BROADAXE EA – VISUAL QUALITY VQ-4

Revised 9/13/05

REGULATORY FRAMEWORK

Scenery management direction is contained in the Idaho Panhandle National Forests Land and Resource Management Plan of 1987 (Forest Plan). Forest-wide standards for visuals include:

1. Meet adopted visual quality objectives. Exceptions may occur in unusual situations; these will be identified through the project planning process involving an ID Team. Examples of some exceptions are areas where past management practices make it impractical to meet the adopted visual quality objectives (VQO), and large areas where the mortality rate for timber is very high. Mitigation measures should be developed for areas when VQOs are not met.
2. The visual resource has been evaluated based on visual sensitivity levels assigned to travel routes, use areas, and water bodies in and adjacent to the IPNF (See Appendix D). Adjustments in VQO boundaries based on project-level analysis will conform with principles in FSM 2380.

Managing for scenery is an integral activity in management areas (MA) also and is described in terms of meeting Visual Quality Objectives (VQOs). Each MA has a range of VQOs that define the degree of acceptable alternation to the characteristic landscape. The eleven units of the proposed Broadaxe project area are in MAs 1, 6 and 9. MAs 1, 6 and 9 include lands of low to high visual sensitivity. The highest visual concerns for the proposed Broadaxe units are from viewpoints along the Gold Pass portion of Forest Highway 50 (FH 50). The project area VQOs of Retention (R) and Partial Retention (PR) reflect the high sensitivity for landscape appearance along this route.

GEOGRAPHIC AND TEMPORAL SCOPE OF THE ANALYSIS

The geographic scope of the scenery analysis (existing condition, direct, indirect and cumulative effects) for the Broadaxe Project was confined to boundaries of the project area while taking into consideration the appearance of the surrounding natural landscape. The temporal scope of the analysis is confined to the decade following a decision.

AFFECTED ENVIRONMENT

Anaylsis Methods

VQOs were established during the Forest planning process and mapped by computer. The mapping was based on the area seen from sensitive travel corridors and other features having a high visual sensitivity level. Visual Quality Objectives were assigned according to guidance provided in the Visual Management Handbook, Chapter I of the National Forest Landscape Management Series (USDA Forest Service, 1974).

As of December 1995, The Scenery Management System (SMS) Agriculture Handbook Number 701 "Landscape Aesthetics, A Handbook for Scenery Management " officially replaced the Visual Management System (VMS) defined in Agriculture Handbook #462 as the USFS visual resource guide. The Idaho Panhandle National Forests (IPNFs) are

currently under the 1987 Forest Plan. Until a revised or new Forest Plan is adopted, both analysis tools are necessarily referenced. The new SMS expands on the original VMS concepts, integrating scenery management with ecosystem management.

This situation necessitates use of VMS terminolgy in combination with equivalent SMS terminolgy. For clarification purposes, the old VMS terms will be used, followed by the new SMS equivalency. For example, the term 'VQO' will be followed by its equivalent 'Scenic Integrity Objective' (SIO) in parenthesis.

Effects to the scenic resource were measured using the following criteria or indicators:

- Would activities meet established Forest Plan VQOs (SIOs) and what design features would be needed to accomplish this?
- What changes to the existing landscape character would occur because of proposed activities?

Variety Class (Scenic Attractiveness)

Variety (SA) classifications are: Class A- Distinctive; Class B- Common (and/or Typical), and Class C- Indistinctive (Undistinguished).

> Class A – Distinctive: Areas where landform, vegetation patterns, water characteristics and cultural features combine to provide unusual, unique or outstanding scenic quality. These landscapes have strong positive attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance.
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> Class B - Typical: Areas where landform, vegetation patterns, water characteristics and cultural features combine to provide ordinary or common scenic quality. These landscapes have generally positive attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance. Normally they would form the basic matrix within the ecological unit.
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> Class C – Indistinctive: Areas where landform, vegetation patterns, water characteristics and cultural features have low scenic quality. Often water and rockform of any consequence are missing in class C landscapes. These landscapes have weak or missing attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance.

The characteristic landscape of the Broadaxe Project Area units is all Class B, Common or Typical Variety Class (SA).

EXISTING CONDITION (EXISTING SCENIC INTEGRITY)

Landscape Character

Landscape character describes the visual (and cultural) image of a geographic area. It consists of the physical, (biological, and cultural) attributes that make each landscape identifiable, or unique. The combination of vegetative patterns, landforms, rock formations, waterforms, (and cultural values) constitute an area's landscape character.

The Broadaxe Project Area is located in the Upper St. Joe River Subsection of the Bitterroot Mountain Section of the Northern Rocky Mountain Forest Coniferous Forest Alpine Meadow Province in the southern part of the Idaho panhandle. It is located in the Spokane River Basin, a component of the upper Columbia River Basin.

The landscape character of the Broadaxe Project Area is forested landscapes that have been heavily modified by fire, extensive timber harvest and road/trail construction.

Landforms

Volcanic uplifting created the characteristic landforms of the Broadaxe Project area landscape. Steep sided slopes and narrow, incised valley bottoms are typical of the area.

Waterforms

The analysis area does not contain waterforms of any significance.

Vegetation

Wildfire, subsequent wildfire suppression efforts, logging, and associated road development activities are the driving forces that have shaped vegetative patterns within the Upper St. Joe.

Within the proposed project area, lodgepole pine (*Pinus contorta* Series) dominates the landscape with half the stands predating the1910 fire and a tenth of the total stands originating within the last ten years. There is high mortality in the lodgepole pine over a larger area because of an on-going mountain pine beetle infestation.

Cultural Elements

The primary cultural element within the St. Joe River corridor is Forest Highway 50, a double-lane, paved road that goes between St. Maries, Idaho and Gold Pass. At Gold Pass it becomes Little Joe Road 282 that splinters off I-90 a mile and a half outside of St. Regis, Montana. This is the main transportation conduit linking the small population center of Avery, approximately 40 miles down river from the analysis area and more than a dozen USFS campgrounds and points of interest. Myriad trail systems, including National Recreation Trail Systems can be accessed from FH 50 or by the numerous roads that intersect FH 50.

Landscape Visibility

Landscapes are viewed to varying degrees from different locations, and subsequently differ in perceived importance. To assist in scenery analysis, Sensitivity Levels (Concern levels) are used to rank this importance. Sensitivity (Concern) Levels are a measure of the degree of public importance placed on landscapes viewed from travel ways and areas of use. The levels are classified as High, Moderate, or Low, calibrated on the importance of the travel route, the volume of use, duration of the view, and connection to USFS land. Travels routes importance is calibrated on a numeric scale, with primary travelways rated as Level 1 - Highest Sensitivity (High Interest in Scenery), Level 2 - Average Sensitivity (Moderate Interest in Scenery), and Level 3 – Lowest Sensitivity (Low Interest in Scenery). Table 1 lists the currently identified roads, trails, recreational sites, and waterways with High Levels of Sensitivity (Concern) associated with the Broadaxe Project Area.

Table 1 - Sensitivity Levels (Concern Levels)

Feature	Forest Plan Sensitivity Level	Newly Identified Sensitiveity Level
St. Joe River / Gold Pass Road (FH 50)	1	None

Visual Quality Objectives (Scenic Integrity Objectives)

Visual Quality Objectives (SIOs) consist of five (six) levels that describe the degree of modification acceptable for a given area, according to the Forest Plan. VQOs range from Preservation (Very High Scenic Integrity) to Modification (Very Low Scenic Integrity). The levels are: Preservation (Very High SIO), Retention (High SIO), Partial Retention (Moderate SIO), Modification and Maximum Modification (Low or Very Low SIOs) and (Unacceptably Low SIO).

The Forest Plan VQO mapping was digitized and placed in a VQO GIS data layer for the project area. See the project file map showing site-specific VQOs for the area (VQO Map). Table 2 summarizes the gross acreages within the project area of each of the five scenery integrity levels previously described.

Table 2 - Forest Plan VQOs (Scenic Integrity Objectives) **of the Broadaxe Project**

VQO (SIO)	Proposed Harvest Acres	Percent of Proposed Harvest
Preservation (VH)	0	0
Retention (H)	147	29
Partial Retention (M)	362	71
Modification (L)	0	0
Maximum Modification (VL)	0	0

ENVIRONMENTAL CONSEQUENCES

Introduction

Land management activities can affect the scenic resource by creating contrasts - between natural or naturally-appearing forested landscapes and those unacceptably modified by management activities. These contrasts consist of changes in line, form, color, and texture of the vegetation and soil. The effects these alterations have are somewhat dependent upon individual values. In general, a specific VQO (SIO) can be achieved by decreasing the visual contrast of the deviation viewed.

Species Designation / LPP removal: This type of treatment may not meet Retention VQOs (High SIO) when placed in foreground viewing zones. It may achieve Partial Retention (Moderate SIO) in the middle ground or background viewing areas if unit boundaries blend well with surrounding vegetation patterns and topographic features including any natural openings.

Prescribed Burning: The effects of burning activity slash or understory vegetation can be short-term, lasting one growing season, if the shapes of burned units blend with existing topography, natural openings, and surrounding vegetation texture, and avoid straight lines and uniformly geometrical shapes. Strong contrast in texture can result in regeneration areas where straight lines or strongly uniform geometric shapes are created. If natural appearing openings are created during harvest, signs of treatment can be absorbed into surround landscape within a decade. Regeneration can appear natural within units within a decade from treatment.

No Action

The visual characteristics of the area would continually change as the natural vegetation proceeds through normal life cycles. Insect and disease damage would become more - prominent as openings become larger. The likelihood of high-intensity wildfire would increase as fuel loads increase due to large quantities of dead and dying trees. Increased fuel loads would increase risk of high-intensity in the surrounding stands of lodgepole and other healthy species. High-intensity fires could threaten soil virility and potential for future reforestation success.

The upper Broadaxe drainage is progressing through a naturally-occurring mountain pine beetle infestation. Depending on how the pine beetle population progresses it could leave visitor expectations for scenery unmet. In stands that have a higher mixed-species component, the mountain pine beetle infestations will act as a thinning agent.

Proposed Action

The Broadaxe proposal is to salvage harvest 509 acres of dead, dying and high risk (expected to die within 10 years) lodgepole pine. This proposal is in response to a mountain pine beetle outbreak that has been occurring in the project area for several years. It has resulted in high levels of mortality in the lodgepole component within these stands.

Fuel treatments would vary from whole tree yarding to jackpot and broadcast burning. Species other than lodgepole would be protected as much as is feasible during the harvest and fuels treatment process.

It is expected that natural regeneration would occur over the next decade or two. This would result in the openings gradually filling in. Some tree planting (western white pine and western larch) would be done in some openings, thus hastening the recovery process and promoting species diversity.

Other stands within the Broadaxe and Gold Creek drainages have mountain pine beetle infestations. These stands were not selected for harvest at this time because of location. Required road construction and logging systems needs complicate current capability for treating them. As a result, these stands will develop openings more gradually. Other stands have a higher mixed species component, and the mountain pine beetle will act as a thinning process for these stands.

Visual Quality Objectives for the 509 acres of proposed harvest are 147 acres (29%) in Fg1B/Retention (a High SIO) and 362 acres (71%) in Mg1B/Partial Retention (a Moderate SIO).

Units 1 and 2 are contiguous and are located between FH 50 and the state line west of Gold Pass. Together, they comprise 89 acres of which 62 acres (70%) are in foreground Retention (High SIO) and the remaining 27 acres (30%) are in Mg Partial Retention

(Moderate SIO). The percent of basal area in lodgepole pine is 83 %, of that, 77% is dead. Ground slope varies from 25% to 45%. This would allow use of a preferable mechanized cutting system, a shear or clipper, allowing cuts to be made flush to the ground, thereby achieving less appearance of any change. Units 1 and 2 are to be jackpot burned. Care would be needed to protect any residual trees.

Units 3, 4, and 11 are contiguous and are southeast of Gold Pass with Unit 4 located along the state line. Proposed Units 3 and 11 lie below Road 3719 and Unit 4. Together they comprise 84 acres, of which 78 acres (93%) are Retention (High SIO) and the remaining six acres (7%) are in Partial Retention (Moderate SIO). The percent of basal area in lodgepole pine is 60%, and of that, 64% is dead. Unit 4 would be a tractor unit with a higher proportion of basal area in species other than lodgepole pine; therefore most stumps would not be visible from FH 50, and a higher VQO might be achievable. Skid trails would need to be angled away from Gold Pass to help mitigate their appearance and camouflage their existence. Units 3 and 11 would be broadcast and/or underburned. Care would be needed to protect any residual trees.

Units 3 and 11are proposed skyline units to the south of Road 3719. A vegetative visual buffer would be left below FH 50 and Road 3719 at the northernmost edge of Unit 3. Skidding corridors would be angled to the east so that any straight lines from skidding would not appear obvious. All unit boundaries would be feathered and irregular in shape.

Units 5, 6, 7, 8 and 10 are east of Gold Pass along the state line, below Road 391 and above and below Road 3719. Together they comprise 302 acres of which 295 acres (98%) are in Partial Retention (Moderate SIO) with the remaining seven acres (2%) in Retention (High SIO).

Lodgepole pine comprises 64 percent of the basal area in these units, and 80% of that is dead. Portions of Units 5, 6, and 7 are located along the Montana/Idaho state line and would be a mix of tractor and skyline units. These areas have more basal area in other species. This would help achieve feathered edges, break-up straight lines from harvest operations and promote more natural appearances. Skidding corridors would be kept to widths of 10 to 12 feet and angled up the drainage to help reduce visual impacts of skidding from vantage points along FH 50. All unit boundaries would be feathered and irregular in shape.

Unit 9 would be 34 acres in size. Of that, 50 percent of the basal area is in lodgepole pine, with 87 percent dead or dying. Unit 9 would be skyline logged to Road1450, with skidding corridors angled up the drainage to conceal their full view from FH 50 and Gold Pass. All unit boundaries would be feathered and irregular in shape. Slash would be treated with a combination of whole tree yarding and broadcast burning. Care would be needed to protect any residual trees.

Visual Quality Objectives

Units 1, 2, 3, 4 and 11 have Retention VQOs (High SIOs). It is unlikely Units 1 and 2 would meet the VQO of Retention within the next three to five years. However, as the existing residual trees grow and new regeneration becomes established, the low end of Retention (High SIO) would likely be attained, with full Retention (High SIO) possible within the decade. Forest-wide standards for visual quality allow treatments that do not meet visual quality objectives in large areas where the mortality rate for timber is very high (Forest Plan II-25). Units 3 and 11 would likely meet the low end of Retention (High SIO) because of the existing vegetative visual screen along FH 50. As regeneration

becomes established, full Retention (a High SIO) will likely be attained. Unit 4 would meet Retention (High SIO) after proposed activities because of its location along the ridge and its higher basal area composition of species other than lodgepole pine.

Units 5, 6, 7, 8, 9 and 10 have Partial Retention VQOs (Moderate SIOs). Units 5, 7 and the north side of 6 are on a ridgeline. Because of a higher basal area of species other than lodgepole they should meet Partial Retention (Moderate SIO). The south ends of Units 6 and 8 would meet the low end of Partial Retention (Moderate SIO) and are likely to improve over time as regeneration becomes established. Unit 9 would meet Partial Retention (Moderate SIO) because of its location and because half of the basal area is made up of species other than lodgepole pine.

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