimethylamine (NDMA), N-Nitrosodi-N-butylamine (NDBA), N-Nitrosodi-N-propylamine (NDPA), N-Nitrosomethylethylamine (NMEA), N-Nitrosopyrrolidine (NPYR), Nickel, Nitrate, Nitrite.

Oxamyl (Vydate), Pentachlorophenol, Picloram, Polychlorinated biphenyls, Propachlor, Selenium, Silvex, Simazine, Sodium, Styrene, Sulfate, Tetrachloroethylene, Thallium, Toluene, Toxaphene, Vinyl Chloride, Xylenes (total).

2,2',4,4',5,5'-Hexabromobiphenyl (HBB),
2,2',4,4',5,5'-Hexabromodiphenyl ether (BDE-153),
2,2',4,4',5-Pentabromodiphenyl ether (BDE-99),
2,2',4,4',6-Pentabromodiphenyl ether (BDE-100).

Terbufos-sulfone, 2,2',4,4'-Tetrabromodiphenyl ether (BDE-47),
1,3-Dinitrobenzene, RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine),
TNT (2,4,6-Trinitrotoluene).

M.U.D. conducts more than 500 tests a day to bring you high quality drinking water.



Test Results (collected in 2009, unless noted)

The State of Nebraska Health and Human Services requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than a year old.

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

MCL (Maximum Contaminant Level): The highest level of a contaminant 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.

n/a: Not applicable

NTU: Nephelometric turbidity unit and is a measure of the cloudiness of water.

ppm (parts per million): 1 part per million (or milligram per liter) and corresponds to 1 minute in 2 years or 1 penny in \$10 thousand.

ppb (parts per billion): 1 part per billion (or microgram per liter) and corresponds to 1 minute in 2,000 years or 1 penny in \$10 million.

ppt (parts per trillion): 1 part per trillion (or picogram per liter) and corresponds to 1 minute in 2 million years or 1 penny in \$10 billion.

pCi/l (picoCuries per liter): Measurement of radioactivity.

< means less than; > means more than.

**Your drinking water continues
to surpass every federal and state requirement.**

Coliform Bacteria		
Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive Total Coliform Samples in any Month
0	5% of monthly samples are positive	0 (0% of monthly samples)

Fecal Coliform or E. Coli Maximum Contaminant Level	Total Number of Positive E. Coli or Fecal Coliform Samples in 2008	Violation?	Likely Source of Contamination
Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one also is fecal coliform or E. coli positive.	0	No	Naturally present in the environment.

Lead (6.25.2007)				
MCLG	Action Level (AL)	90th Percentile	Number of Sites Over AL	Likely Source of Contamination
0	15 ppb	6.5 ppb	0	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.

Infants and young children typically are more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in your community as a result of materials used in your home's plumbing.

If you are concerned about elevated lead levels in your home's water, you may want to have your water tested. Flushing the tap for 30 seconds to 2 minutes before using your tap water will clear the line of any lead that may have leached into the water while the line was idle.



Additional information is available from the Safe Drinking Water Hotline, 800.426.4791 (www.epa.gov/safewater) or Nebraska Health & Human Services Division of Public Health, Office of Drinking Water, 402.471.2541.

Copper (6.25.2007)

MCLG	Action Level (AL)	90th Percentile	Number of Sites Over AL	Likely Source of Contamination
1.3	1.3 ppm	0.0295 ppm	0	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.

Regulated Contaminants

	Highest Level Detected	Lowest monthly percentage	Unit of Measurement	MCLG	MCL	Violation?	Likely Source of Contamination
Turbidity	0.36	99.7%	NTU	n/a	1	No	Soil run-off.

Disinfectants & Disinfectant By-Products *MCL is based on a system-wide running annual average of several samples.

	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation?	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	27.8	6.5-61.3	ppb	n/a	60*	No	By-product of drinking water chlorination.
Total Trihalomethanes (TTHMs)	55.1	20.8-101.3	ppb	n/a	80*	No	By-product of drinking water chlorination.

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

Inorganic Contaminants

Arsenic	5	<2-5.44	ppb	0	10	No	Erosion of natural deposits; run-off from orchards, electronics production wastes.
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While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known at high concentrations to cause cancer in humans and is linked to other health effects such as skin damage and circulatory problems.

Barium	0.09	0.05-0.09	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium	7.11	1.81-7.11	ppb	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits.

	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation?	Likely Source of Contamination
Fluoride	1.04	0.37-1.04	ppm	4	4	No	Erosion of natural deposits; water additive to promote strong teeth; fertilizer discharge.
Nitrate-Nitrite	1.8	0.27-1.8	ppm	10	10	No	Run-off from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium	7.88	<5.0-7.88	ppb	50	50	No	Discharge from petroleum and metal refineries; erosion of natural deposits.
Sodium (state requirement)	73	22-73	ppm	n/a	500	No	Element of the alkali metal group found in nature, soil and rocks.

Radioactive Contaminants

Gross Alpha excluding Radon and Uranium	7.3	3.3-7.3	pCi/l	0	15	No	Erosion of natural deposits.
Radium (Ra 226 + Ra 228)	0.9	0-0.9	pCi/l	0	5	No	Erosion of natural deposits.

Synthetic Organic Contaminants (including pesticides and herbicides) ****MCL is based on a running average for one year. ***Tested January 2007; not detected on subsequent confirmation tests in 2007.**

Atrazine	0.18	<0.08-0.84	ppb	3	3**	No	Run-off from herbicide used on row crops.
Dibromochloropropane (DBCP)***	10	<10-10	ppt	200	200	No	Run-off/leaching from soil fumigant used on soybeans, cotton, pineapple and orchards.
Simazine	0.10	<0.10-0.125	ppb	4	4**	No	Herbicide run-off.

Volatile Organic Contaminants ******Tested May 2007; not detected on subsequent confirmation tests in 2007. Source was not used in 2009.**

Ethylbenzene****	1.2	<0.5-1.2	ppb	700	700	No	Discharge from petroleum refineries.
Xylenes, meta****	0.004	<0.0005-0.004	ppm	10	10	No	Discharge from petroleum and chemical factories.
Xylenes, ortho****	0.0013	<0.0005-0.0013	ppm	10	10	No	Discharge from petroleum and chemical factories.

Unregulated Water Quality Data

	Average Level Detected	Range of Levels Detected	Unit of Measurement
Bromochloroacetic acid	5.9	2.8-11.0	ppb
Bromodichloromethane	11.5	5.96-21.6	ppb
Bromoform	0.65	<0.5-1.64	ppb
Chloroform	27.7	8.62-74.4	ppb
Dibromoacetic acid	1.7	0.7-3.7	ppb
Dibromochloromethane	5.3	2.03-11.0	ppb
Dichoroacetic acid	16.1	3.3-41.0	ppb
Metolachlor	0.1	<0.1-0.2	ppb
Monobromoacetic acid	2.4	<1.0-5.8	ppb
Monochloroacetic acid	2.1	<2.0-4.6	ppb
N-Nitrosodimethylamine (NDMA)	0.002	<0.0020-0.0025	ppb
Nickel	2.1	1.67-2.41	ppb
Radium-226	0.1	0-0.3	pCi/l
Radium-228	0.2	0-0.9	pCi/l
Sulfate	116	64-210	ppm
Total Organic Carbon (TOC)	3.02	2.59-3.83	ppm
Trichloroacetic acid	4.7	1.2-14.0	ppb

Mineral Analysis

	Average Level Detected	Range of Levels Detected	Unit of Measurement
pH	8.80	8.34-9.09	pH units
Alkalinity (total) as CaCO ₃	113	68-152	ppm
Aluminum	0.06	<0.02-0.31	ppm
Calcium	46	39-52	ppm
Chloride	26	17-52	ppm
Color (in cobalt platinum units)	2	1-4	ppm
Dissolved Solids	417	349-519	ppm
Hardness (total) as CaCO ₃	10	8-13	grains per gallon
Iron	0.03	<0.02-0.09	ppm
Magnesium	13	8-21	ppm
Manganese	0.02	<0.02-0.022	ppm
Phosphate	0.16	<0.05-0.38	ppm
Silica	28.2	6.5-81.2	ppm
Spec. Conductance @25 deg. C.	532	423-740	umhos
Temperature	14.4	2.5-25.9	degrees Celsius
Zinc	<0.02	<0.02	ppm

What can you get for about \$1?

How about a 20-ounce bottle of water?
Or, 748 gallons of M.U.D. water from your tap
for 94 cents?

Plus, tap water is “green.”
No plastic container to pollute the environment.

Backflow prevention

According to the Safe Drinking Water Act, Nebraska Health and Human Services requires M.U.D. to make sure backflow preventers are installed and tested every year.

We keep records of these tests and issue notices when testing is due.

[This requirement does not apply to lawn sprinkler systems unless they use booster pumps or chemical injection systems.](#) Also check your city's plumbing code for their regulations.

What is potentially dangerous about an unprotected sill cock?

A sill cock permits easy attachment of a hose for outside watering. However, a garden hose with an unprotected sill cock can be hazardous when left submerged in swimming pools, watering shrubs, and when chemical sprayers are attached to hoses.

Home water treatment devices

Home water treatment devices are not needed since M.U.D. water meets or surpasses all federal and state Safe Drinking Water standards. However, if you're considering the purchase of a home treatment system to enhance the aesthetics of the water:

- Look for the Underwriters Laboratory (UL) label,
- Find out what the device will remove, and
- Find out the total cost of maintenance. Some units can harbor disease-causing bacteria if not properly maintained and serviced.

M.U.D. maintains more than 26,460 water hydrants in the Omaha area for fire protection.

