

1997 Annual Conference Agenda
Montana AWRA & Montana Water Center
War Bonnet Inn, Butte, Montana (as of 9/10/97)

THURSDAY, October 2

11:00 Registration Begins
 12:30 Welcoming Remarks
 12:45 President's Message

	Session A: Surface Water/Clark Fork Watershed Issues Moderator: Greg Vandeburg	Session B: Groundwater Chemistry Moderator: Ginette Abdo
1:00 - 1:15	Sources and Transport of Trace Metals in the Upper Clark Fork Basin, 1985-95 John Lambing, Hydrologist US Geological Survey	Investigation of Arsenic in Surface Water, Irrigated Soils and Shallow Groundwater of the Madison and Upper Missouri River Basin, Montana--An Overview Chuck Dalby, Hydrologist Water Management Bureau, DNRC
1:20 - 1:35	Polyamine-Silica Composites: An Economical and Effective Remediation and Abatement Material for Metal ion Containing Aqueous Waste Streams ✓S Robert Fischer, Graduate Student Ph.D. Susan Beatty, David Pang & Edward Rosenberg Department of Chemistry The University of Montana-Missoula	Arsenic Hydrogeochemistry in an Irrigated River Valley--A Re-evaluation David Nimick, Hydrologist U.S. Geological Survey
1:40 - 1:55	Affects of Phytostabilization on runoff Water Quality From the Clark Fork River Floodplan Dennis Neuman, Assoc. Research Chemist S.R. Jennings & F.F. Munshower Reclamation Research Unit Montana State University	Characterization of Arsenic in Soils of the Madison and Upper Missouri River Basin (104b) William Inskeep, Professor, Plant, Soil and Environmental Sciences C.A. Jones, J.W. Bauder & K.E. Keith Montana State University Department of Plant, Soil and Environmental Sciences
2:00 - 2:15	Flint Creek Return Flow Study - Surface Water Analysis Terry Voeller, Surface Water Hydrologist Montana DNRC	Helena Area Bedrock Aquifers Assessment Vivian Drake, Supervisor Lewis & Clark County Water Quality Protection District
2:20 - 2:35	Flint Creek Return Flow Study - Groundwater Analysis Kirk Waren, Hydrogeologist Montana DNRC	Relation of Dryland Agriculture to Nitrate in Ground Water, Northeastern Montana Joanna Thamke, Hydrologist David Nimick US Geological Survey

2:40 - 2:55	Monitoring Algae Levels in the Clark Fork River ✓S, (104b) Bonnie Gestring, Student, M.S. Vicki Watson, Environmental Studies University of Montana	A Comparison of Two Field Methods for Determining Nitrate in Groundwater ✓S Kurt Zeiler, Student, B.S. Montana State University Department of Earth Sciences
3:00 - 3:15	BREAK	
3:20 - 3:35	Modeling a Concrete Block Irrigation Diversion System ✓S Paul Sanford, Graduate Student, M.S. Joel Cahoon & Tom Hughes Civil Engineering Department Montana State University	Virus Transport in a Floodplain Aquifer During Pumping ✓S, (104b) Pat Ball, Graduate Student, Ph.D. Tom Troy, Quinn Kiley, William Woessner & Dan DeBorde Division of Biological Sciences University of Montana
3:40 - 3:55	Water Quality Monitoring at Fresno Reservoir ✓S Jean McCullam, Graduate Student, M.S. Eric Minneti, Dan Adams & Gregg Hester Montana State University-Northern	Sources, Movement, and Fate of Selenium in the Freezout Lake Wildlife Management Area, Montana Eloise Kendy, Hydrologist David Nimick U.S. Geological Survey
4:00 - 4:15	Evaluation of Processes Controlling Sediment Entrapment by Rangeland Riparian Vegetation (104b) Paul Hook, Professor, Clayton Marlow Animal and Range Science Dept. Montana State University	Geologic Framework of Aquifers and Confining Units in the Kalispell Valley, Northwestern Montana Larry Smith, Assistant Research Geologist Montana Ground-Water Characterization Program Montana Bureau of Mines and Geology
4:20 - 4:35	Bureau of Land Management Approach to Rehabilitation of the Stone Creek Watershed John Whittingham, Hydrologist Bureau of Land Management Dillon Resource Area	Hydrogeology and Ground Water Chemistry of the Kalispell Valley, Northwestern Montana John LaFave, Assistant Research Hydrogeologist Montana Ground-Water Assessment Program Montana Bureau of Mines and Geology
4:40 - 4:55		Greenfields Bench, State Management Plan, Protection of Ground Water Resources Through Agrichemical Management Donna Rise, Ground Water Specialist Montana Department of Agriculture

6:00 - 10:00 Evening Festivities:
MINERAL MUSEUM -- Montana Bureau of Mines & Geology

6:00 - 7:00 Social Hour

7:00 Banquet

Presentation of the 2nd Annual 'Montana Water Legend Award' to Marvin Miller - MBMG
 Keynote Speakers
 - 10:00 Robert Davis, Dave Briar, and John Kilpatrick - U.S. Geological Survey
topic -- 'Science for a Changing World'

FRIDAY, October 3

	Session C: Water, Wastewater Treatment / Groundwater Physical Characterization Moderator: Vivian Drake	Session D: Current Montana Issues and Programs Moderator: Joanna Thamke
8:00 - 8:15	Performance Evaluation: Nitrogen Removal in Three Level II Systems for Wastewater Treatment ✓S, (DWAP) Undergraduate Research Assistant Joseph Hoffman & Warren Jones Center for Biofilm Engineering Montana State University	Developing Bioassessment Protocols for Montana Wetlands Randy Apfelbeck, Water Quality Specialist L. Bahls, M. Shapley, J. Gerritsen, M. Barbour, J. Stribling, D. Charles & F Acker Monitoring and Data Management Bureau, Montana DEQ
8:20 - 8:35	Validation of Mixed-oxidants for the Disinfection and Removal of Biofilms from Distribution Systems ✓S, (DWAP) Cyndi Crayton, Graduate Student, M.S. Anne Camper Center for Biofilm Engineering Montana State University	Water Utilities, Choice of Residential Rate Structure Julie Hewitt, Assistant Professor Dept of Agricultural Economics and Economics Montana State University
8:40 - 8:55	An Evaluation of Zeolite- and Garnet-Amended Slow Sand Filters (DWAP) James Madison, Assistant Research Hydrogeologist Montana Bureau of Mines and Geology	The Source Water Assessment Program Joseph Meek, Water Quality Specialist Montana DEQ
9:00 - 9:15	An Automated System for the Enumeration of <i>Cryptosporidium</i> oocysts in Environmental Samples ✓S, (DWAP) K.F.A. Van Ommen Kloeke, Graduate Student, Ph.D. J.J. Smith, C. Weldon & G.G. Geesey Department of Microbiology & Center for Biofilm Engineering Montana State University	Wellhead Protection--Involving Our School Communities Ginette Abdo, Assist. Research Hydrogeology Montana Bureau of Mines and Geology
9:20 - 9:35	Using Meteric Chloride to Estimate Recharge to Ground Water Near Cherry Creek in Eastern Montana James Rose, Montana Ground-Water Assessment Program Montana Bureau of Mines and Geology	Ground-Water Information Center and GIS Thomas Patton, Assoc. Research Hydrogeologist Luke Buckley Montana Ground-Water Assessment Program Montana Bureau of Mines and Geology

9:40 - 9:55	Ground-water Assessment of the Florence and Seeley Lake Areas, Ravalli and Missoula Counties, Montana Peter Norbeck, Hydrologist Heather Dusterhoff Montana Bureau of Mines and Geology	Application of Montana's Non-Degradation Regulations to on-site Wastewater Treatment Systems Dennis McKenna, Supervisor, Subdivision Section Eric Regensburger Water Quality Protection Bureau Montana DEQ Permitting & Compliance Division
10:00 - 10:15	BREAK	
10:20 - 10:35	Hydrogeology of the Sidney Public Water Supply from a Wellhead Protection Perspective Jon Reiten, Hydrogeologist Montana Bureau of Mines & Geology - Billings	Pesticide Specific Management Plans, the Future in Montana Agriculture David Rise, Ground Water Specialist Montana Department of Agriculture
10:40 - 10:55	Red River Ground-Water Assessment, Glacier and Toole Counties, Montana Peter Norbeck, Hydrologist Kate Miller & Heather Dusterhoff Montana Bureau of Mines and Geology	"Who is the Environmental Quality Council and How Do They Affect Water Quality in Montana?" Kathleen Williams, Resource Policy Analyst Environmental Quality Council
11:20 - 11:35	Irrigation Return Flow Model for an Idealized Portion of the Upper Big Hole Basin, Southwest Montana (104b) Richard Marvin, Assistant Research Hydrogeologist Montana Bureau of Mines and Geology	TMDL Legislation — H.B. 546 Gary Ingman, Chief Monitoring & Data Management Bureau Montana DEQ

11:40 - 12:15 Selection of Best Student Paper

Presentation of 1997-1998 Officers & AWRA Business

12:15 Adjourn

- ✓S Student Paper - Please Vote!!
- (104b) Project funded in part by the Montana university system Water Center Section 104 (b) program
- (DWAP) Project funded by the Drinking Water Assistance Program for small systems, the Montana university system Water Center

Thanks to all conference organizers!