

SOUTHEAST WATER USERS DISTRICT

PO BOX 10

MANTADOR ND 58058

APRIL, 2010

ANNUAL DRINKING WATER QUALITY REPORT FOR THE YEAR ENDING 2009

We're pleased to present to you this year's *Annual Drinking Water Quality Report*. This report is designed to inform you about the safe clean water we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are wells drawn from 3 different Aquifers in the Southeastern part of North Dakota.

We have a wellhead protection plan available from our office that provides more information, such as, potential sources of contamination. Based on that information, your source water has been determined to be moderately susceptible to potential contaminants. We have reviewed the wellhead protection area & determined that no sources would threaten your water supply.

Southeast Water Users District is pleased to announce that your water quality meets all state and federal requirements. The staff of Southeast Water Users tests your water quality daily, and monthly samples are sent in to the State Health Department for bacteriological testing.

If you have any questions about this report or concerning your water utility, please contact Steve Hansen at Southeast Water Users District - East at 242-7432 or 1-800-400-8888. Our office hours are 7:30 a.m. to 5:00 p.m. Monday through Friday. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Tuesday of every month at varied locations. If you would like to attend one of the meetings, please call the office for location and times. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please contact Steve Hansen at one of the numbers listed above.

Southeast Water Users District routinely monitors for contaminants in your drinking water according to Federal and State laws. The following tables show the results of our monitoring for the period of January 1, 2005 to December 31st, 2009. The sources of drinking water (both tap 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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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, industrial or domestic wastewater discharges, oil production, mining or farming.

Pesticides and herbicides, which 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 can, also, 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.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) – laboratory analysis indicates that the contaminant is not present

Parts per million (ppm) or Milligrams per liter (mg/l) – one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g/l}$) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) – Picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) – measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) – million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) – nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

Maximum Contaminant Level - The “Maximum Allowed” (MCL) is 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.

Maximum Contaminant Level Goal - The “Goal” (MCLG) is 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.

Test Results for Southeast WUD, East

<u>Contaminant</u>	<u>MCLG</u>	<u>MCL</u>	<u>Level Detected</u>	<u>Unit Measurement</u>	<u>Range</u>	<u>Date (year)</u>	<u>Violation Yes/No Other Info</u>	<u>Likely Source of Contamination</u>
Disinfectants								
Chlorine	MRDGL=4	MRDL=4.0	1.1	ppm	.09 to 1.3	5/09	No	Water additive used to control microbes
Disinfection By-products								
Total Halo-acetic Acids (HAA5)	NA	60	15.52	ppb	N/A	7/09	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	NA	80	29.55	ppb	N/A	7/09	No	By-product of drinking water chlorination
Lead/Copper								
Lead 90 th Percentile*	NA	AL=15	**5.32 90 th % Value	ppb	N/A	9/07	0 sites exceeded AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Copper 90 th Percentile	1.3	AL=1.3	0.833 90 th % Value	ppm	N/A	9/07	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Inorganic Contaminants								
Arsenic	0	10	*7.1	ppb	N.A	10/07	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	2	2	0.223	ppm	N/A	4/09	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	100	100	1.36	ppb	N/A	4/09	No	Discharge from steel and pulp mills, erosion of natural deposits.
Fluoride	4	4	1.13	ppm	N/A	4/09	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate-Nitrite	10	10	0.03	ppm	N/A	2/09	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon Removal								
Alkalinity, Total	N/A	N/A	205	ppm	N/A	4/09	No	Natural erosion, certain plant activities, certain industrial wastewater discharges
Unregulated Contaminants								
Bicarbonate as HCO ₃	N/A	N/A	251	ppm	N/A	4/09	No	N/A
Calcium	N/A	N/A	73.5	ppm	N/A	4/09	No	N/A
Chloride	N/A	N/A	4.86	ppm	N/A	4/09	No	N/A
Conductivity @ 25 C UMHOS/CM	N/A	N/A	472	Umho/cm	N/A	4/09	No	N/A

Hardness Total (AS CACO3)	N/A	N/A	244	ppm	N/A	4/09	No	N/A
Magnesium	N/A	N/A	14.6	ppm	N/A	4/09	No	N/A
Nickel	N/A	N/A	0.00153	ppm	N/A	4/09	No	N/A
pH	N/A	N/A	7.6	pH	N/A	4/09	No	N/A
Potassium	N/A	N/A	2.0	ppm	N/A	4/09	No	N/A
Sodium	N/A	N/A	222	ppm	N/A	4/09	No	N/A
Sodium Adsorption Ratio	N/A	N/A	0.08	obsvns	N/A	4/09	No	N/A
Sulfate	N/A	N/A	33	ppm	N/A	4/09	No	N/A
TDS	N/A	N/A	256	ppm	N/A	4/09	No	N/A
Zinc	N/A	N/A	0.137	ppm	N/A	4/09	No	N/A

Test Results for Southeast WUD, Central Southeast

Lead/Copper								
Lead 90 th Percentile	NA	AL=15	**0.58 90 th % Value	ppb	N/A	9/09	0 sites exceede d AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Copper 90 th Percentile	1.3	AL=1.3	0.818 90 th % Value	ppm	N/A	9/09	0 sites exceede d AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Test Results for Southeast WUD, Central-Lisbon

Lead/Copper								
Lead 90 th Percentile	NA	AL=15	**0.243 90 th % Value	ppb	N/A	9/09	0 sites exceede d AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Copper 90 th Percentile	1.3	AL=1.3	No Detect 90 th % Value	ppm	N/A	9/09	0 sites exceede d AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
IDSE								
HAA5 - IDSE	N/A	No MCL	21.94	ppb	8.3 to 21.94	11/09	N/A	By-product of drinking water chlorination
TTHM - IDSE	N/A	No MCL	117.4	ppb	65.95 to 117.4	11/09	N/A	By-product of drinking water chlorination

Test Results for Southeast WUD, West

Lead/Copper								
Lead 90 th Percentile	NA	AL=15	**0.242 90 th % Value	ppb	N/A	9/09	0 sites exceede d AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Copper 90 th Percentile	1.3	AL=1.3	01.17 90 th % Value	ppm	N/A	9/09	0 sites exceeded AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
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Disinfectants								
Chlorine	MRDGL =4	MRDL=4 .0	1.7	ppm	1.3 to 2 .1	6/09	No	Water additive used to control microbes
Disinfection By-products								
Total Halo acetic Acids (HAA5)	NA	60	6	ppb	N/A	12/09	No	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	NA	80	28	ppb	N/A	12/09	No	By-product of drinking water chlorination
Inorganic Contaminants								
Arsenic	0	10	2.63	ppb	N/A	10/07	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Nitrite-Nitrate	10	10	0.44	ppm	N/A	2/09	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
IDSE								
(HAA5)-IDSE	NA	No MCL	24.88	ppb	3.7 to 2 4 .8 8	11/09	No	By-product of drinking water chlorination
(TTHM)-IDSE	NA	No MCL	113.8	ppb	24.15 t o 1 1 3 .8	11/09	No	By-product of drinking water chlorination

* While your drinking water meets EPA's standard for 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.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The SEWUD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. **Use water from the cold tap for drinking and cooking. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

As you can see by the table, our system had no violations. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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

Southeast Water Users District is very pleased to inform you that your rural water system has received the "Certificate of Compliance" from the North Dakota Department of Health, for maintaining satisfactory microbiological quality in the drinking water supply utilized by the Southeast Water Users District during the time period October 1, 2008 to September 30, 2009.

Southeast Water Users District would appreciate it if large volume water customers post copies of the CCR in conspicuous locations or distribute them to tenants, residents, patients, students, and/or employees, so individuals who consume the water, but do not receive a water bill can learn about our water system.

Southeast Water Users District and staff work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

