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# NEWS IN BRIEF

Compiled by Ann Fritz, Editor



## NDGS Involved with Emergency Management Plan Updates

*Submitted by Karen J.R. Mitchell*

The North Dakota Geological Survey has been cooperating with the North Dakota Division of Emergency Management (NDDEM) on updates to the State Emergency Operations Plan and North Dakota Multi-Hazard Mitigation Plan. Geologist Karen Mitchell has been working with the NDDEM to ensure that NDGS expertise is available and accessible in the event of geology-related disasters or emergencies.

The NDGS has never previously been included in the Emergency Operations Plan. As a result of this omission, NDGS resources available to disaster responders have historically been underutilized. The NDGS has published, and continues to produce, reports concerning geologic hazards across the state. These publications have been widely distributed and publicized, but often in the midst of frenzied disaster response they have been overlooked. This problem became clear following the 1997 Red River flood in Grand Forks. The area inundated by the floodwaters matched almost exactly the inundation area predicted in earlier NDGS publications. However, the NDDEM was unaware that such resources were

available. By including the NDGS directly in the text of the Emergency Operations Plan, it should become easier for emergency responders to identify, locate, and utilize NDGS resources.

The NDGS is also contributing to the North Dakota Multi-Hazard Mitigation Plan. While the Emergency Operations Plan is designed to provide efficient and effective response to emergency situations, it does not address preparedness or hazard mitigation. These aspects of emergency management are particularly important when addressing geologic hazards, which are often avoidable with a little knowledge of (and respect for) local geologic conditions. The Multi-Hazard Mitigation Plan includes county by county summaries of geologic conditions with special reference to geologic hazards (areas prone to flooding, unstable slopes, etc.). The NDGS is working with the NDDEM by compiling pre-existing studies and composing brief, accurate, and understandable geologic summaries. Incorporation of this information into the Multi-Hazard Mitigation Plan should improve disaster preparedness.

### ***NDGS Newsletter* CHANGES PUBLICATION SCHEDULE**

Readers and loyal subscribers of the *NDGS Newsletter* take note: beginning in 1999, the *NDGS Newsletter* will be published on a biannual basis. A spring and winter issue will be published each year in June and December, respectively. The change in publication schedule ends a five-year stretch in which the *NDGS Newsletter* was published quarterly (with a few exceptions when the summer and fall issues were combined, such as occurred this year). The *Newsletter* will continue to contain technical and non-technical articles about the mineral and natural resources of North Dakota, information available from the Survey, and other items of geologic interest. Perhaps the most important fact is that the *Newsletter* will continue to be a free publication of the NDGS.

I hope you continue to enjoy your subscription. And as always, if you have any questions, comments, or topics you would like to see addressed in future issues, please call or send me a note. I can be reached by phone at (701) 328-8000, by e-mail at [afritz@rival.ndgs.state.nd.us](mailto:afritz@rival.ndgs.state.nd.us) or by regular mail at the North Dakota Geological Survey, 600 E. Boulevard Ave., Bismarck, ND 58505-0840. - Ann Fritz, Editor

## It's A Boy!

by Ann Fritz

I'm using my editorial privilege (if there is such a thing) to brag about a new member of the Fritz family. My husband and I were pleased as punch when we had our first child this spring. Adam was born June 9 and weighed in at 7 pounds, 6 ounces and was 21 1/2 inches tall. As babies have a tendency to do, he's grown leaps and bounds since then. As this goes to press, he's starting to roll over more vigorously, and my husband and I expect he'll be rolling and creeping all over our house in no time. Next thing we know he'll be asking for his own rock hammer and shovel! The photo (at right) is Adam in his normal, cheerful, and very photogenic state.



*Adam Fritz, future geologist (?) and new baby of NDGS Geologist Ann Fritz and her husband, Greg.*

## If the Earth Was an Apple....



You could cut it into four equal slices. Three would represent the oceans of the world. The fourth slice represents the land area. If you cut the land slice in half, lengthwise, you'll have two one-eighth pieces of the apple. One of these slices represents areas where humans can't live, such as the desert, swamp, arctic, and antarctic regions of the world. The last slice represents land where humans can live. Cut this last, one-eighth slice of the apple into four equal parts. Three of them represent areas of the world where food production is not possible, including land that has been developed. Peel the fourth part carefully. This small piece of peeling, on one-thirty-second of the apple, represents the soil of our earth that all of us depend on for food.

*Contributed by Russell Tonning, Resource Specialist with the Georgia Soil and Water Conservation Commission, 117 Savannah Ave., Statesboro, GA, 30458.*

## Is a Valuable Meteorite Hidden Beneath the Streets of Carrington?

On January 13, 1910, the Carrington Weekly carried an article entitled "Five Foot Meteor Strikes Near Guptil, Buries Itself Six Feet Deep in Ground and Sizzles for a Day." The meteorite was reported to have fallen four miles northwest of Carrington at 2 a.m. on January 10, 1910. Although initially reported to be over five feet in diameter, it was later said to be only 3 feet, weigh approximately 600 pounds, and have the appearance of iron ore (Carrington Weekly Independent; January 27, 1910; p. 1). The brilliant light from the fall was said to have engulfed the countryside for miles and was witnessed by at least two local families. The meteorite was reported to have stayed white hot for a full day after it fell. Citizens of Carrington expressed interest in putting the meteorite on display on the courthouse lawn but instead it was kept at Beck's Clothing Company store where it attracted hundreds of visitors (Courtney Gazette; December 22, 1910; p. 1). It was later moved to the sidewalk in front of the store and was reported missing in December of that year. The Fargo Sunday News (December 18, 1910, p. 15) carried the story under the title "Carrington Meteor Vanishes from Sight, Rock that Attracted Attention of Scientists has Disappeared." It was speculated that workers filling a sewer line in front of the store used the meteorite for backfill. Others thought that it had been stolen. The discovery of the meteorite had apparently been picked up by newspapers across the country and even by journals such as Scientific American.

There are no references to a Carrington or Gupitil meteorite in the scientific literature. One newspaper account briefly mentioned that there was a rumor going around that the rock never fell (Carrington Weekly Independent; January 27, 1910; p. 1). It is quite possible that this story was a hoax. The report that the rock was white hot for twenty-four hours certainly does not seem plausible since most meteorites are believed to be fairly cool by the time they reach the surface. The rock may well have been a glacial erratic that was unearthed in the Gupitil area. On the other hand, if the story is true, a valuable iron meteorite may be buried beneath the streets of Carrington.

*This story was excerpted from the recently published Meteorites in North Dakota by Edward C. Murphy and Nels F. Forsman, North Dakota Geological Survey Educational Series No.23. For ordering information, see New Publications on page 31.*



*Looking east to the Seaborg Drugstore (on the corner) on the main floor of the Buchanan Hotel Building in downtown Carrington. According to local historian Eldo Lee, Seaborg Drug is located in the space once occupied by the old Beck's Clothing Store.*

## **Survey Staff Slowly Growing**

No, we're not getting taller, but our personnel has changed a bit the last few months. This summer and fall, the NDGS welcomed two new employees, Bob Shjeflo and Linda Johnson. In June, Bob started working in the soil compilation program, and Linda began in September as our Information Processing Specialist and Layout and Designer of the *NDGS Newsletter*.

Bob Shjeflo reports that his first profession was an Air Force weather observer stationed in Germany, New Mexico, and Arizona. After his enlistment with the Air Force was completed, he got a Bachelor of Science degree in horticulture from NDSU. He was a horticulturist for seven years working in various capacities including grounds manager, landscape designer, and greenhouse grower. Finding horticulture too seasonal in North Dakota, he went back to weather observation, this time as a civilian at Grand Forks International Airport. He remained in Grand Forks for five years. Always looking for a new, exciting career, Bob completed a two-year curriculum in Architectural Drafting and worked temporarily for the Natural Resource Conservation Service before accepting the job at the NDGS.

Linda Johnson, a native of Devils Lake, moved to the Bismarck-Mandan area 23 years ago. She has long been familiar with the operations of the Geological Survey and Oil and Gas Division. Linda's husband is co-owner of an oil exploration and development company, Johnson and Borchert Consulting Geologists. She has two grown children, Kyle and Tessa.

## MINERAL INFORMATION AVAILABLE FOR EDUCATORS

The Mineral Information Institute (MII) has established a web site at [www.mii.org](http://www.mii.org) that allows teachers and students to access a wide range of educational materials about the mining and minerals processing industries. "Now, MII mineral education materials can be downloaded from the MII web site, saving time for teachers and money for MII," MII President, Nelson Fugate said. "Included are ready-to-run lessons and activities that can be used immediately in the classroom."

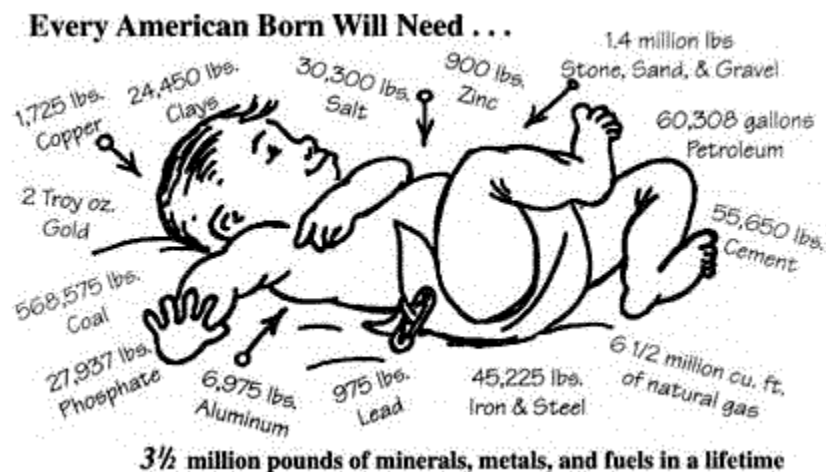
Included on the 300-page MII web site are three Teacher Helper packets of fully organized courses of study to promote minerals literacy. These files are large and take some time to download. MII suggests that a teacher pick several Internet savvy students, give them about eight floppy disks, and have them download the three Teacher Helper packets.

Homework aids for students are also available on the MII web site. Common minerals and their uses are set forth in an alphabetical listing from aluminum to zinc. Minerals produced in the individual states of the United States are outlined in a section of "State Mineral Production Summaries," each accompanied by a state map showing mineral locations.

More than 27,000 classroom teachers in all 50 states, as well as 10 U.S. territories and armed forces locations receive teaching materials from MII. In the last 18 months, more than 37,000 education packets have been mailed to teachers who have contacted MII, asking for help. Now, by using the Internet, teachers can receive the same excellent teaching materials that they previously received through the mail. MII will continue to print and mail educational materials for teachers who prefer to contact MII directly.

MII is a national 501(c)(3) nonprofit organization based in Denver, Colorado. MII's National Education Program is dedicated to educating the public, and youth in particular, about the science of minerals and other natural resources, and their role in every day life.

For additional information, visit the MII web site at [www.mii.org](http://www.mii.org) - or telephone Nelson Fugate, President, at 303-297-3226.



## USGS Report Signals Trend: More People Using Less Water

Newly released statistics on water use by the U.S. Geological Survey (USGS) show that the nation is using less water--402 billion gallons per day (bgd) for all uses, which is 2 percent less than in 1990 and nearly 10 percent less than in 1980, despite a continuous increase in population over that same time period.

Freshwater per-capita use also decreased for 1995. Total per-capita use was 1,280 gallons per day (gal/d), compared to 1,340 gal/d in 1990. The USGS has compiled and reported national water-use statistics once every 5 years since 1950.

After continual increases in the nation's total use of surface and ground water for the years reported from 1950 to 1980, water use declined and has remained fairly constant since the mid-1980s, according to the USGS report. "If you were to ask people if the nation was using more or less water now than say 15 or 20 years ago, the vast majority probably would say that we are using more water now," said Robert Hirsch, USGS chief hydrologist. "The overall decline in water use is an encouraging signal."

"The nation is clearly using surface- and ground-water resources more efficiently," Hirsch said. "Enhanced citizen awareness of the value of water and conservation programs in many communities across the country have helped to cut water use in spite of continued population growth. Improved irrigation techniques and more efficient use of water by industry have contributed to reduced water use as well."

Long-term concerns remain about the quality of available water, however. "With increased demands for water for instream uses such as river-based recreation, esthetic enjoyment and fish and wildlife habitat, the overall competition for good quality water will continue to increase," Hirsch said.

Irrigation is the top freshwater use category--134 bgd in 1995. When fresh and saline water are combined, more water continues to be withdrawn for thermoelectric power generation (190 bgd, of which 58 bgd is saline) than for any other category.

In a state-by-state comparison, California accounts for the largest total water use (46 bgd), followed by Texas, Illinois and Florida. Two dozen states and Puerto Rico had less water withdrawn during 1995 than during 1990.

The USGS water-use report, searchable by county and watershed, along with an expanded section on trends, is available on the World Wide Web at: <http://water.usgs.gov/public/watuse/>

Single copies of the 71-page report (with numerous tables, charts, and diagrams of source, use, and disposition of water), published as Estimated use of water in the United States in 1995, (USGS Circular 1200) are available free upon request to USGS Information Services, Box 25286, Denver Federal Center, Denver, CO 80225; or telefax requests to: 303-202-4693. Please be sure to specify USGS Circular 1200.

As the nation's largest water, earth and biological science and civilian mapping agency, the USGS works in cooperation with more than 2,000 organizations across the country to provide reliable, impartial, scientific information to the public, resource managers, planners and other customers. This information is gathered in every state by USGS scientists to minimize the loss of life and property from natural disasters, contribute to sound conservation, economic and physical development of the nation's natural resources, and to enhance the quality of life by monitoring water, biological, energy and mineral resources.

### **NDGS Newsletter Online**

The **NDGS Newsletter** is now available online in full color. Each department and feature article from the **Newsletter** is available as a separate Adobe PDF file that can be downloaded from our web site, opened, and printed on individual computers using Adobe Acrobat Reader. Click on **NDGS Newsletter** on our web site at: <http://www.state.nd.us/ndgs/> for more information.