Protecting People, Homes & Natural Resources
• A TEAM APPROACH •

Prescribed Burning Summary of Factors

There are several primary factors to consider when planning a prescribed burn (*include debris burns*). Fuel *(amount, type and moisture content*), wind (*speed, direction and potential for change in direction/speed*), relative humidity, air temperature, soil moisture, slope of the area to be burned, smoke management, and neighboring landowners/homeowners. Following is quick reference:

1) **Fuel** – Primary fuel in Missoula County is fine to coarse herbaceous materials (grasses and forbs) to extensive stands of trees displaying ladder fuels, a closed canopy, and a high vulnerability to fire from human activities and natural causes. To the landowners and communities living within the wildland/urban interface, this poses an extreme fire risk to human life and property, rare or unique cultural and natural resources, and ecosystem health, etc.

2) **Wind** – Wind speed and direction should be carefully monitored before and during the burn. Wind should be steady from between 4 and 15 miles per hour. Gusty winds and/or winds shifting greater than 45 degrees should be avoided.

3) **Relative Humidity** – Relative humidity should be determined prior to the burn and monitored during the burn. Relative humidity for herbaceous fuels less than 20 inches in height will be 30 to 60 percent, and 45 to 65 percent for herbaceous fuels greater than 20 inches.

4) **Air Temperature** – Air temperatures should be determined prior to the burn and monitored during the burn. Air temperatures for herbaceous fuels less than 20 inches in height will be 32° to 80° F and 25° to 80° F for herbaceous fuels greater than 20 inches.

5) **Soil Moisture** – Soils should be moist or wet to the touch from surface to a depth of 10 inches.

6) **Topography** –Consider carefully the area used for a debris burn. Nothing flammable within 50 feet of burn pile. Nothing overhead, such as tree branches. Give special planning consideration in a field to be burned which contains swales with steep slopes.

7) **Firebreaks** – Firebreaks are used to contain the fire to the desired area. Mechanical, chemical, wetline, burned, natural or structural firebreaks should be used alone or in combination. The type, width, location and orientation of firebreaks should be determined prior to the burn. Consult the NRCS Firebreak Specification and/or local fire department for specific planning guidelines for firebreaks.