

Draft AGENDA (9/24/98)
AWRA/MONTANA WATER CENTER CONFERENCE
 October 1st & 2nd, 1998 - Park Plaza Hotel - Helena, Montana

S - Student Presentation

8:00-noon **Helena Area Geological Field Trip** - Leaves Park Plaza after loading at 7:45 a.m.
 Mitchell Reynolds, Geologist
 U.S. Geological Survey

11:00 Registration - Park Plaza
 Conference Area Lobby

12:30-12:40 **Welcoming Remarks**
 Vivian Drake, President
 AWRA - Montana

Thursday October 1st

SESSION A: CHEMISTRY AND GEOLOGIC STUDIES
 Moderator: Tom Patton, MBMG

12:40-1:00 **Copper and Lead Corrosion Control in Small Public Water Systems - Part 1**
 Barb Keller, Research Chemist
 Montana Bureau of Mines and Geology

1:00-1:20 **Copper and Lead Corrosion Control in Small Public Water Systems - Part 2**
 Ginette Abdo, Hydrogeologist
 Montana Bureau of Mines and Geology

1:20-1:40 **Causes of Septic System Failure in Gallatin County**
 Gretchen Rupp, Extension Engineer
 MSU Extension Service

1:40-2:00 **Geologic Controls of Spring Discharge, Miller Creek Basin, New World Mining District, Montana**

S Alexander D. Durst, M.S. Student
 Stephan Custer, Advisor
 Dept. of Earth Sciences MSU Bozeman

2:00-2:20 **Geohydrologic Evaluation and Aquifer Sensitivity Assessment of the Bitterroot Valley, Ravalli County, Montana**
 David Briar,
 U.S. Geological Survey

2:20-2:40 **Bitterroot River Climatology for Watershed Management**
 Bob Hammer, Hydrologist
 Bitterroot National Forest

2:40-3:00 **BREAK**

SESSION B: WATERSHED DATABASE AND GIS INFORMATION EXCHANGE
 Moderator: David Briar, USGS

3:00-3:20 **"Montana Watersheds" - A Link to Watershed Information in Montana**
 Kathy Tohe Stephens, Water Information Coordinator
 Montana University System Water Center

3:20-3:40 **Maps and Interactive Mapping Applications over the Internet**
Velda Welch, Water Information Specialist
Montana Natural Resources Information System

3:40-4:00 **Upper Clark Fork River Basin's Water Quantity / Quality Project - A GIS Analysis of Clark Fork River Basin Water Quantity and Quality Conditions**
Tim Weisenburger, GIS Programmer and Analyst
Duane Anderson (Water Information Coordinator, NRI S)
Montana Natural Resources Information System

4:00-4:20 **Well and Septic Location from Existing Data Bases-- Where is as Important as What**
Stephan G. Custer, Professor
Andrea B. Wright, and Stewart Dixon
Dept. of Earth Sciences, MSU
Bozeman

4:20-4:40 **Evaluating Grazing Use Level Indicators as Best Management Practices (BMPs) for Protecting Water Quality in Western Montana - THE MEDICINE LODGE CREEK WATERSHED**

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Amy C. Chadwick, Student/Research Specialist
Donna DeFrancesco, Paul L. Hansen, and Tim Bozorth (BLM - Billings)
Riparian and Wetland Research Program

4:40-5:00 **Evaluating Grazing Use Level Indicators as Best Management Practices (BMPs) for Protecting Water Quality in Western Montana - THE BOX ELDER CREEK WATERSHED**

Donna DeFrancesco, Research Specialist
Amy C. Chadwick, Paul L. Hansen, and Tim Bozorth (BLM - Billings)
Riparian and Wetland Research Program

5:30-5:45

EVENING FESTIVITIES

"Friendship Buses" pickup at Park Plaza Hotel for trip to Great Divide Ski Area.

6:15-7:00

Social Hour (outside on deck, weather permitting)

7:00-8:15

Buffet Dinner - Baby back ribs, baron of beef, chicken in wine and mushroom sauce, baked salmon fillets plus side dishes.

8:15-8:45

Presentation of the 3rd Annual "Montana Water Legend Award" to Ron Shields, U.S. Geological Survey.

8:45-9:30

After dinner entertainment: Helena's Toadstone Theatre presents a "water theme play".

9:30

"Friendship Buses" return to Park Plaza Hotel.

FRIDAY, OCTOBER 2ND

7:00-8:00 Continental Breakfast - included in conference fee

SESSION C: SURFACE WATER ISSUES

Moderator: Larry Dolan, DNRC

- 8:00-8:20 **Snowmelt and Small Dam Design in Montana**
Joe VanMullem, Hydraulic Engineer
Natural Resources Conservation Service
- 8:20-8:40 **Streamflow Reduction by Pumping Wells**
Mark Cunnane, P.E.
Western Groundwater Services
- 8:40-9:00 **Establishment of Surface Water Monitoring Networks for Irrigation Evaluation**
Terry Voeller, Hydrologist
Montana Dept. of Natural Resources and Conservation
- 9:00-9:20 **Application of the Precipitation Runoff Modeling System to Provide a Basis for Assessing Landscape Scale Channel Changes**
- S** Mike Roberts, Graduate Research Assistant
Don Potts (Professor)
U of M School of Forestry
- 9:20-9:40 **Natural Causes of Stream Channel Instability: Field Examples for Consideration When Assessing the Need for Total Maximum Daily Load (TMDL) Development**
John F. Whittingham, Hydrologist
Bureau of Land Management - Dillon Field Office

9:40-10:00

BREAK**SESSION D: SURFACE WATER ISSUES**

CONT. Moderator: Donna Rise, MT Dept. of Ag.

- 10:00-10:20 **Estimating the Seasonal Mass Flux of Arsenic through Hebgen Lake using Regression and Time-Series Methods**
Chuck Dalby, Hydrologist
Water Management Bureau, MT
DNRC
- 10:20-10:40 **What Streams are Affected by Abandoned Mines? -- Characterization of Water Quality in the Streams of the Boulder River Watershed, Montana**
David A. Nimick,
and Tom E. Cleasby
U.S. Geological Survey
- 10:40-11:00 **Preferential Flow of Virus to a Production Well within a Floodplain Aquifer of the Clark Fork River**
- S** Patrick N. Ball
Bill Woessner, Advisor
University of Montana, Division of Biological Sciences
- 11:00-11:20 **Clark Fork River Voluntary Nutrient Reduction Plan**
Vicki Watson, Professor
U of M Environmental Studies
- 11:20-11:40 **Wetlands Community Partnership**
Pat Hettinger
Lewis and Clark County Water Quality Protection District
- 11:40-12:15 Selection of Best Student Paper, AWRA Business: 1998-99 Officers, the 1999 National Technical Symposium, and nominations for 4th Montana Water Legend Award
- 12:15 **Adjourn**

POSTER SESSIONS

Lewis and Clark County Water Quality Protection District and Upper Tenmile Watershed Steering Group

Vivian Drake, Lewis and Clark County
Pat Hettinger, Lewis and Clark County

BASINS & Montana View - Software for Performing Watershed and Water Quality-based Studies in Montana

Velda Welch, Water Information Specialist
Montana Natural Resources Information system

Riparian and Wetland Research Program at the University of Montana: Mission, Goals, Current Projects, Education and Data Dissemination

Donna DeFrancesco, Research Specialist
Riparian and Wetland Research Program

MONTANA WATER - A Gateway to Montana Water Information

Kathy Tohe Stephens, Water Information Coordinator
Montana University System Water Center

Extent, Magnitude and Sources of Nitrate in the Flaxville and Underlying Aquifers, Fort Peck Indian Reservation, Northeast Montana

David A. Nimick and Joanna N. Thamke
U.S. Geological Survey

Ground-Water of the Lower Yellowstone River Area: Dawson, Fallon, Prairie, Richland, and Wibaux Counties, Montana

Larry N. Smith, Research Geologist
Montana Bureau of Mines and Geology, University of Montana

Microbiological Survey of the Berkeley Pit, Butte, Montana

Mark Phillips, Graduate Student
Montana Tech of the University of Montana