

USDA-NRCS Montana

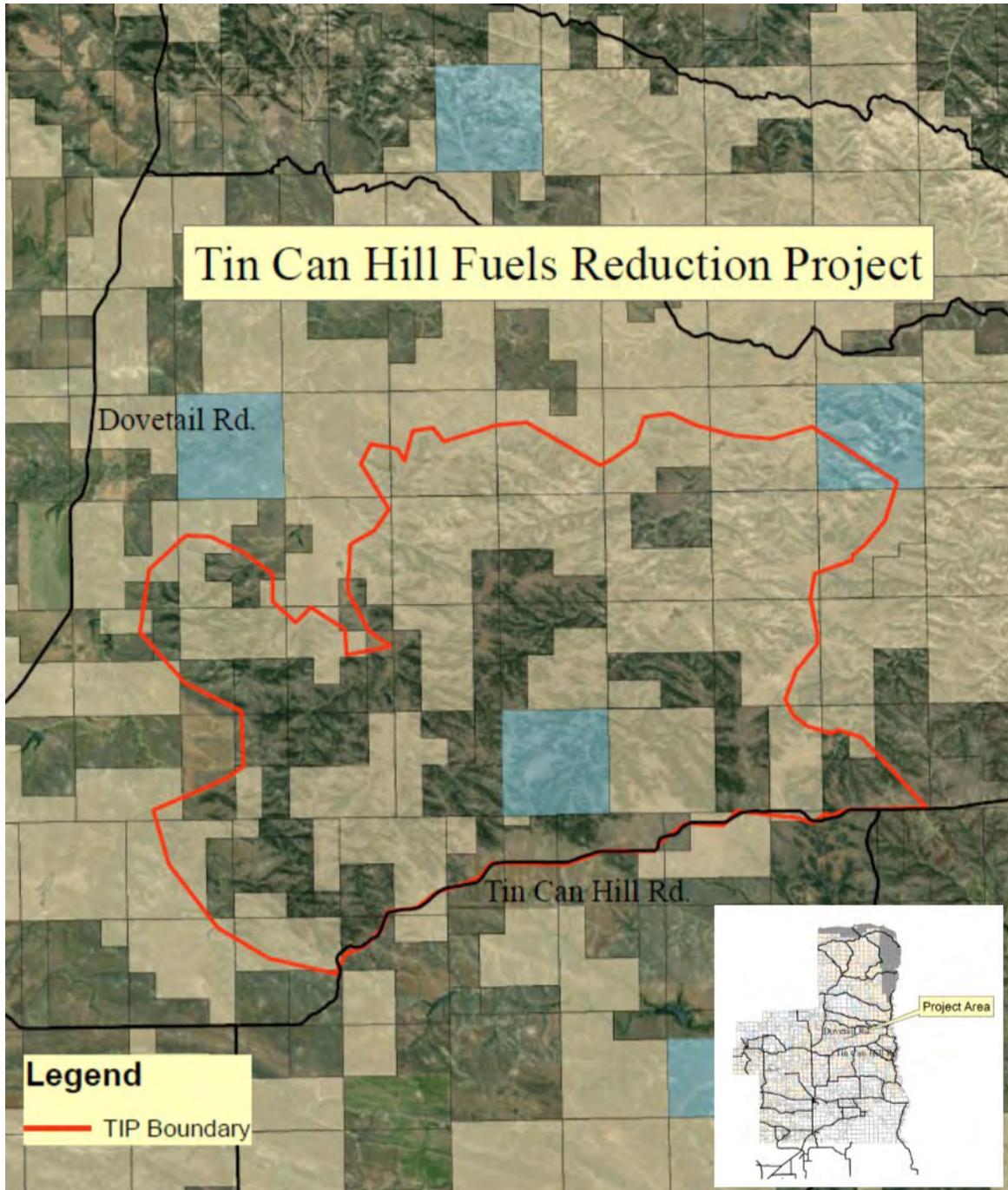
# Tin Can Hill Road Fuels Reduction Project

2021 MFC Targeted Implementation Plan

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## Goal Statement

The goal of this project is to assist private landowners north of Tin Can Hill Road and within the identified map boundary with the reduction of hazardous fuel loads for wildfire. This is a resource concern identified in the Petroleum County Long Range Plan. In addition to the management of fire risk, goals are to aid in the restoration of plant productivity and health, treat conifer encroachment, and improve grazed forest health and habitat. These resource concerns have also been identified in the Petroleum County Long Range Plan.



## **Background**

The Musselshell breaks occur along the Musselshell river along the eastern border of Petroleum County and run north to south from the confluence of the Missouri River south along the Musselshell River. This area is home to a large number of livestock producers. Landownership is a mix of federal and privately-owned land. The majority of the woody vegetation within breaks area is Ponderosa pine and Rocky Mountain Juniper. These areas have been greatly suppressed from fire and hold an imminent threat of stand replacing fires. Livestock producers run the greatest risk of loss from a wildfire disaster. Large livestock grazing operations are commonplace in the area. A likely catastrophic fire would detrimentally impact the private grazing lands for these ranches, along with federally leased grazing lands. These operations are the lifeblood of the local community, and support much of the surrounding areas. These ranches depend on the availability of forage on both the private and public land within the rough terrain of the Musselshell breaks to produce livestock. This breaks region is also highly valued for wildlife and recreation. Hunting of elk, deer, and turkey occurs in this area and contributes to the local economy. Catastrophic fire would certainly affect habitat and recreational opportunities.

A century of fire suppression, corresponding with significant conifer (Ponderosa pine, Rocky Mountain juniper) encroachment, have set the scene for a perfect combination of topography, fuels, and limited accessibility in an area particularly susceptible to fire damage. The likelihood of a catastrophic fire is extremely high if fuel loads are not addressed immediately.

The Natural Resources Conservation Service (NRCS), in collaboration with the Local Working Group and BLM, has identified forestlands, and the volatile fuels within, as the top resource concern in the work area. Hazardous fuels and threats from wildfire have been identified as a significant resource concern in the Petroleum County Long Range Plan. Agricultural producers in the project area are invested in seeing a shift in the conifer-encroached Musselshell Breaks as a whole. All perspectives are pushing for a proactive, inclusive approach, knowing that a reactive approach could be devastating to the area. This Targeted Implementation Plan (TIP) was developed in response to the recognition of the need to improve the resiliency of our grazed forestlands, while protecting the landscape from likely catastrophic wildfires. This TIP's goal is to significantly mitigate the imminent threat of catastrophic wildfire within the project boundary.

## **Problem Statement**

Wildfires are a natural part of the forest ecological cycle. However, for more than a century people have made a concerted effort to fight fires, effectively taking fire off the landscape. This has resulted in a significant change in the encroachment and densities of our forests. Forests are now much more densely stocked, making them less adapted to major fire events. Because of the buildup of fuels, paired with previous droughts and dramatically higher temperatures, fires have become significantly more intense. These fire events often become stand replacing events and pose significant risk to people, livestock, infrastructure, and public safety. Encroachment of conifers into traditional rangeland also expands the extent of these wildfire events. The Musselshell breaks, North of Tin Can Hill Road have been identified by BLM, local rural fire departments, and private landowners as an at-risk area for catastrophic fire loss. Due to high fuel loads and conifer encroachment into previously treeless areas, fire impacts on property are significant. This can be illustrated by the Lodgepole Complex Fire, which

burned over 270,000 acres in 2017, damaging millions of dollars in property, and incurring \$6 million in firefighting costs. This Lodgepole fire started in the same Musselshell breaks region as this TIP boundary, and it serves as an example of the potential negative impact within a similar landscape and region. The issue is further complicated by non-industrial private forest owners having little money to treat these forests appropriately.

The primary resource concern for this Targeted Implementation Plan is Wildfire hazard from biomass accumulation.

There are secondary resource concerns related to wildfire hazard from biomass accumulation, such as plant productivity and health, plant structure and composition, and plant pest pressure to some degree.

## **Goal and Objectives**

This project is in coordination with a BLM fuels reduction project in the same area that will include mastication of 2,700 acres of BLM land. This project will enhance conservation connectivity between NRCS, private landowners, and BLM within an approximately 12,000-acre TIP boundary. Within this TIP boundary there are approximately 2,400 acres of privately-owned forest land. This TIP plans to address 1,900 acres of these 2,400 acres (79%). Again, this project will address privately owned lands within area of work that BLM has proposed to reduce fuels through mastication. BLM will be addressing fuel loads on 2,740 acres of BLM owned land in this area, over a 5-year program of work. Goals of this NRCS project will be in conjunction with BLM goals and will accomplish the following:

1. Reduce hazardous fuels in priority areas to minimize potential negative impacts from wildfire.
  - a. Complete 1,900 acres of forest management practices over an estimated 5-year period, leveraging partnership contributions, along with NRCS funding.
  - b. Follow NRCS Specifications for proper tree spacing and maintenance of all age classes.
2. Improve forest health, resiliency to insects and diseases, and overall productivity.
  - a. Develop forest management plans for each program participant with consideration for stand diversity, age class retention, optimal stand densities, encroachment, and overall health.
  - b. Identify and prioritize any areas for insect, disease, or overstocking that may have a catastrophic effect on forest health with the potential to create additional fuel loads.

Education, outreach and expansion of this type of fuels reduction project into other areas of the county is another goal moving forward. There are many other potential project areas with similar wildfire hazard concerns.

## **Alternatives**

Alternative 1: No action will result in a failure to address the identified resource concerns leaving landscape and structures with little defensibility against wildfire. Forest health will continue to decline in the short and long term due to overstocking, disease, insects, undesirable species, and encroachment

into rangelands. In addition, noxious weeds will continue to increase in the short and long term. Catastrophic wildfire is a likely outcome.

Alternative 2: (Preferred) Implement a small suite of practices to address the identified resource concerns. Forest Stand Improvement (666), and Woody Residue Treatment (384) will be the primary practices employed to address plant structure and composition, plant health and productivity, and wildfire hazard from biomass accumulation. Brush Management (314) will be a supporting practice, available to be utilized in site specific situations. Herbaceous Weed Control (315) will be the practice used to treat the plant pest pressure resource concern, especially post forest stand treatment, but partners and producers will be completing this practice without NRCS financial assistance. The threat of catastrophic wildfire will be significantly mitigated.

Alternatives will be analyzed in compliance with the National Environmental Policy Act (NEPA). All practices chosen for implementation will be evaluated regarding NEPA requirements. Special consideration will be given for practices effecting species of concern, such as grassland songbirds or Sage Grouse, in order to meet all federal regulations and NRCS policy requirements. Any cultural resources present will be identified and avoided during planning and implementation of practices involving federal action.

## **Proposed Solutions and Actions**

The solution to reducing hazardous fuels accumulation in the Tin Can project area is to take a comprehensive approach, which engages private and federal landowners, leverages partnerships, and utilizes a productive suite of practices to address the resource concerns to achieve desirable results. NRCS cost shared practices include 666 Forest Stand Improvement, 384 Woody Residue Treatment, and 314 Brush Management. Landowners will contribute 315 Herbaceous Weed Control. We will utilize the work that has been and will done by BLM to identify areas with the greatest risk levels related to wildfire vulnerability and severity. With the help of our listed partners, NRCS will continue outreach efforts to generate further interest and awareness of the program. We will also take advantage of current program participants, individuals who have previously expressed interest, and new applicants we receive as a result of our targeted outreach. Specific actions will depend on the treatment recommendation by technical experts, based on the field conditions, which will be outlined in the conservation plan and site-specific management plan.

### *These practices will include:*

**Forest Stand Improvement (666)** may be used to thin existing stands of conifers as well as other silviculture treatments. Most of this work will be completed by NRCS with the potential for partnering with DNRC through their “Good Neighbor Authority” and BLM through their landscape programs on land adjoining parcels they manage.

**Woody Residue Treatment (384)** will involve reduction or elimination of slash generated from the above activities. Operations will include piling and burning, chipping, or removal for utilization (firewood, pulp,

wood straw, etc.). Most of this work will be done through NRCS funding, with potential for partnering from DNRC, BLM, and other sources.

**Brush Management (314)** will be used to aid in protection and defensibility of structures, strategic points, or ingress/egress routes for first responders. Brush management use will be less common than the other priority practices but can be used as a tool in the appropriate, strategic locations. Brush management will be utilized to re-open historic meadows and aide in defensible space during catastrophic wildfire events.

**Herbaceous Weed Control (315)** will be utilized to treat noxious weeds that are likely to occur after implementation of forestry activities. NRCS will not be providing cost assistance with these applications through this TIP. This is an opportunity for landowners and identified partners to provide their contributions to the implementation of this project. NRCS will, however, report progress on the implementation of herbaceous weed control.

The following Table A provides specific targeted acreages for individual practices implemented over a 5-year period, as previously defined by the Petroleum County Long Range Plan:

Table A. NRCS Deliverable Goals (in acres)

Activity	Cost share	2021	2022	2023	2024	2025	Total
Forest Stand Improvement	\$505.55	300ac	375ac	375ac	375ac	375ac	1,800ac
Woody Residue Treatment	\$347.63	300ac	375ac	375ac	375ac	375ac	1,800ac
Brush Management	\$308.18	0	0	50ac	50ac	0	100ac
Weed Control (partner/individual)	\$0	300	375	375	375	375	1,800 ac

With these practices included, NRCS would be treating all private land acres within this TIP boundary. This treatment in coordination with BLM’s 5-year mechanical program of work addresses the primary resource concern of Wildfire hazard within the entire TIP boundary.



Photo examples within project area of prior to any treatment and 5 years following mastication treatment.

## Partnerships

Partners to this project, identified at this time include:

- USDA-Natural Resources Conservation Service
- Bureau of Land Management (BLM)
- Montana Department of Natural Resources (DNRC)
- Petroleum County Conservation District
- Private Landowners

This project capitalizes on BLM’s proposed Tin Can Mastication Project. This project includes a five-year mechanical program of work that will address fuel loads and wildfire hazard on approximately 2,740 acres of BLM land within the proposed TIP area. At this time, phone calls and face to face meetings between BLM, landowners and NRCS have occurred and there has been overwhelming interest in this fuel’s reduction project. Conversations and field visits have occurred with DNRC forestry personnel to contribute technical assistance on planning and implementation of private landowner forestry projects moving forward.

Petroleum County Conservation District has agreed to contribute technical assistance in planning and implementation through help from a field office technician located in the Winnett Field Office.

## Implementation

This project will occur over a five-year period, beginning in 2021. Conservation planning has been done, and will continue to be done, by the NRCS field office staff, along with cooperating partners. Partner planning will be utilized, providing that recommendations meet NRCS standards and specifications.

Participants will be selected from applications submitted during open sign up periods. There is currently a list of 4-5 landowners who have verbally agreed to pursue applications in the first year of funding for this project. NRCS outreach, referrals from partners, and producer word of mouth is expected generate interest for applications in subsequent years of funding.

### Total NRCS Estimated Budget

Contributions	2021	2022	2023	2024	2025	5-year Total
EQIP FA	\$255,954.00	\$319,942.50	\$335,351.50	\$335,351.50	\$319,942.50	\$1,566,542.00

### NRCS Contribution

Activity	2021	2022	2023	2024	2025	Total	Cost share	Total Cost
Forest Stand Improvement	300ac	375ac	375ac	375ac	375ac	1,800ac	\$505.55	\$909,990.00
Woody Residue Treatment	300ac	375ac	375ac	375ac	375ac	1,800ac	\$347.63	\$625,734.00
Brush Management	0	0	50ac	50ac	0	100ac	\$308.18	\$30,818.00

## Partner Dollar Contribution

Activity	Cost Share	2021	2022	2023	2024	2025	5 year total
Private Landowner Weed Control	\$90.31/acre	300	375	375	375	375	\$162,558.00
BLM Mastication 2,700 acres	\$300-\$500/acre	\$90,000	TBD	TBD	TBD	TBD	\$810,000-\$1,350,000

## Progress Evaluation and Monitoring

The effectiveness and extent of completed practices will be evaluated annually by NRCS and partners. Inventories will be completed before and after each treatment to document improvements including acreages, stocking rates, condition percent, species percent, average diameter, timing and method of slash treatment, wildlife mitigation measures, photo documentation, and producer expenditure documentation. Each project will be overseen by field office staff with certifications being made upon completion, contingent on practices meeting NRCS standards and specifications. Progress will be recorded in Conservation Desktop, or other appropriate databases. Monitoring will be conducted periodically to ensure outcome longevity and address any unforeseen complications that may arise due to natural disturbances, or land use changes. Follow-up treatments can then be determined if deemed necessary at that time.

## Outcomes

Implementation of this TIP will reduce severe fuel loads on approximately 4,500 acres of timbered grazing land North of the Tin Can Hill road. This provides immeasurable benefit to reducing fire hazard on these acres as well as numerable adjacent acres. This reduction in fuels will reduce losses of grazing land from fire as well as significant grazing infrastructure. Catastrophic losses will be mitigated, should a fire occur in this area and provide a buffer against potential losses of forage, timber, habitat and infrastructure further east. Mastication and hand thinning will remove ladder fuels and allow for less intense ground fire that may be more easily managed should a fire occur. Another outcome will be the achievement of a more historic climax plant community in areas that thinning has occurred. Results should be a more diverse grass, forb and shrub community that increases habitat and forage value.

Summary of Goals and Outcomes:

1. Reduce hazardous fuels in priority areas to minimize potential negative impacts from wildfire.
  - a. Complete 1,900 acres of forest management practices over an estimated 5-year period, leveraging partnership contributions, along with NRCS funding.
  - b. Follow NRCS Specifications for proper tree spacing and maintenance of all age classes.
2. Improve forest health, resiliency to insects and diseases, and overall productivity.
  - a. Develop forest management plans for each program participant with consideration for stand diversity, age class retention, optimal stand densities, encroachment, and overall health.

- b. Identify and prioritize any areas for insect, disease or overstocking that may have a catastrophic effect on forest health with the potential to create additional fuel loads.

## **Ranking**

These additional ranking questions will allow the field office to further prioritize the pool of applications to ensure the proposed projects are meeting the project's stated objectives:

- a. Are the acres proposed for treatment within 1,000 feet of any completed forest thinning or fuels reduction projects that have been completed in the last 5 years?
- b. Are the acres proposed for treatment, adjacent to acres that will be treated in conjunction with BLM fuels treatment?
- c. Are the acres proposed for treatment adjacent to primary ingress/egress routes (state highways, county roads, paved or unpaved) that would be critical to residents or first responders in the event of a wildfire?
- d. Are the acres proposed for treatment within 1,000 feet of a "stand replacing" fire that occurred within the last 15 years?