

X. VISUALS /SCENIC RESOURCES

Changes between the DEIS and the FEIS

This section was updated to reflect changes in the FEIS to proposed harvest units, road building, and logging systems.

1. Introduction

The Moose Post-Fire Project area lies adjacent to Glacier National Park and the Wild and Scenic North Fork of the Flathead River. This area is visible from a variety of viewpoints, which include, but are not limited to:

- North Fork Road,
- Big Creek Road,
- Camas Creek Road,
- North Fork of the Flathead River and various locations in Glacier National Park.

The North Fork of the Flathead River landscape offers a significant variety of scenic viewing opportunities, such as driving for pleasure, photography, hiking, floating the river, fishing, hunting, and winter sports.

Visual effects caused by fire, timber harvest, and associated activities vary in duration and intensity according to fire severity and the methods of timber harvest and site preparation/hazard reduction. The longest-lasting visual contrast is caused by soil disturbance from fire-line construction or building roads and bare soils from roads used for skyline or tractor logging. Effects from tree removal are generally shorter because ground revegetation often occurs within 2-3 years and some tree cover usually remains.

To some visitors, a wildfire is a natural element of the ecosystem that enhances the aesthetics of the landscape, so a burned area should be allowed to recover naturally. Other visitors find the visual changes undesirable and prefer clean up and rehabilitation of the area to promote vegetative recovery.

2. Relationship to Forest Plan

The analysis for this project employs the visual management system developed by the U.S. Forest Service in: *Landscape Aesthetics - A Handbook for Scenery Management Number 701 (1995)*. It is used to analyze and evaluate the visual resource. This system replaces *The Visual Management System - Handbook Number 462 (USDA, 1974)*. This new system provides for the evaluation of physical features of the landscape called "scenic attractiveness classes" (formerly - "variety classes") together with the levels of concern people have for scenery (formerly - "sensitivity levels"). This information is synthesized to develop "Scenic Integrity Levels " (SILs). These terms were formerly referred to as visual quality objectives (VQOs).

The Flathead Forest Plan established Scenic Integrity Levels (SILs - formerly VQOs) for each management area (MA), those SILs found in the project area include.

High (similar to VQO of Retention) - Refers to landscapes where the valued landscape character "appears" intact. Deviations may be present but must repeat form, line, color, texture, and pattern common to the character so completely that they are not evident. MA 2 and MA 18.

Moderate (similar to VQO of Partial Retention) - Refers to landscapes where the valued landscape character "appears slightly altered." Noticeable deviations must remain visually subordinate to the landscape character being viewed. MA 9 and MA13 and MA 13A.

Low (similar to VQO of Modification) - Refers to landscapes where the valued landscape character "appears moderately altered." Deviations begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes outside the landscape being viewed. They should be compatible or complementary to the landscape character. MA 15.

Very Low (similar to VQO of Maximum Modification) - Scenic Integrity "appears heavily altered." Deviations may strongly dominate the landscape character. They may not be appropriate in shape, edge effect, or patterns. However, deviations must be shaped and blended with landforms so that elements such as unnatural edges or landings do not dominate the composition. MA 15.

A key component of these VQOs or SILs is that they do not apply to natural disturbance events. The Forest Plan, on ages II-17 and 18, states that "special concerns due to catastrophic events will be handled on a case-by-case basis."

3. Affected Area

The Moose Fire area is the analysis area used to display the effects of the alternatives on the visual quality of the area because the fire area is where vegetation affected activities are proposed for this project.

Pre-fire Condition

Before the Moose Fire, tree harvesting from the last twenty to thirty years created some evident to obvious alterations to the landscape and an assortment of vegetation patterns. Past fires also caused some of the vegetation patterns (refer to Map 3-14). Past harvesting left a number of block-shaped openings scattered over the slopes that look unnatural due to a high degree of contrast of form, line, color, and texture between the harvested and non-harvested areas. Roads used to access these harvest areas are also common within the project area. The stark contrast between vegetation patterns is sometimes especially apparent during the winter months, when snow highlights the contrast between harvested and non-harvested areas. The landscape is rated as *common* (a landscape where landforms and features are not of unusual or outstanding scenic quality) and distinctive to the Flathead National Forest. Based upon review of the constituent information listed in the Forest Plan, the concern or sensitivity level for the scenery is rated as high.

Effects of the Moose Fire

The effects of the Moose Fire have resulted in considerable change to the visual resource. Almost half of the fire area had a high severity effect to vegetation, which means that the vast majority of the overstory canopy was killed, often with total consumption of the tree crowns (needles, twigs, and small branches). About 23% of the fire area resulted in a moderate severity effect to vegetation, which resulted in the majority of the understory vegetation being burned but not completely consumed, and 40 to 80 percent immediate mortality in the overstory trees. Many of these trees still retain their small branches. Low severity fire also affected 23% of the vegetation in the fire area. Low fire severity results in only low to moderate duff reduction and patches of unburned or lightly burned understory vegetation and trees. Immediate mortality of the overstory tree canopy is less than 40 percent. Many of the fire-killed trees still retain their small branches, twigs, and needles. About 10% of the fire area did not burn, leaving green islands or individual trees.

The fire has created numerous viewpoints throughout the project area. It opened new panoramic views of the area and of Glacier National Park, in addition to those areas of previous harvest and road construction. However, even after the fire, some of the landscape is screened from view because of the topography and dense patches of standing black dead and dying trees.

Views from many roadsides and trails have dramatically changed. The most striking difference is that of driving long distances through a tunnel of blackened snags and red-colored vegetation, particularly along the North Fork Road. Ground vegetation should regenerate within one or two years. The time in which snags will dominate views will vary

as the green forest returns. The red-colored vegetation will soon be replaced with shades of grays. Over time, colors will change due to re-growth and seasonal variations.

Much of the landscape that has been managed for timber meets the intent of the Forest Plan. Areas of high use, such as the North Fork Road, meet the scenery objectives of the Forest Plan, but other areas do not meet scenery goals. Some geometric-shaped cutting units from past harvests, surrounded by texture-dominated lodgepole pine stands, contrast with the natural patterns on the landscape.



Photo 3-4: West-side of the North Fork Road

miles. In some places, scenery viewing and driving for pleasure has now been enhanced because views of the North Fork River corridor, and the world class scenic features of Glacier National Park are more open to view compared to pre-fire conditions.

Visual effects to the Big Creek Campground are minor since the fire burned only through the boat launching area.

Views of the Big Creek Drainage (Secondary Travel Route Viewpoint)

Harvesting trees over the past twenty to thirty years has created some patterns and changes in the dense texture of overstory trees. The effects of roads are visible, plus the geometric-shaped clear cuts from earlier logging are obvious from various locations in the upper elevations of the Big Creek drainage. The fire burned and cleared out much of the foreground vegetation screening. Changes to trees and brush resulting from the fire are obvious and similar to the effects as seen from the North Fork Road. Now, the middle ground views of past timber harvest activities are more obvious as seen from the roads and trails. The fire also opened views of middle ground roads and skid trails. Vegetation re-growth will soon screen views of those artificial features. The mosaic patterns resulting from the fire has helped to subdue the previous geometric shapes and edges created by harvesting trees on steep slopes.

Critical Viewpoints

The following describes the critical viewpoints that were used for further analysis of the effects of proposed management activities on the scenery of the area.

North Fork Road (Primary Travel Route Viewpoint)

The Moose Fire burned trees and vegetation with high to moderate intensity along most of the North Fork Road and river corridor. Numerous snags and blackened skeletons of trees line each side of the road for



*Photo 3-5: West-facing slope of
Lookout Creek*

4. Environmental Consequences

No significant issues related to scenery were identified (refer to Chapter 2). The following effects indicator was used to focus the scenery analysis and disclose relevant environmental effects:

- a qualitative assessment of changes in scenic quality

Each of the action alternatives involves prescriptions and management activities that would result in a change from the existing character of the project area. It is anticipated that the activities of the action alternatives would meet the scenery levels as allocated in the Forest Plan. The following information describes the effects or changes from the various alternatives as seen from selected viewing areas in the North Fork drainage.

Effects common to all action alternatives

Short-term changes may include views of stumps, changes in soil color, and reduction of the understory vegetation. In the long-term, those disturbances would be softened due to vegetation growth.

In the short-term, implementation of any of the action alternatives may create some changes to views of the project area. Openings in the tree canopy of various sizes may be visible resulting from salvage harvests. The proposed treatment areas would be interspersed throughout the burned areas. Structure of the forest stands would change from dense stands of snags to a stand with more interspersed openings and less trees per acre.

Depending on the burn intensity and the amount of salvage harvests, the results may be a change in color of the overstory canopy from green to red and then later to shades of grays. Those different vegetation structures would

occur in a mosaic pattern across the project area. In the long-term, the combination of proposed harvesting with the burned effects would add diversity and interest to the vegetation patterns of the Moose area because areas of different size and ages of vegetation structures would result.

Direct and Indirect Effects

Alternative 1 (No action)

Due to no management activities, the existing visual conditions as described above would continue. Burned areas would revegetate and past harvesting areas would grow and begin to eventually fill in the openings. After many years of growth, a mature forest will fill in the burned areas and harvest openings.

In the short-term, Alternative 1 would result in a less visually diverse landscape than under alternatives proposed for timber harvest. In the long-term (more than 10 years), under no action, the landscape would take longer to recover to its previous forested character. Past human-related changes to the landscape would remain evident for many years.

A dramatic appearance would result from the diversity of grasses and shrubs mixed with the weathering snags. The areas that burned at low intensity would support individuals and groups of conifers that would act as focal points and add variety to the landscape.

After 30 years or more, the area should meet SILs for middle-ground and background viewing. Visual quality as seen from roads and trails (foreground) would be reduced as snags fall to the forest floor, creating a negative visual effect. The forest floor would appear cluttered, and most of the vertical element that the snags provided would be lost.

Accumulations of forest litter and competition from grasses and shrubs would slow the establishment and growth of new trees. Trees would begin to sprout within the fire area where seed sources exist. Areas lacking seed sources would remain in grass and shrub form until trees can establish themselves. It may take the landscape 100 years or more to recover to its previous forested character. Natural reforestation would result in random spacing and distribution of species.

Areas harvested before the fire would recover their pre-fire visual condition quite rapidly as planted trees, natural regeneration, and shrubs “green up.” Many of these areas also have islands of regeneration that survived the fire that would add to the viewing diversity.

Alternative 2, 3, and 5

As viewed from the selected viewpoints, the effects of Alternatives 2, 3 and 5 create similar results and therefore are analyzed together. Alternatives 2 and 5 propose to salvage over 2428 acres of trees, and Alternative 3 would salvage 2266 acres. All units would be evaluated for regeneration needs to ensure rapid recovery to a forested condition. The majority of the proposed treatments in the Big Creek drainage are not visible from the North Fork Road; however, many of the treatments would be visible from the Big Creek Road, which is considered a secondary travel route. Units 67, 68, 69, 2, 3, and 4 are all located along the North Fork Road.

These alternatives propose a minor amount of salvage harvest in the Wild and Scenic River corridor along the east-side of the North Fork Road (units 67, 68, and 69, totaling 15 acres). These units are not readily visible from the North Fork River. Only beetle-infested trees would be removed in these three areas; this would affect less than 50% of the total trees still standing. Foreground views into these areas may be apparent to drivers along the North Fork Road, but stumps would be low or angled cut away from view of the North Fork Road and slash treatments would also occur shortly after logging is finished. Some people may notice these changes to the landscape, but the rate of travel in vehicles is somewhat faster than along other Forest roads depending on road conditions. Some improved views into Glacier National Park would be available if some of the blackened trees are removed. The salvage treatments in these units meet the intent of the Wild and Scenic River Plan which does allow some vegetative

manipulation in the corridor (refer to the Wild and Scenic River analysis in this chapter).

Units 2, 3, 3A, and 4, on the west side of the North Fork Road, would have less trees on site after completion of salvage treatments than those units on the east-side of the North Fork Road (as described above). Patches of trees would be left while other trees between the patches would be removed. These units do not provide views into Glacier National Park. Units 3, 3A, and 4 were more severely burned resulting in deeply blackened boles and crowns totally consumed by the fire than what occurred in unit 2. A moderately severe fire that left some green boles and more scorching in the crowns affected unit 2. Salvage treatments in unit 2 would be less apparent to drivers along the North Fork Road than the other two units because some remaining live trees would not be removed in salvage treatments. Many of the live and dead larch would also be left on site after treatments. Units 3, 3A, and 4 would appear more open with less blackened trees than what occurs now. Approximately 20 to 40% of the blackened trees would remain on site after salvage. Patches of trees would be left nearer the North Fork Road to help screen some of the salvage harvest activities. Stumps would also be low or angled cut away from view of the North Fork Road and slash treatments would occur shortly after logging is finished. Since tractor logging is the method being used to log unit 2, more unmerchantable trees would be left standing than what would occur with skyline or helicopter logging as would take place in units 3, 3A, and 4.

Many of the other proposed salvage units in Alternatives 2, 3, and 5 are visible from the Big Creek Road; some are adjacent to the road and some are located on the slopes above the creek. The units located in the Lookout and Vogt Creek drainages are more visible from Big Creek Road than those units located on the north side of Big Creek, particularly those higher on the slopes (many of these uphill units located in inventoried roadless are not very visible due to topography; roadless harvest is not included in Alternative 3). Most of the logging methods proposed in the Lookout and Vogt creek areas would use skyline or helicopter logging systems. Skyline logging systems normally transports logs in steep areas to a landing using an overhead system of cables to which logs are attached and carried through cable corridors dispersed throughout the unit. In green forest stands with more pronounced tree crowns, the corridors may leave fan-shaped, straight vertical lines on the landscape. However, because of the blackened landscape and lack of tree crowns, these fan-shaped lines would not be very apparent. In addition, some trees would be removed in a lateral direction resulting in a feathering appearance of these corridors. Yarding on snow would help to mitigate any anticipated logging impacts.

Yarding logs via helicopter creates minor ground disturbances and therefore shows little impact to the visual resource (no roads, skid trails, cable corridors). Using helicopter logging in sensitive viewing areas facilitates meeting the goal of Retention/Partial Retention VQO. All units in inventoried roadless areas would be salvaged by helicopter. Winter logging is an allowable activity in Alternatives 2, 3, and 5 and may mitigate the visual effects from ground-disturbing activities more so than logging that may occur during the summer months.

Although, the fire burned through a portion of the campground, the effects are minor. The dense thickets of small trees remain in the same state as before the fire. The action alternatives propose thinning and fuels reduction to create some openings and a more diverse vegetative pattern.

No new road or temporary road construction would occur for any alternative for this project. The effects of roads are not a concern in meeting the guidelines of the Scenic Integrity levels.

Alternative 4

Although short-term visual effects described above are higher than in the other action alternatives, this alternative takes longer for the visual landscape changes to soften, because fewer openings would be created than in the other action alternatives (1793 salvage acres proposed). It also creates fewer opportunities for mid-ground and background viewing in the long-term. However, this alternative proposes more helicopter logging than the other alternatives; which consequently causes less visual short-term change than if other logging systems were used. Conversely, this alternative does not allow for winter logging which helps to soften the short-term effects from salvage logging.

Alternative 4 proposes no logging within the Wild and Scenic River corridor, inventoried roadless areas, or the Big Creek Campground. Therefore, the short-term changes in these areas, such as stumps, logging corridors, or skid

trails would not occur. Alternative 4 also propose no fuel reduction treatments in the campground and would not change the dense closed-in feeling near the camping sites.

Cumulative effects

As mentioned earlier, past harvests, building roads, and other management activities have placed unnatural shapes and textures on the landscape, both on national forest system lands and on private lands. Past fire activity, especially the Moose Fire, has also changed the look of the landscape.

Foreseeable actions affecting scenery include timber harvest on State of Montana lands within the fire perimeter but outside the project area.

All of the action alternatives in this project propose to leave both live and dead standing trees and logs throughout the project area. Where tree removal would occur, patches of live and dead trees would remain on site to help soften the effects from the salvage activities. Also, conifers would be planted in some areas to help speed regeneration. The planting, plus expected natural regeneration, would help to screen out views of stumps and debris in probably 5 to 10 years.

One temporary road originally proposed in Alternatives 2, 3, 5 was dropped from the project. This would result in no negative visual effects from road building.

Visual changes from the effects of the fire would occur whether the changes are natural or induced by humans. In approximately 30 years, after the majority of the snags have fallen to the ground and trees and shrubs have recovered to a height of 20 feet or more, in most situations there would be little difference in the appearance between harvested areas and areas that recovered naturally.

4. Regulatory Framework and Consistency

The Forest Plan (page II-17 and II-18) establishes Forest standards and visual quality objectives (now referred to as scenic integrity levels):

“In each management area, meet or exceed the recommended VQO. Where management area goals and objectives can be fully achieved and a higher VQO met without increased costs or reduced future options, the higher VQO should be achieved....Special concerns due to catastrophic events would be handled on a case-by-case basis.” Guidelines for meeting VQOs or scenic integrity levels is based on the Visual Management System developed by the U.S. Forest Service in: *Landscape Aesthetics - A Handbook for Scenery Management Number 701 (1995)*.

All alternatives have undergone a visuals resource analysis guided by the above guidelines and were found to be in compliance with the management goals and VQOs established by the Forest Plan