

### Source of Drinking Water

The source of drinking water in Norfolk includes groundwater wells. As water travels through the ground, it dissolves naturally occurring minerals and in some cases radioactive material. The water can also pick up substances resulting from the presence of animals or from human activity.

Norfolk has 2 water treatment plants. The East water treatment plant is located at 111 S. 1<sup>st</sup>. The West water treatment plant is located at 300 S. 49<sup>th</sup>. Both treatment plants utilize aeration, chlorination and filtration in the treatment process.

### Source Water Assessment Availability

The Nebraska Department of Environmental Quality (NDEQ) has completed the Source Water Assessment. Included in the assessment are a Wellhead Protection Area Map, potential contaminant source inventory, vulnerability rating, and source water protection information. The Source Water Assessment may be viewed at 300 S 49<sup>th</sup> Street or at the Norfolk Public Library. For more information please contact Dennis Watts at (402) 844 –2210.

### Contaminants Found In Drinking Water

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 effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

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, 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.

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 (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 (800-426-4791) or the Department of Health and Human Services/Division of Public Health/Office of Drinking Water (402-471-2541).

# Water Quality Report Norfolk's

Norfolk, Nebraska.  
Annual Water Quality Report  
For the period of January 1 to December 31, 2009



This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water.

For more information regarding this report, contact: Norfolk City Water 402-844-2210. Letters can be sent to 300 South 49<sup>th</sup> Street, Norfolk, Ne 68701.

If you would like to observe and or participate in the decision-making processes that affect drinking water quality, please attend the regularly scheduled meetings of the City Council.

This report is available on the City Website, which can be accessed at <http://www.ci.norfolk.ne.us>.

This report is also available on the World Wide Web at <http://www.hhs.state.ne.us>, the Website of the Nebraska Health and Human Services System.

Est formulario tiene informacion muy importante acerca del agua que usted bebe. Consiga que alguien se lo lea enspanol.

**TEST RESULTS (COLLECTED IN 2009 UNLESS OTHERWISE NOTED)**

<b>Regulated Contaminant</b>	Action Level (AL)	90 <sup>th</sup> Percentile	Unit of Measurement	MCLG	# Sites Over AL		Likely Source Of Contamination
Lead (6-12-2007)	15	3.0	ppb	0	0		Corrosion of household plumbing systems; Erosion of natural deposits.
Copper (6-12-2007)	1.3	0.342	ppm	1.3	1		Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
<b>Inorganic Contaminants</b>	Highest Level	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contamination
Arsenic (6-11-2007)	10.4	6.48 – 10.4	ppb	0	10	No	Erosion of natural deposits; Runoff from orchards; glass and electronic production wastes.
Barium (1-14-2008)	0.188	Not Applicable	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium (1-14-2008)	7.34	Not Applicable	ppb	100	100	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride (1-14-2008)	0.34	Not Applicable	ppm	4	4	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Selenium (1-14-2008)	34.0	Not Applicable	ppb	50	50	No	Discharge from petroleum and metal refineries; Erosion of natural deposits.
Nitrate* * Measured as Nitrogen	0.0717	0 – 0.0717	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Disinfectants &amp; Disinfections By-Products</b>	Highest Level Detected	Range of Level Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source of Contamination
Total Trihalomethane *	47.43	19.79 – 47.43	ppb	N/A	80	No	By-product of drinking water chlorination
Total Haloacetic Acids *	20.64	6.9 – 20.64	ppb	N/A	60	No	By-product of drinking water chlorination
* Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.							
<b>Coliform Bacteria</b>	MCL	Highest Number of Positive Samples	Fecal Coliform or E. Coli MCL	Total Number of Positive Fecal or E. Coli Samples	Violation	Likely Source of Contamination	
	0	1	0	0	No	Naturally present in the environment.	

The City Of Norfolk 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, Endothall, Endrin, Ethylene dibromide, Glyphosate, 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-Dichloropropene, 1,1-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-Dichloropropene, Aldrin, Butachlor, Carbarlyl, Dicamba, Dieldrin, 3-Hydroxycarbofuran, Methonyl, Metolachlor, Metribuzin, Propachlor

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 our data may be more than one year old.

**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 of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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

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

**ppm:** Parts Per Million **ppb:** Parts Per Billion **pCi/L:** picoCuries Per Liter (measurement of radioactivity)