



AUGUST
2011

Newsletter

MONTANA SECTION ~ AMERICAN WATER RESOURCES ASSOCIATION

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Montana's Water Resources: Adapting to Changes in Supply and Demand

2011 Montana AWRA Conference, Great Falls Hilton Garden Inn

Eric Chase, President

My how we have grown since our last visit to Great Falls! We last enjoyed the hospitality of Great Falls in 1999 when Ginette Abdo was our esteemed president and we were able to fit our conference into the Lewis and Clark Interpretive Center. While many of the topics presented at that conference would be familiar to us today, we have almost doubled the number of presenters! This year's conference will be at the Great Falls Hilton Garden Inn. Related conference activities will kick off with an optional field trip the afternoon of Wednesday

October 5th. The conference registration desk will be open from 10 am until 7 pm. Busses for the field trip will begin loading at the hotel at 12:30 pm and will leave for the Belt area at 1:00 pm sharp. Don't be late or the buses will leave you behind! See the field trip article for more details.

Registration will open again at 7:30 am Thursday. The conference will kick-off at 8:15 with opening announcements from MT AWRA officers and the Water Center. This will be followed by an address from



*Black Eagle Dam
Great Falls, Montana*

the national chapter AWRA President-Elect Bill Battaglin. Following Bill, WPIC staff member Joe Kolman will give an update of WPIC committee activities from the last year and address water related bills that made

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2011 Field Trip to View Belt Creek Acid Mine Drainage and the Madison Aquifer

Russell Levens, Treasurer



AMD – Acid Mine Drainage at Belt Creek – Photo by Shawn Kuzara of Montana Bureau of Mines and Geology

The 2011 field trip is scheduled for Wednesday, October 5 and begins with a stop at Belt Creek near the town of Belt to discuss acid mine drainage remediation and prevention. The remainder of the trip will take us on a journey from the recharge area of the Madison Aquifer at Sluice Boxes State Park to the discharge area at Giant Springs along the Missouri River. In Belt, we will set up at a site where acidic drainage from the Anaconda underground coal mine discharges to

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Montana's Water Resources ... continued from page 1

it through the legislature. Not to worry, this year we scheduled enough time for Joe to answer lots of questions! After we are done grilling Joe we will have two keynote speakers to complete the morning session.

This year has been one of quickly changing conditions from the legislature, to flooding and now on to summer heat. In the water world, it was a record breaking spring throughout Montana with historic flooding in the east and record snowpacks in the west. Gina Loss, Senior Service Hydrologist from the National Weather Service in Great Falls will speak about the extent of this spring's precipitation and flooding. Gina is responsible for the NWS hydrology program for all of Montana east of the Continental Divide. She has been with the Great Falls office since 2000, and all but three of her nearly 26 years with the National Weather Service have been in Montana.

This year's historic flooding did not just end at the Montana border, but was widespread throughout the Missouri River Basin. We are very pleased to have Wayne Nelson joining us from the US Fish and Wildlife Service in South Dakota. Wayne is the acting Missouri River Natural Resources Committee Coordinator and Co-Lead for the Missouri River Ecosystem Restoration Plan (MRERP). Wayne brings a wealth of expertise to his current position with five years of Missouri River related work with the USFWS, 15 years of work as a biologist and Missouri River Coordinator for the State of South Dakota, and two years of research on salmon on the Columbia and Snake Rivers with the USGS. His keynote will focus on his involvement with MRERP and the work being done to mitigate losses of aquatic and terrestrial habitat, and to restore the Missouri River ecosystem. For more information on MRERP please see <http://www.MRERP.org>.



*Keynote Speaker Wayne Nelson-Stastny of
the US Fish & Wildlife Service*

After our keynote speakers, we will break for lunch (on your own). The afternoon will be filled with two concurrent technical sessions beginning at 12:30 pm with a mid-afternoon break. Following the technical sessions will be our annual poster session and social beginning at 5:00 pm and running until the banquet starts at 7:00 pm. As usual, we will provide a great selection of locally brewed beers and tasty finger food.

Thursday evening will feature our annual banquet followed by a presentation by Christopher Boyer of Kestrel Aerial Services. Chris has been flying and photo-documenting this year's extensive flooding. His presentation will primarily focus on the

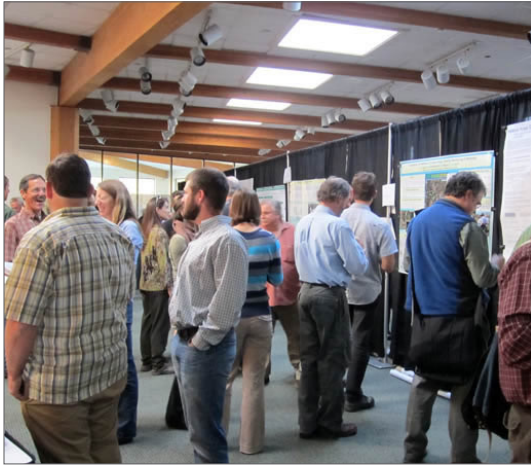


2011 Musselshell Flooding. Photo Credit: Kestrel Aerial Services

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flooding and permanent changes in the Musselshell River watershed, but he will also share images from other river basins in Southwest Montana. After an enlightening aerial view of this year's flooding, we will be inducting the 2011 water legend! As usual, the banquet festivities will wrap up with the ever popular photo contest.

We begin Friday with two technical sessions starting at 8:15 am and running until 12:15 pm. After the technical sessions, we will wrap up the 2011 conference with our closing plenary which will include final remarks, student presentation awards, photo contest awards, and the announcement of the incoming AWRA treasurer. For more information and to register for the conference please visit our website, <http://state.awra.org/montana/>.



The poster session and social is a conference highlight.

Great Falls Conference Poster Session

Dave Donohue, Vice-President

As in years past, the MT AWRA 2011 poster session and social will start shortly after the oral presentations wrap up on Thursday afternoon, October 6. The poster session provides a great opportunity for participants to present their technical work, as well as offers a time to eat, drink and network. Nearly two dozen professional and student posters, representing various disciplines of water research in Montana, will be displayed. Student presenters compete for cash awards. There will be hors d'oeuvres, beer, and wine that stimulate conversation and technical analysis. The poster session is a perennial highlight to every MT AWRA conference. It provides time to visit with peers and participate in the most social part of the meeting, as well as a great warm-up to the banquet festivities!

2011 Photo Contest

Dave Donohue, Vice-President

MT AWRA V.P. Dave Donohue is in charge of this year's banquet photo contest. Dave is now accepting your latest and greatest water resources photos. Any and all photos related to Montana's water resources and water resource professionals and students will be considered. These can be scenic, technical, catastrophic, recreational or humorous! There will be prizes for the top photos. Send photos to Dave Donohue by September 15, or call (406) 443-6169 (x203). All photos will automatically be considered for the 2012 Montana Water Center Calendar unless participants opted out by contacting Steve Guettermann (stephen.guettermann@montana.edu).



*Swift Current Creek, Glacier National Park.
Photo Credit: Paul Azevedo*



Folks at the 2010 banquet.

The Annual Banquet

Russell Levens, Treasurer

This year's banquet will follow the social hour with a buffet that includes a choice between roast beef with gravy and herb baked chicken breast. An alternative entrée will be provided for our vegetarian members. Tossed and fruit salads will be lead off, and green beans with sliced almonds, baby garlic potatoes, and dinner rolls will round out the meal. Dessert will set us up for our banquet speaker, Chris Boyer from Kestrel Aerial. Chris documented much of the state's flooding this year. His aerials photo and narrative will give us a true bird's eye view of the high water and some of its aftermath. We will have another "roast" when we honor the 2011 MT AWRA Water Legend and end the evening with the annual MT AWRA photo contest.

Revisiting the 2010 MT AWRA Conference

Dave Donohue, Vice-President

The 27th annual conference of the Montana Section American Water Resources Association was held at the Red Lion Colonial Inn in Montana's capital city, Helena. Over 150 professionals attended the 2 ½ day conference and were offered an outstanding mix of field experience, keynote speakers, technical presentations, technical posters, socializing and good food.

The conference kicked off Wednesday afternoon with a field trip to the Upper Ten Mile Creek Superfund site. The field trip was organized and led by associates from CDM Inc., the lead consulting firm for the EPA on the reclamation site. Located in the mountains southwest of Helena, the superfund site is situated in the City of Helena's watershed and upstream of the Tenmile Creek Water Treatment Plant. Historic mining has left abandoned mines and acid rock drainage impacting the water quality of Ten Mile Creek. Throughout the tour, different speakers discussed the latest science and management issues associated with the ongoing reclamation efforts. Remedial investigations began in the drainage in 2000 and continue today. The field trip focused on understanding and discussing the impacts to the drainage, threats to Helena's water supply, and planned future reclamation. On the return to Helena, we stopped in a prime location behind Carroll College that overlooked the Helena Valley and learned about the ongoing hydrogeologic studies by the Montana Bureau of Mines and Geology in the Helena Valley. The MBMG was authorized by the 2009 Montana Legislature to complete hydrogeologic investigations in selected areas in western Montana as part of the Groundwater Investigation Program (GWIP). MBMG staff filled us in on specific projects, preliminary results, and ongoing studies.

Thursday morning, after introductions and welcoming, the opening plenary session began with a an energetic and informative presentation on hydrophilanthropy by Dr. Michael E. Campana, Director of the Institute for Water and Watersheds, Professor of Geosciences at Oregon State University, Oregon Section-AWRA president, and 2010 President elect of AWRA. Michael's impressive background in groundwater resources and water resource management has led him to increasing involvement with hydrophilanthropy and communications with public policy decision-makers. Michael brought an engaging and applicable discussion, titled "Hydrophilanthropy: Quo Vadis?" to begin the 2010 conference. According to Campana, many believe that the developed world has a responsibility to assist the world's emerging regions (ER) with addressing their water, sanitation, and hygiene (WaSH) needs. Recently there has been unprecedented interest, especially among students, in ER water work. Campana discussed his and his students' hydrophilanthropic experiences, hydrophilanthropic pitfalls, and ended his talk by speculating on where hydrophilanthropy is headed.

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Preconference field trip to the Upper Ten Mile Creek Superfund site.



The field trip also stressed Ten Mile Creek mitigation efforts.



Dr. Michael E. Campana, opening plenary session.



Robert Glennon signed copies of his book "Unquenchable" during the Thursday evening social.

Following Dr. Campana, Dr. Robert Glennon, Morris K. Udall Professor of Law and Public Policy at the University of Arizona, presented an educational talk on water crisis in the U.S. Robert is the author of the recent book "Unquenchable: America's Water Crisis and What to Do about It." His book captures the tragedy and irony of water in America. He spoke about the hard choices America must make to address our water crisis and take action on multiple fronts to solve it. His answer is a market-based system that values water as a commodity and a fundamental human right. Dr. Glennon also signed copies of his book "Unquenchable" during the Thursday evening social hour.

The early part of the afternoon was broken into two concurrent technical sessions, one on Stream Restoration and Assessment and one relating to Groundwater issues. After a short break, folks chose from talks relating to either Aquatic Ecosystems or Water Policy and Use.



Banquet goes anxiously await the evening's entertainment!

The evening poster session began with kegs of beer from the two local microbrews in Helena, good appetizers, and of course technical posters for participants to peruse at their leisure. The awards for the top student poster went to Anne Marie Reinhold of MSU; Joe Naughton of MSU took second and Erwin Jeremiah from the University of New South Wales took third. After sufficient time to enjoy the posters, it was time for the banquet and our special speaker Rich Moy, recently retired from the Montana DNRC. Rich has years of experience working to maintain the wildness of the North Fork of the Flathead River. He elaborated on some of that work in his talk "History of Negotiations to Protect the Trans-boundary Flathead River Basin." Rich described the diverse ecologically values within the Crown of the Continent eco-region and the trans-boundary Flathead, why these areas should be protected, ongoing efforts to protect the trans-boundary Flathead from mining impacts in British Columbia, and the important role science, education and local outreach play in the process. Rich concluded with an overview of challenges that still exist to permanently protect the trans-boundary Flathead. The banquet wrapped up with the ever popular photo contest and slide show with Larry Dolan awarded "Best Scenery Photo" and Diana Hammer awarded "Best Work Photo."

The final day of the conference began with concurrent session on Water Resources Information Sources and Geochemistry and Water Quality. After the morning break, the student presenters competed for cash prizes. Leslie Piper and Seth Kurt-Mason, both MSU graduate students, took first and second place respectively in the oral presentation category

Our thanks go to Kirk Warren, Past-President, for his time and energy to lead up this conference. Eric Chase has assumed the role of President, Dave Donohue moved into the role of Vice-President, and newly elected Treasurer Russell Levens joined the Montana officers for his tour of duty. A big thank you to all attendees, presenters, field trip leaders, and speakers who helped make the 2010 Montana Section American Water Resources Association conference a huge success!

See you all in Great Falls in October!

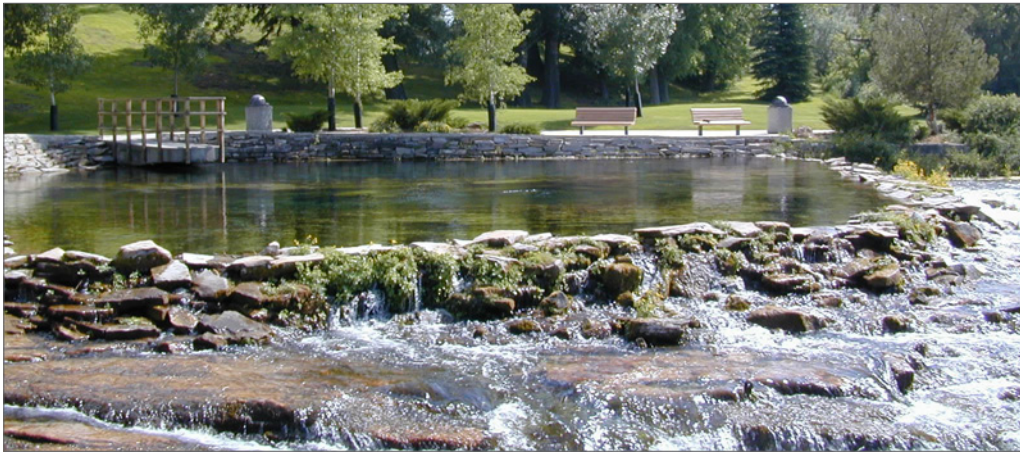


Kirk Warren passes the gavel to Eric Chase.

Belt Creek near the town swimming hole. Speakers from MBMG will discuss the history, contaminant sources, and water quality problems associated with the Great Falls coal mining district and remediation options that have been considered. MBMG and Salinity Control staff will discuss their recent work on source control of acid mine drainage by reducing recharge to mines through agricultural practices.

We will follow Belt Creek south to Sluice Boxes State Park where we will discuss recharge to the Madison Aquifer from the park scenic overlook. The Madison has many striking hydrogeologic features in the Great Falls area. The first stop at Sluice Boxes State Park gives us an opportunity to discuss the concentrated recharge observable where streams like Belt Creek cross outcrops with active Karst processes. The geology and scenery is also striking. From Sluice Boxes, the bus will return to the Great Falls area for a stop at Giant Springs – the spectacular complex of springs along the banks of the Missouri River. There we will discuss the genesis of the springs and recent work MBMG has done to age date the water and gain a better understanding of the flow paths from the Little Belt Mountains.

The field trip buses will leave promptly at 1:00 PM and return at 5:00 PM. As usual, snacks and refreshments will be provided for what promises to be a beautiful Indian summer day.



Giant Springs State Park – Photo by Dave Donohue

A Heartfelt THANK YOU to Our Sponsors!

Our sponsors help reduce MT AWRA conference fees by generously donating cash, staff and office space for the success of this conference. Sponsors help make such things possible as the field trip and student awards. If you see someone wearing a nametag from one of our sponsors, please be sure to thank them!

