

AWRA / MONTANA WATER CENTER CONFERENCE AGENDA - DRAFT
Western Montana College of the U of M, Dillon MT Fall, 1996

THURSDAY, Oct. 3

11:00 Registration

12:30-12:45 Introductions & Welcomes

Interdisciplinary Environmental Sciences Program at Western Montana College

Rob Thomas, Dept. Chair and Associate Professor of Geology

AWRA Activities - National

Don Potts, President

AWRA Activities -Montana

Jon Reiten, Section President

SESSION I -- BEAVERHEAD WATER ISSUES

Moderator: Peter Bengeyfield
 U.S. Forest Service
 Beaverhead National Forest

12:45-1:00 **Irrigation Return Flows to the Beaverhead River**

Jay Chamberlin, Project Manager
 East Bench Irrigation District

1:00-1:15 **Geologic Framework of the Beaverhead Groundwater Protection Area**

Kirk B. Waren, Hydrogeologist
 Montana DNRC

1:15-1:30 **Surface Water Monitoring Plan for the Beaverhead Groundwater Study**

Jim Beck, Agricultural Specialist
 Montana DNRC

1:30-1:45 **Groundwater Level Monitoring in the Beaverhead Groundwater**

Protection Area

William Uthman, Hydrogeologist
 Montana DNRC

1:45-2:00 **Slug Tests with Inertial Oscillatory Effects Examples from the Beaverhead Groundwater Protection Project, Montana**

Willis D. Weight, Associate Professor and Head of Hydrogeology Program
 Department of Geological Engineering
 Montana Tech of the University of Montana

2:00-2:15 **Computer Simulated Flow Model of Groundwater Resources in the Dillon Valley, Beaverhead County, Montana**

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Gregory P. Wittman, Consultant
 Geologist/Hydrogeology Graduate Student
 Montana Tech of the University of Montana

2:15-2:30 **Drinking Water Assistance Center Demo Project for Wellhead Protection: Emphasis on the Dillon Site**

(MWC)

Pete Norbeck, Assistant Research Professor
 Kate Miller, Associate Research Professor
 Montana Bureau of Mines and Geology
 Montana Tech of the University of Montana

SESSION II -- WASTEWATER

Moderator: Kate Miller
 Associate Research Professor
 Montana Bureau of Mines and Geology

2:45-3:00 **Engineering Review: Alternative On-Site Wastewater Systems**

(MWC) Mark Brooks, M.S. Student
Department of Civil Engineering

3:00-3:15 **Virus Transport in a Heterogeneous, High-Conductivity Floodplain**
William W. Woessner, Professor
Daniel C. DeBorde, Assistant Professor
Patrick Ball, Jennifer M. Bushur, and Quinn T. Kiley, Graduate Students
Department of Geology
The University of Montana

3:15-3:30 **Results of a Virus Seeding Experiment in an Unconfined, Sand and Gravel Aquifer, Frenchtown, Montana**
✓S Bruce C. Lauerman, M.S. Candidate
(MWC) William W. Woessner, Professor

Dan C. DeBorde, Assistant Professor
Patrick N. Ball, PhD Student
Department of Geology
The University of Montana

3:30-4:00 **What is the Value of Pollution Prevention**
Gretchen Rupp, Extension Engineer
Montana State University Extension Service

SESSION III: GEOCHEMISTRY

Moderator: Greg Vandeberg
Reclamation Research
Montana State University

3:45-4:00 **Arsenic Solubility in Soils of the Lower Madison River Valley: The Role of Redox Potential**
✓S Clain A. Jones, PhD Student
(MWC) William P. Inskeep, Associate Professor

James W. Bauder, Soils Scientist
Plant, Soil, and Environmental Sciences Dept.
Montana State University

4:00-4:15 **Use of Isotopes to Assess Groundwater Ages and Sources in Eastern Montana**
John I. LaFave, Assistant Research Hydrogeologist
Montana Bureau of Mines and Geology
Montana Tech of the University of Montana

4:15-4:30 **Metal Behavior in the Shallow Hyporheic Zone in Silverbow Creek, Montana, USA**
✓S Sonia A. Nagorski, M.S. Student
Johnnie N. Moore, Professor
Department of Geology
The University of Montana

4:30-4:45 **Watertable Fluctuations as a Mechanism to Release Metals from a Tailings-Rich Floodplain, Silver Bow Creek, Montana**
✓S Devin T. Shay, Graduate Student
William W. Woessner, Professor
Johnnie N. Moore, Professor
Department of Geology
The University of Montana

4:45-5:00 **Yellowstone Controlled Groundwater Area**
Scott Compton, Regional Manager
Montana DNRC

5:00 Adjourn

FESTIVITIES at BIRCH CREEK CENTER

5:30 Social Hour
6:30 Barbeque buffet
7:45 **Guest Speaker:**
Phil Farnes, Montana Water Legend
'Montana Then & Now, A Photographic

*Comparison of Landscapes
through Time'*

FRIDAY, Oct. 4

**SESSION IV: CURRENT MONTANA
WATER**

ISSUES

Moderator: Kathy Stephens
Communications Director
Montana Water Center

8:00-8:15 **Standards & Guidelines for New
BLM Grazing Regulations**

Tim Bozorth, Hydrologist
Bureau of Land Management

8:15-8:30 **From Internet to Pore Space: An
Update on Clearinghouse Activities
and Active Projects at the Montana
Water Information System**

Jim Stimson, Water Information Coordinator
Natural Resource Information System
Montana State Library

8:30-8:45 **I-122 Pros & Cons**

Michelle Bryan, Research/Communications
Specialist
Montana Water Center
Montana State University

**SESSION Va: WATERSHED ISSUES -
Aquifers**

Moderator: Jon Reiten
AWRA President
Montana Bureau of Mines & Geology

8:45-9:00 **Helena Area Bedrock Aquifers
Assessment**

Vivian Drake, Director
Lewis & Clark County Water Quality

Protection District

9:00-9:15 **Developing a Watershed Protection
Plan in the Tenmile Creek
Drainage, Lewis and Clark County,
Montana**

✓S Patricia Hettinger, Associate
(MWC) Lewis & Clark County Water
Quality Protection District

9:15-9:30 **Preliminary Evaluation of
Groundwater Hydrology in a
Foothills Riparian Meadow, Red
Bluff, Montana**

Paul Hook, Associate Professor
Department of Animal and Range Sciences
Montana State University

9:30-9:45 **Evaluation of Ground-
Water/Surface Water Interactions
in the Big Hole Basin, Southwest
Montana**

Richard K. Marvin, Associate Professor
Montana Bureau of Mines and Geology
Montana Tech of the University of Montana

9:45-10:00 **Ground-Water Evaluation of East
Butte Area, Sweetgrass Hills,
Northcentral Montana**

Kate Miller, Associate Research Professor
Pete Norbeck, Assistant Research Professor
Montana Bureau of Mines and Geology
Montana Tech of the University of Montana

10:00-10:15 **Defining the Groundwater Regime
Within The Maynard Creek
Catchment**

John Whittingham, Hydrologist
Bureau of Land Management

10:15-10:30 **AWRA Business Meeting**

10:30-10:45 **BREAK**

SESSION Vb: WATERSHED ISSUES

Stream Systems

Moderator: Mark Story

Hydrologist

Gallatin National Forest

10:45-11:00 **Use and Misuse of Channel
Classification Schemes**

Scott Gillilan, Senior Associate
Inter-Fluve Inc.

11:00-11:15 **Hydraulic Assessment of In-Stream
Boulder Clusters**

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S. F. Boelman, Graduate Research Assistant
O. R. Stein, Associate Professor
Civil Engineering Department
Montana State University

11:15-11:30 **Field Estimating Ruby River
Suspended Sediment
Concentrations: The Relationship
Between Suspended Sediment
Concentration, Sediment Volume,
Particle Size, and Turbidity**

Chuck Dalby, Hydrologist
Water Management Bureau
Montana DNRC

11:30-11:45 **Historic Role of Fire in Determining
Water Yield from Tenderfoot
Creek Experimental Forest,
Montana**

Phillip E. Farnes, Snowcap Hydrology
Ward W. McCaughey, USDA Forest Service,
Intermountain Research Station
Katherine J. Hansen, Associate Professor
Earth Sciences Department
Montana State University

11:45-12:00 **Channel-Change Measurement at
Price Creek, Southwest Montana**

1995-1996

Stephen G. Custer, Associate Professor
Department of Earth Sciences
Montana State University

12:00-12:15 **Gallatin National Forest Watershed
Rehabilitation Program: Watershed
Rehabilitation Projects in Hyalite
Creek and Bear Canyon**

Wendy Urie, Hydrology Technician
Mark Story, Hydrologist
Gallatin National Forest

12:15-12:30 **Synthesis of Natural Flows in
Montana**

Terry Voeller and Larry Dolan
Hydrologists
Montana DNRC

12:30 **STUDENT AWARDS &
PRESENTATION OF 1997
OFFICERS**

1:00 **ADJOURN**

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Student Paper - Please Vote!!

(MWC)

Project funded in part by the
Montana university system
Water Center

Possible afternoon field trips in the Dillon area - to be
determined