2007 WESTERN SOUTH DAKOTA HYDROLOGY CONFERENCE
PRELIMINARY PROGRAM

Thursday, April 19, 2007
Alpine/Ponderosa Rooms
Rushmore Plaza Civic Center

7:00 – 7:50 a.m.	**REGISTRATION**	
7:50 – 9:40 a.m.	**Plenary Session 1 in Alpine and Ponderosa Rooms – Drought and Water Availability (1.5 PDH)** **Moderator – Mark Anderson**, Director of the U.S. Geological Survey Water Science Center, Rapid City, SD	
7:50 – 8:00 a.m.	Welcome, general information	**Mark Anderson** and **Daniel Driscoll**, U.S. Geological Survey
8:00 – 8:20 a.m.	Status of drought in South Dakota	**Dennis Todey**, South Dakota State Climatologist
8:20 – 8:40 a.m.	Ground-water levels in western South Dakota	**Ken Buhler**, Water Rights Program of the South Dakota Department of Environment and Natural Resources
8:40 – 9:00 a.m.	Availability and access to U.S. Geological Survey water-resources data	**Joyce Williamson**, U.S. Geological Survey
9:00 – 9:20 a.m.	Future water supplies for Rapid City	**Perry Rahn**, South Dakota School of Mines and Technology
9:20 – 9:40 a.m.	"Safe yield" and water-right protection in the Madison aquifer—Are they compatible?	**Paula Cutillo** and **William Van Liew**, National Park Service
9:40 – 10:05 a.m.	**REFRESHMENT BREAK**	
10:05 – 11:45 a.m.	**Concurrent Session 2 in Alpine Room – Aquifer Vulnerability (1.5 PDH)** **Moderator – Derric Iles,** State Geologist, South Dakota Department of Environment and Natural Resources, Geological Survey Program, Vermillion, SD	**Concurrent Session 2 in Ponderosa Room – Surface-Water Issues (1.5 PDH)** **Moderator – Dan Driscoll,** Studies Chief, U.S. Geological Survey South Dakota Water Science Center, Rapid City, SD
10:05 – 10:25 a.m.	*Vulnerability of the Madison aquifer, Hayward quadrangle, South Dakota* **– Crystal Hocking**, **Alvis Lisenbee**, and **Arden Davis**, South Dakota School of Mines and Technology	*Evaluation of compost as a stormwater best management practice* **– Russell Persyn**, South Dakota State University
10:25 – 10:45 a.m.	*Aquifer characteristics of Precambrian basement rocks in the Pactola Dam quadrangle, South Dakota* **– Darren Johnson, Alvis Lisenbee,** and **Arden Davis**, South Dakota School of Mines and Technology	*Quarry Hill ravine and streambank stabilization* **– Jonathon Kusa** and **Chad Hanisch**, HR Green
10:45 – 11:05 a.m.	*Vulnerability of the Inyan Kara aquifer, Hermosa and Hermosa NW quadrangles, Black Hills development corridor* **– Alvis Lisenbee**, **Elizabeth Francisco**, **Arden Davis**, and **Chris Pellowski**, South Dakota School of Mines and Technology	*Watershed assessment for the Lower Cheyenne River watershed* **– Cory Foreman**, RESPEC, and **Scott Kenner**, South Dakota School of Mines and Technology
11:05 – 11:25 a.m.	*Aquifer vulnerability in the Blackhawk quadrangle, South Dakota* **– Elizabeth Francisco**, **Alvis Lisenbee**, and **Arden Davis**, South Dakota School of Mines and Technology	*Belle Fourche River watershed segment II strategic implementation plan* **– Jared Oswald** and **Dan Hoyer**, RESPEC
11:25 – 11:45 a.m.	*Historic water pollution problems for Pactola Dam, Rapid City West, and the northern portion of Rockerville quadrangles* **– Matthew Minnick**, RESPEC, and **Alvis Lisenbee**, South Dakota School of Mines and Technology	*Environmental monitoring of the abandoned Belle Eldridge Mine near Deadwood, South Dakota* **– Arden Davis**, South Dakota School of Mines and Technology, **Cathleen Webb**, Western Kentucky University, and **Jenifer Sorensen**, South Dakota School of Mines and Technology
11:45 a.m. – 1:15 p.m.	**LUNCH WITH KEYNOTE SPEAKER – CHRIS MILLY (1.0 PDH)** U.S. Geological Survey, Princeton, NJ *Old state, new state; red state, blue state: Contrasting implications of climate change for streamflow across the United States*	

1:15 – 2:55 p.m.	**Concurrent Session 3 in Alpine Room – Ground-Water Issues (1.5 PDH)** **Moderator – Dr. Arden Davis**, Professor, South Dakota School of Mines and Technology, Rapid City, SD	**Concurrent Session 3 in Ponderosa Room – Hydrology Potpourri (1.5 PDH)** **Moderator – Janet Carter,** Hydrologist, U.S. Geological Survey South Dakota Water Science Center, Rapid City, SD
1:15 – 1:35 p.m.	*Pumping tests in the Deadwood aquifer at Jewel Cave National Monument, Custer County, South Dakota* **– Joshua Valder**, South Dakota School of Mines and Technology	*Unique methods for stratigraphic correlation: Pierre Shale Formation, South Dakota* **– Doreena Patrick**, **Paul Wegleitner**, Geochemical Solutions LLC, and **James Martin**, South Dakota School of Mines and Technology
1:35 – 1:55 p.m.	*Estimating ground-water ages and relative flow fractions of karst flow components in the Madison aquifer* **– Andy Long** and **Larry Putnam**, U.S. Geological Survey	*Diversity of South Dakota landscapes: numbers for climate characteristics and water resources* **– Boris Shmagin**, **Carol Johnston**, and **Dennis Todey**, South Dakota State University
1:55 – 2:15 p.m.	*Angle wells under the Missouri River* **– James Landenberger**, Bartlett & West Engineers, Inc.	*Further testing of limestone-based material for arsenic removal from small water systems* **– Jenifer Sorensen**, **Arden Davis**, **David Dixon**, and **Crystal Hocking**, South Dakota School of Mines and Technology
2:15 – 2:35 p.m.	*Protecting ground water in the oil patch* **– Fred Steece**, South Dakota Department of Environment and Natural Resources	*Susceptibility for slope failure due to future development and land use along Highway 79 in the Hermosa NW quadrangle, Pennington County* **– Matthew Minnick**, RESPEC, **Larry Stetler**, South Dakota School of Mines and Technology, and **Cory Foreman**, RESPEC
2:35 – 2:55 p.m.	*Infantile methemoglobinemia and nitrate contaminated wells—Has the role of bacteria been overlooked?* **– Michael Meyer**, GeoTek Engineering & Testing Services	*Geologic mapping of the Hermosa and Hermosa NW quadrangles, Black Hills development corridor* **– Christopher Pellowski**, **Alvis Lisenbee**, and **Darren Johnson**, South Dakota School of Mines and Technology
2:55 – 3:20 p.m.	**REFRESHMENT BREAK**	
3:20 – 5:10 p.m.	**Plenary Session 4 in Alpine and Ponderosa Rooms – Environmental Impacts (1.5 PDH)** **Moderator – Dr. John Zogorski**, Chief of the National Water Quality Assessment Program's National Synthesis on Volatile Organic Compounds, U.S. Geological Survey, Rapid City, SD	
3:20 – 3:40 p.m.	Environmental impacts from the North Cave Hills abandoned uranium mines, Harding County, South Dakota	**James Stone**, **Larry Stetler**, South Dakota School of Mines and Technology, and **Albrecht Schwalm**, Oglala Lakota College
3:40 – 4:00 p.m.	Aerosol dust transport, deposition, and composition around abandoned uranium mines in the North Cave Hills, Harding County, South Dakota	**Kyrian Onyeukwu**, **Larry Stetler**, and **James Stone,** South Dakota School of Mines and Technology
4:00 – 4:20 p.m.	Groundwater quality near abandoned uranium mines in the North Cave Hills, Harding County, South Dakota	**Larry Stetler** and **James Stone**, South Dakota School of Mines and Technology
4:20 – 4:40 p.m.	Characterization of effects of on-site wastewater disposal systems overlying fractured or solution-enhanced aquifers, Black Hills of South Dakota	**Larry Putnam**, **Andrew Long**, U.S. Geological Survey, and **J. Foster Sawyer**, South Dakota Department of Environment and Natural Resources
4:40 – 5:00 p.m.	Effects of nuisance blooms of *Didymosphenia geminata* on benthic community composition in Rapid Creek, South Dakota	**Aaron Larson**, South Dakota Department of Environment and Natural Resources
5:00 – 5:10 p.m.	Closing remarks	**Janet Carter,** U.S. Geological Survey