



Big Hole Watershed Committee

Monthly Meeting Minutes

Wednesday, February 19, 2020 – 6:00pm

Divide Grange – Divide, Montana

In Attendance

Pedro Marques, BHWC; Tana Nulph, BHWC; Ben LaPorte, BHWC; John Costa, BHWC; Jim Olsen, MFWP; Steve Luebeck, Sportsman/BHWC; Erik Kalsta, Rancher/BHWC; Betty Bowler, Butte; Tom Bowler, Butte; Stephen Frazee, Water and Environmental Technologies (WET); Brad Rutherford, WET; Paul Cleary, Resident/BHWC; Sandy Cleary, Resident; Mark Kambich, Rancher/BHWC; Harold Johns; Jim Hagenbarth, Rancher/BHWC; Rich Nordquist, Beaverhead Conservation District; Sam & Susan Stone, Big Hole Ranch; Jim Dennehy, Butte-Silver Bow Water Utility; Brian Wheeler, Big Hole River Foundation/BHWC; Sean Lewis, NRCS; Mike Cleary; Zach Owen, Beaverhead Watershed Committee/Conservation District; Dean Peterson, Rancher/BHWC; Eric Thorson, Sunrise Fly Shop/BHWC; Jarrett Payne, MFWP; Matt Norberg, DNRC; Peter Frick, BHWC; Liz Jones, Rancher/BHWC; Roy Morris, GGTU/BHWC; Jennifer Smith, Lemhi Regional Land Trust (LRLT); Jim Roscoe, LRLT; Mike Overacker, LRLT; Tom McFarland, LRLT; and the University of Montana Western's Sustainability of Natural Resources class: Holt Gibson, Catelyn Stone, Zach Peterson, Mana Bryant, Natalie Meyer-Chapman, Isaak Koslosky, and Lonnie Von Desen.

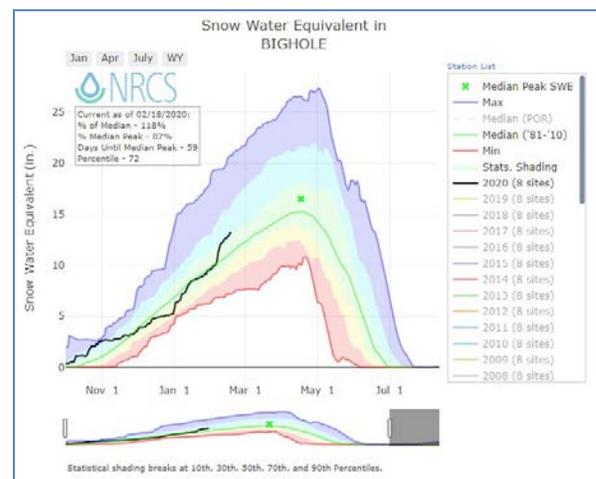
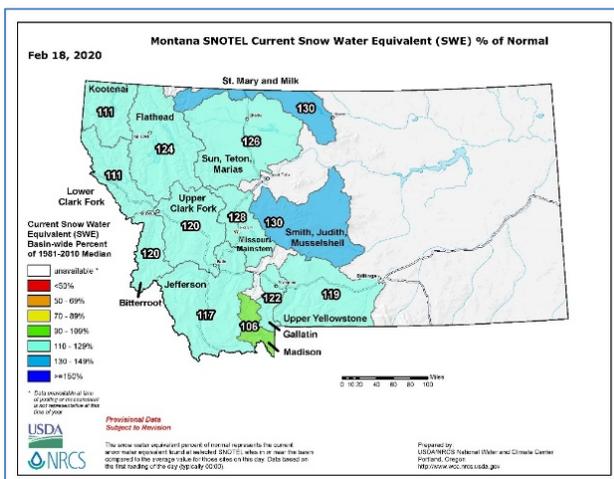
Introductions Attendees introduced themselves.

Meeting Minutes November 2019 meeting minutes were reviewed, no additions or corrections made.

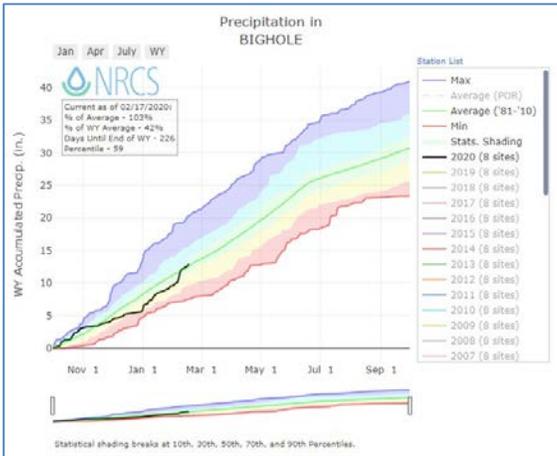
Reports

Streamflow/Snowpack Report – Matt Norberg, Montana Department of Natural Resources and Conservation

- **Streamflow:** All gages with the exception of Melrose are seasonal and not reporting at this time. The Melrose gage is hovering around the median flow for this time of year, which is a good thing.
- **Snowpack:** Snowpack conditions across Montana are currently above to well above normal. Currently the snowpack in the Big Hole Basin is above average, sitting at 118% of normal and the Jefferson Basin as a whole is 117% of normal. The snowpack in the Big Hole started off the water year at normal to above normal conditions and then slowly declined during November and December. Weather patterns at the end of December and into January brought the snowpack back to near normal. The Big Hole basin continued to experience favorable weather patterns through February with the high elevation sites gaining noticeable increases in SWE.

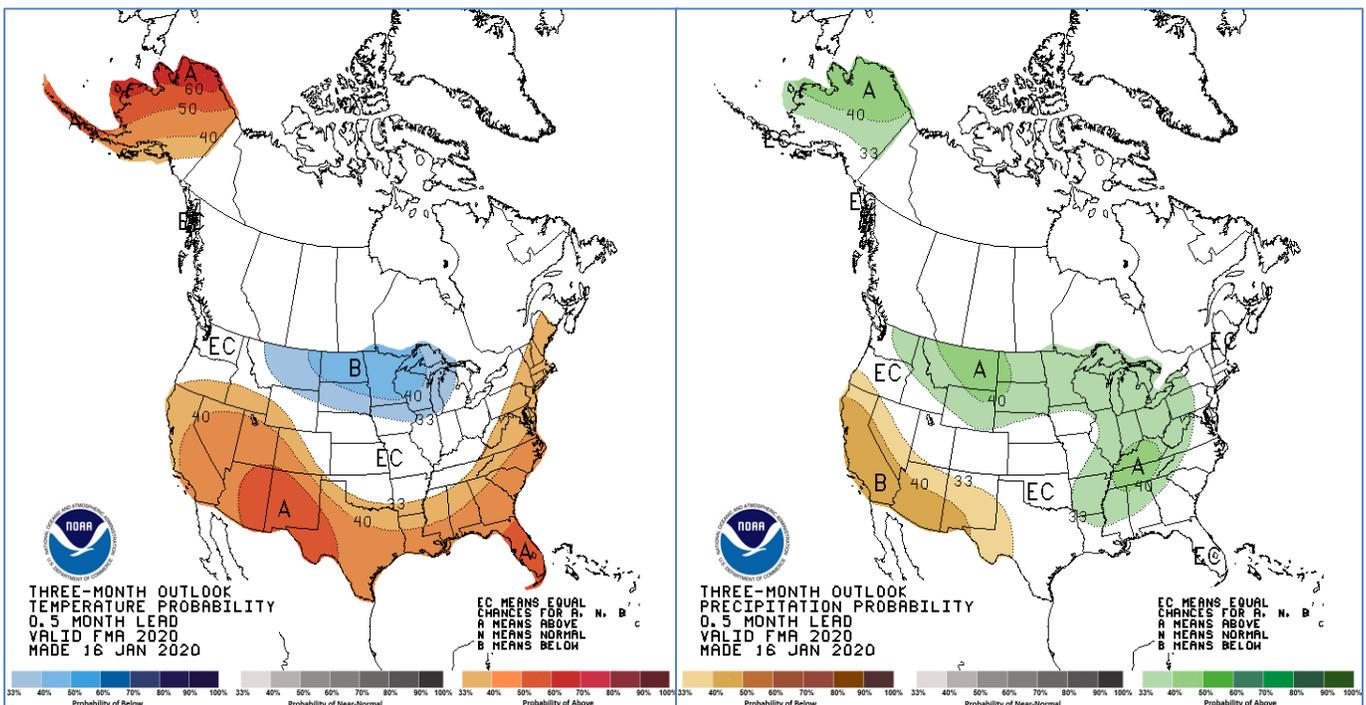


- Precipitation:** Precipitation across the Big Hole Valley is currently at 103% of normal. Precipitation accumulations were below average during the November and December months. January and February brought the precipitation totals to 42% of the total WY average, and hopefully back on track for a normal to above normal water year.



Big Hole River Representative SNOTEL Sites		18-Feb-19 WY 2019	Feb 18 2020 WY 2020	1981-2010 median	WY 2020 % median
Station	elevation	inches		inches	
Barker Lakes	8250	9.4	11.5	9.1	126%
Basin Creek	7180	5.3	6	5.2	115%
Bloody Dick	7600	6.7	9.8	8.5	115%
Calvert Creek	6430	6.3	6.5	6.4	102%
Darkhorse Lake	8600	19.1	25.6	20.4	125%
Moose Creek	6200	10.5	14.4	12.6	114%
Mule Creek	8300	9.8	12.2	10.1	121%
Saddle Mtn.	7940	<u>15.8</u>	<u>19.8</u>	<u>17.7</u>	112%
TOTAL		82.9	105.8	90	
BASIN INDEX %		92	118		

- Forecast:** ENSO-neutral conditions are expected to continue through the spring (60% chance) and into the summer months (50% chance). The three-month outlook calls for equal chances of above, normal, or below normal temperatures and above normal chances of precipitation during the February, March, and April time frame. SST have remained at or above the 0.5°C threshold for the last two months, but forecasters are still favoring ENSO-neutral conditions instead of El Nino conditions. The most recent NOAA 3-month outlook is for equal chances of above, normal, and below normal average temperatures and above average precipitation through the early spring.



Director's Report – Pedro Marques, BHWC Executive Director

- Reviewed 2019 at our annual Governing Board Business Meeting in January; made plans for 2020.
- Changes to our Governing Board: Sierra Harris replace Jim Berkey in representing The Nature Conservancy; Dave Ashcraft replaced Cindy Ashcraft in representing lower Big Hole River ranchers; and Brian Wheeler joined the board, representing the Big Hole River Foundation.
- Working on connecting with stakeholders and funders and becoming more efficient in how we do our work.
- Please bring us your ideas/needs – we have the resources and connections and can figure out how to meet resource needs.
- Worked with MFWP to reintroduce native Westslope Cutthroat trout to a restored stream (East Fork Divide Creek).
- Pedro spoke at the High Divide Collaborative Annual Meeting last week. Discussed BHWC's recent RCPP application (with other groups) for conifer encroachment/riparian restoration/aspen regeneration. (Waiting to hear back on this grant.) Also presented imagery and outcomes from restoration/natural water storage work. (More information on this below presented by our partners with Water and Environmental Technologies.)
- Pedro participating with the Montana Stream Gage Working Group to find long-term solutions to stream gage funding gaps. Putting together a survey to gather information about who uses stream gage data, what times of the year/which gages, and how they use the gages. This will help the state to prioritize funding of stream gages.

Steering Committee – Jim Hagenbarth, BHWC Vice-Chairman, and Steve Luebeck, BHWC Treasurer

- Steering Committee is happy with the progress BHWC is making.
- Had a meeting last week. Dove into accounting records; had a general discussion of the organization and plans for the future (a routine check-in).

Wildlife Report – Jim Hagenbarth, BHWC Board Member; Tana Nulph, BHWC Associate Director

- Livestock carcass removal will be offered this spring (March-May) to remove predator attractant from calving and lambing areas. Call John for more information or to schedule carcass removal (209-628-2225).
- We also have funding from the Montana Livestock Loss Board to buy supplies for a wolf depredation prevention toolkit for ranchers to borrow. Please reach out if you have questions or would like to borrow supplies. Kit includes a temporary electric fence, scare devices, and more.
- Two elk in the Ruby Range tested positive for Brucellosis.
- People and Carnivores held Livestock Guard Dog workshop last night in Dillon.
 - *Comment: It was very interesting. It's a steep learning curve figuring out how to work with the dogs, but they can be very effective – more effective for bears than wolves though.*
- Very few issues this year in terms of livestock depredation (wolves), but coyotes have been causing trouble.

Restoration Report – Ben LaPorte, BHWC Program Manager

- Working on 2020 Mount Haggin Wildlife Management Upland Work Plan and bid documentation.
- Will do a big push this year for riparian/aspen enhancement, sediment reduction, conifer reduction, etc. in the North Fork of California Creek. We will use conifers that are removed as slash/fill for gullies to slow the movement of sediment.
- Higher up in the drainage, working on a segment with a steep barrier to fish passage and walls of stacked boulders (locally called the "Chinese Wall" as it was built by Chinese miners close to 100 years ago) holding the stream in place. This area is highly degraded, and we are working with partners to determine the best method for restoration.
- Since November, finished lower French Creek restoration project. Dug stream channel into sagebrush habitat which (with inundation) will become riparian area. Used conifers removed through other projects as slash. Included extensive fish habitat and reconnection to floodplain.

- Secured \$20,000 from MWCC to continue beaver dam analogue work on East Fork Divide Creek/Morris Ranch. Work will take place this fall. This is the second phase of a project that we completed in 2019, restoring desiccated beaver dams. Worked with Water and Environmental Technologies to determine the amount of water being stored by these beaver dam analog structures.
- *Discussion:*
 - *Archaeology-wise, who are you guys dealing with on that “Chinese wall”?*
 - *We will have to have an archaeologist do a cultural inventory – we are hoping not to touch the wall, as it’s an amazing thing to see and a part of history. All of this work has to be cleared by the State Historic Preservation Office (SHPO). We are looking at creating a series of step pools for fish to move upstream and we will also be removing a perched culvert that is a barrier to fish passage.*

SPECIAL UPDATE: East Fork Divide Creek: Beaver mimicry impacts on surface water and groundwater storage – Stephen Frazee and Brad Rutherford, Water & Environmental Technologies

- Site location: East of Feely Hill
- 2018:
 - Installed piezometers (measure depth of groundwater)
 - Baseline UAV topography
 - Baseline monitoring: monitored for 1 year prior to installation of beaver mimicry structures.
- 2019:
 - BHWC installed ~20 beaver mimicry structures
 - High water UAV topography
 - Monitoring

- Results:
 - 8,800 ft³ of additional groundwater storage in late season
 - Simulation showed more water flowing into system in 2019 than 2018.

- *Discussion:*
 - *What kind of soil are you working with there?*
 - *Mostly sand and some finer clays and silts. 16-18” (varies).*
 - *About how much does it cost to get a cubic foot of water – what is the cost/benefit of this type of project?*
 - *It was more expensive to find out how much water than to actually do the work. The data piece is important to show the results of our work.*
 - *If someone wanted to look at this site, where is it and how do you get there?*
 - *It’s the Beef Trail Road coming out of Butte. It’s 6 miles in – you basically need an ATV unless you enter through a private ranch, and then it’s about a 45-minute walk straight uphill.*
 - *I was involved with a project like this over near Harrison – we were back every 2 or 3 years as the new dams were settling in. Are you going to be going back there?*
 - *Probably not, because we were just filling in the old beaver dams that were already there.*
 - *Is the monitoring still going or are you done?*



Water & Environmental TECHNOLOGIES

Summary Report - E. Fk. Divide Cr. Beaver Mimicry Impacts on Surface Water and Groundwater

Table 1. Summary of storage volumes.

	Date	Volume (ft ³)	Data Used for Calculation
Groundwater Storage Increase	July - October 2019	8,800	July -October 2018 Simulated Head
			July -October 2019 Simulated Head
			2018 DTM
Surface Water Storage Increase	May 28, 2019	8,400	Interpreted May 28, 2019 Pond Surface Elevations
			2018 DTM
Surface Water Storage Increase	July - October 2019	4,100	Estimated July-October 2019 pond surface elevations (0.22 feet less than May 28, 2019 pond surface elevations)
			2018 DTM
Total Additional Storage	July - October 2019	12,900	

- *We're going to keep going up there, because there's more we can learn like how these results might change over time. There is also potential to do similar projects to this in nearby drainages.*

New Business

- Sean Lewis, District Conservationist with NRCS in Dillon:
 - Farm Bill rewrite has delayed things, but should have final rules for EQIP, RCPP, etc. soon.
 - New State Conservationist, Tom Watson, made changes to funding structure – focusing on one problem over a broader area rather than several different projects in a smaller area. Submitted a Targeted Implementation Plan for the East Pioneers (Beaverhead County) just south of Birch Creek and over to Hogsback – conifer encroachment projects. Asking for funding for about 17,000 acres of conifer reduction. If you have property in that region and have conifer issues, please contact Sean.
 - Considering doing a project in the upper Big Hole next year focusing on natural water storage, etc.
 - Will be holding public meetings soon to get landowner input.
 - *Discussion:*
 - *Is that all on private ground?*
 - *Yes, NRCS programs have a directive to benefit private ground. We can work on BLM/state ground, but the major benefit has to be to the private land.*
 - *Can you get funding from the Sage Grouse program for this work?*
 - *Yes, there is some general sage grouse habitat in the East Pioneers, but for the most part, the Sage Grouse Initiative funds projects in core habitat.*
- The Big Hole Watershed Committee turns 25 this year – thank you to everyone who has contributed and continues to participate with us after all these years!

Meeting Topic: Land Easement and Partnership Opportunities

Presentation by: Lemhi Regional Land Trust
Jennifer Smith, Executive Director
Jim Roscoe, Land Protection Coordinator
Mike Overacker, Vice-Chairman/Founder
Tom McFarland, Emeritus Board Member/Founder

About the Lemhi Regional Land Trust:

- Nestled between the Frank Church Wilderness of No Return and the Continental Divide, LRLT service area consists of over 9,500 square miles of remote and rural lands. These lands are over 93% publicly owned with the lifeblood of the landscape located on private lands. Cows outnumber people 7:1. The rivers flow cool and clean and the land and water supports fish and wildlife. Agriculture and recreation fuel the economy.
- LRLT is involved with both agriculture and recreation.
- Founded in 2005 by 4 local ranchers: Tom McFarland, Mike Overacker, Don Olsen, and Joe Tonsmeire to create an alternative to massive subdivision.
- Founders saw firsthand that iconic and familiar ranches were changing hands and the demographics of the community were shifting as landowners were aging – for example the Pine Creek Ranch, now perpetually protected, was slated for subdivision and an 18-hole golf course and even hoped to host a casino. This was the home of the iconic couple Emmett Reese and Eleanor Steele, and today is the site for one of the largest and most complex river restoration project in our valley to restore critical habitat for endangered steelhead and salmon. Also a critical spawning and rearing area for endangered salmon and steelhead.
- In the LRLT service area, most ranchers are land rich and cash poor. As landowners aged, they were forced to make tough decisions to enable them to retire and make ends meet. In many cases, the only

option was to “sell out” all or part of their land. Our founders hoped to provide an alternative, enabling our family ranches to stay whole and be passed to the next generation.

- *Comments from LRLT Board Members:*
 - *While we are of course proponents of conservation easements as a conservation and family succession planning tool, I will be the first to say that they are not for everyone. We only work with landowners who want to work with us. We do not actively solicit. We have an open door and always have more demand than we have capacity and funding.*
 - *The biggest misconception about land easements is that they take away your private property rights. But you can still live on your land, borrow against it, sell it, and work your land. Just keep in mind that the devil is in the details. There ARE bad easements out there – make sure you consult with an attorney who is familiar with land easements to ensure you will be able to continue to use your land in the way that you want to.*
 - *The big picture here is conservation – maintaining open space and all the ecological values that go with it – if you do that, the agricultural values will fall right in.*
 - *Some easements stipulate that land won't be developed and will remain agricultural land only.*

Community Values Guide LRLT:

- Conserve small town values.
- Facilitate opportunities for private land conservation that enhance landscape values.
- Respect private property rights.
- Maintain an agricultural presence.
 - Keeping working ranches intact helps to preserve fish and wildlife habitat, conserves scenic views and open space, and protects essential ecosystem services.
- Multifaceted values: ecological, social & cultural, and economic.

Celebrating 15 years this year. In 15 short years, LRLT has:

- Over \$27 million in on-the-ground conservation
- 13 conservation easements
- 14,137 acres and 50 miles of streams protected
- 5 fee title owned properties
- Over \$2.5 million of large scale habitat restoration

How to Value the Big Buzz Conservation Easement (a theoretical example):

- Big Buzz property:
 - 100 acres of irrigated haylands and sagebrush uplands
 - 200-head cow calf operation
 - One mile of Big Fish River (blue-ribbon trout fishery)
 - Direct access from state highway
 - One house and ranch buildings,
 - High scenic values
 - 25 miles from Bozeman.
- Market Valuation:
 - Appraisal establishes “highest and best use (HBU)” and market value using comparable sales from area.
 - Given location, access and resource values, there is high potential and demand for subdivision development and HU may be rural subdivision.
 - 100 acres @ \$10,000/acre = \$1 million (market value)
- Conservation Easement:
 - A CE must provide a public benefit through protecting conservation values *in perpetuity*, and the value of relinquished rights is considered as a charitable contribution by the IRS.
 - Conservation values (ex.): water, wildlife/fishery habitat, open space

- Reserved rights (ex.): construct residences, continue ag practices, recreation, commercial activities in ways that protect the CVs.
- Prohibited uses (ex.): subdivision, resource development, largescale recreation/commercial facilities, dairies, feedlots, activities that conflict with CVs.
- Landowner retains ownership rights and obligations in perpetuity (forever).
- **Big Buzz Conservation Easement:**
 - Landowner retains one building area.
 - Maintains existing haying and grazing activities, remove feedlot along the river.
 - Installs new sprinkler irrigation system to replace flood irrigation.
 - No subdivision, can sell land but only as an individual parcel.
- **Conservation easement valuation:**
 - Continuing existing and planned agricultural uses and conserving open space indicates HU would remain at rural agricultural.
 - Specifically, the loss of potential development (subdivision) value represents a diminution in value of 50%.
 - Diminution varies significantly between 15-70%, “average” is 30-40%.
 - Appraised valuation encumbered with conservation easement:
 - \$1 million (market value) x 50% diminution with CE = \$500,000 (encumbered market value).
 - Conservation easement value = \$500,000 (the difference between the market value and the encumbered market value).
 - Landowner can receive direct cash compensation for conservation easement value.
 - Landowner can donate all or part of the CE value to the qualified organization holding the CE.
 - Tax considerations (benefits) in both cases.
 - Value to families in estate and succession planning more affordable for new and “young” buyers.
 - Every conservation easement is unique to the property characteristics, landowner goals and desires, resource values, and organization’s mission.
 - Funding for CEs is scarce and becoming more competitive, focused toward specific resources, demand far exceeds capacity.
 - Process to close a CV can typically take 2-3 year.

Discussion:

- *Can LRLT sell an easement to another group, like the Sierra Club?*
 - *Yes, but that would be very unlikely and the easement would be transferred, not sold. The only way it would happen is if there were major changes to the LRLT (like if it dissolved). There would be stipulations for this laid out in your easement agreement.*
 - *If you go to an accredited land trust that is familiar with easements, they will have dealt with this issue before and will know how to address it.*
- *Where does LRLT get their funding?*
 - *We do a lot of “friend-raising”, where we connect with like-minded people who believe in our mission and contribute to our organization (private donors). We also get funding from large foundations and local/regional foundations.*
 - *We also have an endowment fund that covers things like easement monitoring. We have been very careful to maintain that endowment fund so we can meet our obligations. The fund is heavily restricted and is only used for stewardship of enrolled easements (although interest earned can be used for general operations).*
- *What were some of the conceptions you had about easements and how did they change over time?*
 - *I didn’t realize how hard it would be to find the funding to pay landowners for their development rights. It’s a tough place to draw big donations. We rely heavily on grants.*
 - *It’s difficult to inform the public of the long-term benefits of protecting and conserving land. It’s difficult to make that link clear to people – that open spaces = important habitat for wildlife. Working with State Legislature can also be a challenge.*
- *From LRLT: You may be asking yourselves, ‘Why is a group from Idaho here talking to us about land easements in Montana?’ Here are some reasons:*

- *Salmon is just over the hill – the area, the people, and the land use is very similar to that in this area. We are willing to come over the hill and work with you on land easements here, because there is no comparable land trust in this area to offer this service. We are looking at an opportunity for someone to enter into an easement like this with someone who has local ties and interests, rather than a larger government entity.*
- *We have cultural similarities between our regions, but if there is no interest from landowners in the Big Hole, that's ok. LRLT will be around – we're not going anywhere – and the offer stands.*
- *We are not out soliciting people to enter land easements – you have a great group here – maybe you ought to develop your own land trust. You better do something with this beautiful landscape or it's not going to stay the way it is now.*
- *Are you accredited to hold easements in Montana?*
 - *We would have to update our bylaws to stipulate that we can work in Montana, but yes. We would still be accountable to our board. We would then want to add some representation to our board from effected communities.*
- *“Perpetuity” is a hard concept to grasp – like “infinity”. How will you preserve your organization, your obligations, and how will you ensure your monitoring will continue to protect conservation values?*
 - *We know things are going to change. Technology will change – like in irrigation. But you build this into the wording of your easement. Your methods may change, but it will still be agricultural land.*
 - *You MUST have a paragraph stating that the terms of the agreement can be changed with agreement between the landowner and the land trust.*
 - *Be VERY careful about the wording of your agreement – terms like “best practices” are vague – who decides what are the best practices?*
- *Landowner comment: I inherited my ranch, along with my brother, from my dad. I have an obligation to him to enhance and maintain the value that I received for the people down the road. If I do a conservation easement to maintain that value, I have to invest that money and get as much out of it as I would in appreciation of the land in the future. If I don't want my land subdivided, I won't sell it.*
 - *Well it's a misconception that you will lose value as the land appreciates.*
 - *Yes, but if you get a conservation easement for \$500,000, the market value of your total estate decreases by \$500,000. So it does devalue your estate. But if you could use the funding you get from a conservation easement to buy another parcel of land, that would be worth it.*
 - *That's actually what a lot of landowners do. This is an opportunity to meet a certain goal or need. It's a huge obligation, in terms of making that commitment individually and on behalf of future generations. It's not for everyone – it's a long process and has to pencil out economically and socially for your operation and family – there is no “one-size-fits-all” application, but it is an opportunity.*
- *LRLT: Landowners struggle with whether or not they have the right to say what will happen to their land in the future – but it could be seen as preventing other people from screwing it up rather than telling people what to do with the land.*
- *What if the easement-holder violates the terms of their easement?*
 - *Well, hypothetically, if someone built a house on their easement (where they weren't supposed to), we would ask them to remove the house. If they said no, we would litigate. We have insurance in case something like this happens, but this is a worst-case scenario. In a lesser example, if grazing took place next to a salmon stream, we would direct the landowner to repair damages done at their own expense.*
 - *Do you have the ability to terminate the easement and collect the funding back from the easement holder in the case of an intentional violation?*
 - *We could, but typically we would put the easement through a remediation process to try to mediate with the landowner and come to a solution. We have language that outlines this process.*

- *We generally try to keep our agreements simple, but also make sure they address all of the “what ifs?”.*
- *LRLT: Working with second generation easement holders can be a challenge, because they may not agree with the stipulations laid out in the original easement agreement. We try to get ahead of that and work with potential buyers prior to the sale so they know what they are getting into. We also try to honor the intent of the original easement holder.*
- *Landowner comment: It’s important to remember that you (the landowner) don’t own the land; you own a package of property rights that society has given you that allows you to manage your property in a certain way. And this changes over time.*
 - *LRLT: You’re right, and these probably AREN’T in perpetuity (in reality), as congress changes and society changes, and we don’t know what the future will bring, but for the time-being they are intended to be permanent easements.*

Upcoming Meetings

- *March 18, 2020, 7-9pm @ the Beaverhead County Fairground – 4H Building: BHWC Monthly Meeting. Topic: Cloud Seeding.*
- *April 17, 2020, 7-9pm @ the Divide Grange: BHWC Monthly Meeting. Topic: Invasive Weeds in the Big Hole Watershed.*

Upcoming Events in our Area

- *June 26, 2020 – Annual Fundraising Picnic for Lemhi Regional Land Trust*
- *June 15-17, 2020 – Montana Range Days at the Beaverhead County Fairgrounds in Dillon*

Adjourn

Continuing Education Credit

Contact us about earning continuing education credit at *Montana Range Days*.

Tentative Schedule of Events June 15-17, 2020

Monday, June 15

- Registration
- Board Meeting
- Practice Site open
- Exhibits may be set up
- Wildlife Speaker Series
- Illustrated Talks

Tuesday, June 16

- Registration
- Breakfast
- Exhibits must be set up
- Workshops (all day)
- Tours (all day)
- Lamb BBQ lunch
- Practice Site open
- Beef Banquet
- Dance
- Parents and Advisors Meeting

Wednesday, June 17

- Breakfast
- Tours (1/2 day)
- Contests (1/2 day)
- Lunch Provided
- Take Down Exhibits
- Free Time
- Awards and Farewell

Lodging

Participants may camp for free at the Beaverhead County Fairgrounds. RVs and pickup campers are welcome, but no hookups are available.

Other lodging options are listed on the website: www.montanarangedays.org

Registration

Register online at www.montanarangedays.org

Individuals

Through June 1.....\$50.00
After June 1.....\$60.00

Family (immediate family of up to 4 persons)

Through June 1.....\$100.00
After June 1.....\$125.00

Tour for adults (Tues, Wed).....\$10.00/day

*Registration includes 5 meals, books and materials, shoulder bag, transportation, and camping.

If you are not registering online,

please send your registration forms and fees to:

Beaverhead Conservation District
420 Barrett St., Dillon, MT 59725
Call 406-683-3802 for more information.

What to bring to Montana Range Days

Sunglasses, sunscreen, and mosquito repellent

Clipboard, pencils, and pocket calculator

Warm clothing and rain gear

Sturdy shoes or boots

Water bottle

Curiosity

Sense of humor

Toiletries and towels

Camping equipment, as needed

Camera, notebook or sketchpad

Plant press and supplies

10x magnifying hand lens

Shoes for dancing

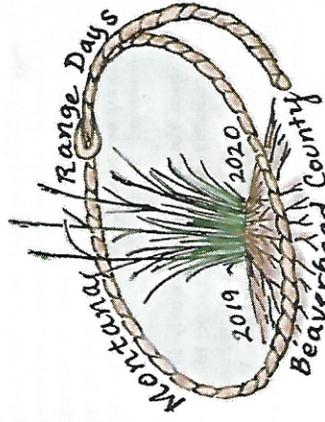
Money for extras

Enthusiasm

Montana Range Days

June 15-17, 2020

Dillon, Montana
Beaverhead County
Fairgrounds



Thank you to our Statewide Sponsors

Absaroka Energy Development Group LLC

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Montana 4-H Foundation

Montana Association of State Grazing Districts

Montana Cattlewomen

Montana Department of Natural Resources and

Conservation (DNRC)

Montana Farm Bureau Federation

Montana FFA Foundation

Montana Land Reliance

Montana Livestock Ag Credit, Inc.

Montana Silversmiths

Montana Stockgrowers Association

Montana Stockgrowers Research, Education

& Endowment Foundation (REEF)

Montana Wool Growers Association

Northern Ag Network

Northwest Farm Credit Services

NRCS Grazing Lands Conservation Initiative (GLCI)

Pioneer Meats

Society for Range Management

Western Ranch Supply

Wilbur-Ellis Company

To find out how you can help
support *Montana Range Days*,
visit our website:

www.montanarangedays.org

Information and registration:

Beaverhead Conservation District

Attn: Jessica Fields

420 Barrett St.

Dillon, MT 59725

406-683-3802

www.montanarangedays.org

Divisions

Each participant at Montana Range Days engages in activities designed for his or her age group. Participants older than age 9 are eligible for contests and awards. Tours are open to everyone.

Buckaroo (4–6 years old): Little tykes learn about the rangeland environment while their parents attend tours or workshops and contests. Instructors keep little hands happy and busy.

Ecosystem Explorer (7–8 years old): Budding naturalists are introduced to rangeland concepts through games and activities. Explorers learn a short list of important range plants and texture rangeland soils.

Superstarter (9–11 years old): Elementary students explore rangeland ecology and learn basic plant identification. Students are introduced to noxious weeds. Student/instructor ratio is approximately 5:1.

Wrangler (12–13 years old): Junior high students are challenged with hands-on learning activities focused on plant anatomy and plant identification. Range sites, proper grazing use and stocking rate concepts are introduced. Student/instructor ratio is approximately 5:1.

FFA/Open Youth (14–19 years old): High school students rotate through a series of workshops with instruction from specialists in each topic. Students register as FFA or Open Youth. 4-H members register as "Open Youth." Student/instructor ratio is approximately 7:1.

Adult (18+ years & no longer in high school): Adults may attend workshops with the FFA/Open Youth or attend tours. Adults may also compete in the rangeland management contest.

TOURS

\$10.00 per adult/tour

Tuesday: 8 am – 4:30 pm

Wednesday: 8 am – 12 noon

Lunch provided.

Workshops



Plant Anatomy

Learn the basics of plant anatomy and plant groups. Use simple plant keys. Explore how plant anatomy relates to plant growth and development.

Plant Identification

Identify common Montana rangeland vegetation and discover their origins, growth characteristics, and grazing responses. Learn about poisonous plants and noxious weeds.

Ecological Sites

Study the geology, climate, topography, soils, vegetation, and animal life associated with local rangelands. Use keys to identify soil textures and ecological sites.

Inventory/Monitoring

Consider ways vegetation and forage production on ecological sites change over time and how change is influenced by grazing management. Compare present-day vegetation and forage production to historic climax plant communities and evaluate rangeland trend and health.

Stocking Rates/Utilization

Learn to estimate the number of animals a pasture can sustain. Calculate stocking rates, figure grazing capacity, measure utilization of key forage species, and discuss how grazing use affects plants.

Range Planning

Consider a real-life land management scenario and discuss ways to increase rangeland health and productivity while maintaining wildlife habitat.

Practice Site

Practice the different contest areas at your own pace at a sample contest site. Staff will be available to answer questions and provide assistance.

Contests

Range Management Contest (ages 9+)

This contest evaluates the contestant's knowledge and skill in the following areas:

- Plant Anatomy
- Plant Identification
- Ecological Sites
- Inventory/Monitoring
- Utilization
- Stocking Rates

All areas included in the contest will be covered during the workshops.

Youth and adults should be comfortable using a plant key and ecological site key. All contestants should be able to identify plants by common name, identify their growth form, life span origin, season of growth, and grazing response, and know whether they are poisonous and/or state-listed noxious weeds. Plants lists for each division are available at www.montanarangedays.org.

Range Exhibits (ages 4–19)

- Lot 1 Plant Collection, present year
- Lot 2 Plant Collection, past & present years
- Lot 3 Weed Collection, present year
- Lot 4 Weed Collection, past & present years
- Lot 5 Range Display
- Lot 6 4-H Range Workbooks

Exhibits must be displayed from 7:30 am on Tuesday until noon on Wednesday. Participants may enter any number of exhibits, but must designate one plant collection and one range display for individual points.

Lots 1 & 3 must contain 5 noxious weeds.

Lots 2 & 4 must contain 8 noxious weeds.

Illustrated Talks (ages 4–19)

Illustrated talks begin Monday night at 6 pm. Participants in the FFA/Open Youth division may present a 6–8 minute illustrated talk on any range-related topic. Judges will assess content, delivery, and knowledge, including the presenter's ability to answer questions from judges. A laptop, projector, and screen will be provided for Power-Point presentations.

Awards

Individual Awards

**Plant ID scores are used to break ties.*

Top Superstarter: Highest overall score in Range Management Contest.

Top Wrangler: Highest overall score in Range Management Contest.

Top Green Hand (age 14): Highest combined score from Range Management Contest, Illustrated Talk, and Range Exhibits.

Top Range Hand (ages 15–19): Highest combined score from Range Management Contest, Illustrated Talk, and Range Exhibits. *This award can only be won once by the same individual.*

Top Adult (age 19+): Highest overall score from Range Management Contest.

Team Awards (Teams consist of 4 members)

**Team Awards are given to top FFA/Open Youth, Wrangler, and Superstarter Teams.*

FFA/Open Youth: limit one team per FFA chapter; all team members must be from that chapter.

Wrangler and Superstarter: teams will be organized on Tuesday.

Team scores consist of the highest three individual scores among team members. Former first place teams must replace at least one of the previous three high-ranking team members. Team points do not include Illustrated Talk or Range Exhibit.

Old West Regional Competition

MRD will sponsor the top 4-H and FFA Teams to attend the Old West Regional Competition.

Scholarships

Harold & Lillian Jensen Scholarship \$1,000

Bob Sitz Memorial Scholarship \$1,000

Range Days Scholarship \$1,000

Top Range Hand Scholarship* \$1,000

**Available following successful completion of 1st semester of post-secondary education.*