



City of Papillion (NE3115313) Annual Water Quality Report For the period of January 1 to December 31, 2010

David P. Black, Mayor

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If you would like to observe the decision-making processes that affect drinking water quality, please attend the regularly scheduled meeting of the Papillion City Council on the first and third Tuesdays of the month at 7:00 p.m. in the City Council Chambers, located at 122 East Third Street, Papillion, Nebraska.

If you would like to participate in the process, please contact the City Clerk at 402-597-2021 to be placed on the meeting agenda of the Papillion City Council.

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

Safe Drinking Water Hotline
1-800-426-4791
www.epa.gov/safewater.com

If your home was built before 1990, please take a moment to check if there are plastic couplings on your water meter. Staff from the Papillion Water Plant will change these at no cost to you by appointment. Please call 402-597-2018 to set up a time. Changing the couplings will prevent them from breaking and potentially flooding your basement. If you are not sure about the couplings, please call the Water Plant at 402-597-2018, and staff would be happy to check for you.

The United States has one of the safest water supplies in the world. However, national statistics don't tell you about safety and quality of the water coming out of your tap. For this reason, the Papillion Water Treatment Plant provides this report annually so you can find out about your own drinking water.

This report includes data collected from **January 1 to December 31, 2010**. It is intended to provide you with important information about your drinking water and the efforts made by the City of Papillion water system to provide safe drinking water.

The sources of drinking water, both tap and bottled, 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.

Papillion's residents receive water from our own groundwater wells located along the Platte River. A total of 11 wells are drilled into the Platte River Alluvial Aquifer. These wells range in depth from 68 to 110 feet. Papillion's wells pumped over a total of 1,260,170,000 gallons of water in 2010. This included an average daily use of 3,452,521 gallons, average monthly use of 105,014,167 gallons, and a maximum daily use of 9,314,000 gallons.

Contaminants 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 and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 wa-

ter poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Infants and young children are typically 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 the 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 wish to have your water tested. Flushing your 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 (1-800-426-4791) or the Department of Health and Human Services/Division of Public Health/Office of Drinking Water (402-471-2541).

The Nebraska Department of Environmental Quality (NDEQ) has completed the Source Water Assessment. Included in the assessment is 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, please contact the Water Treatment Plant at 402-597-2018 or the NDEQ at 402-471-6988.

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
Maximum Contaminant Level (MCL) - 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.
Maximum Contaminant Level Goal (MCLG) - 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.
ug/L - micrograms per liter
pCi/L - PicoCuries per liter (measurement of radioactivity)
ppm - Parts per million
ppb - Parts per billion
ppt - Parts per trillion

The City of Papillion is required to test for the following contaminants: Coliform Bacteria, Antimony, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Chromium, Copper, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Selenium, Sodium, Thallium, Alachlor, Atrazine, Benzo(a)pyrene, Carbofuran, Chlordane, Dalapon, Di(2-ethylhexyl) adipate, Dibromochloropropane, Dinoseb, Di(2-ethylhexyl)phthalate, Diquat, 2,4-D, Endothal, Endrin, Ethylene dibromide, Glyphosphate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl (Vydate), Pentachlorophenol, Picloram, Polychlorinated biphenyls, Simazine, Toxaphene, Dioxin, Silvex, Benzene, Carbon Tetrachloride, o-Dichlorobenzene, Para-Dichlorobenzene, 1,2-Dichloroethane, 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, Vinyl Chloride, Styrene, Tetrachloroethylene, Toluene, Xylenes (total), Gross Alpha (minus Uranium & Radium 226), Radium 226 plus Radium 228, Sulfate, Chloroform, Bromodichloromethane, Chlorodibromomethane, Bromoform, Chlorobenzene, m-Dichlorobenzene, 1,1-Dichloropropane, 1,1,2-Dichloroethane, 1,1,2,2-Tetrachloroethane, 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-Dichloropropane, Aldrin, Butachlor, Carbarbyl, Dicamba, Dieldrin, 3-Hydroxycarbofuran, Methomyl, Metolachlor, Metribuzin, Propachlor

Microbiological	Highest No. of Positive Samples	MCL	MCLG	Likely Source of Contamination	Violations Present
No detected results were found in the calendar year of 2010.					

Lead and Copper	Monitoring Period	90 th Percentile	Range	Unit	AL	Sites Over AL	Likely Source of Contamination
Copper, Free	2008 - 2010	1.1	0.0277 – 1.37	ppm	1.3	1	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing
Lead	2008 - 2010	5.0	1.04 – 12	ppb	15.0	0	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Likely Source of Contamination
Arsenic	9/7/2010	7.12	7.12	ppb	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Atrazine	7/19/2010	0.362	0.362	ppb	3	3	Runoff from herbicide used on row crops
Barium	2/12/2008	0.179	0.179	ppm	2	2	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2/12/2008	10.1	10.1	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	2/12/2008	0.42	0.42	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; fertilizer discharge
Nitrate-Nitrite	11/22/2010	0.555	0.555	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Disinfection By-products	Monitoring Period	Highest RAA	Range	Unit	MCL	MCLG	Likely Source of Contamination
Total Haloacetic Acids (HAA5)	1/1/2010 – 12/31/2010	35.45	23 – 56.4	ppb	60	0	By-product of drinking water disinfection
TTHM (Total Trihalomethanes)	10/1/2009 – 9/30/2010	59.675	44.4 – 87.5	ppb	80	0	By-product of drinking water disinfection

Unregulated Water Quality Data	Collection Date	Highest Value	Range	Unit	Secondary MCL
Metolachlor	7/19/2010	0.141	0.141	ppb	
Nickel	7/27/2009	0.00397	0.00397	mg/l	0.1
Sulfate	7/27/2009	79	79	mg/l	250

During the 2010 calendar year, we had the below noted violation(s) of drinking water regulations.

Type	Category	Analyte	Compliance Period
No violations occurred in the calendar year of 2010.*			

*The City of Papillion did not need to take any action to return to compliance with the Nebraska Safe Drinking Water Act.

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 costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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 systems and may have an increased risk of getting cancer.

Note: The State 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 one year old.