2002 Drinking Water Quality Report

SOUTHWEST PIPELINE PROJECT

We're pleased to present this year's Drinking Water Quality Report. This report is designed to inform you about the quality clean water we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water.

Water Source and Treatment

The source of Southwest Pipeline water is Lake Sakakawea, a surface water source. The intake draws water from a depth of 50 to 80 feet, depending on the lake level which can vary significantly from year to year. The Southwest Water Authority pumps raw water to Dodge, where chlorine and ammonia (chloramines) are added to inactivate Giardia, viruses and other microorganisms. Southwest Water Authority then delivers the partially treated water to the lime-softening treatment plant at Dickinson. The water is then clarified, softened, filtered and disinfected before being delivered to our customers.

Southwest Water Authority
4665 2nd Street SW
Dickinson, ND 58601-7231

701-225-0241
Toll free 1-888-425-0241
E-mail: swa@swwater.com
www.swa.swc.state.nd.us

Water Contaminants

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 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 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 can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive Contaminants*, which can be naturally-occurring or 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline, 1-800-426-4791.

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.

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/Centers for Disease Control and Prevention (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.

EPA requires monitoring of over 80 drinking water contaminants. Only those listed in the following table were detected in your drinking water. The table shows the test results for calendar year 2002. As authorized and approved by EPA, the state has reduced monitoring requirements for certain contaminants to less often than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year.

Important Terms

We have included the following definitions to help you better understand the information in the table.

- *Action Level or AL:* The concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow.
- *Maximum Contaminant Level or 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 or 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.
- *Maximum Residual Disinfectant Level or MRDL:* The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- *Maximum Residual Disinfectant Level Goal or MRDLG:* The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- *Treatment Technique or TT:* A required process intended to reduce the level of a contaminant in drinking water.

Table of Detected Contaminants

Key to table:

HAA5s = Total Haloacetic Acids
N/A = Not Applicable
NTU = Nephelometric Turbidity Units
pCi/l = picocuries per liter (a measure of radioactivity)
ppb = parts per billion, or micrograms per liter (μg/l)
ppm = parts per million, or milligrams per liter (mg/l)
TTHMs = Total Trihalomethanes

REGULATED CONTAMINANTS							
Contaminant (units)	**MCLG**	**MCL**	**Level Detected**	**Detection Range**	**Test Date**	**Exceedance or Violation?**	**Major Sources in Drinking Water**
Microbial Contaminants							
Turbidity (NTU) *	N/A	TT = .3	0.24	N/A	2002	100% of samples met turbidity limits	Soil runoff
Organic Chemical Contaminants							
Chloramines (ppm)	MRDLG = 4	MRDL = 4.0	2.43	2.3 - 2.61	2002	No	Water additive used to control microbes
HAA5s (ppb)	N/A	60	9.7	5.68 - 13.52	2002	No	By-product of drinking water disinfection
TTHMs (ppb)	N/A	80	4.8	3.23 - 12.80	2002	No	By-product of drinking water chlorination
Inorganic Contaminants							
Barium (ppm)	2	2	0.0132	N/A	2002	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (ppm) **	1.3	AL = 1.3	0.0842	N/A	2001	No sites exceeded the Action Level	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	4	4	1.3	N/A	2002	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate+Nitrite (ppm)	10	10	0.08	N/A	2002	No	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Selenium (ppb)	50	50	1.57	N/A	2002	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Radioactive Contaminants							
Radium 226 (pCi/l)	0	5	0.08	N/A	2001	No	Erosion of natural deposits
	UNREGULATED CONTAMINANTS						
Sulfate (ppm) ***	N/A	N/A	166	N/A	2002	N/A	

* Turbidity is a measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. Average tap water turbidity for 2002 was 0.057 NTU.

** Copper: 10 sampling sites tested for copper.

*** Sulfate is an unregulated contaminant for which EPA has not established an enforceable drinking water standard. 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. The Southwest Water Authority also monitored for 11 other unregulated contaminants during 2002 to comply with the recently enacted Unregulated Contaminant Monitoring Rule (UCMR). We are very pleased to report that none of these 11 contaminants were detected in our drinking water. You can obtain UCMR monitoring results by contacting us at 701-225-0241.

As you can see by the table, our water system had no exceedances or violations. There were also no violations of any other Drinking Water Regulations in 2002. 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 on the first Monday of each month. If you are interested in attending or would like to request agenda time, please call 701-225-0241 or 1-888-425-0241 or e-mail swa@swwater.com for more information on time and location of meetings.

This report is required by the federal Safe Drinking Water Act. If you have any questions about this report or concerning your water utility, please contact Ray Christensen, Manager/CEO, at 701-225-0241 or 1-888-425-0241 or e-mail swa@swwater.com. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Ray Christensen at the numbers listed above. The Southwest Water Authority would appreciate if large volume water customers post copies of this report 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.

Southwest Water Authority Board of Directors

To obtain information in your area regarding Southwest Water Authority, contact your county or city representative.

Adams
Leonard Jacobs (2004)*
401 Highway 22 North
Reeder, ND 58649
853-2219

Billings
James Odermann (2004)
2767 129th Avenue Southwest
Belfield, ND 58622
575-4767

Bowman
Don Flynn (2006)*
PO Box 531
Scranton, ND 58653
275-6351

Dunn
Emanuel Stroh (2004)
101 Eger Street
Manning, ND 58642
573-4552

Golden Valley
Darrel Oech (2006)
16690 40th Street Southwest
Beach, ND 58621
872-4807

Grant
Brian Roth (2004)
7260 77th Avenue Southwest
New Leipzig, ND 58562
584-2470

Hettinger
Ray Bieber (2006)
PO Box 125
Mott, ND 58646
824-2712

Mercer
John Klein (2006)
PO Box 56, 900 Cypress Drive
Beulah, ND 58523
748-2535

Morton
Steve Tomac (2006)
2500 59th Street
St. Anthony, ND 58566
445-7364

Oliver
Duane Bueligen (2004)
4251 29th Street
New Salem, ND 58563
843-7239

Slope
Joe Steier (2004)
PO Box 1127
Hettinger, ND 58639
567-5294

Stark
**Loren Myran (2006)*
9440 32nd Street
Southwest
Taylor, ND 58656
974-3644

Dickinson
Larry Ziegler (2004)
887 13th Street West
Dickinson, ND 58601
225-3057

Larry Bares (2006)
1131 Senior Avenue
Dickinson, ND 58601
225-2030

**Executive Committee Members*
***Chairperson*