Welcome to Madison & Jefferson Counties

Located in Southwest Montana, this two-county Extension area reaches as far south as the outskirts of Yellowstone National Park and as far north as Helena. It extends from Three Forks west to the famed Beaverhead Rock along the Lewis and Clark trail just east of Dillon. The area is home to multiple blue ribbon trout streams and river drainages that combine to form the Missouri River.

The area’s economy is sustained by agriculture, tourism and recreation. It ranges from skiing at Big Sky, to fishing and hunting in the vast expanses of uninhabited lands, mining, and livestock production. These two counties boast a varied population base that creates a unique diversity in each community.

Waterways Tie Counties

Pipestone Creek Sedimentation and Jefferson Slough Eurasian Milfoil
Jefferson County MSU Extension agent Tom Harrington has been actively involved with the Jefferson River Watershed Council with two additional-legislative approved projects. The Pipestone Creek sedimentation project will help reduce stream bank erosion and will reduce sediment buildup downstream that contributes to flooding events. Landowner coordination to reshape stream banks, repair areas of high erosion and replace a major canal head gate are ongoing. Increased sediment created conditions for the noxious aquatic weed, Eurasian Water Milfoil, to establish a nursery in the Jefferson Slough. Currently, Eurasian water milfoil is flourishing and impacts fish, recreation and the general health of the entire Missouri River drainage. The control of this noxious weed involves moving the existing slough channel, replacing culverts with a bridge and using herbicides to control the spread of the plants and is a good example of a successful public/private partnership. Ongoing public meetings have been routine and have been an opportunity to help educate the public on the progress of the projects.

Groundwater studies
Water is a vital part of the Madison and Jefferson County landscape. It is essential for agriculture, recreation and future growth. Understanding the groundwater natural resource and the interaction it plays with surface water will help to better manage this valuable resource.

Jefferson County MSU Extension agent Tom Harrington has been assisting the Montana Bureau of Mines and Geology with two legislative-approved groundwater studies on the Boulder and Jefferson River Watershed areas that will help identify opportunities to increase stream flows during low water flow periods. The Boulder study has been finalized and indicates there is an opportunity to recharge the aquifers and increase stream flows by adding new water storage impoundments and using existing irrigation canals outside of the normal operating periods. The Jefferson study is currently underway with monitoring, data collection and landowner coordination. Public meetings have been a part of the process to provide updates on findings and educate interested parties on water management practices.
Cover crop seminar
The Madison - Jefferson Extension agent joined efforts with the Lewis & Clark Extension agent for a cover crop seminar for farmers, ranchers and small acreage producers. Operators from Sheridan and Helena attended the seminar. MSU Extension specialists presented information so producers could enhance their soil health, profitability and production. Also featured was a panel including local producers who have incorporated cover crops into their production system. Producers shared successes and challenges with cover crops. Murdoch’s Ranch and Home Supply sponsored meals. Other area sponsors and organizers of the event included both the Madison and Ruby Valley Conservation Districts, Madison Natural Resource Conservation Service office, Agri Feeds and Circle S Seeds. Attendees left with an increased knowledge of how cover crops can be incorporated in a variety of production systems.

Conflict resolution training
Montana State University Range Extension Specialist Jeff Mosley provided a conflict resolution training titled “How Not to be an Old Goat about Conflicts.” The training was held in the Madison County communities of Twin Bridges and Ennis for area residents and agricultural producers. The focus of the training was on resolving conflicts that can result from succession planning, disagreements with governmental agencies and special interest groups.

The workshop was sponsored by 3 Rivers Communications and held at the Wagon Wheel Restaurant. Participants left with increased confidence and knowledge of how to work toward a constructive resolution of life’s conflicts. Due to the popular demand and success of the program, it will be continued in the upcoming year.

Multi-county pesticide training
Three Montana State University Extension offices from Madison - Jefferson, Gallatin, and Broadwater counties held a pesticide training. The training was for those who wished to obtain a private applicators license to legally apply restricted use pesticides to land they own, rent, or lease.

Extension agents from each of the participating counties presented information. In addition, MSU Extension Pesticide Specialist Cecil Tharp, MSU Lewis and Clark County Extension agent Brent Sarchet, and Montana Department of Agriculture Pesticide Specialist Theresa Shrum, provided information for the attendees. The training provided continuing education credits to an existing pesticide license or certified new producers with a license to apply pesticides. Over 50 producers were in attendance.
Vaccine and animal health

Vaccines represent an annual per head cost to livestock producers of $15-25 depending upon animal health protocols and needs. Thirty-six producers and the Ruby Valley FFA chapter came together at the Wagon Wheel restaurant in Twin Bridges to get the latest information on vaccines, storage, handling protocols and animal health protocols.

During this workshop, participants had the opportunity to do customized mixing of vaccines, see the effects of temperature on the efficacy of vaccines and look at actual financial losses due to improper use or handling of vaccines throughout the livestock industries. The education was provided by Billy Whitehurst and Zoetis Animal Health Representative Nick Campbell. Participants enjoyed a meal courtesy of Zoetis. Many producers were headed home to make sure their refrigerators were set to the proper temperature for storage to improve the efficiency of their vaccines.

Grazing cover crops

Farmers and livestock producers crowded around fire trucks in the Harrison Fire Hall to listen to speakers from the National Center for Appropriate Technology (NCAT), Natural Resource Conservation Service (NRCS), and MSU-Extension present information on grazing sheep and cattle on cover crops and the soil health benefits of doing so.

Dave Scott, NCAT, presented information on using sheep grazing to terminate an annual cover crop and proper herd management strategies to ensure a field is ready for the next year’s crop. Sue Tallman, NRCS, presented soil health information to show the difference in water infiltration rates and organic matter retention with fields that are cover cropped and those that are not. Billy Whitehurst presented rate of gain data and cost of grazing cattle on cover crops. Producers left with new ideas for alternative forages that could augment pastures as well as financial implications of incorporating cover crops into their grazing regimen.

Livestock and grazing education

Livestock producers gather to receive winter nutrition information from Agriculture Agent Billy Whitehurst.

At the University of Montana Western in Dillon, Whitehurst spoke to equine science students about proper pasture management in horse operations. Given the proximity to Madison County, many of the students enrolled were local students who took the information straight back to local ranches.

At the Natural Resource Conservation Service event in Winnett, Whitehurst presented information and led a discussion on better livestock handling skills. Those skills can enhance land management, consumer confidence in meat production and a business financially. This event provided an exchange of new ideas for producers. Shared conversations provided knowledge which Whitehurst brought home to Madison and Jefferson Counties.

Exchanging knowledge

Madison - Jefferson County MSU Extension Agent Billy Whitehurst was the invited speaker at three events outside Madison - Jefferson counties over the past year. The events took place in Broadwater County, at the University of Montana Western, and in Winnett, MT.

In Broadwater County, the event focused on nutrition of the pregnant cow and fetal nutrition during gestation. Many producers who attended were cross county producers working in both Jefferson and Broadwater County.

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Area producers gather in the Harrison Fire Hall.
**CORE 4 business classes offered**

Golden Sunlight Mine went through a workforce reduction in November 2015. Jefferson Local Development Corporation (JLDC) and Headwater’s Resource Conservation & Development Council worked with the mine to provide two business planning courses called CORE 4. The first CORE 4 class held in December was attended by 22 individuals. The second course, held in January 2016, was attended by seven individuals including a Borden’s Hotel business tenant. Additionally, JLDC and the mine collaborated to host a job fair to assist displaced employees.

**Recreation Trails**

Trails west of Whitehall have grown into a popular motorized and non-motorized recreation area. The increase in traffic presents an opportunity for county-wide economic development.

To determine ways to capitalize on this potential economic opportunity, JLDC is working with ALDEA, a marketing strategies and process company. ALDEA has surveyed individuals recreating in the area. Results from this study will be used to assist in the development of an overall trails utilization marketing strategy. This strategy will serve the use of motorized all-terrain vehicles and non-motorized hikers, bicyclists, horseback riders and canoeists.

**Tree planting workshop**

In early summer, an Urban Tree Planting Workshop was conducted on the east side of the Borden’s building. During the planting, experts from Wagner Nursery demonstrated how to properly plant curbside trees. Planting the six trees makes the look of the hotel similar to in the 1920s. The Whitehall Garden Club was a partner in the workshop. Tree planting was completed for the annual Whitehall Frontier Days celebration and it will provide downtown shade and beautification for years.

**Borden’s Hotel**

JLDC continues to put the finishing touches on the Borden’s Hotel project. Increasing the overall community vitality, the building is fully occupied and has been a significant contributor to the revitalization of downtown Whitehall. The Madison-Jefferson Extension Offices are located in the Borden’s Hotel.

Borden’s Hotel has two Vacation Rentals by Owner (VRBO) units. To increase the occupancy of these units, new marketing strategies were implemented during the summer. All the apartments continue to be rented at full capacity.

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*Ringing Rocks of Montana. The rocks give off a musical ring when hit and are a popular stop along the trail system.*

*Participants listen while Wagner Nursery staff demonstrate proper tree planting techniques for urban areas.*

*Six Radiant crabapple trees are planted along Borden’s Hotel.*
New community group forms
MSU Extension assisted in the creation of the Boulder Transition Advisory Council (BTAC) in fall 2015. BTAC holds monthly meetings at the Boulder Town Hall on the first Thursday of each month.

The ‘Making Boulder’s Future Bright’ project is a result of the BTAC group. BTAC is a collection of elected officials, business owners, community organizations and engaged citizens of the Boulder area who are working together to find ways to rebrand their community after the 2015 Montana legislature passed Senate Bill 411. SB 411 mandated the closure of the Montana Developmental Center (MDC) in Boulder by June 2017. MDC has been the largest employer and a central part of Boulder’s heritage and culture for more than 120 years.

Study Circles
Jefferson County Extension Agents Tom Harrington and Micky Zurcher, with the Local Government Center Director Dan Clark and associate Tara Mastel, worked with Everyday Democracy, an organization which helps people and organizations build capacity to engage communities in creating change, to initiate study circles for the Boulder community. In March, a kick-off event brought together 50 residents to learn about the study circle process.

Following the kick-off, Boulder residents participated with government officials in study circles to discuss four major topic areas: 1) what is their connection to Boulder, 2) how will the Montana Developmental Center (MDC) closing impact Boulder, 3) how can Boulder build a strong and vibrant community, and 4) how does the community make a difference and move from words to action. There were six study circle groups which met for two hours a week for four weeks. The groups contributed more than 570 hours in community conversations.

Action Forum
Following the study circles, Dan Clark, Director of the MSU Local Government Center, returned to Boulder to facilitate community decisions from the study circle process. One hundred community residents and government officials attended.

Sub-committee groups were created and continue to meet on the four main focus areas from Making Boulder’s Future Bright study circle process. The work of these groups helped to create the Information Hub which provides residents an opportunity to stay informed on Making Boulder’s Future Bright ongoing conversations. The Information Hub can be found at http://www.makingbouldersfuturebright.com/.

Big Sky Trust Fund Grant
As part of the ongoing BTAC meetings, Extension Agent Micky Zurcher and Headwater’s RC&D Operations Manager Barbie Durham applied for and received a Big Sky Trust Fund Grant to fund a Master Plan for the future of the Boulder community. Community Development Services (CDS) is conducting the Master Plan and provided a preliminary report to BTAC. Six pathways have been identified to help guide Boulder with its continuing efforts for Making Boulder’s Future Bright.
Montana State University Extension

Economic & Community Development Committee Meetings

Monthly community updates
Jefferson County MSU Extension agents Tom Harrington and Micky Zurcher facilitate five monthly committee meetings each month. All meetings are open to the public.

Boulder Transition Advisory Committee
BTAC meets at 8 a.m. the first Thursday of each month at the Boulder City Town Hall. BTAC encourages Boulder community members to engage in dialogue for future community planning in the wake of the Montana Developmental Center closure. BTAC helped create the Making Boulder’s Future Bright process. The committee is chaired by Boulder resident and newest board member of JLDC, Drew Dawson.

Community Transition Advisory Committee
CTAC is a monthly Golden Sunlight Mine community informational conduit meeting. It focuses on sustaining the economy of Whitehall. The meeting takes place at 8 a.m. on the second Thursday of the month in the Borden’s Hotel Conference room in Whitehall.

Jefferson Local Development Corporation
A 12-member Board of Directors constitutes JLDC. This group meets the third Wednesday of each month in rotating locations. JLDC is managed by the local Community and Economic Development Extension Agents, Tom Harrington and Micky Zurcher.

Science/Technology/Innovation
STI is a monthly meeting focused on encouraging technology and innovation programs for Jefferson County. The meeting is held at 7 a.m. on the second Thursday of the month at the Borden’s Hotel Conference room in Whitehall prior to the CTAC meeting. Successes in 2016 include a gigabyte link to Whitehall and the Borden’s Hotel.

Tax Increment Financing Industrial District
Jefferson County has two Tax Increment Districts. The South TIFID includes the Sunlight Business Park in Whitehall. The North TIFID is located on the northern boundary of Jefferson County. These meetings are held quarterly in Boulder. The districts promote value added industries and are shovel ready for new business development.

North Jefferson County Business Round Table
The north county business round table is coordinated by MSU Extension Agent Micky Zurcher and Office Manager Gena Nellis. The meetings rotate between Clancy, Montana City, and Jefferson City. Meetings are held over the lunch hour on the third Wednesday of the month.

The December 2015 meeting was a question and answer session on accounting, sponsored by Montana City Bank and Anderson Zurmuehlen. The March meeting was on employee retention, with speaker Deb Chouinard from the Helena Job Service. The September meeting was presented by the Jefferson County Planner, LaDana Hintz about county planning.

LaDana Hintz discusses county planning.

The South TIFID known as the Sunlight Business Park is north of I-90 between Cardwell and Whitehall and sits just below the Golden Sunlight Mine.
4-H Update

4-H programs booming in Madison - Jefferson counties
The past few years, Madison-Jefferson 4-H has had record numbers of members become involved. The 2015-2016 year boasted 326 total enrollment between Madison and Jefferson Counties, up by 52 members from the previous year. Approximately 40 of those new members were new to 4-H. When Montana 4-H lowered the age requirements for 4-H Cloverbuds, younger siblings of 4-H members were able to sign up sooner than expected. Many took the chance to kick start their 4-H careers. The 4-H increase in membership and changing demands of 4-H members and 4-H volunteers are causing Madison and Jefferson counties to review and update protocols and procedures to better serve 4-H families and local communities.

<table>
<thead>
<tr>
<th>Year</th>
<th>Members</th>
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<tbody>
<tr>
<td>2013-2014</td>
<td>256</td>
</tr>
<tr>
<td>2014-2015</td>
<td>274</td>
</tr>
<tr>
<td>2015-2016</td>
<td>326</td>
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4-H online enrollment and fair entry
Last year Madison-Jefferson Extension used 4-H Online and Fair Entry computer online programs to expedite procedures. This year all members are able to get full access to the information in their profiles. Members were given two months to enroll online in 4-H. Members enter information themselves for their projects into the online system.

By implementing this process, office staff went from chasing paperwork around the office to having all of the information in one place accessible from anywhere there was an internet connection. For fair entries, members were able to access their 4-H Online information and to enter their projects. With the use of the two online programs, administration of enrollments and fair entries for 300+ 4-H and FFA members was made easier. There was less paperwork to process. However, there was more time on the computer and phone answering questions from families, helping them with various computer problems and making sure projects were entered correctly for fair. Overall the online enrollment and fair entry options are a great improvement to the program.
## Madison - Jefferson 4-H Statistics

<table>
<thead>
<tr>
<th>Total Enrollment</th>
<th>Number of Clubs</th>
<th>Certified Volunteers</th>
<th>Ag/4-H Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>326</td>
<td>15</td>
<td>41</td>
<td>2</td>
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### Shooting Sports Members (Largest to smallest group)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Members</th>
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<tbody>
<tr>
<td>Archery</td>
<td>62</td>
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<tr>
<td>Air Rifle</td>
<td>28</td>
</tr>
<tr>
<td>Shotgun</td>
<td>16</td>
</tr>
<tr>
<td>Air Pistol</td>
<td>10</td>
</tr>
<tr>
<td>BB Gun Safety</td>
<td>5</td>
</tr>
<tr>
<td>Western Heritage</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>124</strong></td>
</tr>
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### Top 5 Indoor Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photography</td>
<td></td>
</tr>
<tr>
<td>Foods</td>
<td></td>
</tr>
<tr>
<td>Woodworking</td>
<td></td>
</tr>
<tr>
<td>Sewing/Textiles</td>
<td></td>
</tr>
<tr>
<td>Leathercraft</td>
<td></td>
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</tbody>
</table>

### Where are the 4-H Members Located?

<table>
<thead>
<tr>
<th>4-H Year</th>
<th>Farm/Ranch</th>
<th>Towns of under 10,000 and rural non-farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-2016</td>
<td>169</td>
<td>157</td>
</tr>
</tbody>
</table>

### Animal 4-H Members

<table>
<thead>
<tr>
<th>Animal</th>
<th>4-H Members</th>
<th>FFA Members</th>
<th>Total Enrolled</th>
<th>Attended Fair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swine - Market</td>
<td>117</td>
<td>20</td>
<td>137</td>
<td>133</td>
</tr>
<tr>
<td>Sheep - Market</td>
<td>39</td>
<td>2</td>
<td>41</td>
<td>39</td>
</tr>
<tr>
<td>Beef - Market</td>
<td>34</td>
<td>3</td>
<td>37</td>
<td>35</td>
</tr>
</tbody>
</table>

## Contact Us

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