



## MANAGING WOODLANDS FOR AESTHETICS

### FOREST STEWARDSHIP MANAGEMENT NOTE #33

#### INTRODUCTION

"Forests have a variety of important psychological and cultural effects on people. ...Visual exposure to natural vegetation has been shown to promote relaxation, recovery from stress, and recuperation from surgery. Trees enhance the perceived quality of a wide range of environments, and provide experiences of beauty, tranquility, and fascination. Forests are settings in which people can experience their natural and historical heritage and exercise their imaginations. Trees play an important role in many cultural traditions and myths, providing a symbolic link between human cultures and the spiritual values on which they are based. Forest management should recognize these emotional and symbolic values of trees, and seek to balance them with biological and economic values." (#16)

Accordingly, Michigan's Stewardship Incentive Program recognizes aesthetic quality protection as evidence of good stewardship practices (#10). Although direct cost-sharing is not provided for practices aimed solely at aesthetics, aesthetic considerations may be incorporated into several land and water management practices for which cost-sharing is available.

This Note suggests ways that woodland management practices can enhance landowners' visual quality objectives or minimize the negative visual impacts inherent in some practices (#11, FSMN #34). Suggestions are given, as opposed to guidelines, in that peoples' perceptions of what is attractive varies according to their interests and other factors (#8). Keep in mind that visual quality is largely a matter of diversity (#7,9). Even preferred conditions can be overdone, so it is wise to manage for overall visual quality of the property rather than considering one stand at a time (#2,9,11).

#### PROPERTY BOUNDARY MARKING

One of the first steps in good land stewardship is to locate and mark the property boundaries (FSMN #1). Where boundaries are frequently seen, landowners may prefer to mark the lines with subtle colors rather than the bright colors typically used.

#### PLANTATIONS, WINDBREAKS AND HEDGEROWS

Plantations, windbreaks, and hedgerows are typically laid out in straight, regularly spaced rows of one or two species because they are easier to plant and manage this way (FSMN #8,9). Also, some people find such plantings to be aesthetically pleasing. However, where more natural appearing vegetation is preferred, it is possible to plant with curved rows, irregular spacings, and somewhat more species diversity. Plantings can also be made to appear more natural by using gradually wider tree spacings around the edges. Conventional plantations can also be modified to appear more natural by thinning (#11).

#### OPENINGS

Wildlife openings, meadows, home sites, and the like provide an attractive visual contrast with wooded areas.

1. **OPENING SHAPE** - Constructed openings are often developed as rectangular blocks, but their aesthetic and wildlife value can generally be improved by making more natural shapes and at least some of the edges curved or irregular.
2. **SHARPNESS OF EDGES** - Abrupt, wall-like edges between wooded and non-wooded areas have a certain appeal, but savannah-like edges, in which trees and shrubs are widely scattered among herbaceous vegetation, are more attractive to some people and have much higher wildlife value. People appear to be intrinsically attracted to scattered trees as evidenced by their tendency to create savannah-like vegetation around their homes and in their parks (#1,11,20). Savannah-like edges can be created by leaving selected trees when creating openings or by planting trees along the edges of existing openings. This can be especially attractive if a variety of tree species, both evergreen and deciduous, are included. If desired, openings can be "feathered" into surrounding woodland by gradually increasing the density of shrubs and trees (#7,17).

## WOODLAND ROADS

Woodland roads are a dominant visual feature of managed woodlands. Thus, the layout, construction, and maintenance of roads should give ample consideration to visual quality (FSMN #5-7).

1. **PLANNING** - During the design phase, roads should generally be laid out close to, but not through, areas of special interest (#13). Where other limitations allow, gently curving roads are usually preferable to long straight stretches (#7).
2. **CONSTRUCTION** - During the construction phase of road development, special attention should be given to water diversions (FSMN #6), as soil erosion resulting from improperly drained roads is particularly visually offensive. Driving equipment on wet roads not only causes ugly mud, it can permanently damage tree roots and soil quality. Thus, timber sale contracts should include a clause prohibiting use of equipment operation when heavy rutting is likely to occur (FSMN #18). Following are other road construction practices that tend to improve aesthetics.

Cut and remove trees in roadways before bulldozing, rather than pushing them to the side of the road.

Push unmerchantable wood, slash, and stumps a few yards off the road, preferably into depressions.

Leave stumps that cannot be buried in an upright position.

Lop slash from within 50 feet of the road edge down to 2 feet in height.

Leave large, attractive trees along the roadside.

Remove roadside trees that become badly damaged.

Ditch, crown, and grade road surfaces after logging operations.

3. **MAINTENANCE** - To remain functional after construction, woodland roads need periodic maintenance. Establishing herbaceous vegetation on the roadbed is an effective way to prevent erosion, provide wildlife food, and improve the aesthetics of little used roads (FSMN #7). Where desired, roads can even be treated as linear lawns or wildflower meadows. Where roads tend to become brushy, their utility and aesthetics can be maintained by occasional brush-hogging.

4. **LOG LANDINGS** - Of the various components of timber harvests, landings, where harvested timber is stockpiled and sometimes processed before being hauled off the property, often have the greatest negative impact on visual quality. This is because landings are usually located near public roads where they are more likely to be seen, because the heavy use they receive often results in muddy conditions, and because they accumulate a lot of woody debris. Following are suggested practices that tend to improve the aesthetics of log landings (#5).

Plan landings as part of the overall road system before the logging operation begins (FSMN #5).

Locate landings on well-drained soils and follow other Best Management Practices to minimize mud and soil erosion (FSMN #5).

Locate landings so vegetation and/or topography blocks their view from roads, buildings, and other sensitive areas.

Keep mud off public roads by providing clean fill near the entrance to such roads.

Make landings large enough to allow efficient sorting of timber.

Minimize the amount of debris to be disposed of by leaving unmerchantable material in the woods.

Designate areas for disposal of debris in advance and work toward those areas over the course of the job.

When the harvest is over, smooth the landing and establish herbaceous vegetation on it to reduce erosion and improve wildlife habitat (FSMN #7,25).

5. **ENHANCEMENTS** - Woodland roads may also provide other opportunities to improve aesthetics and wildlife habitat. For example, most woodland roads are narrow enough that the adjacent trees will extend their canopy over the road. In areas where woodland is limited, this is generally desirable. In extensively forested areas, however, cutting trees further back along the edges of roads in an irregular pattern will diversify the vegetation and the wildlife in the area and create dramatic visual effects (#9,17). Such roadsides habitats can be managed as herbaceous vegetation similar to wildlife openings (FSMN #25) or as savannah-like vegetation (see below). Another example is the opportunity to improve the visibility of attractive views along roads.

## TIMBER HARVESTS

Whereas poorly planned and constructed forest roads are arguably the most environmentally damaging forestry practice, poorly planned and executed timber harvests are undoubtedly the most aesthetically damaging. Even under the best conditions, logging is a disruptive affair, but many of the negative visual impacts of timber harvesting can be greatly reduced with little extra cost if landowners insist on it in their logging contracts (FSMN #18). Furthermore, timber harvests

sometimes provide opportunities to improve visual quality, at least in the long run.

1. WASTES - Timber sale contracts should prohibit disposal of any wastes, especially fuels and lubricants, on the landowners' property.
2. ROADS AND LANDINGS - See above and Reference #5.
3. SELECTING TREES TO CUT AND TO LEAVE - The timber harvesting system selected is the major determinant of which trees are cut and which trees are left, so it is critical that landowners understand the choices and their effects on economics, wildlife, and aesthetics (FSMN #17).

If clearcutting is used, the appearance of an area will be drastically altered because nearly all trees will be removed. Nevertheless, Following are suggested practices that tend to minimize the negative visual impact of clearcutting (#5).

Keep clearcuts as small as possible while still being economically feasible. Consider several small clearcuts in different areas or spaced over a period of several years (#14,17).

Delineate areas to be clearcut along natural changes in vegetation or topography, rather than along property boundaries or other straight lines (#6,14).

Leave snags and cavity trees for wildlife (FSMN #28).

Leave a scattering of other trees. Such modified clearcuts, or "deferment" cuttings, may be justified on aesthetic and other grounds (#18).

Except for those trees purposely retained (as in previous items), fell all unmerchantable trees, including saplings, as such trees are generally of low visual quality and they compete with future crop trees.

If the harvest system selected will leave a substantial number of trees, certain types of trees and shrubs may be purposely retained as "aesthetic crop trees" (#15). Because ideas about tree beauty vary widely, landowners need to be as specific as possible about their preferences. Following are some examples of criteria for aesthetic crop trees.

Species that produce attractive flowers or colorful foliage, especially if they are in visible locations.

Species that are uncommon in the area.

Species that attract desirable wildlife (see below).

Evergreens where deciduous trees dominate or vice versa.

Uniquely shaped trees, such as old pasture trees with spreading branches, trees with curved trunks, or unusual bark patterns.

Especially large trees.

Individual trees or groves with special recreational or sentimental value.

All trees along the edge of openings.

4. TREATMENT OF SLASH - Logging slash, the unmerchantable parts of felled trees, is generally considered very unsightly, especially if large tops are left scattered about or large piles are created (#19). One alternative is to eliminate most slash by utilizing as much of the harvested trees as possible. Tops can often be used for firewood and sometimes they can be chipped for fuelwood or other uses. Various arrangements can be made with firewood cutters, including competitive bids and allowing free cutting for a share of the wood cut (#12). However, economical utilization of tops may require skidding whole trees to a landing for processing. Consider this option very carefully. Whole-tree skidding is usually very hard on the soil and the trees that are not cut and should generally be avoided.

Fortunately, slash left in the woods benefits the soil as it decays and improves wildlife habitat (FSMN #24,28).

Properly placed, slash can even be used in streams to improve fish habitat (FSMN #31). Following are suggested practices that tend to minimize the negative visual impact of slash (#5).

Cut stumps as low to the ground as possible (one foot or less). Multiple-stemmed trees must often be felled with high cuts for safety reasons, but the stumps can then be cut lower. This will reduce unsightliness and improve the quality of stump sprouts.

Lop tops down to a specified height above the ground (#12). In frequently used areas, a height of 2 feet may be appropriate, whereas 4 feet may be fine on the back "40". If deer browsing is a problem for regenerating trees, leaving high slash may protect seedlings.

Fell trees that are badly damaged or bent over.

Consolidate slash by building brushpiles for wildlife (FSMN #26).

## **WILDLIFE MANAGEMENT**

For most landowners, viewing wildlife contributes greatly to their overall aesthetic appreciation of their land. Thus, efforts to improve visual quality should include wildlife habitat improvement practices (#3, FSMN's #24-30).

## **WATERFRONT AND RIPARIAN MANAGEMENT**

As reflected in real estate prices, water bodies contribute greatly to the aesthetic and recreational value of land. Thus, special consideration should be given to the visual quality of lakeside and riparian (along streams) vegetation and to the effects of management practices on water quality. At a minimum, buffer strips, in which roads are prohibited and other disturbances are minimized, should be left around water bodies (FSMN #5). Stream habitat improvement projects (FSMN #31) are likely to improve visual quality in that they create more diverse water flow conditions, but care should be taken in visually sensitive areas to make improvements structures as natural appearing as possible.

## **OVERALL MANAGEMENT OF VISUAL QUALITY OBJECTIVES**

Landowners who consider visual quality to be among their major objectives should develop a visual inventory of their property, establish visual management criteria for each area, and integrate their visual objectives with other management goals. References #7,9 and 11 provide procedures for guiding such an effort.

## **REFERENCES**

FSMN #'s refer to other Forest Stewardship Management Notes in this series.

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**CITATION:** Burnett, Christopher D. 1994. Managing woodlands for visual quality. Michigan Forest Stewardship Management Note #33. Michigan Department of Natural Resources, Forest Management Division.

**ACKNOWLEDGEMENTS:** This project was supported, in part, by a grant from the Michigan Department of Natural Resources and the USDA Forest Service.