

# Burn Plans

Wagon Mound July 2015

# WHAT IS IT ?

A burn plan helps to determine the safest and easiest way to complete tasks before, during and after a prescribed burn. The most important reason for having a burn plan is to *thoroughly think about each action before striking the match.* The burn plan will help determine where the burn should be conducted, what type of management is required before burning, how to conduct the burn, when to burn and what should be done after the burn.

# WHAT CAN IT DO ?

A well-written burn plan can help reduce liability risk, which is a major concern for most people conducting prescribed burns. A burn plan can be used to show the amount of diligence and care used in planning and conducting the burn if some type of liability issue occurs.

# WHAT SHOULD I PUT IN THE PLAN ?

No burn plan is perfect and no two are alike because they are as different as the burn units for which they are written. Each burn plan may require different information or planning, with some requiring more information about a specific topic than others. A burn plan should be written to meet local needs and be adapted to the region. The more experience a person has preparing plans, the easier it will become to write good ones.

# WHAT DO I NEED TO BE AWEAR OF ?

When preparing a burn plan, it is important not to limit implementation by being too specific with details or prescriptions. For example using weather conditions with a range that is too narrow and cannot be followed for the duration of the burn is not a prescription for success. Be sure to include all necessary information, but do not clutter a plan with pointless information that could cause confusion, or prevent the execution of a burn, and potentially increase liability.

# Elements appropriate for most situations.

- **Information:** Provide basic information about the unit. Size, location, topography, etc....
- **Description of Area to be Burned:** Include pasture name, legal description and dominant vegetation type in the burn unit.
- **Vegetation Present:** Describe the main vegetation/fuels present.  
*Example - Tallgrasses, scatted shrubs with cedars <6 ft tall in the upland and solid stands of cedar >15 ft tall along the Creek*

# Elements Continued

- **Directions from Nearest Town:** Provide directions to the burn unit. This may be needed in case of an accident or escaped fire. In emergency situations, people often forget things as simple as providing directions to the burn unit. Also, someone not familiar with the area can provide directions from the burn plan to emergency responders. Can include a map
- **Objectives:** Why are you burning? Explain what the burn will accomplish. Objectives can be singular or multiple, along with being broad or very specific. *Examples – Forage production for livestock, wildlife habitat management, cedar control, brush suppression, improve forage quality, hardwood reduction, fuel reduction and wildfire suppression.*

# Elements Continued.....

- **Notification:** List the names of fire departments, adjoining landowners, and others that need to be notified prior to conducting the burn. This allows the planner to have all phone numbers in one place for quick reference. It also provides a place for the planner to enter the date, time and person notified, which can be helpful if problems arise or for verification of notification.
- **Pre-Burn Preparations:** Describe what should be done before conducting burn. Mow or disc lines, water sources, protection of specific areas or items, values at risk.
- **Management Needed Prior to Burn:** Describe management required to prepare for the burn in order to meet objectives. These practices could include grazing management, mechanical, herbicide treatments to make the burn safer or more effective.

# Elements Continued.....

- **Firebreak Types and Location Around the Burn Unit:** Describe the type of firebreaks used and the location of each around the burn unit. Firebreaks can be disked, dozed, roads, cultivated fields or natural breaks like creeks. *Example- Firebreaks on the west and north side of the burn unit are disked strips 15 feet in width and the east and south firebreaks are comprised of a two-track pasture road.*
- **Fuel Conditions:** Record the amount and continuity of fine fuel (herbaceous vegetation) desired for the burn and actual amount in the burn unit on the day of the burn.
- **Fine Fuel Amounts:** Determined by visual estimation or by clipping and weighing samples.
- **Fuel Continuity:** Describes the amount of coverage or distribution of fuels. This is important for fire spread. Many times there may be adequate fuel amounts, but fuel continuity will not allow the fire to spread or carry across the burn unit.

# Elements Continued.....

## THE PERSCRIPTION

- **Prescribed Weather Conditions:** Define the weather conditions needed to safely and effectively conduct the burn.
- **Desired Range:** Describes ideal weather conditions for the burn.
- **Maximum Range:** Upper and lower weather conditions allowable for the burn. These ranges allow flexibility in order to account for daily weather variation. *Example- Relative humidity desired range 40 percent to 60 percent, maximum range 20 percent to 80 percent.*
- **Trigger Points:**

# Elements Continued.....

- **Smoke Management Considerations:** Identify and list smoke sensitive areas around the burn unit and with what wind direction and dispersion conditions will be needed to reduce smoke impacts. *Example- Due to road on west side of burn unit and homes to the south of burn unit, a west or southwest wind is needed to reduce smoke impacts.* Attach a smoke dispersion forecast map to the burn plan. Smoke sensitive areas can be roads, communities, airports and houses.
- **Other Smoke Management Considerations:** Category day can be determined from the National Weather Service Fire Weather websites Go to [www.weather.gov](http://www.weather.gov), select your region from map, then select fire weather).
- **Dispersion Condition:** Information can be found on the internet

# Elements Continued.....

- **Pre-Burn Checklist:** This allows the planner to determine if there are potential problems within or around the burn unit and what could be done to reduce or eliminate them. *Example – Brush piles are present along firebreaks and will be pushed a minimum of 300 feet inside the burn unit.*
- **Observed Weather:** On the day of the burn, record on-site weather conditions before, during and after the burn.
- **Equipment:** List equipment that is needed or might be needed to conduct the burn.
- **Crew Members:** List the number of people needed to safely conduct the burn. On the day of the burn, record names of the people comprising the burn crew.

# Elements Continued.....

- **Ignition Plan:** Describe the ignition sequence(s) required to ignite the burn safely. This forces the planner to consider in what sequence the burn crew(s) will move around the burn unit igniting the fire and potential problems or hazardous areas that should be addressed. Describe each sequence in writing and draw them on a map of the burn unit.
- **Go-No Go Check List:** List items needed and tasks to be done prior to conducting the burn. The fireboss should review this list prior to conducting the burn to make sure everything is in order.
- **Contingency Plan:** Do I have back up?
- **Escaped Fire Plan:** This is a step-by-step action plan describing what should be done if the fire escapes and the proper procedures for controlling an escaped fire.
- **Signature Box:** Signed and dated by the preparer when the plan is finished

# Other Elements Continued.....

- **Maps:** Maps of the burn unit and surrounding area
- **Communications:** Phones.. Radios...
- **Safety:** Know what to do in the event of an accident
- **Holding Plan:** Can be addressed in the ignition plan. What is the plan after ignition is complete? How long will the burn smolder? Patrol and/or mop up?
- **Test Fire:** A representative area
- **Schedule:** Weekends, in season, conflicts

# Some Things I've Learned .....

**A well designed burn means less problems**



# Lessons.....

## Timing is everything....



# Lessons.....

- **Wind can be your best friend or worst enemy**



# Lessons.....

## Have a Plan B and a Plan C.....



# Lessons.....

**It's a planed even....know your fuels ..... know your people....have trigger points**



# Lessons.....

## **Fire and water are a lot a like.....**



Lessons.....

**Bigger is Better.....**



# Lessons.....

## Listen to the locals....trust experience.....



Lessons.....

**Things break at the worst time.....**



# Lessons.....

**Putting fire back on the ground feels right.....**



Thank You For Your Time

**Questions..... ?**

