

SECTION III

FOREST LAND

PLANNING RESOURCE MANAGEMENT SYSTEMS (RMS)

Successful resource management on forest land is the correct application of a combination of practices that will meet the needs of the ecosystem (soil, water, air, plant, animal resources, plus human and energy) and the objectives of the land user.

The minimum quality criteria that must be met on forest land for each of the resource concerns is explained in Section III- Quality Criteria of the Field Office Technical Guide (FOTG).

- **ESSENTIAL practices** must be included in the forest land resource management system regardless of production systems or site conditions.
- **NEEDED practices** are necessary to correct site-specific Forest land resource concerns. Please note that **NEEDED** practices are no less important than **ESSENTIAL** practices when developing a resource management system.
- **DESIRABLE practices** are applied to enhance the resource base beyond the minimum quality criteria.

The management of a healthy plant community is the foundation on which a resource management system on forest land is built.

- **Forest Stand Improvement (666) is ESSENTIAL** because it is the practice which allows for management of timber stand densities, reduction of wildfire hazard, improvement of wildlife habitat, reduction of erosion potential.
- **Forest Slash Treatment (384) is ESSENTIAL** because it is the practice which allows for management of forest slash following harvest or other disturbance.
- **Forest Harvest Trails and Landings (655) is NEEDED** to allow for managed access to the forested area for timber harvest and other management activities.
- **Herbaceous Weed Management (315) is NEEDED** to address any invasive and detrimental weeds present.
- **Access Road (560) is NEEDED** if there are ingress issues to the site and a permanent roadway is necessary.
- **Tree/Shrub Site Preparation (490) is NEEDED** - if the site is harvested **because** it is the practice that allows for preparation of the forest land area to receive planted trees or makes the seedbed ready for natural regeneration following timber harvest.
- **Tree/Shrub Establishment (612) is NEEDED** if trees and/or shrubs need to be planted to increase or maintain stocking densities, or to regenerate a site post- treatment.
- **Road/Trail/Landing Closure and Treatment (654) is NEEDED** if harvest trails and landings are not going to be used permanently and need to be closed.

- **Fuel Break (383) is NEEDED** to reduce crown fire risk, if wildfire is a threat to a resource (eg. home, reservoir, power station) that is in need of protection.
- **Prescribed Burning (338) is NEEDED** if threats of wildfire are to be minimized and timber stand densities and species composition or forest slash are to be managed with fire.
- **Firebreak (394) is NEEDED** if prescribed burn areas are to be managed and contained, or to reduce the threat of a surface wildfire.
- **Tree/Shrub Pruning (660) is NEEDED** if trees and/or shrubs need to be pruned to increase light penetration to forest floor, increase timber quality by creating clearer bole for high quality lumber and/or manage fire threats.
- **Access Control (472) is NEEDED** if there is potential for unwanted access to the harvesting area by animals or humans.
- **Riparian Forest Buffer (391) is NEEDED** if there is a stream (intermittent or otherwise) that needs protection from harvesting techniques applied across other areas of the forest stand.
- **Upland Wildlife Habitat Management (645) is NEEDED** if wildlife habitat can be improved by retention of snags and dead and downed woody material.
- **Grade Stabilization Structure – Rock and Brush Dam (410A) is NEEDED** if erosion control structures reduce soil erosion and improve water retention.
- **Diversion (362) – is NEEDED** if access roads or trails show signs of erosion that could be reduced with installation of a road bar.

There are other practices, which may be **NEEDED** to complement the client's production practices and site conditions, or to facilitate implementation of another **NEEDED** practice. They are:

Structure for Water Control (587), to implement Access Road (560)

Stream Crossing (578), to implement Access Road (560)

Water and Sediment Control Basin (638) to facilitate Access Road (560)

Fence (382), to implement Access Control (472)

Filter Strip (393) to implement Riparian Forest Buffer (391),

Heavy Use Area Protection (561), to facilitate Critical Area Planting (342)

Brush Management (314), to implement Harvest Roads, Trails, and Landings (655)

Water and Sediment Control Basin (638), to facilitate Structure for Water Control (587)

Range Planting (550), to facilitate Road Closure and improve vegetative condition.

Critical Area Planting (342), if there is imminent risk of erosion without the introduction of desirable plant species to hold the soil.

Occasionally, there are **DESIRABLE** practices not required to meet the minimum quality criteria level for a resource management system. These practices may be **DESIRABLE** to the client for enhancement of the resource base or provide for multiple uses. For example, **Wetland Wildlife Habitat Management (644)** may be a **DESIRABLE** practice for forest land to meet producer objectives or provide for multiple land uses.

Adding the **NEEDED** and/or **DESIRABLE** practices to the **ESSENTIAL** ones develops resource management systems. The combination of practices meet the quality criteria established for the Forest land quality concern (soil, water, air, plant animal, and human) and meet the objectives of the client. When multiple land use is an objective, the needs of each use and the effects of each practice must be considered in the selection and application design of each practice to ensure compatibility.

The following tables show **ESSENTIAL** and **NEEDED** and/or **DESIRABLE** conservation practices applicable to Forest land. Table 1 shows the **ESSENTIAL** practices for NM. Table 2 shows **NEEDED** and/or **DESIRABLE** practices. There may be additional practices not included on Table 2 that will benefit forest land.

Table 1

| ESSENTIAL FOREST LAND PRACTICES | |
|--|----------------------|
| Practice Name | Practice Code |
| Forest Stand Improvement | 666 |
| Forest Slash Treatment | 384 |

Table 2

| NEEDED and/or DESIRABLE Practices | | |
|---|----------------------|-----------------------------|
| Practice Name | Practice Code | Desirable or Needed? |
| Access Control | 472 | N |
| Access Road | 560 | N |
| Brush Management | 314 | N |
| Critical Area Planting | 342 | N |
| Diversion | 362 | N |
| Fence | 382 | N |
| Filter Strip | 393 | N |
| Firebreak | 394 | N |
| Forest Harvest Trails and Landings | 655 | N |
| Fuel Break | 383 | N |
| Grade Stabilization Structure – Rock and Brush | 410-A | N |
| Heavy Use Area Protection | 561 | N |
| Herbaceous Weed Management | 315 | N |
| Prescribed Burning | 338 | N |
| Range Planting | 550 | N |
| Riparian Forest Buffer | 391 | N |
| Road/Trail/Landing Closure and Treatment | 654 | N |
| Stream Crossing | 580 | N |
| Structure for Water Control | 587 | N |
| Tree/Shrub Establishment | 612 | N |
| Tree/Shrub Pruning | 660 | N |
| Tree/Shrub Site Preparation | 490 | N |
| Upland Wildlife Habitat Management | 645 | N |
| Water and Sediment Control Basin | 638 | N |
| Wetland Wildlife Habitat Management | 644 | D |
| Windbreak/Shelterbelt Establishment | 380 | D |