Montana Wetland Council Meeting Summary
January 19, 2010 Meeting in Helena

Lynda Saul, DEQ Wetland Program Coordinator/Wetland Council Chair.
Welcomed everyone to the winter Wetland Council meeting. She asked for a round-robin of self-introductions and brief participant announcements. Please see sign-in sheet at end of summary for meeting attendees and contact information.
Announcements - Wetland News sent on listserv and includes announcements, new reports and studies, funding and regulatory issues and other information. If not getting it, sign-in/send your e-mail address. January 10 is an all day Wetland Mapping Forum. EPA Wetland Program Development Grant request for proposals for FFY2010 should be out about March 1. This competitive funding is used to implement Montana priorities in the wetland and riparian Strategic Framework. Clark Fork Symposium is March 4-5.
Larry Handley, USGS. Wetland mapping/classification system. Mapping Forum Jan 10.
Chuck Dalby, DNRC. Implementation of metric evaporation.
Rick Sojda, USGS, Research in Red Rock Lakes and Centennial Valley, Great northern landscape conservation project. Climate change - bringing everyone together, plains and prairie pothole conservation project to increase the amount of land covered by wetland inventory. Would be pleased to find partners to contribute funding towards completing the NWI for Montana.
Debbie Earl, Montana Watercourse. Water rights workshops to help decipher water law. Realtor workshops. New website announced last month. Will be announcing volunteer monitoring training.
Cat McIntyre, MTNHP. Wetland monitoring, rotating basin project, scoring condition, validating assessments, finishing up landscape profiling, MTNHP is going to write up and publish instructions for level one landscape level assessments. Wetlands and riparian mapping has been completed for the Yellowstone River corridor and provisional data is available from MTNHP.
Karen Newlon, MTNHP. Developing a network of wetland assessments. Wetland mapping for watersheds, soon should finishing the Bighole. Announced wetland summer positions http://mtnhp.org/about/employ/employ.asp.
Jody Miller, USDA. File water rights for wetlands on forest service lands. Will be looking for partners to work with.
Kristy Zhinin, DEQ, 319 mini grants, $1500 applications due February 2nd.
Meghan Burns, MTNHP. Listed mapping projects, next southeastern Montana
Dave Stagliano, MTNHP. Development of assessment methods for dragon fly associations in wetlands and bull frog control project.
Tom Probert, BLM Hydrologist for the HiLine district. Assessing validity of claimed water right volumes and locations on public land. Addressing TMDL's. Continually assessing lentic and lotic water for Proper Functioning Condition. Assisting in the development of a new Resource Management Plan.
Linda Vance, MTNHP. Gallatin report looks at change over time. Blackfoot Reservation experimenting with drawing cattle away from wetlands using supplements. This proved effective as a management tool where fencing is unreasonable. Public release of Montana wetland GIS. 58 ecological systems. 12 or more are wetlands systems. Received EPA money to continue work. Wetland restoration guide book. Water quality as part of wetland monitoring.

Robert Ray, DEQ. Non point source program, Montana Watershed Coordination Council Symposium September in Helena. Also working with the Governor's Task Force for Riparian Protection on listening sessions for best management practices for streams and rivers.
Ron Orton, Allied Engineering. Completed several wetland restoration projects.
Rob Hazlewood, PPL Montana. Restoration projects along the river. Producing PBS special documenting the restoration along the Madison. Need $25,000 to finish documentary.
Paul Roos, fly fisherman, independent for profit mitigation banker. Upper Clark Fork mitigation bank. Private for profit. Approved by the Corp for umbrella mitigation.
Ann Schwend, DNRC announced MWCC watershed symposium in September.
Larry Urban, MDT wetland mitigation and restoration. The MDT website now has its mitigation reports online for those who are interested in looking at current sites.
Kathryn Watson, Montana Watercourse. EPA volunteer water monitoring training scheduled for April 30 in Fort Peck and March 26th in Helena.
Steve Kloetzel, The Nature Conservancy, Ovando. Working on Montana Legacy project in the Swan Valley.
Linda Brander, DRNC restoration program. Looking to address the economic impact restoration has on the economy. Case study and forestry area. Green jobs in the state. Skill sets. Database of restoration work in Montana. Will hold retreat and clearing house.
Tom Hinz, Montana Wetlands Legacy Partnership. Working recently with DNRC and partners on proposed rule changes for wetland water rights. Needed for a long time. Developing standards, guidelines and tools. Working with partners (Listed) Website has been updated and will go live soon. Spring wetland tour is in planning stage.
Others, introduced themselves with no announcements, see sign-in sheet last page.

Updates from the Strategic Framework Working Groups.
Tom Hinz, Voluntary Restoration Working Group. Working with partners (listed) Website has been updated and will go live soon. Spring wetland tour is in planning stage.
Steve Carpenedo, Public Education and Professional Training Working Group.
A survey was sent out asking about GIS skills and what training people need. Majority of the responses reported they had basic skills or no skills. Developing training to respond to this need. March 18th and 19th in Helena. Will use the listserv to get this information out. Regarding K through 12 education Steve thanked Kathryn Watson for her work on this. Putting together a booklet called "Common Wetland Indicator Plants in Montana" for non-wetland professionals so that they can quickly and easily identify potential wetland areas. Expect this to be completed in May.
Linda Vance, Mapping, Assessment and Monitoring Working Group. Using EPA level 1, 2, and 3 and a rotating assessment approach. Deciding what area is next. They are talking to others and looking for other funding sources. Montana Land Information Act makes competitive grant funds available for mapping. Call for proposals open now and closes February 15.
Lynda Saul, Vulnerable Wetlands and Public Policy Working Group. Reviewed accomplishments from 2009 work plan and have completed or are working on 5 of 6 items: federal Clean Water Act, floodplain and riparian areas, wetlands and water rights, integrate wetlands into watershed planning, beavers and wetlands. Wetland restoration on state-owned lands is holdover issue which was not started in 2009. Working Group is ad-hoc based on interest and issue. New issues for 2010 include 401 certification, water quality standards, no

adverse impact floodplain management review. Contact Lynda if want to pursue a new issue in 2010 or help with any of the ongoing issues.

Council Meeting Focus – Wetland Hydrology

Lynda Saul introduced the meeting focus and provided some background about wetland hydrology and why the question of what hydrology is needed to restore and maintain high functioning wetlands and keep water in the watershed was selected. Many water-development, land-development, landscape management practices, unintended consequences, or unregulated changes to the hydrology can affect the health of wetlands and persistence of wetlands on the landscape in varying ways and degrees, and even existence of wetlands; including:

- weather modification and climate change
- storage of surface water – on stream and off stream dams
- drainage of surface water and soil water
- urbanization such as paving and sewering, road building, changes in land use
- alteration of plant communities
- withdrawal or drought and the subsequent invasion by plants further desiccating previously wet areas
- development of groundwater resources such as how wells near a river affect the groundwater flow systems, local wetlands, and watershed.

Likewise, wetlands play a valuable role in contributing to the health of watersheds, watershed functions, and water quality such as:

- water storage – up to 1.5 million gallons per acre
- detain floodwaters for release during low flow periods
- wetland vegetation slows erosion, provides habitat
- creates temporary wet habitats in normally dry regions
- absorb sediments and other pollutants
- wetland variability in hydrology increase their watershed function

Often there seems to be a disconnect between watershed restoration and wetland restoration. Need recognition that these are integrated resources that support aquatic integrity and work toward a comprehensive approach to restoring the hydrologic cycle.

Wetland Hydrology 101.

Presented by Steve Custer, Associate professor of Geology Earth Sciences, MSU.

Abstract: The concept of a wetland inherently implies an integrated understanding of hydrology. The wetland hydrologist must understand geology, biology, pedology, climatology, ground water, and surface water as well as the bureaucracy. An understanding of the rock type, structure, stratigraphy, depth to bedrock and topography are needed to understand a recharge, transmission and discharge in the hydrologic system which controls the wetland. The recharge is dependent on infiltration which is controlled by the five soil forming factors (parent material, topography, biology, climate, time). The recharge and discharge control the types of plants on the landscape and the plants therefore help the wetland hydrologist understand the wetland. Indeed the plants control the rate of recharge and the loss of water to the atmosphere. Flooding recharges wetlands but the wetland delivers water back to the river influencing the wetland at both times. In Montana, that flooding can be in the winter as well as in the summer. Some wetlands are directly connected to the ground water system, but others are not. Snow-melt as

well as rainfall influence the hydrologic behavior of the wetland. If wetlands are to be successfully protected or created, the hydrology must be understood in the context of the regulatory frame work and the regulatory frame work must recognize the hydrology of wetlands. Wetland hydrology is a complex integrated system that requires teams of professionals working together to understand.

Determining Wetland Water Budgets and a Case Study of Wetland Hydrology for Mitigation in the Big Hole.

Presented by Sean Lawlor, USGS Hydrologist

Abstract: Water availability is without question the single most important concern for wetland mitigation specialists. Ensuring a sustainable water supply requires an understanding of the hydrologic cycle – how water moves through the Earth's atmosphere, land surface, and subsurface. A water budget is the tool the hydrologist and water managers use to quantify the hydrologic cycle. This is an accounting of the rates of water movement and the change in water storage in all or parts of the atmosphere, land surface, and subsurface.

As part of its mission, the U.S. Geological Survey (USGS) Water Resources Discipline provides information that describes the processes that govern the availability and quality of the nation's water resources. This talk will give an overview of the work we do in determining water budgets and or the components of water budgets at various wetland sites throughout Montana. Specifically we will look at the components of the water budget equation:

$P + Q_{in} = ET + S_D + Q_{out}$

P is precipitation

Q_{in} is water flow into the site

ET is evapotranspiration

S_D is the change in water storage

Q_{out} is the water flow out of the site

The precipitation and ET data typically are gathered from nearby Agrimet stations or other nearby meteorological stations. To determine surface water flow into and out of the site temporary stream flow gages may be installed and numerous measurements made to develop a rating for determining flow. Wells are installed at each site to determine ground water levels and subsequent water level changes. These changes reflect the changes in groundwater storage. Well logs are used to help determine soil types and hydraulic conductivity. All of these components together are used to develop the water budget at each site.

Relatively recent work in the Big Hole Valley of Montana highlights the importance of having a thorough understanding of all of these components of the hydrologic cycle. In addition, the importance of a thorough understanding of the implications of water rights and how these water rights may ultimately control how mitigation proceeds.

Questions: What was the net effect of the flows into Rock Creek. The data from 2001 to 2008 showed a gaining stream reach. We don't have post-construction data but suspect there was some significant increase into Rock Creek. When was the Big Hole mitigation area created? Most construction was in 2007.

Wetlands at Red Rock Lakes National Wildlife Refuge: Some Preliminary Understanding of their Geohydrology.

Presented by Richard S. Sojda, Northern Rocky Mountain Science Center, USGS and Mark Greenwood, Department of Mathematical Sciences, MSU.

Abstract: We have been studying the wetland systems at Red Rock Lakes National Wildlife Refuge in the Centennial Valley of Southwest Montana for several years in order to provide recommendations about water levels for optimum long term management of waterbirds. This requires an understanding of the interacting role of water sources, permeable and impermeable surficial geologic units, and soils in determining submergent and emergent plant communities. Wetland complexes exist at various spatial scales and groundwater discharge is an important parameter driving vegetative patterns, and one of the patterns appears to be dependent on saline soil conditions. These situations are variable in their geohydrologic setting, i.e., their location in the landscape and their underlying geomorphological feature.

We have used standard hydrologic techniques, particularly the use of shallow wells and piezometers in randomly selected monitoring sites, and these studies have begun to provide some insights about the prevalence of groundwater discharge in Lower Red Rock Lake and the adjacent semipermanent emergent sedge wetlands. A new set of statistical methods have been developed to perform cluster analysis of functions represented by hydraulic gradients at several locations distributed across this impressive wetland complex. Functional data analysis techniques provide a unified framework for analyzing multiple times series that are measured frequently in time, treating each as a continuous function of time. We have also studied evapotranspiration in the sedge wetlands using lysimeters and have some of the first in-situ measurements of evapotranspiration in such systems. Furthermore, the combination of field techniques we used help demonstrate a diurnal pattern in wetland hydraulic gradients that is likely driven by evapotranspiration. Wetland hydrology may be a fundamental ecosystem process that responds to climate change. We hypothesize how these hydrologic processes might change and suggest that our methods may be useful for monitoring those changes.

Questions: What were your recommendations? We recommended that draw down be done, but with the recharge this was not easy. The water control structure is a lot more complicated then we thought. 2003 was one of the lowest water years we have seen and saw a big increase in sago pond weed. Did you try to relate the lysimeter? We related it to the hydraulic gradient.

Wetland Restoration in Riparian Environments – Practical Approaches and Montana Case Studies.

Presented by Don Peters, DJP Aquatic Consulting.

Abstract: Riparian wetlands or wetlands associated with stream courses contribute a significant quantity and diversity of wetland acreage in Montana and nationwide. Stream channel geomorphology directly influences adjacent riparian area wetland areas. Thus understanding stream channel geomorphology is important to understanding causes, consequences, and restoration of riparian wetland areas.

Several geomorphic stream types occur on our landscape from cascading mountain streams to meandering meadow creeks. The meadow creek type provided some of the finest beaver habitat

and incredible wetlands historically in Montana. The beaver are gone and the wetlands drained, for the most part, replaced by intensive agricultural practices on the remaining dark rich soils. The stream channels have either down-cut naturally or received help through dredging to drain the riparian wetlands. The channels have also generally over-widened (seeking to re-establish a new floodplain level). Restoration of the stream channel morphology and elevation to fit the relatively flat meadow floodplain surface not only restores the stream channel but also groundwater levels over extensive low gradient topography.

Restoration projects in Cottonwood Creek and Nevada Spring Creek in the Blackfoot River Drainage and O'Dell Creek in the Madison River Drainage provide three examples of wetland restoration in riparian environments

Wetland Hydrology: Calculating Consumption Use and Considering Conveyance.
Presented by Ethan Mace, Surface Water Hydrologist, DNRC Missoula Water Resources Regional Office.
http://www.dnrc.mt.gov/wrd/water_rts/appro_info/default.asp. Scroll down, under References click on a Power Point presentation "Suggestion Means to Quality and Quantify Wetland Water Rights."
Methods for calculating consumptive use for wetlands for the purposes of wetland water right quantification were presented. Techniques included wetland vegetation transpiration, open-water evaporation, and volumetric fill calculation. Consumptive use calculations for an example wetland was described along with possible ways to quantify flow-through, inflow, outflow, and aquifer recharge. Future opportunities for advancing the science of wetland hydrology were discussed.

Questions: Based on your figures and logic is DNRC ready to approve wetland water rights? See Water Rights and Wetlands: Frequently Asked Questions. Another question regarded water right dates. A new appropriation will be the date of application. A water right can be changed to a different purpose such as wetland and maintain its original appropriation date.

Facilitated Panel Discussion: What hydrology is needed to restore and maintain high functioning wetlands and keep water in the watershed?
Moderated by Tom Hinz, Montana Wetlands Legacy Partnership Coordinator.
Hydrology is critical to wetland persistence on the Montana landscape, yet our climate is drying and competition for limited water is fierce. Today's presenters will conclude with a panel discussion on ways to couple hydrologic investigations, enhanced understanding of wetland hydrology in designing wetland restoration projects, and water right tools, when needed, with approaches to conserve these areas for the long term. The panel and meeting attendees will explore priorities to protect Montana's vital water supply in its wetlands, riparian areas, and watersheds. We asked the panel to consider three questions: What research regarding wetland hydrology is needed to restore and maintain wetland and watersheds into the future? The next is wetland water rights and how important is this regulatory tool and suggestions. And the last is climate changes and the effects of our ability to maintain wetlands.

Tom opened the panel to questions from the audience.

Regarding the presentations on restoration, seeing a lack of woody wetland vegetation on many restoration areas. Is this coming back naturally or are the restoration projects planting this? Sean Lawlor & Don Peters both responded - most of this vegetation is planted and is coming back, especially with woody vegetation. In the presentation photos you might not see the woody vegetation because it has not had time to come back tall enough to be visible above the surrounding herbaceous growth. Planting is integrated with reconstruction. In some areas, we have been dug down to a level where the willows are able to intercept ground water and are coming back on their own. So when conditions are right woody vegetation comes back on its own.

Climate change question, as it gets drier will wetlands get smaller and/or dry up? Is there an obligation to mitigate for this? Steve Custer - there could be more ground water feeding the wetlands if there is earlier thawing at higher elevations allowing more interception into the recharge zone or less recharge if snowpack is less.. So it is not known at this time. Is there climate change studies to augment the information gathered thus far regarding the precipitation patterns at the Red Rock Lakes? Three stations have been put in that will be able to be used to monitor some changes. Also, if you have higher temperatures the runoff can be higher and the importance of the wetlands could be more important as a collection point for runoff water to maintain stream flow.

How about subsurface water storage for a wetland in a water right? What could show the extent of this? Ethan Mace discussed a study in Alaska. Subsurface storage could be done with some survey work and a ground probe.

How do you analyze time-series data from recharge to discharge and the functions' change over time? Steve Custer responded if we have this change and longer growing season in the high mountain areas we may see a negative of what we want. It's clear we don't have long term monitoring. With breaks in data we can't make claims because we don't have the data. Errors can approach 50% so it will not be an easy task. Rick Sojda - we need better data on groundwater timing and movement. In Montana, we are developing a groundwater network for real time data. Looking at real time water level in wetlands and how those are changing. Timing of the recharge and the discharges could be critical. Might consider isotopes in the recharge to see the effects of climate change.

Any thoughts on the wetlands to be restored in eastern Montana where climate change can effect the restoration? Study was set up to look at the effects of the values of different wetlands and how those values might change. Rick Sojda - we have some monitoring regarding saline seeps that may show some patterns.

There needs to be monitoring for wetland impacts due to urban and land development. What are the objectives of the management of the wetland? It is mitigation for lost wetland values and functions or storm water control etc.? Storm water mitigation, using wetland as a purification system is being studied at MSU. Low impact development guidelines could be used. Greater Gallatin Watershed Council has experience doing outreach on low impact development and information on their website. A lot of people recognize the importance and the need to develop information with regard to the importance of the hydrology of existing wetlands.

Questions concerning water right: when agricultural land gets subdivided, what happens to the water rights associated with it? For example, a pond is developed and called a wetland. What happens with the water right? Ethan responded that there could be an issue with the water rights in this situation. Adjacent water right owners may complain, also an addition or change will have to be made to that water right. If a wetland organization owns a wetland, can they buy adjacent water rights to protect the wetland? Again they will have to go through the standard change process to do this. Water rights are designed to protect the senior water right holder. It would have to be done on a case by case basis. Wetland is considered a beneficial use. Recommendations for protection for hydrology of the wetlands of our state regarding the aquatic life? Right now it is set up to protect beneficial use and the water rights holder.

In Montana, we are seeing a change in the type of water being used – to an increase in groundwater usage. This has a potential to have a large impact on wetlands. Need to develop a long term monitoring of these wetlands. Water rights related to stream flows -many are already over appropriated now and could be in real trouble with climate warming.

Today, we heard examples of multiple benefit projects. How can we cut across the single issue funding and value multiple benefits in funding for restoration? Peters responded that the O'Dell project started as a fisheries project, but that restoring the wetlands was a driving force in addition to restoring the fisheries. Showcasing the multiple benefits needs to be our responsibility as project sponsors and watershed advocates.

What do you see from your perspective is the most needed area of research for wetland hydrology and water availability in the watershed? The panel's general consensus is that evapotranspiration data seems to be the most needed, along with long term monitoring of restoration success and wetland hydrology. Another response from the panel included research on climate change and how it effects recharge and discharge rates. A final suggestion is that we need to bridge social barriers of perceived limited beneficial uses of water and work through the issues of a limited water use culture.

Next Council meeting will be late May or early June and will include field and technical sessions. Hinz and Saul are planning (including location) and welcome others to help.

MONTANA WETLAND COUNCIL
SIGN IN SHEET
JANUARY 19, 2010

	NAME	REPRESENTING	EMAIL
1	Cat McIntyre	MTNHP	CMcIntyre@mt.gov
2	Jeff Tiberi	MT Assoc Conservation District	jtiberi@macdnet.org
3	Tom Hinz	MT Wetlands Legacy Partnership	thinz@mt.gov
4	Dennis Lichtenberg	National Wetlands Research Center	dennisl@cskt.org
5	Robert Ray	MT DEQ – NPS Program	rray@mt.gov
6	Ron Orton	Allied Engineering	rorton@alliedengineering.com
7	Ann Schwend	DNRC	aschwend@mt.gov
8	Tim Olson	Forest Service	taolson@fs.fed.us
9	Steve Carpenedo	DEQ – Wetland Program	Scarpenedo2@mt.gov
10	Deb Earl	MT WaterCourse	dzarnt@montana.edu
11	Kathryn Watson	MT WaterCourse	kwatson@montana.edu
12	Linda Brander	Restoration Program	LLBrander@mt.gov
13	Brianne Rogers	Sen Baucus Office	Brianne_rogers@baucus.senate.gov
14	Peter Husby	NRCS	peter.husby@mt.usda.gov
15	Murray Strong	Stahly Engineering Inc	mstrong@seaeng.com
16	Steve Cook	DEQ	Scook2@mt.gov
17	James Swierc	Lewis & Clark Co WQPD	jswierc@co.lewis-clark.mt.us
18	Monica Pokorny	Conf Salish Kootenai Tribe	monicap@cskt.org
19	David Marr	US Forest Service	davidmarr@fs.fed.us
20	Paula Webster	CSKT Water Quality Program	paulaw@cskt.org
21	Kyle Blasch	USGS-WRD	kblasch@usgs.gov
22	Clint Foldhen	CSKT Wetland Program	clintf@cskt.org
23	Vicki Sullivan	US COE	Vicki.L.Sullivan@usace.army.mil
24	Jody Miller	USDA-OGC	jmmiller01@fs.fed.us
25	Larry Handley	USGS-MCGSC	Larry_handley@usgs.gov
26	Mary C. Weatherwax	Blackfeet Tribe	mweatherwax@3rivers.net
27	Steven Kloetzel	The Nature Conservancy	skloetzel@tnc.org
28	Dave Callery	Forest Service	dcallery@fs.fed.us
29	Joe Meek	MT DEQ	jmeek@mt.gov
30	Jeff Ryan	MT DEQ - Permitting	jeryan@mt.gov
31	Amy Chadwick	Watershed Consulting	amy@watershedconsulting.com
32	Burt Williams	Nature Conservancy	Burt_Williams@tnc.org
33	Mike Philbin	BLM	mphilbin@blm.gov
34	Jeannette Blank	OASIS Environmental	j.blank@oasisenviro.com
35	Janet Ellis	MT Audubon	jellis@mtaudubon.org
36	Hugh Zackheim	FWP	HZackheim@mt.gov
37	James Colegrove	FWP	Jcolegrove@mt.gov
38	Candace Durran	FWP	CDurran@mt.gov

39	Paul Sihler	FWP	psihler@mt.gov
40	Hal Harper	Governor's Office	HHarper@mt.gov
41	Krista Lee Evans	Blake Creek Project Mgmt.	blakecrk@gmail.com
42	Don Peters	DJP Consulting	fishpeters@aol.com
43	Dennis Longknife Jr	Fort Belknap Indian Community Wetlands Program	dlongknife@hotmail.com
44	Chuck Dalby	DNRC	cdalby@mt.gov
45	Lawrence J. Urban	MDT	lurban@mt.gov
46	Tracy Novak	Consultant – Bozeman	mtnovak@q.com
47	Jennifer Wintersteen	US EPA	Wintersteen.jennifer@epa.gov
48	Rusty Sydnor	CSKT	rsydnor@cskt.org
49	Rob Hazlewood	Ranchland Wildlife Consultants Inc	tierraone@msn.com
50	Jeanne Spaur	Fort Peck Tribes	jeannespaur@yahoo.com
51	Reese Reddoor	Fort Peck Tribes	reesreddoor@yahoo.com
52	Rick Sojda	Northern Rocky Mt Sc Ctr - USGS	sojda@montana.edu
53	Thomas Probert	Montana Dakotas BLM - HiLine	Tom_Probert@blm.gov
54	Jonathan Leiman	U of M Watershed Health Clinic	Jonathan.leiman@umontana.edu
55	Katie Gant	Montana Water Trust	Katie.gant@montanawatetrust.org
56	Joe Kolman	Legislative Services Division	jkolman@mt.gov
57	Steve Custer	MSU Earth Sciences	scuster@montana.edu
58	Corey Baker	Westech Environmental	cbaker@westech-env.com
59	Bill Milton	MT Watershed Coord Council	bill_milton@hotmail.com
60	Warren Kellogg	MT Conservation Districts	warrenkellogg@g.com
61	Daniel Hatley	U of M Watershed Health Clinic	Daniel.hatley@umontana.edu
62	Michael Downey	MT Land Reliance	michael@mtlandreliance.org
63	Paul Roos	Mt Mitigation Partners	paul@paulroos.com
64	Robin Lium	MTNHP	RLium@mt.gov
65	Erika Colaiacomo	MTNHP	EColaiacomo@mt.gov
66	Meghan Burns	MTNHP	MBurns2@mt.gov
67	Dave Stagliano	MTNHP	dstagliano@mt.gov
68	Sammy Gundlach	DEQ – Permitting and Compliance	Sgundlach2@mt.gov
69	Leon Hammond	UMWUA	rhammond@itstriangle.com
70	Brian Sandefur	Confluence Consulting	bsandefur@confluenceinc.com
71	Mark Greenwood	Montana State University	greenwood@math.montana.edu
72	Karen Newlon	MTNHP	KNewlon@mt.gov
73	Kristy Zhinin	DEQ WPS	kzhinin@mt.gov
74	Jim Bond	MT DEQ	jabond@mt.gov
75	Chris Hammond	MT FWP	chammond@mt.gov
76	Joe Lamson	DNRC	JLamson2@mt.gov
77	Linda Vance	MTNHP	livance@mt.gov
78	Ethan Mace	DNRC – Water Rights	emace@mt.gov
79	Bonnie Gundrum	MDT	bgundrum@mt.gov
80	Lynda Saul	DEQ – Wetland Program	lsaul@mt.gov