

Hazardous Fuels Reduction Practices/Technical Specifications Guidelines

Hazardous Fuels Program Conditions

The purpose of providing hazardous fuels grant funding to a landowner is to assist with thinning, pruning and fuels reduction in close proximity to a home or structure. Please see a brief project description below to give you an idea of what grant funds are used for and to what prescription.

Some grants include a requirement of a cost-share arrangement or financial match by Landowner. There are different ways to meet the required match:

- 1) Direct payment to contractor as evidenced by receipt.
- 2) Landowner performs some or all of the work themselves. In this case, calculation of the match is based on the number of hours of cleanup, as well as the cost of certain equipment rental or purchase (again, evidenced by receipt).
- 3) Using a receipt of revenue generated from the sale of merchantable forest products (typically trees of larger diameter). Please consult your MWED-HAZ Forester to verify that this is a viable option.

State of Montana Water Quality Best Management Practices (BMP), Streamside Management Zone (SMZ) guidelines, and Air Quality/Burning Permit requirements shall be followed when accomplishing all hazardous fuels reduction practices. For more information on these requirements, please consult your Department of Natural Resources & Conservation (DNRC) Service Forester.

Thinning

Typically, Hazardous Fuels Reduction practices include thinning all trees to obtain at least a 10-foot spacing between the crowns of the trees. Occasional clumps of the larger diameter tree up to 1/8 acre in size may be left unthinned within the project area. A minimum spacing of 10-15 feet between the crowns of the trees should be obtained around the perimeter of the clumps. Creating this space between tree crowns reduces the chances of a fire jumping between the trees. Remove all trees 4 inches diameter (DBH measurement) or less within the clumps to prevent a ground fire from using these "ladder fuels" to become a crown fire. Prune the remaining trees on the project area according to the technical specification guidelines. Treat all thinning slash and down woody fuels according to the technical specification guidelines by piling and burning, chipping, or a combination of methods.

Thinning guidelines:

- 1) The recommended amount of separation between tree canopies is determined by steepness of slope. On the average this requires at least 10 feet (flat to gentle slope / 0–20%); 20 feet (moderate slope / 21-40%); or 30 feet (very steep / over 41%)
- 2) Clumps of large diameter trees up to 1/8th acre in size may be left within thinning areas if noted in the project description section of the cost share agreement. Within the clumps, crown spacing may be less than described in #1 above. The clumps shall be scattered across the project area. A minimum spacing of 10-15 feet between the crowns of the trees shall be obtained around the perimeter of the clumps. Also, within the clumps, small diameter trees less than 4 inches in diameter shall be cut and the slash treated to meet the downed Woody fuel cleanup guidelines.

Pruning

Tree pruning is designed to:

- 1) To create a distance between the ground fuels and the tree crowns.
- 2) To create a longer distance between branches of thinned trees at ground level.

Pruning guidelines:

- 1) Pruning of all residual trees (trees left after thinning) will be accomplished by cutting off all branches to at least 8 feet above ground level, or to a height of 1/3 the total height of the tree, whichever is less. Branch stubs shall be 3 inches or less after pruning.
- 2) Pruning can occur within riparian or upland areas.

Downed Woody Fuels Cleanup

All woody debris other than duff and litter will be picked up and either piled by hand or machine for later burning or chipped with chips spread across the forest floor in an even manner or taken off site for disposal. Downed woody debris is defined as any woody branch or woody product greater than 2 inches in diameter at the large end and longer than 6 feet in length. Up to 50 pieces exceeding this size may be left per acre. Homeowners may often want to clean up to a greater standard.

- 1) **Hand Piling:** Normally used on steep slopes or where equipment is unable to work. Piles should be located and sized to protect residual trees from being scorched when burned. All piles must be 95% disposed of by burning, chipping or by hauling slash off site. Any remaining pieces after burning may be scattered if they meet the down woody cleanup guidelines.
- 2) **Dozer / Excavator Piling:** This method can be effectively used when there are large quantities of fuels that need to be treated. Piles should be located to protect residual trees from scorching when burned and numerous small piles rather than large piles to prevent scorching the soils. All piles must be 95% disposed of by burning, chipping or by hauling slash off site. After burning, any pile residue should be scattered if they meet the down woody cleanup guidelines.
- 3) **Chipping / Mulching:** If the landowner chooses this method, all materials greater than 2 inches in diameter should be chipped or mulched. Debris may be disposed of by piling in concentrations that imitate decaying logs, spread to no more than 2 inches deep or hauling off site.

This could apply for:

- 1) Removal of slash created by thinning and pruning.
- 2) Fuels already existing from previous management activities.
- 3) Cleanup of naturally occurring downed woody materials on the forest floor.

**Montana West Economic Development
Hazardous Fuels Program**

44 2nd Ave West

Kalispell, MT 59901

406-257-7711 ext. 7

carrie@dobusinessinmontana.com