



■ **News from
Southwest Water
Authority**

■ **Summer 2004**

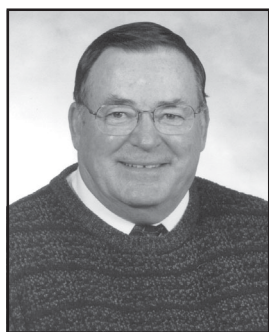
Water works



Volume 7 ■ Issue 2

Manager's Message ■ by Ray Christensen, Manager/CEO

National Rural Water Rally highlights



Ray Christensen,
Manager/CEO

Directors Don Flynn, Steve Tomac, Larry Ziegler, Larry Bares and I attended this year's National Rural Water Rally in Washington, D.C. April 19 - 21. With representatives from 49 states, this was an excellent venue for water leaders to network and discuss present and future concerns facing rural water systems.

Key issues of discussion during the rally were programs sponsored by the Environmental Protection Agency (EPA) and United States Department of Agriculture - Rural Development (USDA-RD) that provide assistance to small communities and rural water systems. Of special interest was the Circuit Rider Program and its impact on such systems. North Dakota Rural Water Systems Association (NDRWSA) utilizes EPA funded programs to staff professionally trained specialists enabling them to offer free operator training programs; water treatment plant and wastewater troubleshooting; safety programs; water rate analysis; Consumer Confidence Reports; wellhead protection plans; security vulnerability assessments and more. For assistance in those areas, communities and rural water systems can contact NDRWSA at 1-800-349-6951.

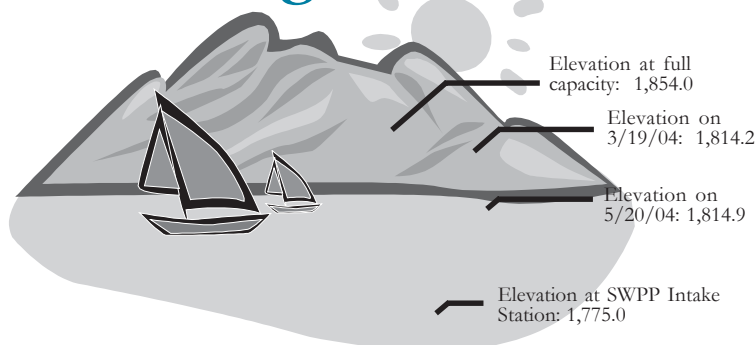
Commissioner John Keys of the United States Bureau of Reclamation (BOR), addressed several key issues facing the 17 western states within their region. The BOR is especially concerned with extended drought conditions in the southwest and the huge challenge that region faces in meeting projected water needs in 2025. He noted the urgency to utilize advanced technology to design water delivery systems that better conserve water. BOR is committed to its involvement with rural water projects, but must reevaluate the process to ensure efficiency. As projects currently under construction are being completed, new project review may take additional time for the BOR to process.

Perhaps the most important event during the rally was meeting with our congressional delegation to discuss the need for completion of water infrastructure statewide and to urge their continued support of funding sources for rural water projects. The North Dakota congressional delegation continues to be very supportive of water projects statewide.

Current world affairs will make it difficult, however, to secure discretionary funding for projects such as the Southwest Pipeline Project (SWPP).

We remain hopeful that, with a concerted effort at local, state and federal levels, we will be able to stay the course and complete the SWPP. This project is critical to the economic well-being of southwest North Dakota. Your continued support is appreciated and essential to project completion.

Lake Gauge



News from the Southwest Water Authority (SWA) office



Staff attends training, receives certification

Allen Hecker, Assistant Chief Water Distribution Operator; Clint Scott, Water Distribution Maintenance Worker; Russ Kostecky, Water Distribution Operator and Terry Eckelberg, Water Distribution Operator all attended the North Dakota Department of Health Distribution Operator Training. Kostecky and Eckelberg tested for and received certification as Grade 02 Water Distribution Operators. Scott tested for and received certification as a Grade 01 Water Distribution Operator.

Terry Eckelberg also attended a Global Positioning System/Geographic Information System technologies class.

Dan Roller, Operations Specialist attended a teleconference on future infrastructure issues.

Todd Gordon, Maintenance Electrician and Terry Eckelberg attended a refresher course for Cardio Pulmonary Resuscitation/First Aid.

Dan Roller and Roger Dick, Water Treatment Plant Operator attended a Surface Water Treatment Workshop.

Sandra Burwick, Accountant/Assistant Office Administrator attended a Business Compliance Update Workshop.

Heid hired to fill Elgin position

Southwest Water Authority recently hired Marty Heid as an Operations and Maintenance Worker. Marty will be stationed at the Elgin Office. Heid enjoys rodeo and water sports and has completed two years of collegiate education. He and his wife are expecting a baby in the fall.



You're invited to the "Make A Splash" Water Festival - Family Night

Mark your calendars for Southwest Water Authority's "Make A Splash" Water Festival Family Night, September 23, 2004, from 4:00 – 7:30 p.m. at the Dickinson Recreation Center.



OFFICIAL PUBLICATION OF
SOUTHWEST WATER AUTHORITY AND
SOUTHWEST PIPELINE PROJECT

Vision Statement:

People and business succeeding with quality water.

Mission Statement:

Providing quality water for southwest North Dakota.

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Southwest Water Authority

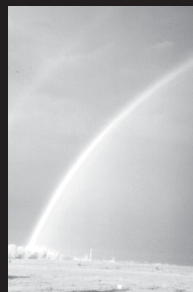
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www.swa.swc.state.nd.us swa@swwater.com

2003 CONSUMER CONFIDENCE REPORT



Our constant goal is to provide you with a safe and dependable supply of drinking water.

— Southwest Water Authority
Management and Staff

Welcome to this year's Drinking Water Report. This report provides water quality information and facts regarding the drinking water delivered daily by Southwest Water Authority (SWA).

Where does our drinking water come from and how is it treated?

SWA gets its drinking water from Lake Sakakawea, a surface water source, located approximately 85 miles northeast of Dickinson. The water treatment process begins right at the raw water Intake, where sodium permanganate is added to reduce taste and odor compounds that may be present in the raw water. From there, the water is pumped 26 miles to Dodge where chlorine and ammonia (chloramines) are added to inactivate Giardia, viruses and other microorganisms. The water then travels another 60 miles before finally reaching the treatment plant in Dickinson. It then goes through the following processes before being delivered to our customers:

- *Clarification and softening*, where lime, alum and a flocculant are added to clarify the water and reduce hardness to about 6.5-8 grains per gallon (or 110-140 parts per million).
- *Stabilization*, where carbon dioxide is added to adjust pH and phosphate is added as a scale and corrosion inhibitor. Fluoride is also added at this point.
- *Filtration*, where seven dual-media filters remove suspended particles not removed in the softening process. Filtration can also be effective in the physical removal of the protozoan *Cryptosporidium*.
- *Disinfection*, where chloramines are once again added to reduce bacteria to a safe level.

Where do drinking water contaminants come from?

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.

Is our water supply susceptible to contaminants?

Recent amendments to the Safe Drinking Water Act require the North Dakota Department of Health to complete a source water assessment for SWA. The Health Department completed this assessment of our water source in 2003 and determined that our water system is moderately susceptible to potential contaminant sources. They also noted that "historically, Southwest Water Authority has effectively treated this source water to meet drinking water standards." Information about the Source Water Assessment can be obtained by calling 701-225-0241 or 1-888-425-0241 or e-mailing swa@swwater.com.

Think of one part per million as: one inch in 16 miles; one minute in two years; one cent in \$10,000.00.

Think of one part per billion as: one inch in 16,000 miles; one second in 32 years; one cent in \$10,000,000.00.



Is our water safe to drink?

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 (EPA) Safe Drinking Water Hotline (800-426-4791). Another good source for information about drinking water is available on EPA's Web site at www.epa.gov/safewater/.

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 (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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Which contaminants were detected in our drinking water?

EPA requires us to monitor for over 80 drinking water contaminants and those that were detected are listed in the table on the following page. Test results are from 2003. The North Dakota Department of Health 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 used in the table:

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: One ppb is equivalent to adding one pound of a contaminant to 999,999,999 pounds of water (about 120,000,000 gallons).

Parts per million or ppm: One ppm is equivalent to adding one pound of a contaminant to 999,999 pounds of water (about 120,000 gallons).

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

N/A: Not Applicable

ND: Not Detected



Help protect our most precious resource! Please help protect our drinking water by properly disposing of substances that could eventually contaminate our nation's water supply!

Table of Detected 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	0.15	N/A	2003	100% of samples met turbidity limit	Soil runoff.
TOC Removal							
Total Organic Carbon (ppm) Source water	N/A	TT	2.99	2.55 - 2.99	2003	N/A	Naturally present in the environment.
Total Organic Carbon (ppm) Finished Water	N/A	TT	2.03	1.59 - 2.03	2003	N/A	Naturally present in the environment.
Alkalinity (ppm)	N/A	N/A	210	148 - 210	2003	N/A	Natural erosion, plant activities, and certain industrial wastewater discharges.
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 AL	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	0.11	N/A	2003	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.
Disinfection By-products							
Chlorine (ppm)	MRDLG = 4	MRDL = 4.0	2.45	2.21 - 2.56	2003	No	Water additive used to control microbes.
Total Haloacetic Acids (ppb)	N/A	60	7	ND - 12.1	2003	No	By-product of drinking water disinfection.
Total Trihalomethanes (ppb)	N/A	80	5	3.67 - 6.45	2003	No	By-product of drinking water chlorination.
Radioactive Contaminants							
Uranium, Combined (ppb)	0	30	0.388	N/A	2003	No	Erosion of natural deposits.

NTU: Nephelometric Turbidity Units

* Turbidity, the measure of the cloudiness in water, is monitored and used as an indicator of the effectiveness of our filtration system. Average tap water turbidity for 2003 was 0.049 NTU.

As you can see from the table, there were no exceedances or violations. Our water system was also in compliance with all other drinking water regulations in 2003.

To learn more about SWA. . .

We want our valued customers to be informed about their water utility. If you have any questions about this report, or SWA, please call Roger Dick, Water Treatment Plant Operator, 701-225-9149, or Mary Massad, CFO/Office Administrator at 701-225-0241 or 1-888-425-0241 or e-mail swa@swwater.com.

You are welcome to attend our regularly scheduled meetings, held the first Monday of each month. If you are interested in attending or would like to request agenda time, please contact us for information on meeting time and location. Also, if you are aware of non-English speaking individuals who need assistance with the appropriate language translation, please contact us at any of the numbers listed above.



Large volume water customers are asked to 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.



Left to right, seated: Leonard Jacobs, Secretary/Treasurer, Adams County; Don Flynn, Vice Chairperson, Bowman County; Loren Myran, Chairperson, Stark County; standing: Darrel Oech, Golden Valley County; Emanuel Stroh, Dunn County; Joe Steier, Slope County; Ray Bieber, Hettinger County; Brian Roth, Grant County; Larry Bares, City of Dickinson; Larry Ziegler, City of Dickinson; Duane Bueligen, Oliver County; John Klein, Mercer County; James Odermann, Billings County and Steve Tomac, Morton County.

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
873-2162

Morton

Steve Tomac (2006)
2498 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

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

Dickinson

Larry Ziegler (2004)
887 13th Street West
Dickinson, ND 58601
483-3054

Dickinson

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

**Executive Committee Members
**Chairperson*

\$ Save money – use these helpful tips!



Vickie Franchuk,
Customer Service

The average person uses approximately 70-90 gallons of water per day. It's difficult to imagine anyone using that much water each day. Let's take a careful look to see how much a person may be wasting due to leaks or careless habits. Conserving water and saving money may be easier than you think! Try these tips:

- \$ Run your dishwasher and wash clothes only when you have a full load.
- \$ Take a shower instead of a bath. Baths use approximately 30-50 gallons more water than showers. Showers only use five gallons of water per minute, or even less, if a flow constrictor is installed.
- \$ When washing dishes, brushing your teeth, washing your hands and face, or shaving, turn the water off periodically.
- \$ Many homes have hidden water leaks. To verify that your home is leak free, check your water meter. Read your water meter before and after a two hour period when no water is being used. If the meter does not read exactly the same, a leak may exist.
- \$ Water lawn and gardens during the coolest part of the day. Use drip irrigation to apply water slowly and exactly where it is needed. Collect rain from the gutter system on your house, in your rain barrel or use water from the fish tank on your plants and flower beds.
- \$ Minimize grass areas in your yard. Less grass means less water demand.
- \$ When washing the car, use soap and water from a bucket. Only use a hose with a shut off nozzle for the final rinse.
- \$ Make sure your sprinklers water living things, rather than paved walks and driveways. If you have an underground sprinkler system, check that sprinkler heads are accurately positioned to water your lawn.
- \$ Watering your lawn one inch per week is sufficient. To measure one inch of water, place a tuna can on your lawn. Note how long it takes the sprinkler to deliver one inch of water. Consider using a hose timer to avoid overwatering.
- \$ Add organic material to your soil. Your plants stay healthy and need less water!
- \$ Use your refrigerator to chill water. It is smarter than running the faucet until the water is cold.
- \$ Used tissues and dead insects belong in the trash can. Don't flush them down the toilet as you may use up to seven gallons per flush. Check your toilet for leaks. Remember, an undetected leak can waste hundreds of gallons of water. These are just a few tips to help you have a water savvy, water conservative summer!



One Call saves time and prevents hassles

**IT'S THE
LAW!**

People digging often find more than what they bargained for. Hidden beneath the soil and out of view are many miles of electrical cables and piping. A simple miscue when digging can mean serious injury, death or the loss of utility service to hundreds of customers. With summer weather, digging projects will be in full swing. If you're digging, make sure you make a telephone call to have all your underground lines and pipes located free of charge ~ it's the law and it could save your life.

North Dakota 1-800-795-0555

SWA provides alternatives to livestock producers battling poor water

“For about \$4.00 including postage, livestock producers can test dugouts to protect their livestock,” says Karl Hoppe, a North Dakota State University Extension Service Livestock Specialist. “The investment can help forecast the potential of water turning to poor quality and becoming a hazard to livestock,” he said.



Water samples can be sent to the North Dakota Department of Health, Chemistry Division, 2635 East Main Avenue, Bismarck, North Dakota 58502. A 200 milliliters (or six ounce) water sample is needed for the conductivity test to determine total dissolved solids. Cost of the conductivity test is \$1.83 per sample. With last year's recent hot and dry weather, water sources may have shrunk while concentrations of salt may have risen.

Water with more than 7,000 to 10,000 parts per million of total dissolved solids can lead to cattle death. “Cattle will drink some pretty bad water and do okay,” Hoppe says. “But at a certain threshold of too much salt, they'll stop drinking. And a few days or even hours without water on hot days will really stress cattle. Young cattle may recover, but older cows will be hurt the most and are most likely to die.”

Producers who battle poor quality water should contact Southwest Water Authority for an estimate on installing a pasture tap. Ranchers in areas awaiting pipeline construction, such as Oliver, Mercer and North Dunn counties, will be able to sign up for pasture taps for \$430.00, provided that system service lines are within 325 feet of the transmission line. Installation includes a meter pit, shut-off valve, and 325 feet of pipe from the transmission line. Service installation costs beyond the meter pit are the livestock producer's responsibility.

For ranchers in areas where pipeline construction is completed, pasture taps can be added provided it is hydraulically feasible to provide service. These customers are considered subsequent users and costs vary depending on circumstances.

Southwest Water Authority does not discriminate on the basis of race, color, national origin, sex, religion, age, marital status or disability in employment or the provision of services.