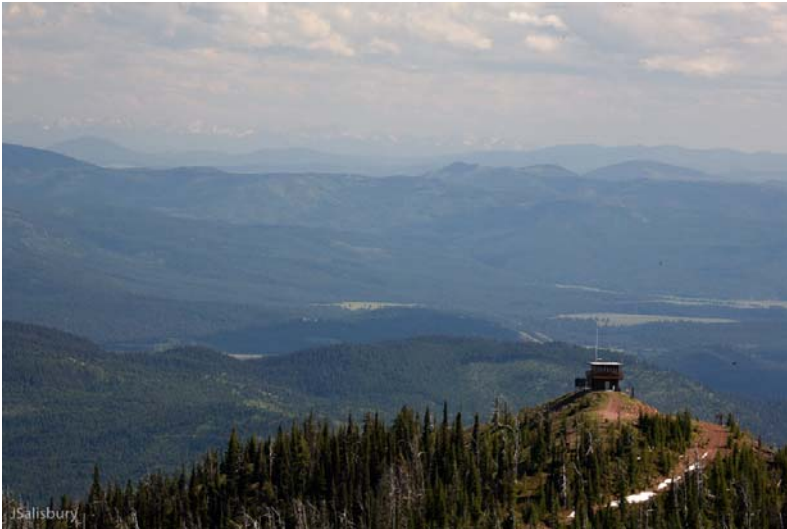


# Community-based Fire Management Innovation for Private Lands

## Final Conservation Innovation Grant Report: 69-3A75-9-147

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### **PROJECT PARTNERS & FUNDING SOURCES:**

Bitterroot RC&D; Blackfoot Challenge Forestry Committee; Blackfoot Community Conservation Area Forestry Work Group; Bureau of Land Management (BLM); DNRC and DNRC Western Competitive Grant and Jump Start II; Greenough/Potomac and North Powell Fuels Mitigation Task Forces; Helena and Lolo National Forests; Montana Department of Fish, Wildlife and Parks (FWP); Montana State University Forestry Extension; MAIRS Blackfoot Project; NRCS and NRCS Conservation Innovation Grant; NPCD; private landowner cost-share participation; Southwestern Crown Collaborative Project; University of Montana/College of Forestry and Conservation; and the US Fish and Wildlife Service (USFWS).

## **Abstract**

The Blackfoot Challenge worked directly with NRCS, using DNRC Technical Support to assist with the development of conservations plans across multiple and adjacent parcels. Additional public and private partners are assisting through the collaborative MAIRS Blackfoot Project involving FWP, DNRC, BLM, US Forest Service (USFS), NRCS, Montana Department of Environmental Quality (DEQ), and USFWS/Partners Program.



In partnership with NRCS, DNRC and Montana State University (MSU) Forestry Extension, the Blackfoot Challenge worked on forest stewardship planning and implementation for multiple and adjacent landowners through direct contact by letter, invitation to workshops and presentations, and site visits with landowners to discuss objectives, develop plans, and assess wildfire risks and forest health. The partners provided private landowners with access to technical planning assistance and available financial incentives, particularly through the Environmental Quality Incentive Program (EQIP).

We worked with NRCS and DNRC to identify landowners interested in pursuing an EQIP Special Initiative for forest health and fire management practices. Based on the demand identified through this contact, the NRCS District Conservationist submitted a proposal for a Special EQIP Initiative requesting \$413,000 for 2010 and \$200,000 for 2011. We assisted landowners with submitting their applications and worked with NRCS and DNRC to rank the applications. Overall, all residents in the Blackfoot Watershed were informed through broad outreach, and 100 private forest owners were directly contacted about interest in fuel mitigation for fire management and forest restoration.

We helped form and coordinate the Seeley Swan Blackfoot Biomass Working Group to look for opportunities to better utilize woody biomass. The Working Group hosted a biomass utilization demonstration in February that renewed many landowners' and contractors' interest in biomass.

Significant communication occurred through monthly or bi-monthly meetings of the MAIRS Blackfoot Project working group, in addition to periodic Forestry Working Group meetings of the BCCA Council, the Blackfoot Challenge Forestry Committee, the Potomac/Greenough Fuels Mitigation Task Force, the North Powell Fuels Mitigation Task Force, the Blackfoot/Seeley/Swan Biomass Working Group, and monthly meetings of the Lincoln Restoration Committee.

The Blackfoot Challenge hosted two planning sessions with fire management personnel to further define the Primary Line of Defense in the MAIRS Blackfoot Project area, and along the north and south sides of the Blackfoot Watershed, as well as a contractor workshop to provide better access to forest related contracts.

### **Overview, Purpose, and Objectives**

Healthy forests are a critical component of our Nation's landscape, providing multiple public and private benefits. However, recent changes in weather patterns now are creating longer fire seasons and dryer fuel conditions, causing fires to increase in number, size and intensity. This threat is expected to continue due to overly dense forests, increases in insect and disease susceptibility and mortality, and the resulting build up of fuels. Land managers are working to address these problems on public lands, but privately owned forests make up a substantial share of this forest resource base. Exasperating these concerns, these forests are increasingly being divided into smaller ownership parcels, and only 3 percent of family forest owners have a written management plan while 16 percent have sought management advice.

The objectives of the Blackfoot Challenge, NRCS and DNRC are closely intertwined and both entities are heavily committed to assisting private landowners in addressing resource concerns. While much has been accomplished through the parallel conservation tracks taken by the Blackfoot Challenge, NRCS and DNRC to date, all entities, and most importantly, many of the private landowners in the watershed, currently recognize that a powerful partnership between the Blackfoot Challenge, NRCS and DNRC will best promote private lands conservation and greatly benefit fire management across ownerships in the future.

With 80 percent of the Blackfoot watershed in forest cover, and 20% in private, non-commercial ownership, considerable amount of private forested land is an opportunity to make long-term conservation investments that will benefit forest health, wildlife habitat, private landowners and public safety. Our natural resource management and community supported approach relies on effective communication, strong involvement by producers and private landowners, and tangible benefits that are directly tied to livelihood interests.

Our innovative approach has transferability to other locations where forest health, wildlife habitat, wildfire, and private land values overlap. Public and private partners are benefiting from the innovations and practices developed when planning and implementing projects under management agreement. Such a project is underway in the Blackfoot watershed with the Multi-Agency Integrated Restoration Strategy (MAIRS).

In 2008, the Blackfoot Challenge completed the Blackfoot Watershed Fuels Assessment (BWFA - Figure 1) to address fire risks throughout the watershed. The assessment provides consistency across the watershed and guides community-based fuels mitigation task forces in making decisions on fire management priorities based on private landowner interest and local knowledge.

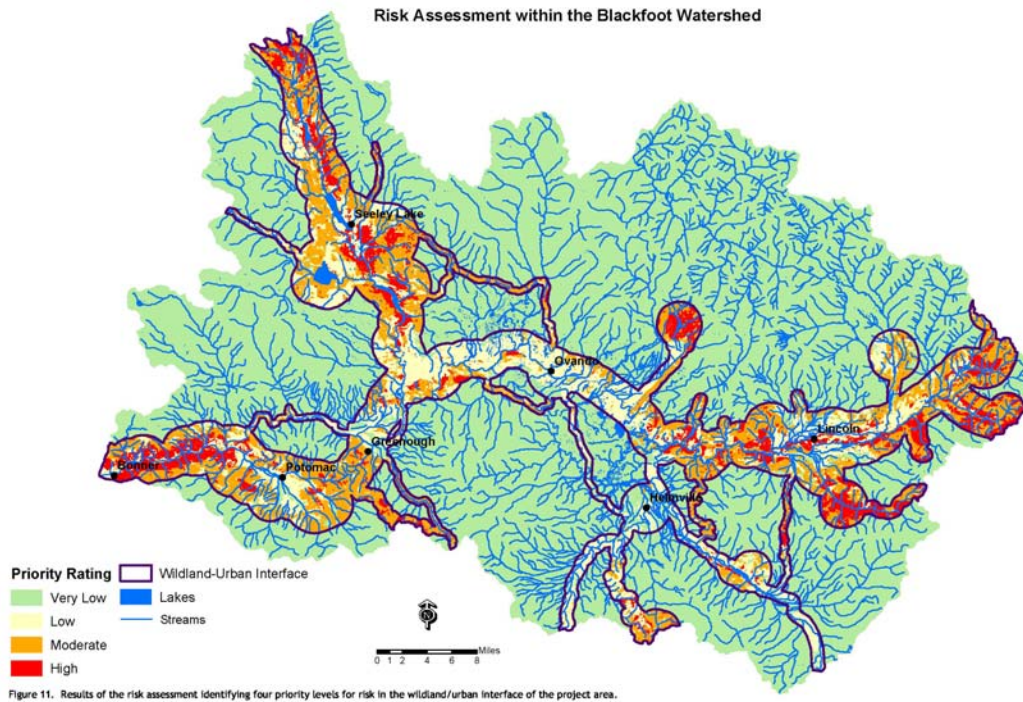


Figure 1.

Conservation planning efforts in the Blackfoot watershed are being coordinated by the Blackfoot Challenge through the Blackfoot Sub-basin Plan in cooperation with multiple private and public partners including local community members working under the vision for the Northwest Power and Conservation Council. The Blackfoot Sub-basin plan identifies as high priorities: maintaining or restoring the viability of low severity fire regime ponderosa pine and western larch forest communities, and middle to high elevation coniferous forest communities. In particular, fire management is addressed as a critical issue to coordinate with forest health practices

This project provided benefits to energy efficiency through additional innovations in use of forest products in biomass projects. Benefits to rural economics are provided through contracted forest management, associated support service jobs, and commerce in the local communities. Environmental benefits are provided through innovative natural resource conservation on private land in cooperation with public land management.

Montana's 1.5 million acre Blackfoot Watershed (Fig. 2) has been significantly altered from historic conditions by many years of wildfire suppression and logging history. For more than a century, the forests and associated vegetative communities in the Blackfoot watershed have contributed significant biological, agricultural and cultural value to communities living across the valley.

In addition to using the BWFA and technical expertise of NRCS and DNRC for aspects of our work, the Blackfoot Challenge’s organizational capacity, coupled with the trust of the community to prioritize fire management are fundamental for implementing a community-based approach. One of the greatest strengths of the partnerships that have developed is that clear and frequent communication among key partners will result in a coordinated response to forest health and public safety. We have developed common goals of reducing fuel loads, coordinating cross-boundary forest management, leveraging financial resources, and have been responsive to landowner concerns. The result is a program that serves the common interest of the rural community and conserves natural resources.

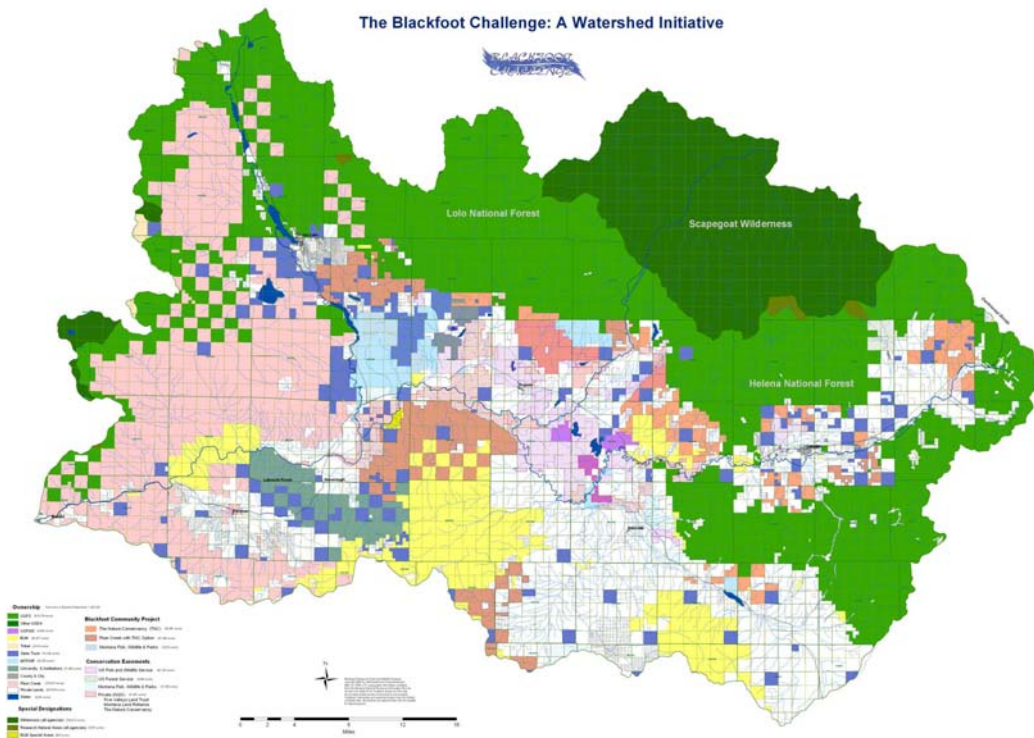


Figure 2.

### **Producer Participation**

Over 200 private forest owners and other forest management partners participated in meetings, workshops and projects. We had participation from 53 producers, community leaders, agency partners and fire managers involved in GIS mapping through the MAIRS, Fuels Mitigation Task Forces, Blackfoot Challenge Forestry Committee and BCCA Forestry Work Group and Lincoln Restoration Committee.



We reached 163 private forest landowners through planning efforts with MSU Forestry Extension. Twelve landowners participated directly in planning efforts through two Forest Stewardship Workshops organized by MSU in collaboration with DNRC and Blackfoot Challenge.

Twenty-two producers applied up for EQIP contracts with final deliver of nine contracts.

### **Project Activities**

This grant supported two deliverables and five objectives.

#### ***Deliverables***

##### ***1. Contracts with 40 Eligible Producers for 800 acres.***

Initially, 22 producers applied for the program. Due to eligibility, ranking or reluctance by the landowner, contracts were signed with nine Eligible Producers for over 400 acres during the grant period.

Although limited access to technical assistance is always a factor in delivering EQIP financial assistance to private landowners, significant access to technical assistance was provided through this grant and leverage with NRCS staff, Technical Service Provider DNRC, NPCD, MSU Forestry Extension and the Blackfoot Challenge. More access to technical assistance and leverage would have provided more contacts with private landowners, but we do not feel this was the only limiting factor for delivering 40 contracts for 800 acres.

#### **Technical assistance delivered:**

Outreach through collaborative efforts with agencies to reach private landowners

- Poster outreach to all residents in the Blackfoot Watershed
- Specific target of 100 landowners in project area through:
  - One-on-one
  - Local community workshops
  - Forest Stewardship Workshops

Factors limiting contract delivery for this grant were:

- Limited outreach of technical assistance to small acreage private forest landowners prior to this grant period that limited knowledge by small acreage private forest landowners of resources concerns for fire management and forest health.
- Limited community engagement in landscape level fire management prior to this grant period.
- Limited public agency involvement with private forest landowners related to fire management and forest health practices prior to this grant period.
- Limited access to adequate financial assistance to cost-share practices on 800 acres. Montana NRCS Announced an EQIP Special Initiative Funding in 2010, and an announcement for 2011 is anticipated, to assist with Fuel Break practice on private forested land. The final 2010 Announcement of \$300,000 was fully obligated through nine contracts on over 400 acres. The anticipated 2011 Announcement of \$200,000 would provide financial assistance for Fuel Break and pre-commercial thinning practices on approximately 200-300 additional acres if fully obligated.

Significant additional work with private landowners was provided through the partnership efforts supported by this grant. The MAIRS provided the initial concept for this grant forming the MAIRS Blackfoot Project work group in 2009 to coordinate public and private partnerships in landscape scale fire management and forest restoration planning and implementation through collaborative efforts. This is directly tied to the North Powell Fuels Mitigation Task Force in the project area through delivery of technical and financial assistance to private forested landowners. Since the inception of this grant, more than 1,040 acres of fire management and forest restoration have been completed or contracted with private landowners through partnership efforts using multiple financial assistance sources, including EQIP, DNRC grants (Western States and Western Competitive) and BLM Community Assistance grants.

**2. *Attend at least one NRCS CIG Showcase or comparable NRCS event during the period of the grant.***

Multiple showcase or comparable events were delivered during the period of this grant.

- *Biomass To Electricity Demonstration*, Open House Feb. 23, 2010 (see attached UM News release in Appendix A)
- Local community and contractor presentations by NRCS, DNRC and Blackfoot Challenge (see Appendix B)
- Special EQIP through partner participation (see appendix C)
- Initiation of two local fuels mitigation task forces – North Powell and Greenough/Potomac (Appendix D)
- Field tour to review application of EQIP cost-shared practices with NRCS, DNRC and BC (see Appendix E)
- MAIRS Blackfoot Project (see Appendix F)



## **Objectives**

### ***Objective 1: Assist NRCS with EQIP Delivery of Forest Health Practices with 40 Eligible Producers using Technical Service Providers (TSP) for conservation plans across multiple and adjacent parcels***

We assisted the NRCS with delivery of EQIP contracts for eligible producers for forest health projects for fire management of overstocked forested lands. We worked in partnership with the NRCS and TSP Montana Department of Natural Resources and Conservation (DNRC) to help deliver conservation plans addressing fire management across multiple and adjacent private forest parcels.

The purpose of this objective was to maximize the NRCS-DNRC-Blackfoot Challenge partnership so as to facilitate conservation on private lands and the delivery of EQIP Statute, Final Rule, and Manual. This project provided NRCS with a greatly expanded level of communication with DNRC and Blackfoot Challenge partners, and catalyzed opportunities for EQIP delivery through technical and financial assistance partnerships.

The concept for this Conservation Innovation Grant (CIG) emerged through discussions in Multi-Agency Integrated Restoration Strategy Committee (MAIRS) Blackfoot Project meetings in 2009 where public and private partners are participating in landscape scale fire management and forest restoration planning and implementation through the collaborative efforts. The MAIRS was attracted to the Blackfoot Watershed by the cooperative conservation track record, and began work on their second statewide effort between Montana FWP, Montana DNRC, BLM, USFS, NRCS, MT DEQ and USFWS.

The Blackfoot Challenge is bringing private landowners together with agencies to cooperate on a landscape level. The MAIRS committee approached the Blackfoot Challenge as the community-based group in the Blackfoot to assist in cross-boundary work and involvement of private landowners. The project area has been identified for inclusion in agency work plans if processes allow. The Blackfoot Challenge, NRCS and DNRC are integral in supporting private landowner participation in the MAIRS project.

The Blackfoot Challenge developed a comprehensive list of over 100 landowners in the three focus areas (see Appendix C). The Blackfoot Challenge and NPCD contacted the majority of landowners by phone to discuss whether they were experiencing forest resource concerns on their property. Landowners were informed of future public meetings in their area about forest health, wildfire risks, management, and potential financial and technical opportunities available to private landowners. As expected, many landowners were experiencing forest resource issues and eager to discuss them.

The Blackfoot Challenge coordinated public meetings in each of the three focus areas including invitations to all landowners, coordination of venues and presenters, and provision of forestry literature to the public. Presenters included NRCS, Blackfoot

Challenge, DNRC, USFS, NPCD, BLM, MSU, and local fire managers. Topics included Basic Forest Ecology, Forest Insects and Disease, Environmental Quality Incentive Program (EQIP), and updates by FS representatives. Attendees were informed that a Special Initiative (with financial and technical assistance) could potentially be developed to address specific resource concerns if public demand existed. Approximately 165 landowners attended the public meetings. Interested landowners were asked to sign their names on a list for more information on EQIP and/or a site visit by a representative.

An initial field review of practices was coordinated by the Blackfoot Challenge, including participation by NRCS, DNRC, NPCD and the Blackfoot Challenge (see Appendix F). This field review was critical to establish the proper use of practices to benefit natural resource conservation on private land.

Once interested landowners were identified and confirmed, several planning teams were assembled including NRCS personnel, Blackfoot Challenge, NPCD, and DNRC to visit each property and develop a draft plan based on landowner objectives and applicable forestry practices. Approximately 22 properties were visited.

NPCD worked closely with NRCS and FSA to ensure all applicants were eligible. We maintained a Landowner Status Spreadsheet to track eligibility status, practices, acres, and remaining fieldwork needed. This spreadsheet was updated regularly as information changed and plans evolved. NPCD also assisted NRCS with a variety of fieldwork and planning documents including: project plans, schedules, landowner communication, vegetation plots, cultural resource surveys, narratives, environmental assessments, job sheets, and species screening tools.

Following contracting, multiple projects started immediately. NRCS, NPCD, DNRC, and Blackfoot Challenge worked cooperatively to ensure that practice specifications were being met. Multiple inspections were also carried out following completion of individual Contract Item Numbers. During inspections, representatives assessed the final product, took GPS waypoints to identify final acres, conducted fixed-plot tree counts, and took digital photos. All information was forwarded to NRCS. All representatives maintained frequent communication with relevant landowners and in some cases the contractors to ensure all participants understood the implementation, inspection, and reimbursement process.

Based on the positive response of 22 landowners, NRCS requested funding for an EQIP Special Initiative to specifically address fuel risks and forest health issues. NRCS, DNRC, and NPCD worked together to develop local ranking criteria for the special initiative to ensure that funding was directed to the highest priority projects. The EQIP Special Initiative was granted by NRCS for \$300,000. We assisted landowners with submitting their applications and worked with NRCS and DNRC to rank the applications, and we

continue to produce management plans for private landowners. All funds were allocated and several applications did not rank out successfully. Thus, the total number of contracts were limited by available funding and lack of wholesale interest by multiple and adjacent landowners. Over 400 acres were treated through the Special Initiative.

The North Powell and Greenough/Potomac Fuel Mitigation Task Forces were organized to manage grant funds from various sources to assist landowners with fuel risks around their residence and access routes. North Powell is directly involved with the MAIRS Blackfoot Project area and the Greenough/Potomac serves the lower watershed. The Blackfoot Challenge coordinated and liaised with the task force to ensure that funding was used wisely and in some cases to leverage matching funds for particular EQIP projects.

***Objective 2: Utilization of forest slash as biomass for Eligible Producers and Local Communities***

Fire management and forest health practices of fuel breaks, forest stand improvements, and prescribed forestry will produce forest slash. Coordination of these practices across multiple and adjacent parcels will allow for more efficient use of forest slash if management practices are coordinated to treat multiple and adjacent parcels under a conservation plan. Emphasis was placed on use of forest slash for the private landowners and local communities in partnership with agencies and organization working on biomass projects.

Market value for woody biomass (chips and hog fuel) has significantly changed in the project region since inception of this project creating difficulty in utilization of forest slash as woody biomass. However, public and private interest remains high, and new markets for small, mid and large scale are beginning to develop. We are seeking woody biomass contracts with the University of Montana, Northwestern Energy and local, small-scale users.

In 2009, the Blackfoot Challenge was able to grind woody biomass by-product from a portion of the project to restore Ponderosa Pine/rough fescue communities on the BCCA with Pyramid Mountain Lumber Company funded by a JumpStart II grant from DNRC. In addition, the Blackfoot Challenge coordinated the grinding of forest slash for biomass utilization from the BCCA Haul Road Fuel Break project. At that time markets



outside the region provided incentives to haul woody biomass. In 2010 and 2011, markets did not provide incentive to haul or utilize forest slash material, thus pile burning increased to dispose of the by-product.

The Blackfoot Challenge became a founding member of the Seeley Swan Blackfoot Biomass Working Group and is serving as its co-coordinator. This group is working to determine additional opportunities to utilize biomass in the watershed.

In February 2011, the Working Group organized a biomass utilization demonstration in conjunction with the University of Montana, Missoula Electric Cooperative and Paws Up Ranch. This was the first direct feed of electricity produced from woody biomass into MEC power lines. The Biomax, a biomass gasifier and electrical generator, processed waste wood into electricity that was transferred onto the grid. Over 50 contractors, landowners and agency partners attended the demonstration, and it piqued interest in continuing to seek viable biomass markets.

We held a workshop for forestry contractors in April 2011 that included information about how the EQIP program works and how to access it. Information about woody biomass utilization opportunities also was provided. See attachment in Appendix C.

At the time of writing this final report, a new biomass operation opened in Bonner by Boise, Inc. Boise is currently contracting for 20 loads of green woody biomass per day with plans to increase to 50 per day for a total annual projected market of 200,000 tons of green woody biomass. We anticipate accessing this market through local contractors that are treating private forest lands.

***Objective 3: Assist NRCS, DNRC and other TSP with cooperative agreements to write conservation and forest stewardship plans for multiple and adjacent Eligible Producers***

The Blackfoot Challenge coordinated community-based plans with NRCS, DNRC and other TSP to assist in developing conservation plans across multiple and adjacent private parcels. This coordination helped to make recommendations to integrate plans and processes to facilitate landowner access to forestry-related technical and financial assistance. The community-based innovation promotes: 1) the delivery of timely, coordinated interagency forestry assistance to landowners through increased use of TSP and technology, and related actions that increase assistance for working lands, and 2) facilitates collaboration with other appropriate entities to develop and implement conservation plans and agreements on forest lands.

In partnership with NRCS, DNRC and MSU Forestry Extension, we are worked on a three phase approach to conservation and forest stewardship planning for multiple and adjacent landowners, which assisted these landowners with certain eligibility requirements for EQIP. Through direct contact by letter, invitation to workshops and

presentations, and direct site visits with landowners, the partners provided individual access to technical planning assistance and available financial incentive.

A three-day forest stewardship workshop was held May 20-21 & 28, specifically targeted at the approximately 100 private forested parcels in the MAIRS project area to provide landowners with qualifying forest stewardships plans and a deeper understanding of forest ecology and management. Three additional outreach workshops were held for focus areas within the MAIRS project area of 1) Blackfoot Community Conservation Area, 2) Cooper Lake/Ward Creek, and 3) Arrastra Creek/Patterson Prairie. Landowners from the nearby Lone Point area, which is a priority fire management area for the community of Lincoln, also attended the third workshop. These workshops took the form of community meetings and were held for 2 hours to provide access to technical planning assistance and available financial assistance in coordination with multiple public fire and forest managers including NRCS, DNRC, BLM and USFS.

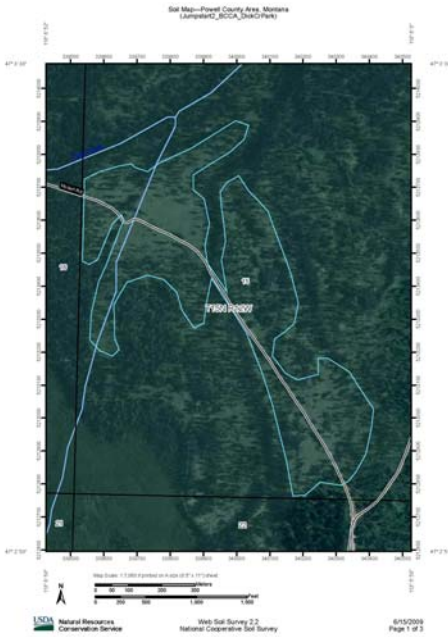
We held a daylong workshop on January 9, 2010 with 55 private landowners participating and eight presenters. Follow up technical assistance was in the form of a visit by the DNRC Service Forester or the Blackfoot Challenge Land Steward or Forestry Coordinator (see Appendix B).

A portion of the applicants already had forest management plans, which is a requirement for forestry related practices. For those properties that did not have management plans, DNRC and NPCD representatives assisted with basic management plans that outlined landowner objectives, stand conditions, and desired conditions, and recommended treatments. DNRC and NPCD developed a Forest Management Plan Template that was based on the Forest Stewardship plan outline (see Appendix D). Approximately 8 plans were written. Draft plans were reviewed with Landowners and adjusted accordingly.

***Objective 4: Work with NRCS to facilitate EQIP delivery for multiple and adjacent Eligible Producers under a cooperative forest management plan***

The Land Steward worked with NRCS to facilitate EQIP delivery for multiple and adjacent Eligible Producers under a cooperative forest management plan through the community-based relationships maintained and encouraged by the FC, BCCA Council and the NPCD. Homeowner associations or other agreements served as points of contact for multiple and adjacent private parcels, or other community agreements like the BCCA were explored.

The Blackfoot Challenge continues to work with fire management personnel to further define the Primary Line of Defense in the MAIRS project area, and along the north and south sides of the Blackfoot Watershed in consideration of the BWFA. This is providing focus to public and private efforts to work across ownership lines to plan and implement treatments for fire management in the Blackfoot Watershed.



The Blackfoot Challenge hosted two planning sessions with fire management personnel to further define the Primary Line of Defense (PLOD) in the MAIRS project area, and along the north and south sides of the Blackfoot Watershed. This information, combined with the BWFA is providing focus to public and private efforts to work across ownership lines to plan and implement treatments for fire management in the Blackfoot Watershed.

Discussions about the role of partnership efforts to share technical assistance and leverage partnership funds continue. This technical assistance is critical to providing access to financial assistance, and the partners are working together to help provide more access to both technical and financial assistance.

***Objective 5: Maintain Communications Among Project Partners***

Effective communication and collaboration among project partners is essential to implementing our objectives. We coordinated regular meetings to bring more partners together throughout the Blackfoot Watershed. Included in this communication were discussions about current fire and forest management practices and agreements, and opportunities for new directions for cooperative conservation to benefit the health of our natural resources.

Specific to these discussions is the ability to use the technical expertise of NRCS, DNRC and other partners, and leveraging financial resources between federal, state and private sources. A key to landscape level natural resource management is integrating all ownerships to create efficiencies of scale, resulting in better fire management across more acres.

***MAIRS Blackfoot Project meetings***

Significant communication is occurring through a monthly schedule of meetings of the MAIRS working group. The result is more integrated implementation of agency restoration activities, and integration of private landowner fire management.

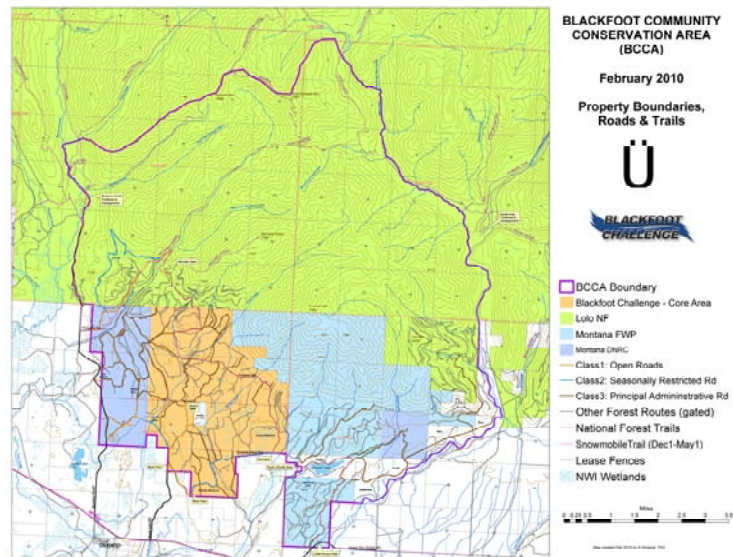
***Blackfoot Challenge Forestry Committee***

The Blackfoot Challenge Forestry Committee (Committee) seeks to leverage high local capacity and interest in the economics of forest restoration and fuels mitigation, with the local benefits of private and public partnerships. The Challenge’s conservation of industry-owned land with the formation of the Blackfoot Community Conservation Area

(BCCA) models how community-based decision making works to rejuvenate rural economies while preserving recreation, wildlife, and watershed values. The BCCA is managed by a community council (Council) through a BCCA Forestry Work Group (Work Group).

The Committee formed to provide a collaborative effort to address forestry needs and issues in the Blackfoot Watershed and meets periodically to review a plan of work to address fire risks across the various Community Wildfire Protection Plans using a consistent fuels assessment for the entire watershed. By establishing local fuels mitigation task forces throughout the entire watershed represented by all parties with fire management responsibilities and local fire departments, fuel mitigation efforts are coordinated among agencies and assist private landowners in reducing fuels on their lands.

The Council seeks to implement collaboratively developed plans for active management on the highest priority acres on the core 5,609 acres of the BCCA. Guided by a signed MOU with the private and public landowners of the entire 41,000 acre BCCA, the Council's Work Group are guiding cooperative habitat restoration and fuels mitigation across ownerships.



#### *North Powell and Greenough/Potomac Fuels Mitigation Task Forces*

The North Powell and Greenough/Potomac Fuels Mitigation Task Forces held quarterly meetings or convened as needed to review cost-share applications. Following a model started by the Seeley Lake Rural Fire Department, in conjunction with DNRC, USFS and Swan Valley Volunteer Fire Department, the Seeley Lake Fuels Mitigation Task Force was created to implement the community fire plan and has functioned effectively in this role for the past several years.

In 2008, the Blackfoot Challenge contracted through a competitive bid process with the Ecosystem Management Research Institute to produce a watershed-wide fuels assessment to help guide other efforts in the Blackfoot watershed. Following the model developed by the Seeley Lake Fuels Mitigation Task Force, the Greenough/Potomac and North Powell Fuels Mitigation Task Forces were formed in 2009. A major task of the Task Forces is to provide convenient, professional assistance to private landowners with regard to fuels mitigation.

The Task Forces offer "one stop shopping" for private land owners who want assistance with mitigating fuel loads on their land. Federal and state funds are available for fuels thinning work on private lands, but determining which lands meet the criteria for which source, knowing when and where to apply for the funds, knowing how to complete the appropriate paper work, and knowing contractors that are available to do the thinning have been obstacles to landowners in the past.

These difficulties have been reduced by establishing local programs to apply for funds and a standard procedure for obtaining cost-share assistance. They developed one application form that is used to apply for any of the available funds. Once completed, they review applications and, for appropriate landowners, provide matching funds from an appropriate source. Landowners are provided with a list of reputable contractors to choose from to conduct the thinning project, and the forestry coordinator is available to assist with harvesting and thinning assessments and paper work.

#### *Lincoln Restoration Committee meetings*

The Lincoln Restoration Committee (LRC) is a group of private citizens reflecting diverse community interests. We formed in the fall of 2008 with the purpose of developing recommendations for restoration projects on the Lincoln Ranger District of the Helena National Forest. The work of our group is supported by the Montana Forest Restoration Committee (MFRC), which in 2007 adopted 13 restoration principles for on-the-ground use. The LRC's monthly meetings have been devoted to assessing where and how these principles might be applied in ways that are beneficial to the Lincoln community, the broader public, and the health of the land.

During the period of this grant, the LRC proposed three collaborative restoration projects on the Lincoln Ranger District. Two of these projects (Stonewall I and II) are currently under review following procedures of the National Environmental Policy Act for forest restoration and fire management on 1,500 acres. An additional project (Dalton Mountain) is currently in the initial scoping process to treat over 2,500 for forest restoration and fire management benefits.



**Funding received and expended**

11. COMPUTATION OF AMOUNT OF REIMBURSEMENTS/ADVANCES REQUESTED				
PROGRAMS/FUNCTIONS/ACTIVITIES ►	(a)	(b)	(c)	TOTAL
	Personnel	Travel	Supplies	
a. Total program outlays to date <span style="float: right;"><i>(As of date)</i></span>	\$ 181,917.00	\$ 34,376.00	\$ 7,440.00	\$ 223,733.00
b. Less: Cumulative program income				0.00
c. Net program outlays <i>(Line a minus line b)</i>	181,917.00	34,376.00	7,440.00	223,733.00
d. Estimated net cash outlays for advance period				0.00
e. Total <i>(Sum of lines c &amp; d)</i>	181,917.00	34,376.00	7,440.00	223,733.00
f. Non-Federal share of amount on line e	96,717.00	17,188.00	3,720.00	117,625.00
g. Federal share of amount on line e	85,200.00	17,188.00	3,720.00	106,108.00
h. Federal payments previously requested	75,496.91	12,725.76	3,700.04	91,922.71
i. Federal share now requested <i>(Line g minus line h)</i>	9,703.09	4,462.24	19.96	14,185.29
j. Advances required by month, when requested by Federal grantor agency for use in making prescheduled advances	1st month			0.00
	2nd month			0.00
	3rd month			0.00

## **Results**

### *Potential for transferability of results*

This grant resulted in benefits to producers and private landowners of the Blackfoot Watershed by implementing cooperation conservation planning across multiple and adjacent private parcels. We delivered more for fire management by coordinating forest improvement projects by collaborating with public agency planning efforts for landscape scale outcomes. We believe that our efforts are already benefiting public safety and forest health. However, we understand that this is only the initial stages of fully integrating public efforts with private participation.

Our natural resource management and community supported approach relies on effective communication, strong involvement by producers and private landowners, and tangible benefits that are directly tied to livelihood interests. This approach takes time in order to deliver proper pacing through programs that are non-threatening, pragmatic, and cost-effective. We have witnessed increased interest and participation in the two years of this grant. This follows from a three year history of building private landowner participation through NRCS and other partner cooperative efforts throughout the Blackfoot Watershed. We expect public agency integration to increase through the cooperative efforts of the MAIRS, and private participation to increase through collaboratively delivered technical assistance between NRCS, DNRC and the Blackfoot Challenge through local NRCS working groups and fuels mitigation task forces.

Interest in fire management and forest restoration continues to increase as more technical and financial assistance is delivered. This innovative is transferable to other locations where forest health, wildlife habitat, wildfire, and public and private land values overlap. This cooperative conservation planning is immediately transferable through the continued efforts of the MAIRS Blackfoot Project and local fuels mitigation task forces.

### *Conclusions*

This innovative project leveraged NRCS investment in fire management and the conservation of forested lands by using a community-based approach for EQIP delivery of innovative Forest Health Practices in the Blackfoot watershed of Montana, focused on landscape level fire management by involving multiple and adjacent landowners. It substantially increased awareness of fire management practices and opportunities for private forest landowners, while increasing the integration of multiple agencies in delivering landscape level implementation of restoration activities. In addition, significant treatments occurred on private lands as a result of the technical and financial assistance leverage by the multiple public and private cooperators.

This grant resulted in strengthening cooperation among NRCS, Technical Service Provider Montana DNRC, the Blackfoot Challenge, and local community groups like the fuels mitigation task forces in coordinated interagency and partner delivery of forestry-related conservation assistance to private landowners in order to sustain the health, diversity, and productivity of private working lands. All partners continue to have a long-term commitment to the conservation and stewardship of natural resources that will endure beyond the life of this grant.

This grant substantially increased the availability of technical expertise and assistance to private non-industrial forest landowners, and helped to integrate planning and other administrative issues between public and private land managers and owners, increasing the ability of private landowners to participate in forestry and conservation programs. This grant increased the level of communication and will result in continued cooperation among the partners.

In partnership with NRCS, DNRC and MSU Forestry Extension, we are working on a three phase approach to conservation and forest stewardship planning for multiple and adjacent landowners, which will provide these landowners with eligibility for EQIP. Through direct contact by letter, invitation and presentations, the partners are providing individual access to technical planning assistance and available financial incentive.

This grant identified several opportunities to strengthen these results and increase the level of transferability of lessons learned for increasing participation by private forest landowners in natural resource conservation and fire management on a landscape level.

### **Technical Assistance:**

It was highly beneficial to have the assistance of trained NRCS forestry personnel and Technical Service Provider DNRC in partnership with community-based process coordinated by the Blackfoot Challenge in delivering on the ground awareness of local forest resource concerns and opportunities for private landowners. We highly recommend continued leverage of these collaborative partnerships and leveraging more “boots on the ground.”

Ranking criteria for 2012 is being collaboratively reviewed by partners thru the local NRCS working groups in early 2012 to identify priority resource concerns and strategic EQIP funding. 2011 ranking were as follows:

**Lewis and Clark County**

1. Will the application involve addressing timber stands that have not been infested by insect or disease by contracting practices that promote healthy and productive forest land?
2. Will the application involve the implementation of water quality practices to be contracted following forestry Best Management Practices (BMPs)?
3. Will the application involve developing and contracting a weed management plan?

**Missoula County**

1. Does the application include practices which improve the health and productivity of the local forest stands?
2. Does the application include practices which address the health of forest understory vegetation such as noxious weed management, grazing management (including facilitating practices), and the reseeded of disturbed sites?
3. Does the application include practices which improve or maintain air quality (example - chipping/shredding of slash instead of burning)?

**North Powell Conservation District**

1. Will the planned project(s) address fire hazard reduction issues?
2. Will the conservation plan/contract address noxious weeds?

We recommend continued involvement by all partners in these local NRCS working groups in order to deliver technical assistance and provide local resources benefits. In addition, the MAIRS Blackfoot Project is providing significant collaboration between public and private landowners in supporting a landscape approach to fire management and forest restoration.

**Financial Assistance:**

Larger scale forest health and restoration projects are more appropriate for the EQIP program where the more rigorous planning process and technical assistance is more relevant and cost effective as a whole. In addition, large-acreage forested producers are familiar with the financial assistance process through traditional EQIP.

However, small-acreage forest landowners would deliver more benefits to natural resource conservation through a cooperative program between NRCS and DNRC, much like how the Cooperative Forestry Assistance Act of 1978 (P.L. 95-313) revised the authority of the USFS to provide technical and financial assistance to states and private landowners on a variety of forestry issues, including forest management and stewardship, fire protection, insect and disease control, reforestation and stand improvement, and urban forestry. Such a program would increase the financial assistance from NRCS to small-acreage landowners by

providing a community-based approach to delivering financial assistance. In addition, this would provide more timely delivery of financial assistance to small-acre forested landowners by, as expressed by NRCS Chief Dave White at the Farm Bill Forum on June 1, 2011 in Bozeman, Montana, “Why can’t I walk in today and walk out tomorrow with a contract?”

We recommend that the partners continue to explore ways to establish such a financial assistance program administered by DNRC through a competitive process where watershed groups like the Blackfoot Challenge may be applied for financial assistance accessed through local task forces like the North Powell and Greenough/Potomac Fuels Mitigation Task Forces. This would streamline small-acreage private forest landowner access to assistance and increase delivery of financial assistance. Such a program also would reduce paperwork and timely contracting process for multiple landowners.

For example, fuel mitigation treatments around structures and access routes on a small property may total 6 acres. The administrative and personnel costs by NRCS personnel to develop a relatively small EQIP plan and contract far outweigh the amount of cost-share provided. The frameworks developed and utilized by the fuel mitigation task forces are timely and efficient with low overhead and thus lend themselves to multiple and adjacent applications. We recognize that it is unclear how current NRCS and FSA eligibility requirements, environmental assessments (CPA-52), adjusted gross income, species screens, etc., would be addressed under such an arrangement.

#### **Landscape Applications:**

The development of EQIP contracts with multiple and adjacent Landowners met with limited success due to the short time frame to increase knowledge and participation by private landowners in landscape level fire management, the time frame to deliver EQIP, and the limited availability of Special Initiative EQIP funds. Multiple and adjacent landowners were contacted individually through direct mail and personal contact, as well as through local community presentations focused on the “neighborhood” approach in the focus areas. However, multiple adjacent landowners did not apply for the program. The current NRCS planning and contracting process is demanding for small acreage landowners given the short time frame of this funding and the needed technical assistance to deliver knowledge and participation in fire management. In addition, substantial time is needed for each conservation plan and contract.

#### **Practices:**

**Forest Slash Treatment (384)** – Cost share incentive with producers for slash treatment is paid for after disposal of slash piles. This has posed a problem because contractors spend a significant amount of time (~80%) accumulating and treating slash yet in many cases landowners are required to wait a year to burn the piles and receive reimbursement for the practice. We suggest that the slash treatment practice be contracted as two practices or

allow for partial payments. For example, TSP DNRC withholds 10-15% until final slash disposal for similar forest treatment practices.

**Fuel Break (383A)** – While planning and implementing this practice, it became understood that the “Zone” specifications for this practice is unclear. Zone 1 is labeled as “Intensive Fuel Reduction” and Zone 2 as “Moderate Fuel Reduction.” However, the canopy separation in Zone 1 is often 10’ (based on 0-20% grade) and Zone 2 requires 20’ canopy separation. In cases where Zone 1 is 21-40% grade the canopy spacing is 20’ which is the same spacing as Zone 2. Thus, the explanation and justification to landowners for these zones was often challenging.

A review of the specifications and job sheet for this practice revealed that Zone 1 and 2 are quite similar with regard to actual treatments. A potential solution is to combine both Zones into one and base all separation distances on Charts 3, 4, and 5. A minimum width could be identified (i.e., 2 chains) or based on average tree height.

**Forest Stand Improvement (666), Prescribed Forestry (409), Restoration of Rare or Declining Habitats (643), Upland Wildlife Habitat Management (645) or other practices that address forest stand conditions for mixed conifer habitat types** – During the grant period, the partners spent considerable time reviewing the use of Fuel Break (383A) practice as applied to treatment of forest resource conditions for fire management and restoration. It was clear during field reviews that the Fuel Break practices was well suited to deliver fire management outcomes in all forest types. However, in mixed conifer forest types (representing roughly half of forested acres in the Blackfoot Watershed) the Fuel Break practice is not well suited to restore ecosystem function. We recommend providing continued technical and financial assistance for the Forest Stand Improvement (666), and considering the Prescribed Forestry (409), Restoration of Rare or Declining Habitats (643), Upland Wildlife Habitat Management (645), Restoration of Rare or Declining Habitats (code 643) or a similar practice other than Fuel Break to deliver restoration outcomes in mixed conifer forest types (cool-dry and cool-moist forest types) following initial guidance from the report Native Terrestrial Ecosystem Diversity of the Blackfoot Watershed, NRCS CIG 65-0325-08-015.

**EQIP Awareness:**

The EQIP and the associated application process needs further outreach of technical assistance in order to clarify opportunities to private landowners and producers. The process is often familiar to agencies and partner groups. However it is very complex to a landowner hearing about it for the first time. Very detailed information exists on the NRCS website. These descriptions often focus on national allocations, financial framework, final rule and legislative details. In contrast, landowner’s need information that directly affects them, such as: the planning process, practices available, taxable income, one practice started in the first year of contract, commitment to maintain project for life of project, AGI and species screens (and potential USFWS consultation). NRCS, NPCD, DNRC and other

partners spend considerable time explaining the framework and process of the program to landowners. It became clear that a simple information sheet covering the EQIP program would be helpful and reduce confusion over what the program does and does not do. An example of such an information sheet is attached in Appendix D.

**EQIP Special Initiative - Phase 2:**

NRCS requested a second phase of the Special Initiative for 2012. It is unclear whether this funding will be available, however it has been observed that adjacent landowners often see their neighbor's completed work and become more interested after seeing the results. A second round of Special Initiative may capture more adjacent landowners and begin to deliver on treating multiple and adjacent small-acreage forested parcels and achieve a landscape approach to fire management.

## APPENDICES

### Appendix A

#### *Biomass To Electricity Demonstration, Open House Feb. 23, 2010 (UM News release)*

# UM NEWS

**Contact:**

Brian Kerns, UM project engineer, 406-532-3228, [brian.kerns@umontana.edu](mailto:brian.kerns@umontana.edu); Erin Zwiener, Blackfoot Challenge forestry coordinator, 406-793-3900, [erin@blackfootchallenge.org](mailto:erin@blackfootchallenge.org).

**Biomass To Electricity Demonstration, Open House Feb. 23**

Feb. 14, 2011

**MISSOULA –**

The BioMax, a mobile biomass gasifier and electricity generator owned by The University of Montana, will operate at Paws Up Ranch in the Blackfoot Valley this month.

Beetle-killed trees and waste biomass will be processed by a Vermeer chipper to provide feedstock to the BioMax, which will then produce electricity.

The public is invited to watch the BioMax operate and enjoy a short presentation about the equipment from 10 a.m. to 4:30 p.m. Wednesday, Feb. 23, at the Paws Up Ranch. Refreshments will be served.

To get to the ranch, travel up Highway 200 East to mile marker 25.75 and follow the signs to the parking area. Because the demonstration is outdoors, those who plan to attend should dress for the weather. The open house is hosted by the Seeley Swan Blackfoot Biomass Working Group.

"This is an exciting collaboration among motivated stakeholders in portable biomass technology," said Brian Kerns, UM project engineer and BioMax operator. "Wood residues are usually left at site of production to be burned because such material is uneconomic to gather and transport. This demonstration changes that dynamic by bringing the generator to the source of supply. This is the first time such a project has been attempted." The electricity will be fed directly onto Missoula Electric Cooperative's power lines. Once on the grid, the cooperative will use it to power homes and ranches in the area.

"When our board of trustees was approached regarding participation in the project, the support was unanimous," said Mark Hayden, Missoula Electric Cooperative general manager. "The idea of distributed biomass generation would certainly improve the economics relating to biofuel transportation costs."

The demonstration was made possible by Missoula Electric Cooperative, UM, Paws Up Ranch, Seeley Swan Blackfoot Biomass Working Group, Natural Resource Conservation Services, U.S. Forest Service Products Lab and Vermeer Corp.

For more information call Kerns at 406-532-3228 or e-mail [brian.kerns@umontana.edu](mailto:brian.kerns@umontana.edu) or call Erin Zwiener, Blackfoot Challenge forestry coordinator, at 406-793-3900 or e-mail [erin@blackfootchallenge.org](mailto:erin@blackfootchallenge.org).

###

BK/bd  
Western master, Blackfoot area media  
021411bmax



**Appendix B - Local community presentation by NRCS, DNRC and Blackfoot Challenge**

Contractor workshop

**Free**

**Date:**  
April 19th and 20th

**Time:**  
8am - 5pm

**Location:**  
Seeley Lake  
Community Center

**16 Montana Logging  
Association Credits**

**Lunch Provided**

## Public and Private Land Stewardship Contractor Workshop



**Purpose:** This workshop will provide information to assist local contractors in securing contracts on private land and national forests in the Southwest Crown of the Continent region

**Day 1**  
*Get information and provide your input about:*

- Fuel Mitigation Treatments on Private Lands
- Private Land Cost Share Opportunities
- Forest Products Markets
- Southwest Crown of the Continent/CFLRP – Upcoming Forest Service Projects

**Day 2**  
*Engage in MLA's training on USFS contracting to gain skills when bidding on:*

- Timber Sale Contracts
- Service Contracts
- Stewardship Contracts

**Free**

Please RSVP by April 12th to the Blackfoot  
Challenge (406) 793-3900

Sponsored by Blackfoot Challenge, Clearwater Resource Council, Missoula County Rural Initiative, Montana Community Development Corporation, Montana Logging Association, Northwest Connections, Swan Ecosystem Center, The Wilderness Society, United States Forest Service

Letter inviting private landowners to workshop



**FAMILY FOREST LANDOWNERS WORKSHOP ANNOUNCEMENT**

These partners are hosting a **workshop for Family Forest landowners** on **Saturday, January 9, 2010** at Lubrecht Experimental Forest to provide information, education and technical assistance to help Family Forest Landowners make decisions about the management of their property and to learn of available financial assistance.

More specifically the workshop will provide information on:

- Ecology, disturbance issues and management options in the Blackfoot.
- Insect ecology and management for mountain pine beetle, Doug-fir bark beetle and spruce budworm.
- Future stewardship workshop opportunities.
- Consultants and mills, and how landowners can utilize their services.

Agenda

**Lubrecht Experimental Forest – Castle Brothers Room**

9:00 – 9:15	Introduction	Blackfoot Challenge
9:15 – 11:00	Blackfoot Ecology	Peter Kolb, MSU Forestry Extension
11:10 – 12:30	Insects	Amy Gannon, DNRC Entomologist
12:30 – 1:30	Lunch*	
1:30 – 2:00	Lubrecht Example	Frank Maus, Forest Manager
2:00 – 2:30	Stewardship Workshop Overview	Peter Kolb
2:30 – 3:00	NRCS/DNRC	Glen Green, NRCS District Conservationist Norm Fortunate, DNRC Service Forester
3:00 – 3:30	Consultants Presentation	TBD
3:30 – 4:00	Mills Presentation	TBD
4:00 – 4:30	Question and Discussion	Peter Kolb
4:30 – 5:00	Map and Sign-ups	Participants

There is no fee to participate. Light snacks, coffee, pop and water provided.

\*We do ask that you **RSVP for lunch by Tuesday, January 5<sup>th</sup> to [info@blackfootchallenge.org](mailto:info@blackfootchallenge.org) or call 793-3900.**  
 Please feel free to make a last minute decision to participate, but we only will order lunch for RSVPs.

Forest Stewardship Workshop

Schedule of Forest Stewardship Workshops 2010


**May** 6, 7 & 14 in **Thompson Falls**  
 Application deadline: April 23, 2010


**June** 3, 4 & 11 in **Bozeman**  
 Application deadline: May 21, 2010

**July** 29, 30 & **August** 6 in **Roundup**  
 Application deadline: July 16, 2010

**August** 19, 20 & 27 at **Potomac**  
 Application deadline: August 6, 2010

**September** 9, 10 & 17 in **Helena**  
 Application deadline: August 27, 2010





**What type of training is this?**  
 This 3-day practical, hands-on course will enable forest landowners to prepare their own Forest Stewardship Plan with guidance and information from natural resource professionals.


**Who should attend?**  
 Open to all, this program is designed to help forest landowners develop customized management solutions to meet their own unique ownership objectives. Whether you own 5, 50, or 500 acres of forest, if you want to expand your knowledge, tools, and confidence for managing your forestland, this course is for you.

**Why should I attend?**

- Learn about keeping your forest healthy and productive for generations to come.
- Learn how to identify and implement practical steps to meet your individual ownership objectives.
- Write a plan that may qualify your forest land for cost share opportunities.

**What will I learn?**

- How to write a Forest Stewardship Plan
- Forest ecology
- How to manage fire risk
- Wildlife habitat enhancement
- How to assess and maintain forest health
- Caring for your forest
- Range/understory vegetation management
- How to protect and enhance water quality
- Where to go for help
- And much more!





**Workshop Commitments:**

**Our Commitment:** The Forest Stewardship Workshop will provide practical information, a course notebook, topographic map/aerial photograph of your property, and the tools and equipment necessary for you to learn more about your property. A natural resource professional will visit you at your property.

**Your Commitment:** As part of the workshop, you must be willing to spend 16-24 hours between days 2 and 3 of the workshop on your property completing a stewardship inventory and gathering vital information about your property.

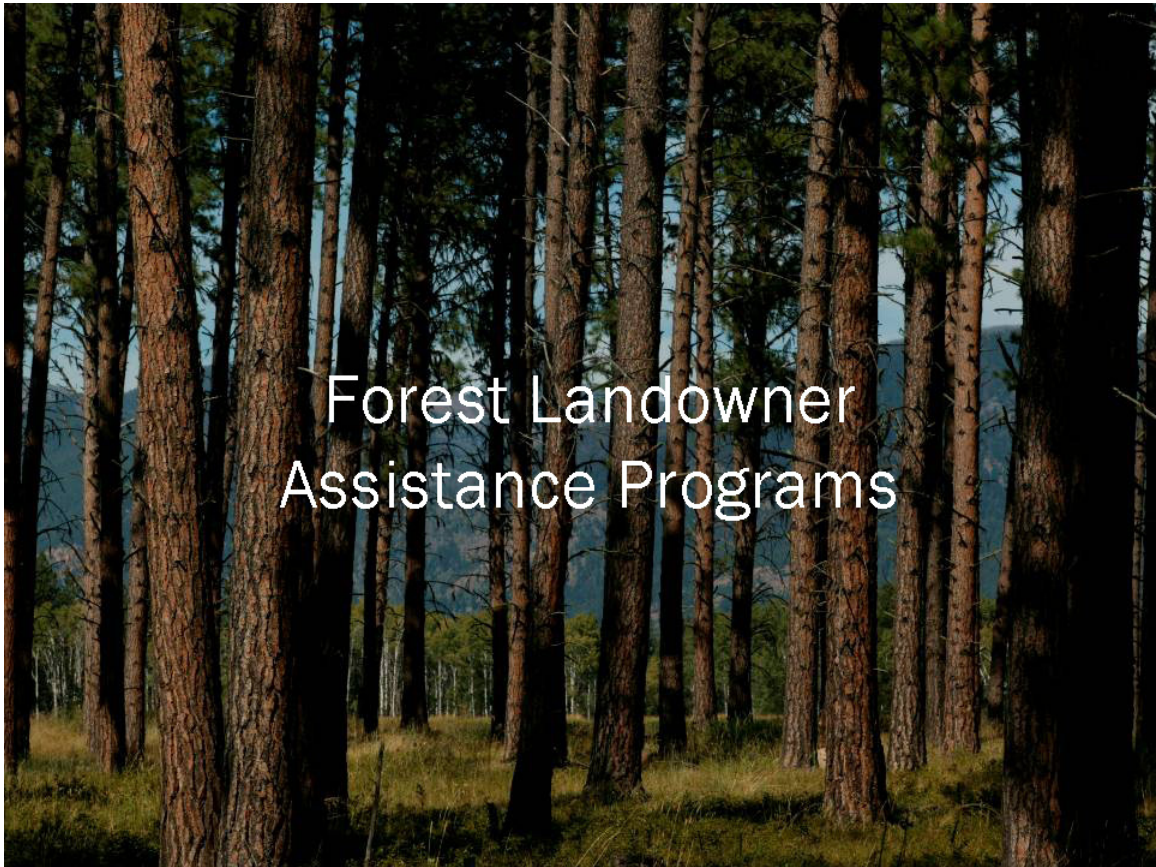
**Result:** During the course of the workshop, you will develop a Stewardship Plan designed to achieve the goals you have for your property. You can verify your plan following the 3rd day of the workshop during a visit with an advisor.

**Supporting Sponsors:**

The Montana State University Extension Service is an ADA/EO/AA/Veteran's Preference Employer and Provider of Educational Outreach.

Local PowerPoint Presentation by partners (next 25 pages)



## Multi-Agency Integrated Restoration Strategy



Cooperation in the Blackfoot Watershed between public and private landowners is resulting in a ground-breaking effort by the state and federal government to develop a landscape-level fire management and forest restoration plan.

## Multi-Agency Integrated Restoration Strategy



### Focused planning efforts:

#### Blackfoot Community Conservation Area

- private and public landowners cooperation



#### Cooper Lake/Ward Creek

- public safety related to fire management



#### Arrastra Creek/Patterson Prairie

- BLM watershed planning efforts





Risk Assessment within the Blackfoot Watershed

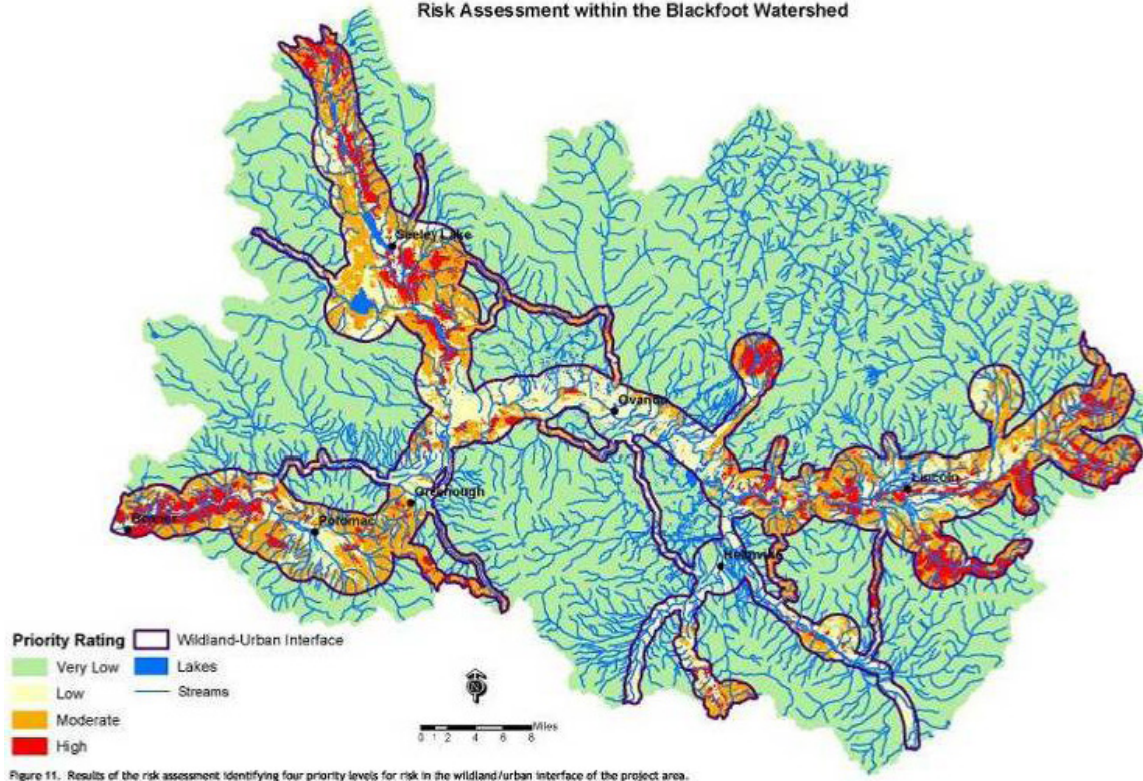
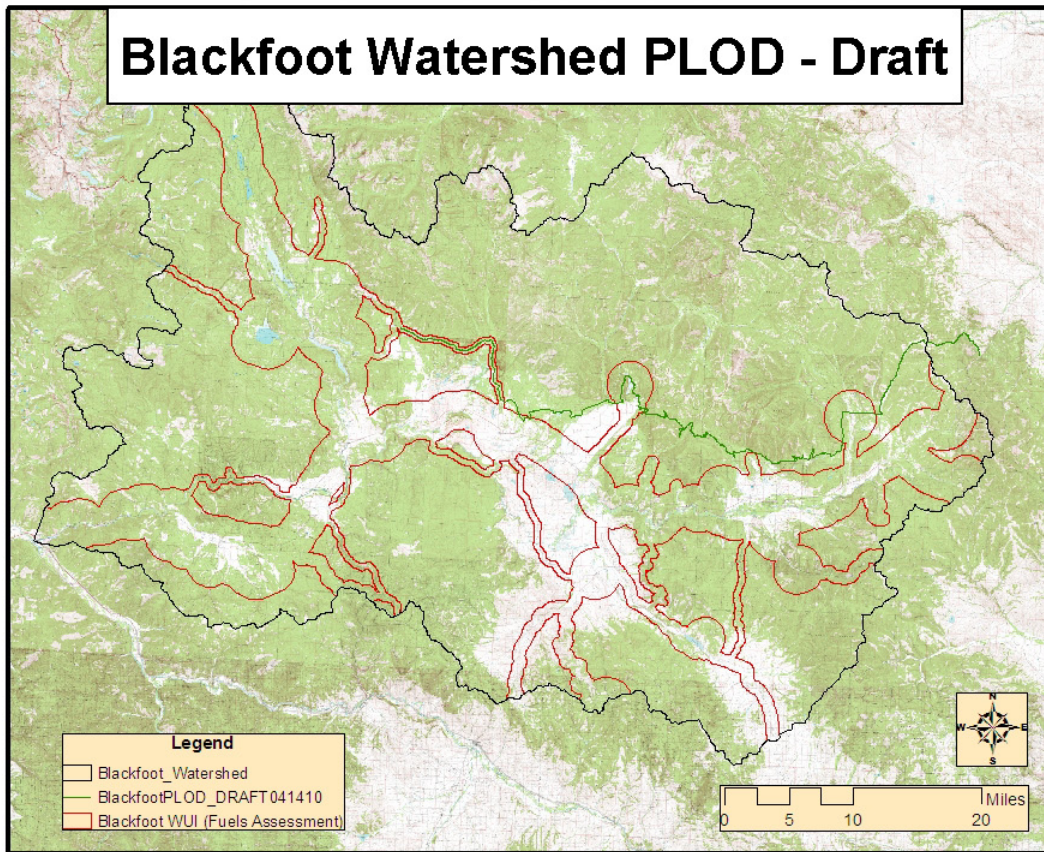


Figure 11. Results of the risk assessment identifying four priority levels for risk in the wildland/urban interface of the project area.





## How do Family Forest Landowners become Involved?

- Family Forest landowners are critical partners in this effort
- Coordination of public land management and private forest management:
  - provides for more effective fire management
  - restores ecosystem function across the landscape

## Opportunities for coordination

- **Forestry Technical Assistance**
  - Technical advice from professional foresters on a wide range of forestry issues.
- **Management Plan development**
  - Assist landowners who don't already have one in order to qualify for cost-share assistance.
  - Assist in developing treatment specifications as needed in plan.
- **Financial Assistance**
  - Competitive cost-share programs through DNRC, NRCS, BLM and others to assist landowners in implementing management plans.
- **Information and Education**

## Access to assistance programs

- Stewardship workshops
- Community presentations
- Fuels mitigation task forces
- DNRC service forester
- NRCS EQIP

## DNRC Service Forester Duties

Private Forestry Assistance – advising private landowners how to comply with laws and good forest management.



## DNRC Service Forester Duties

- Hazard Reduction Agreements, Best Management Practices, and Streamside Management Zone laws
- Forest health and fire protection
- Management plans, harvest plans and practice plans
- Information on cost share opportunities, consultants, loggers
- Professional forestry expertise - what to look for, questions to ask and things to consider when managing the forest



## NRCS Management Plan Assistance

Step 1 – Identify resource concerns.

Step 2 – Identify landowner objectives.

Step 3 – Conduct resource inventory.

Step 4 – Analyze the information.

Step 5 – Develop alternatives to address resource concerns.

Step 6 – Evaluate alternatives based on landowner objectives.

Step 7 – Select preferred alternatives and develop schedule.

Step 8 – Implement plan.

Step 9 – Evaluate effectiveness and adjust as needed.



## Environmental Quality Incentives Program (EQIP)

1. The EQIP Program is a component of the Farm Bill aimed to conserve natural resources on private property.
2. Presently, forest related treatments offered through the program include pre-commercial thinning and fire protection.
3. **To apply:** Submit an application or contact a local NRCS office to request a field visit prior to applying (no obligation at this time).
4. **The process:** NRCS personnel works with applicant to develop a conservation plan (9 step process), or use a landowner-developed stewardship plan, Tree Farm plan, or plan developed by a professional forester.



## Environmental Quality Incentives Program (EQIP)

5. Application is ranked.
6. Applicants not funded based on rank of plan may cancel the application or defer to next year for consideration.
7. If funded, NRCS works with applicant on a contract.
8. Finalize contract.

**Note: If significant interest and demand exist in the focus areas, it is possible that NRCS would dedicate a special initiative to meet the demand.**

NATURAL RESOURCES CONSERVATION SERVICE  
MONTANA CONSERVATION PRACTICE SPECIFICATION  
**FOREST STAND IMPROVEMENT (ACRE)**

**CODE 666**

**DEFINITION:** The manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation.

**PURPOSE(S):**

- To increase the quantity and quality of forest products by manipulating stand density and structure.
- To harvest forest products.
- To initiate forest stand regeneration.
- To reduce wildfire hazard.
- Improve forest health reducing the potential of damage from pests and moisture stress.
- To restore natural plant communities.
- To achieve or maintain a desired native understory plant community for special forest products, grazing and browsing.
- To improve aesthetic and recreation, values.
- To improve wildlife habitat.
- Alter water yield.
- To increase carbon storage in selected trees.

**SCOPE:** This practice applies:

- All forest land where improvement of forest resources is needed.
- Where a stand of trees is overstocked or where less desirable trees and shrubs overtop desirable trees.
- Where removing part of a stand will improve growth and quality of forest products, forage production, or the recreation, wildlife, aesthetic or hydrologic values of an area.

**FOREST STAND IMPROVEMENT SPECIFICATIONS:**

Specifications for applying this practice shall be prepared for each site and recorded using approved specifications sheets, job sheets, and narrative statements in the conservation plan, or other acceptable documentation.

**Specification MT666-2**

**Stocking Guidelines by Species**

Use the D+X spacing in even-aged stands. Use Basal Area in uneven-aged stand. Refer to the National Forestry Handbook, Part 636.2 for proper inventory methods.

D+X is defined as: Average stand diameter (D) after treatment plus a constant (X).  
 EXAMPLE: If D = 9" and X = 6, then average spacing is 9+6, or 15 feet. Stocking at 15'x15'=194 trees/acre.

<b><u>Ponderosa pine.</u></b>	Even-aged:	D+ 6 to 10*
	Uneven-aged:	63–84 FEET <sup>2</sup> /ACRE*

<b><u>Douglas-fir, Spruce, Fir, Cedar, Hemlock.</u></b>	Even-aged:	D+ 7 to 9*
	Uneven-aged:	65–88 FEET <sup>2</sup> /ACRE*

<b><u>Western larch.</u></b>	Even-aged:	D+ 8 to 10*
	Uneven-aged:	56–75 FEET <sup>2</sup> /ACRE*

<b><u>Lodgepole pine.</u></b>	Even-aged:	D+ 5 to 7*
	Uneven-aged:	78–110 FEET <sup>2</sup> /ACRE*

\* Use the *upper* stocking levels in healthy stands on more productive sites where understory production (grass, shrub, and tree seedlings) is not a concern.

Use the *lower* stocking levels on less productive sites, to encourage growth of established tree seedlings, to improve forage production on grazable forests, to reduce fire hazards, or where

#### **Forest Stand Improvement – Thinning**

The primary objective of thinning is to improve growth and quality of remaining trees with minimum disturbance to the site. Regeneration is not an objective. Wood products may or may not result.

1. Commercial Thinning is reducing forest stocking by harvesting a portion of the merchantable trees in a stand. This may include some non-merchantable trees in the thinning operation.
2. Pre-Commercial Thinning is reducing forest stocking in immature stands by removing a portion of the non-merchantable trees in a stand.

Species most suitable for pre-commercial thinning in order of priority are:

- Lodgepole pine, 15 to 30 years old
- Ponderosa pine
- Western larch
- Douglas-fir.

Young sapling and pole size stands respond better to thinning. Lodgepole pine stands should only be thinned between the ages of 15 and 30 years old since older stands do not respond well.

Where usable or salable specialty products (logs, post, poles, or Christmas trees) are to be cut, they will be removed in a manner that will maintain or improve the stand.

Use one or a combination of the following thinning methods:

1. Mechanical – Unwanted trees in a stand are removed by the use of a chainsaw, brush saw, feller-buncher, axes, loppers, or any other mechanical device. Cut the tree just below the lowest live limb or six inches above the ground (12 inches for commercial harvests) whichever is closest.
2. Chemical – Unwanted trees in a stand are removed by the use of a backpack pump sprayer. Use an appropriate, registered herbicide for the species being removed. Permit no chemicals to enter any waters and leave a buffer strip around any water or intermittent streams. Follow label instructions.

Thin ponderosa pine and lodgepole pine stands [greater than three inches Diameter Breast Height (DBH)] between October 1 and April 1 to avoid damage from bark beetles unless slash is to be removed from the site, chipped, or burned before spring. Pines less than three inches DBH can be thinned any time. Typically the smaller diameter material will dry out before the bark beetles can emerge.

How can Forest Stand Improvement (thinning – 666) practice be used to address current forest health conditions?

Examples of current stand conditions that need to be addressed:

- Overstocked, medium diameters trees
- Conditions caused by forest insects
- Mixed, uneven aged stands

**Presently,  
Forest Stand Improvement (thinning-666)  
practice needs to be contracted to utilize  
the Fuel Break (Structure – 383B) practice.**

**How can the Fuel Break (Forested Area – 383A) practice be used to address current forest conditions?**

**Examples of current conditions that need to be addressed relative to fire:**

- Value of forest products
- Insect impacts
- Overstocked stands
- Weather conditions
- Fuel loading
- Landscape-scale conditions

NATURAL RESOURCES CONSERVATION SERVICE  
MONTANA CONSERVATION PRACTICE SPECIFICATION

**FUEL BREAK (ACRE)**

**CODE 383A – FORESTED AREA**

**DEFINITION:** A strip or block of land on which the vegetation, debris and detritus have been reduced and/or modified to control or diminish the risk of spread of fire crossing the strip or block of land.

**PURPOSE:** Control and reduce the risk of the spread of fire by treating, removing or modifying vegetation, debris and detritus.

**SCOPE:** This practice applies on all land where protection from wildfire is needed. Does not apply to burnt timber.

**FUEL BREAK SPECIFICATIONS:** Specifications for applying this practice shall be prepared for each site and recorded using approved specifications sheets, job sheets, and narrative statements in the conservation plan, or other acceptable documentation.

**Temporary Firebreaks for Prescribed Burns:**

Refer to Field Office Technical Guide (FOTG), Section IV, Practice Standards and Specifications, Prescribed Burning (Code 338).

**Forested Area Fuel Breaks:**

In forested areas, fuel breaks consist of two zones.

Zone 1 – Intensive fuel reduction.

- Width – The minimum width will be 50 feet, and may be wider, if desired, depending on fuel, aspect, and topography.
- Treatment – Use Charts 3, 4, and 5 for separation of live vegetation in this zone. Use Chart 2 for managing dead woody debris in this zone.
- Slash – Remove, pile and burn, or chip all cut and dead woody materials.

Zone 2 – Moderate fuel reduction.

- Location – Adjacent and upwind (or uphill) of Zone 1.
- Width – The minimum width will be equal to the height of the trees, and may be wider, if desired, depending on fuel, aspect, and topography.



NATURAL RESOURCES CONSERVATION SERVICE  
MONTANA CONSERVATION PRACTICE SPECIFICATION

**FUEL BREAK (ACRE)**

**CODE 383B – STRUCTURES**

**DEFINITION:** A strip or block of land on which the vegetation, debris and detritus have been reduced and/or modified to control or diminish the risk of spread of fire crossing the strip or block of land.

**PURPOSE:** Control and reduce the risk of the spread of fire by treating, removing or modifying vegetation debris and detritus.

**SCOPE:** This practice applies on all land where protection from wildfire is needed.

**FUEL BREAK SPECIFICATIONS:** Specifications for applying this practice shall be prepared for each site and recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

**Fuel Breaks/Hazardous Fuel Reduction Next to Structures:**

The size of a defensible and survivable space area varies depending on the type of vegetation and the steepness of the terrain. Chart 1 gives the defensible and survivable space distances in the area between a house—or other outbuildings—and an oncoming wildfire where the vegetation has been modified to reduce the wildfire threat. Defensible space distances are used if there is an opportunity for firefighters to effectively defend the house. Survivable space distances are used if there is no time to defend against fire or firefighting resources are limited.

Dead vegetation should be removed from the defensible space area. Chart 2 contains the practices needed for each type of dead vegetation.

Break up the continuous dense cover of shrubs or trees within the defensible space area. Chart 3 contains the separation distances needed for shrubs, small trees, and Rocky Mountain junipers. Chart 4 contains the separation distances for trees.

Reduce ladder fuels present. Chart 5 contains the vertical separation distances needed between fuel layers.

Create a "Lean, Clean, and Green" space of at least 30 feet surrounding the house. The vegetation should be kept lean, clean, and green.

Where opportunities exist for establishing fire-retarding vegetation, plant an adapted species of grass or other vegetation which produce low volumes of herbage (see Table 1). When using fire-retarding vegetation, tree overstory and snags must be cleared as indicated above. Mowing or grazing can be used to avoid a build-up of dead litter.

## Questions:

- What is the cut off diameter or age for pre-commercial thinning?
- What are the appropriate acres to use Fuel Break – Forested Lands practice?
- Can the Fuel Break practice be used independently from Forest Stand Improvement - thinning?
- What can we do to assist landowners with insect damage?
- Can the Salvage practice be used to address forest insect issues?





Thank you for your interest and participation in public and private cooperation

For more information, please contact Erin Zwiener, Blackfoot Challenge at  
[erin@blackfootchallenge.org](mailto:erin@blackfootchallenge.org), 793-3900 or 207-2799

<http://beetles.mt.gov/>



## Appendix C – EQIP

### Special EQIP working draft of sign up worksheet

EQIP Special Initiative - Blackfoot MA-IRS Focus Areas								1/5/2011
Focus Area/Landowner	Application Submitted	Eligibility Paperwork Submitted	Needs Eligibility Paperwork from FSA	Reminder 1-5-11	Mgmt Plan	Mgmt Plan Write	Mgmt Plan Priority	Comments:
<b>BCCA</b>								
Dean Bennett	Y	Y		NA	Y	NA	H	
Geof Brutscher	N	N	Y	Y	N	Brad/Norm		Geof did not receive application/eligib paperwork. Brad to send blank applic. Need FSA to send eligibility paperwork to Geof. 76 Davidson Road, West Chester, PA 19382
John Mathews	N	N		Brad-clm	N	Brad/Norm		
Blackfoot Challenge	N	N	Y	Y	Y	NA		Brad will get application/eligibility paperwork signed by BC admin.
Harry Poelt	N	N		Brad-clm	Y	NA		
Geof Foote	N	N		Brad-clm	Y	NA		
<b>Coopers Lake/Ward Cr.</b>								
Pat Curran	Y	Y		NA	Y	NA		
Steve Kloetzel	N	Y		Y	N	Steve		Steve will submit/send application 1/6/10
Whitehead	N	N		Erin-clm	N	Glen?		
Benhardus	Y	Y		NA	N	Brad/Norm	H	
Steve Anderson	N	N		Erin-clm	N	Brad/Norm		
Paraic Neiburg (new)	Y	Y		Y	?	?		Brad fwded application, Paraic discussed w Gary
Susanne Spady (new)	N	N	?	Y	?	?		Brad fwded application, they not sure if will apply
Kent Perelmen	N	N	Y		?	?		Brad fwded application
<b>Arastra/Patterson</b>								
Pat Cahill	N	N		Erin-clm	Y	?		
Terry Peetz	N	N		Erin-clm	N	Glen/Brad		
Ed Rosenthal	Y	N		Y	Y	NA		
Ken/Charlotte Dolan	Y	Y		Erin-clm	N	Glen	H	
Jim/Mary Anne Cook	Y	Y		Erin-clm	N	Glen	H	
Ron Curtis	N	N		Erin-clm	N	Erin		
Marlie Copenhaver	Y	Y		NA	N	Brad/Norm	H	
Joanne Spence	Y	N		Y	N	Erin		
Gary Lehne(new)	N	N	Y		?	?		Brad fwded application. Focus Area?

## EQIP outline

### **Environmental Quality Incentive Program (EQIP)** **What is EQIP and How Does it Work?**

This document outlines the basic framework of EQIP and frequently asked questions. For a full list of conservation practices or additional information contact the NRCS District Conservationist or visit the NRCS website.

#### **Brief Overview**

The Environmental Quality Incentive Program (EQIP) is a component of the Farm Bill. The program provides technical and financial incentives to private landowners for implementing conservation practices on agricultural lands. The program offers reimbursement payments for a variety of conservation practices including but not limited to irrigation efficiency, grazing management, forest health and wildfire protection, etc.

#### **Application Process**

- Landowner completes a 3-page application (with 17-page appendix) and returns to NRCS - no commitment.
- Application triggers discussion with landowner and a field visit by NRCS representative.
- Application deadlines are often in spring for funding cycle the following year.
- Farm Service Agency (FSA) sends landowner several forms to determine eligibility (i.e. adjusted gross income, wetland status, etc.).

#### **Inventory and Planning Process**

- An NRCS representative visits the property to discuss the landowner's objectives, to conduct an initial resource inventory, and to make recommendations on appropriate conservation practices.
- If the landowner wishes to continue, NRCS will compile a more detailed inventory and then develop a conservation plan and schedule with the landowner that outlines the conservation practices, extents, and specific timeframe for implementation.
- Once landowner objectives and conservation practices are identified each application is ranked against others in the county or focus area. Landowners are notified of results.
- If the application is successful, NRCS will compile a final plan including detailed maps and practice jobsheets with NRCS specifications.

#### **EQIP Contract**

- Contracts are developed for 1-9 years depending on the scope of the project and can be completed earlier.
- Contracts are legally binding between the US Government and the landowner (or entity with management control of the property).
- All conservation payments are taxable income to the landowner.
- Financial and technical assistance are not available for activities that may adversely affect sensitive species, wetlands, and/or highly erodible lands.

#### **Project Implementation**

- Landowner must start one of the practices in the first year of the contract.
- Landowner must follow minimum specifications outlined on practice jobsheets to be reimbursed.
- NRCS will visit the property and layout the project prior to implementation. They may also conduct spot checks during implementation if requested.
- Landowner is responsible for identifying and negotiating with contractors to complete the work as well as acquiring appropriate permits if applicable.
- Landowner may do the work themselves as long as specifications are followed.
- Once a practice is complete, the landowner contacts NRCS for an inspection.
- Following a successful inspection, NRCS begins the reimbursement process whereby payments are made through direct deposits to the landowner.
- Landowners are required to maintain the practices for the "life of the project" (~15 years depending on the practice).

## Field tour to review application of EQIP cost-shared practices

NRCS/MA-IRS  
Blackfoot Watershed Field Day  
May 11, 2010

### Participants

#### **NRCS**

Joyce Swartzendruber – State Conservationist  
Ron Nadwornick - State Resource Conservationist  
Bob Logar - Forester  
John Blaine – Resource Conservationist  
Glen Green – District Conservationist  
Nancy Sweeney – District Conservationist

#### **DNRC**

Rob Ethridge – Forestry Assistance, Bureau Chief  
Norm Fortunate – Service Forester

#### **Blackfoot Challenge/NPCD**

Gary Burnett – Executive Director  
Brad Weltzien – Land Steward  
Erin Zwiener – Forestry Coordinator

### Agenda

10 AM - meet at Ovando Fire Hall

- Review practices: Forestry and Fuel Breaks
- New suggested changes in Fuel Breaks
- WUI and fuels assessment
- New Primary line of defense maps

11:30 AM - depart for tour stops

Noon - lunch at first stop

- First site - Bennett - fuel break potential site just west of rented house
- Second site - Bennett - back up hill to potential pre-commercial and forest restoration/fuel break
- Third site - Brutscher - fuel break around house and on surrounding property
- Fourth site – as time allows or group suggests

3 PM – back in Ovando

Sample Forest Management Plan and Recommendations (next 11 pages)



**FOREST MANAGEMENT PLAN &  
RECOMMENDATIONS**

**Property Ownership**

Landowner(s): Walter and Linda Benhardus

Address/Phone (summer): \_\_\_\_\_ Ovando, MT 59854 / 406-793-4051

Address/Phone (winter): \_\_\_\_\_ FAX: 952-440-6503

E-Mail: BenhardusL@c.s.com

Date of Original Plan Completion: 4/1/2011 Revision dates: N/A

Forester/Advisor (Name): Norm Fortunate, DNRC Service Forester

Contact Information (Address/Phone): 48455 Sperry Grade, Greenough, 58923-9636  
406-244-2382, FAX: 244-5950

**Property Description**

Legal property description: Section 17 (N1/2, NW1/4), T15N, R10W

Nearest city or town: Ovando, MT County: Powell

Total ownership acreage: \_\_\_\_\_ Total forested acreage: \_\_\_\_\_

Is there a home on the property? YES Do you reside on the property? YES

**Forest Stewardship Goals** (The principal management objectives for the ownership)

1. Manage forest to maintain and enhance wildlife habitat and aesthetics.
2. Manage forest cover south of house to maintain a visual barrier from below for security purposes.
2. Manage for a healthy and safe forest with sustainable timber production.



Property Map and Management Units

**Management Units and Recommendations (complete for each management unit)**

Management Unit: 001 (NW corner of property) Acres: \_\_\_\_\_

**Objectives:** Maintain a healthy forest stand for wildlife, aesthetics, and sustainable timber production with fire-safe access to/from house. Mitigate fire hazards by reducing stocking levels along the primary access route to meet objectives of the EQIP Fuel Break practice (383A).

**Description:** Primarily mature DF, WL, and ES. Spruce budworm (SBW) is present at moderate levels.

**Current mature tree species** (% of forested area) and **expected longevity** (maximum age you expect trees to reach before they die of natural causes or are harvested)

Species	Size Class (DBH)	% of Forested Area	Age
1. <u>DF</u>	<u>All</u>	<u>64%</u>	<u>300+</u>
2. <u>WL</u>	<u>6-18"</u>	<u>22%</u>	<u>300+</u>
3. <u>LP</u>	<u>3-12"</u>	<u>5%</u>	<u>100</u>
4. <u>ES</u>	<u>1-3"</u>	<u>9%</u>	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____

- PP Ponderosa pine
- DF Douglas-fir
- LP Lodgepole pine
- WL Larch
- GF Grand fir
- ES Engelmann spruce
- WRC W. Red cedar
- WH Western hemlock
- WP White pine
- SAF Sub-alpine fir
- LimP Limber pine
- RMJ rocky mtn. juniper
- QA Aspen
- CW Cottonwood Green ash

**Other data to consider:**

Basal area / acre or Stems per acre:

Height: 80-100

Growth: N/A

Insect & Disease or defect: SBW present at moderate levels.

Crown ratios: 40% +

Desired Future Condition - Timber

MU 001

**Desired mature tree species** (% of forested area) and **expected longevity** (maximum age you expect trees to reach before they die of natural causes or are harvested)

Species	% of Forested Area	Age
1. <u>DF</u>	<u>64%</u>	<u>300+</u>
2. <u>WL</u>	<u>27%</u>	<u>300+</u>
3. <u>LP</u>	<u>0%</u>	<u>100</u>
4. <u>ES</u>	<u>9%</u>	<u>        </u>
5. <u>        </u>	<u>        </u>	<u>        </u>
6. <u>        </u>	<u>        </u>	<u>        </u>

- PP Ponderosa pine
- DF Douglas fir
- LP Lodgepole pine
- WL Larch
- GF Grand fir
- ES Engelmann spruce
- WRC (W) Red cedar
- WH Western hemlock
- WP White pine
- SAF Sub-alpine fir
- LimP Limber pine
- RMJ rocky mtn. juniper
- QA Aspen
- CW Cottonwood Green ash

**Desired species to naturally regenerate** DF, ES

**Desired species to plant:** WL ans PP if needed

Aerial View of Desired Spacing in Management Unit

Wild stand     
  Evenly spaced     
  Evenly spaced with openings     
  Variable density spaced with openings

**Some wildlife**     
  **Maximizes growth**     
  **Growth + regeneration**     
  **Some growth + regeneration + wildlife**

Desired spacing (in feet)

Spacing (feet)	Trees/acre
3x3	4,840
5x5	1,742
7x7	889
10x10	436

Large (>9"DBH): 20x20 (ft)

Pole (5-8"DBH): 16x16(ft) Seedling(<5"DBH): 12x12 (ft)

Size and shape of openings: ¼ acre variable and scattered

Desired structure:



One canopy layer     Two canopy layer     Three canopy

Recommendations:

Prescription: Short-term prescription is to create a fire-safe corridor along the primary access route. Meet objectives of EQIP Forested Fuel Break Practice (383A). Long-term prescription may include commercial thinning to improve health, resiliency, and diversity of stand, however the landowner will likely benefit by waiting for the current timber market to improve.

Logging Systems: Ground based

Slash Treatment: Meet standards of practice and State of Montana.

Permits: Hazard Reduction Agreement (HRA) required for commercial timber delivered to the mills.

Roads: None needed

Insect and Disease: SBW moderate infestation.

Thinning/Planting: As needed

Cost Share: EQIP

Marketing: Seek bids from various logging contractors for best value and quality.

Wildlife: Leave small patches/thickets for birthing cover

Conservation Practices: Fuel Break - 383A

**Management Units and Recommendations (complete for each management unit)**

Management Unit: 002 (unit surrounding house)

Acres: \_\_\_\_\_

**Objectives:** Maintain a healthy forest stand for wildlife, aesthetics, and sustainable timber production with fire-safe access to/from house. Mitigate fire hazards by reducing stocking levels along the primary access route to meet objectives of the EQIP Fuel Break practice (383A). Reduce stocking levels of young regenerating trees to reduce competition and increase vigor. Maintain visual barrier directly west of the house for security purposes. Meet objectives of the EQIP Forest Stand Improvement and Forest Slash Treatment practices (666, 384).

**Description:** Primarily young DF, WL, ES. Some mature LP. SBW is present at moderate levels.

**Current mature tree species** (% of forested area) and **expected longevity** (maximum age you expect trees to reach before they die of natural causes or are harvested)

Species	Size Class (DBH)	% of Forested Area	Age
1. DF	1-2"	44%	300+
2. WL	3-6"	38%	300+
3. LP	12"	10%	100
4. ES	1"	2%	
5. GF	2"	2%	
6. SAF	3"	4%	

PP	Ponderosa pine
DF	Douglas-fir
LP	Lodgepole pine
WL	Larch
GF	Grand fir
ES	Engelmann spruce
WRC	W. Red cedar
WH	Western hemlock
WP	White pine
SAF	Sub-alpine fir
LimP	Limber pine
RMJ	rocky mtn. juniper
QA	Aspen
CW	Cottonwood Green ash

**Other data to consider:**

Basal area / acre or Stems per acre: 1660 stems/acre

Height: 15-30'

Growth: N/A

Insect & Disease or defect: SBW present at moderate levels.

Crown ratios: 40% +

Desired Future Condition - Timber

MU 002

**Desired mature tree species** (% of forested area) and **expected longevity** (maximum age you expect trees to reach before they die of natural causes or are harvested)

Species	% of Forested Area	Age
1. <u>DF</u>	<u>44%</u>	<u>300+</u>
2. <u>WL</u>	<u>38%</u>	<u>300+</u>
3. <u>LP</u>	<u>0%</u>	<u>100</u>
4. <u>ES</u>	<u>7%</u>	<u>      </u>
5. <u>GF</u>	<u>7%</u>	<u>      </u>
6. <u>SAF</u>	<u>4%</u>	<u>      </u>

- PP Ponderosa pine
- DF Douglas fir
- LP Lodgepole pine
- WL Larch
- GF Grand fir
- ES Engelmann spruce
- WRC (W) Red cedar
- WH Western hemlock
- WP White pine
- SAF Sub-alpine fir
- LimP Limber pine
- RMJ rocky mtn. juniper
- QA Aspen
- CW Cottonwood Green ash

**Desired species to naturally regenerate** DF, ES

**Desired species to plant:** WL and PP if needed

Aerial View of Desired Spacing in Management Unit

Wild stand     
  Evenly spaced     
  Evenly spaced with openings     
  Variable density spaced with openings

**Some wildlife**     
  **Maximizes growth**     
  **Growth + regeneration**     
  **Some growth + regeneration + wildlife**

Desired spacing (in feet)

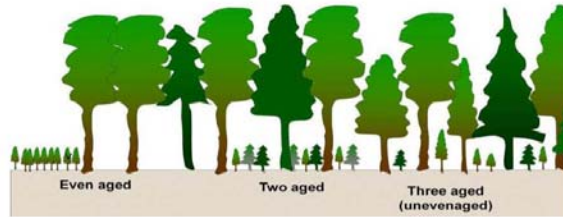
Spacing (feet)	Trees/acre
3x3	4,840
5x5	1,742
7x7	889
10x10	436

Large (>9"DBH): 20x20 (ft)

Pole (5-8"DBH): 16x16(ft) Seedling(<5"DBH): 12x12 (ft)

Size and shape of openings: ¼ acre variable and scattered

Desired structure:



One canopy layer     Two canopy layer     Three canopy

**Recommendations:**

Prescription: Mitigate fire hazards by reducing stocking levels along the primary access route to meet objectives of the EQIP Fuel Break practice (383A). Conduct pre-commercial thinning to reduce stocking levels, enhance forest health, growth, and resiliency. Meet objectives of EQIP Forest Stand Improvement (666) and Forest Slash Treatment (384). No treatments are to occur immediately down hill of the house to maintain a visual barrier from below. Create a single canopy layer to reduce SBW infestation.

Logging Systems: Ground based

Slash Treatment: Meet standards of practice and State of Montana.

Permits: Hazard Reduction Agreement (HRA) required for commercial timber delivered to the mills.

Roads: None needed

Insect and Disease: SBW moderate infestation.

Thinning/Planting: As needed

Cost Share: EQIP

Marketing: Seek bids from various logging contractors for best value and quality.

Wildlife: Leave small patches/thickets for birthing cover

Conservation Practices: Forest Stand Improvement (666), Forest Slash Treatment (384).

**Management Units and Recommendations (complete for each management unit)**

Management Unit: 003 (unit east of house)

Acres: \_\_\_\_\_

**Objectives:** Maintain a healthy forest stand. Reduce stocking levels and ladder fuels on the western border of the unit to reduce fire hazards adjacent to the building envelope. Utilize Fuel Break and Forest Stand Improvement Practices along the western portion of the unit. Long-term prescription may include commercial thinning to improve health, resiliency, and diversity of stand, however the landowner will likely benefit by waiting for the current timber market to improve.

**Description:** Primarily a multi-aged stand of WL, DF, LP, and ES. Limited openings and understory vegetation. SBW is present at moderate levels.

**Current mature tree species** (% of forested area) and **expected longevity** (maximum age you expect trees to reach before they die of natural causes or are harvested)

Species	Size Class (DBH)	% of Forested Area	Age
1. <u>DF</u>	<u>All</u>	<u>64%</u>	<u>300+</u>
2. <u>WL</u>	<u>6-18"</u>	<u>22%</u>	<u>300+</u>
3. <u>LP</u>	<u>3-12"</u>	<u>5%</u>	<u>100</u>
4. <u>ES</u>	<u>1-3"</u>	<u>9%</u>	
5. _____	_____	_____	

- PP Ponderosa pine
- DF Douglas-fir
- LP Lodgepole pine
- WL Larch
- GF Grand fir
- ES Engelmann spruce
- WRC W. Red cedar
- WH Western hemlock
- WP White pine
- SAF Sub-alpine fir
- LimP Limber pine
- RMJ rocky mtn. juniper
- QA Aspen
- CW Cottonwood Green ash

**Other data to consider:**

Basal area / acre or Stems per acre: 1830 trees/acre

Height: 30-100

Growth: N/A

Insect & Disease or defect: SBW present at moderate levels.

Crown ratios: 40% +



Desired Future Condition - Timber

MU 003

**Desired mature tree species** (% of forested area) and **expected longevity** (maximum age you expect trees to reach before they die of natural causes or are harvested)

Species	% of Forested Area	Age
1. <u>DF</u>	<u>64%</u>	<u>300+</u>
2. <u>WL</u>	<u>27%</u>	<u>300+</u>
3. <u>LP</u>	<u>0%</u>	<u>100</u>
4. <u>ES</u>	<u>9%</u>	
5. _____	_____	
6. _____	_____	

- PP Ponderosa pine
- DF Douglas fir
- LP Lodgepole pine
- WL Larch
- GF Grand fir
- ES Engelmann spruce
- WRC (W) Red cedar
- WH Western hemlock
- WP White pine
- SAF Sub-alpine fir
- LimP Limber pine
- RMJ rocky mtn. juniper
- QA Aspen
- CW Cottonwood Green ash

**Desired species to naturally regenerate** DF, ES

**Desired species to plant:** PP and WL if needed

Aerial View of Desired Spacing in Management Unit

Wild stand     
  Evenly spaced     
  Evenly spaced with openings     
  Variable density spaced with openings

**Some wildlife**     
  **Maximizes growth**     
  **Growth + regeneration**     
  **Some growth + regeneration + wildlife**

Desired spacing (in feet)

Spacing (feet)	Trees/acre
3x3	4,840
5x5	1,742
7x7	889
10x10	436

Large (>9"DBH): 20x20 (ft)

Pole (5-8"DBH): 16x16(ft) Seedling(<5"DBH): 12x12 (ft)

Size and shape of openings: ¼ acre variable and scattered

Desired structure:



One canopy layer  Two canopy layer  Three canopy

Recommendations:

Prescription: Short-term objectives: Reduce stocking levels and ladder fuels on the western border of the unit to reduce fire hazards adjacent to the building envelope. Utilize Fuel Break and Forest Stand Improvement Practices along the western portion of the unit. Long-term prescription may include commercial thinning to improve health, resiliency, and diversity of stand, however the landowner may benefit by waiting for the current timber market to improve.

Logging Systems: Ground based

Slash Treatment: Meet standards of practice and State of Montana.

Permits: Hazard Reduction Agreement (HRA) required for commercial timber delivered to the mills.

Roads: None needed

Insect and Disease: SBW moderate infestation.

Thinning/Planting: As needed

Cost Share: EQIP

Marketing: Seek bids from various logging contractors for best value and quality.

Wildlife: Leave small patches/thickets for birthing cover

Conservation Practices: Fuel Break (383A), Forest Stand Improvement (666), Forest Slash Treatment (384)

## Appendix D – Fuels Mitigation Task Forces

### Fuels mitigation in the Blackfoot Watershed

#### Fuels Mitigation in the Blackfoot Watershed

##### Overview

The Seeley Lake Rural Fire Department, in conjunction with the Montana Department of Natural Resources and Conservation (MT DNRC), US Forest Service, and Swan Valley Volunteer Fire Department, prepared the Seeley-Swan Fire Plan to help guide and focus wildfire mitigation activities in the wildland-urban interface. The Seeley Lake Fuels Mitigation Task Force was created to implement this Fire Plan and has functioned effectively in this role for the past several years. Working in upper Blackfoot Watershed in Lewis and Clark County, the Tri-County FireSafe Working Group provides a similar service following a different process.

In 2008, the Blackfoot Challenge contracted through a competitive bid process with the Ecosystem Management Research Institute to produce a watershed-wide fuels assessment to help guide other efforts in the Blackfoot watershed. Following the model developed by the Seeley Lake Fuels Mitigation Task Force, the Greenough/Potomac Volunteer Fire Department, the Bitter Root RC&D and the Blackfoot Challenge formed the Greenough/Potomac Fuels Mitigation Task Force in 2009. A major task of the Task Forces/Working Group is to provide convenient, professional assistance to private landowners with regard to fuels mitigation.

##### Blackfoot Watershed Fuels Assessment

The Blackfoot Challenge Forestry Committee (FC) was formed to provide a collaborative effort to address forestry needs and issues in the Blackfoot Watershed, and identified the need to address fire risks consistently across the various Community Wildfire Protection Plans within the Watershed. The Seeley/Swan Fire Plan led to the establishment of the Seeley Lake Fuels Mitigation Task Force. This Task Force, consisting of representatives of the Clearwater Resource Council, DNRC, USFS, Bitter Root RC&D, and local fire departments has been successful in coordinating fuel mitigation efforts among agencies, obtaining fuel mitigation funds, and assisting landowners in using these funds to reduce fuels on their lands. The FC is interested in seeing similar efforts established in other communities within the Watershed and in helping coordinate fuel mitigation work on a Watershed basis. However, they recognized that the differences among the existing Plans made a coordinated effort at fuel mitigation difficult, and identified a need to develop a consistent fuel assessment for the Blackfoot Watershed. This assessment was completed in 2008.

##### Fuels Mitigation on Private Lands

The Task Forces offer "one stop shopping" for private land owners who want assistance with mitigating fuel loads on their land. Federal and state funds are available for fuels thinning work on private lands, but determining which lands meet the criteria for which source, knowing when and where to apply for the funds, knowing how to complete the appropriate paper work, and knowing contractors that are available to do the thinning have been obstacles to landowners in the past.

These difficulties have been reduced by establishing local programs to apply for funds and a standard procedure for obtaining cost-share assistance. They developed one application form that is used to apply for any of the available funds. Once completed, they review applications and, for appropriate landowners, provide matching funds from an appropriate source. Landowners are provided with a list of reputable contractors to choose from to conduct the thinning project, and the forestry coordinator is available to assist with harvesting and thinning assessments and paper work.

Under these Task Forces, landowners typically pay 50% of the cost of thinning their lands, and the Task Force contributes the remaining 50%. The average cost of thinning per acre ranges from \$500 to \$1500, depending on the conditions of the area to be thinned. This translates to a cost of \$250 to \$750 per acre for landowners. Sometimes, the receipts from timber sales on a property cover a portion of the landowner's 50%, meaning that the landowner less out-of-pocket to treat their land to reduce the fire risk, improve forest health, enhance property values, and assist fire protection agencies by improving the fire safety across ownerships.

Prepared by the Blackfoot Challenge, December 2009

### Fuels mitigation task force process – North Powell and Greenough/Potomac

## Fuels mitigation task force process

December 2009

### Blackfoot Watershed North Powell Fuel Mitigation Task Force Application and Review Process<sup>1</sup>

Established by the Seeley Lake Fuels Mitigation Task Force and now being implemented by the Greenough/Potomac Fuels Mitigation Task Force, the North Powell Fuels Mitigation Task Force will use the following procedure for the landowner application and review process for cost-share assistance to mitigate hazardous fuels.

The landowner/agent would fill out the application, which is attached. The application form is available at [www.blackfootchallenge.org](http://www.blackfootchallenge.org), or hard copy from the Ovando and Helmsville fire departments or from the Blackfoot Challenge or the DNRC service forester.

The DNRC service forester or the Blackfoot Challenge community forester makes a visit to the property to assess and confirm that the application constitutes a viable project. The community forester then opens a file for the application and creates a GIS map of the project (for use in "landscape scale" planning, etc.).

The community forester then scores the project using the score sheet adopted by the local fuel mitigation Task Force, which is attached.

Applications are ordered by rank (high to low) and submitted to the Task Force for either "approval with funding", "approval awaiting funding", or in some cases "disapproval."

Upon approval the landowner is contacted in person, or by letter. The landowner will determine if they wish to accomplish the work themselves, hire a contractor or a combination of both. During this period the community forester will perform a site visit with the landowner to share information, answer questions and discuss the cost share agreement between the landowner and the funding entity.

In some cases the community forester will make another site visit to mark the timber to be cut (or saved). Generally this depends upon the contractor's experience with "Firewise" guidelines. Many times this marking will be done on a smaller, representative piece of the project, rather than the entire project. When the landowner will be doing the work themselves the community forester will usually mark the entire area to be treated.

The community forester will attempt to visit the site on the first day of project work to make sure that all parties are on the same page.

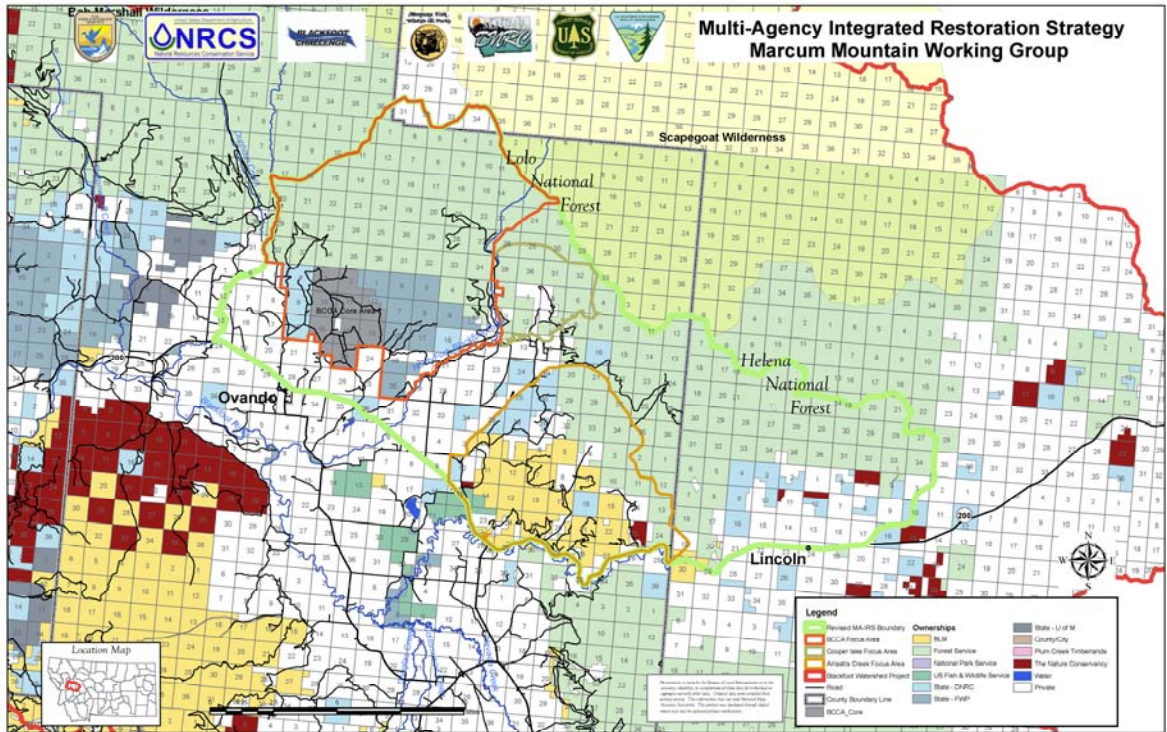
The only other required site visit is the final inspection.

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<sup>1</sup> Following the process defined by the Bitter Root RC&D

Appendix G – MAIRS

MAIRS Blackfoot Project



## MAIRS Field Trip

**MA-IRS Meeting**  
**Arrastra Creek and Cooper Lake project areas**  
**Proposed Itinerary for 9/15/2009**

<b>9:00 – 11:00 AM</b>	Morning session at Lubrecht Private landowner strategy Identify and design treatments
<b>12:00 – 12:30</b>	<b><u>First Stop Patterson Prairie</u></b> Presentation on possible big game winter range restoration via weeds treatment and planting by <b>John Weinert Forester</b>
<b>12:45 – 1:00</b>	<b><u>Second Stop Arrastra Cr.</u></b> Presentation on possible live stock management and stream side vegetation rehabilitation project by <b>Jo Christensen BLM Fisheries Biologist</b>
<b>1:00 -1:20</b>	Presentation on possible wildlife habitat enhancement projects by <b>Jim Sparks BLM Wildlife Biologist</b>
<b>1:30 – 1:45</b>	<b><u>Third Stop Ward Creek</u></b> Presentation on possible Wildland Urban interface, fuels reduction projects by <b>Michael Albritton Fuels specialist</b>
<b>3:00 – 3:45</b>	<b><u>Cooper Lake</u></b> Stop at Cooper Lake Campground and discuss forest restoration and fire safety for Cooper Lake residents and the public access
<b>4:00</b>	<b>Return to Lubrecht</b>