

## 2007 Drinking Water Quality Report

We are very pleased to present our 2nd annual Drinking Water Quality Report. The purpose of this report is to provide information to our customers about the quality of our drinking water. It contains a table of water quality data, definitions of terms, specific language requirements, and other information we hope you will find useful and educational. Please read this report carefully and contact Roger Dick, Water Treatment Plant Manager at 701-225-9147 or Sandy Burwick, CFO/ Office Administrator at 1-888-425-0241, or e-mail swa@swwater.com if you have any questions.

### ***Here is the treatment process from the source to you.***

Our drinking water is supplied to us by the City of Beulah, which relies on ground water as their water source. The Beulah Water Treatment Plant draws water from the Knife River Aquifer using 6 production wells, and then treats it using a lime softening treatment plant before delivering it to their customers. The Southwest Water Authority purchases water from the City of Beulah and then delivers it to you, our valued customers.

### ***Let's share a few words about drinking 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 be the result of oil and gas production and mining activities.

The City of Beulah participates in North Dakota's Wellhead Protection Program and has, in cooperation with the North Dakota Department of Health, completed the delineation and contaminant/land use inventory elements of the North Dakota Source Water Protection Program. Based on the information from these elements, the North Dakota Department of Health has determined that our source water is moderately susceptible to potential contaminants. No significant sources of contaminants have been identified. Information about the Source Water Assessment is available by calling 701-225-9147 or 1-888-425-0241, or e-mail us at swa@swwater.com.

### ***This is important information about drinking water safety.***

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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791). Additional information about drinking water is available on EPA's website at [www.epa.gov/safewater/](http://www.epa.gov/safewater/).

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. 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).

***Consumer Confidence Report for Southwest Pipeline Project  
Customers Served by the City of Beulah - "Beulah Interim Service Project"***

## Southwest Water Authority Board of Directors

### **ADAMS**

Leonard Jacobs (2008)  
401 Highway 22 N  
Reeder, ND 58649-9427  
853-2219  
[ljacobs@pop.ctctel.com](mailto:ljacobs@pop.ctctel.com)

### **GOLDEN VALLEY**

Darrel Oech\* (2010)  
16690 40th St SW  
Beach, ND 58621-9440  
872-4807  
872-2400 (Fax)  
[darreloech@ndgateway.com](mailto:darreloech@ndgateway.com)

### **MORTON**

George Saxowsky (2010)  
7230 38th St  
Hebron, ND 58638-9384  
878-4901  
[saxfarm@westriv.com](mailto:saxfarm@westriv.com)

### **DICKINSON**

Larry Ziegler (2008)  
887 13th St W  
Dickinson, ND 58601-3536  
483-3054  
483-3214 (Fax)  
[LZiegler@weareamerican.com](mailto:LZiegler@weareamerican.com)

### **BILLINGS**

James Odermann (2008)  
2767 129th Ave SW  
Belfield, ND 58622-9330  
575-4767  
[odermann@goesp.com](mailto:odermann@goesp.com)

### **GRANT**

Brian Roth (2008)  
7260 77th Ave SW  
New Leipzig, ND 58562-9707  
584-2470  
[bgroth@wildwestriv.com](mailto:bgroth@wildwestriv.com)

### **OLIVER**

Duane Bueligen (2008)  
4251 29th St  
New Salem, ND 58563-9160  
843-7239  
843-7125 (Fax)  
[bueligen@westriv.com](mailto:bueligen@westriv.com)

### **LARRY BARES**

Larry Bares (2010)  
1131 Senior Ave  
Dickinson, ND 58601-3625  
225-2030  
[lebares@ndsupernet.com](mailto:lebares@ndsupernet.com)

### **BOWMAN**

Don Flynn\* (2010)  
PO Box 531  
Scranton, ND 58653-0531  
275-6351  
[dwfly@ndsupernet.com](mailto:dwfly@ndsupernet.com)

### **HETTINGER**

Ray Bieber (2010)  
402 S Meadow Lane  
Mott, ND 58646-7274  
824-2712  
[bjb@ndsupernet.com](mailto:bjb@ndsupernet.com)

### **SLOPE**

David Juntunen (2008)  
6205 145th Ave SW  
Amidon, ND 58620-9686  
879-6372  
[djuntunen@ndsupernet.com](mailto:djuntunen@ndsupernet.com)

\* Executive Committee Members  
\*\* Chairperson

### **DUNN**

Emanuel Stroh (2008)  
PO Box 195  
Manning, ND 58642-0195  
573-4552  
[mannys@ndsupernet.com](mailto:mannys@ndsupernet.com)

### **MERCER**

John Klein (2010)  
900 Cypress Drive  
Beulah, ND 58523-0056  
873-2162  
[klur@westriv.com](mailto:klur@westriv.com)

### **STARK**

\*\*Loren Myran\* (2010)  
9440 32nd St SW  
Taylor, ND 58656-9653  
974-3644  
974-2277 (Fax)  
[lorenmyran@ndsupernet.com](mailto:lorenmyran@ndsupernet.com)



Now we'll talk about which contaminants were detected in our drinking water.

EPA requires us to monitor for over 90 drinking water contaminants and those that were detected are listed in the table to the right. Test results are from 2007. The State does allow reduced monitoring for certain contaminants because their levels do not change significantly over time. For this reason, some of the test results are more than one year old.

Definitions and abbreviations:

- Action Level or AL: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Contaminant Level or MCL: 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 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.
- Parts per billion or ppb: 1 ppb is equivalent to adding 1 pound of a contaminant to 999,999,999 pounds of water (about 120,000,000 gallons).
- Parts per million or ppm: 1 ppm is equivalent to adding 1 pound of a contaminant to 999,999 pounds of water (about 120,000 gallons).
- N/A: Not Applicable
- TDS: Total Dissolved Solids

So the bottom line is this.

As you can see from the table, there were no exceedances or violations. We are pleased to report that our water system was also in compliance with all other drinking water regulations in 2007. The Southwest Water Authority encourages you to participate in decisions that may affect our water by attending any of our regularly scheduled meetings, which are held on the first Monday of each month. If you are interested in attending or would like to request agenda time, please contact us at 1-888-425-0241 for information on time and location. The City of Beulah, as our water supplier, also conducts regular meetings that may pertain to our water. If you are interested in attending any of their meetings, please call 701-873-4637 for more information. Please contact us if you are aware of non-English speaking individuals who need assistance with the appropriate language translation. In order to allow individuals who consume our drinking water, but who do not receive water bills, to learn about our water system, we would appreciate it if our large volume water customers would post copies of this report in conspicuous locations or distribute them to tenants, residents, patients, students, and/or employees.

CITY OF BEULAH'S TABLE OF DETECTED REGULATED CONTAMINANTS							
Contaminant (units)	MCLG	MCL	Level Detected	Detection Range	Test Date	Exceedance or Violation?	Major Sources in Drinking Water
Inorganic Contaminants							
Arsenic (ppb)	0	10	4.3	N/A	2007	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	2	2	0.0678	N/A	2007	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium (ppb)	100	100	2.29	N/A	2007	No	Discharge from Steel and pulp mills; Erosion of natural deposits.
Fluoride (ppm)	4	4	1.16	N/A	2007	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	2007	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium (ppb)	50	50	16.2	N/A	2007	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Disinfectants							
Chlorine (ppm)	MRDLG = 4	MRDL = 4.0	2.4	1.8 - 3.1	2007	No	Water additive used to control microbes.
Radioactive Contaminants							
Uranium, Combined (ppb)	0	30	1.05	N/A	2003	No	Erosion of natural deposits.
Total Organic Carbon (TOC) Removal							
Alkalinity, Total (ppm)	N/A	N/A	375	N/A	2007	N/A	Natural erosion, plant activities and certain industrial waste.
CITY OF BEULAH'S TABLE OF DETECTED UNREGULATED CONTAMINANTS <sup>1</sup>							
Alkalinity, Carbonate (ppm)	N/A	N/A	36	N/A	2007	N/A	
Bicarbonate as HCO <sub>3</sub> (ppm)	N/A	N/A	384	N/A	2007	N/A	
Calcium (ppm)	N/A	N/A	11.1	N/A	2007	N/A	
Chloride (ppm)	N/A	N/A	11.5	N/A	2007	N/A	
Hardness, Total as CaCO <sub>3</sub> (ppm)	N/A	N/A	100	N/A	2007	N/A	
Iron (ppm)	N/A	N/A	0.091	N/A	2007	N/A	
Magnesium (ppm)	N/A	N/A	17.6	N/A	2007	N/A	
pH	N/A	N/A	8.82	N/A	2007	N/A	
Potassium (ppm)	N/A	N/A	5.1	N/A	2007	N/A	
Sodium (ppm)	N/A	N/A	175	N/A	2007	N/A	
Sodium Adsorption Ratio	N/A	N/A	7.6	N/A	2007	N/A	
Sulfate (ppm)	N/A	N/A	171	N/A	2007	N/A	
TDS (ppm)	N/A	N/A	616	N/A	2007	N/A	
SOUTHWEST WATER AUTHORITY - BEULAH INTERIM SERVICE AREA'S TABLE OF DETECTED REGULATED CONTAMINANTS							
Inorganic Contaminants							
Copper (ppm)	1.3	AL = 1.3	0.43	N/A	2007	No sites exceeded the Action Level	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead <sup>2</sup> (ppb)	0	AL = 15	9.63	N/A	2007	No sites exceeded the Action Level	Corrosion of household plumbing systems; Erosion of natural deposits.
Disinfectant Byproducts							
Total Haloacetic Acids (ppb)	N/A	60	2.51	N/A	2007	No	By-product of drinking water disinfection.
Total Trihalomethanes (ppb)	N/A	80	2.04	N/A	2007	No	By-product of drinking water disinfection.

<sup>1</sup> EPA has not established enforceable drinking water standards for unregulated contaminants, but they are monitored to determine whether or not future regulation is warranted.  
<sup>2</sup> Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.