

Cliff Knox

Visual Resources Report

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for:
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Malheur National Forest

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Introduction

This report describes scenery values and effects associated with the Cliff Knox Project. Viewing scenery is one of the most popular recreation activities of visitors to the Malheur National Forest (National Visitor Use Monitoring 2019). Scenery is a primary public value and legacy within national forests, benefitting people through improved quality of life, recreational enjoyment, and tourism economics.

Visual resources are defined in the Malheur National Forest Land and Resource Management Plan (hereafter Malheur Forest Plan) as: “the composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal that the unit may have for visitors.” Managing visual resources is managing the scenic views visitors expect within specific areas. The Malheur Forest Plan specifies the desired level of management based on physical and sociological characteristics of a management area. This is the visual quality objective, and it refers to the degree of acceptable alteration to the characteristics of the landscape. This section will also evaluate the scenic stability of the visual resource. Scenic stability measures sustainability of the valued scenic character and its attributes using six levels from very high (where all attributes are sustainable) to no stability (where no dominant attributes are sustainable through time). Scenic stability recognizes the often subtle, incremental changes that can severely diminish or eliminate valued scenic character. It uses a historical range of variation as a reference baseline for sustainability.

Regulatory Framework

The National Environmental Policy Act of 1969 (NEPA) states that it is the “continuing responsibility of the Federal Government to use all practicable means to assure for all Americans, aesthetically and culturally pleasing surroundings.” NEPA also requires “A systematic and interdisciplinary approach which would ensure the integrated use of the natural and social sciences and the environmental design arts into planning and decision-making, which may have an impact on man’s environment.” To accomplish this, Federal laws require all Federal land management agencies to consider scenery and aesthetic resources in land management planning, resource planning, project design, implementation, and monitoring.

Several USDA handbooks have been developed to establish a framework for management of visual resources, including, but not limited to:

- National Forest Landscape Management, Volume 2, Chapter 1: The Visual Management System (Agriculture Handbook 462, USDA Forest Service 1974).
- Landscape Aesthetics, A Handbook for Scenery Management (Agriculture Handbook 701, USDA Forest Service 1995).

The analysis in this Visual Resources Report applies current National Forest Scenery Management methodology in conjunction with existing Malheur Forest Plan direction (USDA Forest Service 1990). This includes scenery sustainability concepts described in Landscape Aesthetics, A Handbook for Scenery Management, Agriculture Handbook 701 (USDA Forest Service 1995) and Recommended Scenery Management System Refinements, Appendix J (USDA Forest Service 2007). This analysis relies on field studies and photography from the Cliff Knox planning area, and coordination with project interdisciplinary team members and consideration of public preferences for scenic quality. Integration of this scenery analysis will assure the Cliff Knox Project is consistent with scenery-related Malheur National Forest direction, Forest Service

policies, and applicable elements of Forest Service Visual Management and Scenery Management Systems.

Malheur Forest Plan

Forest Plan Goals (USDA Forest Service 1990, page IV - 1)

- Forest goal 9: Maintain and enhance the scenic character of the Forest through integration of the principles of landscape architecture and environmental design arts into forest land management.
- Forest goal 10: Provide and maintain pleasant visual experiences for Forest visitors consistent with public demand and natural landscape capabilities.

Forest Plan Objectives (USDA Forest Service 1990, pages IV - 15-16)

- Emphasize visual quality along all of the major corridors (sensitivity I) including portions of the Federal Wild and Scenic River corridors. Manage lands within view of these scenic routes under foreground retention and middleground partial retention visual quality objectives.
- Emphasize horizontal diversity in the visual corridors (both sensitivity level I and II). This will be experienced as one moves through the corridor, not as vertical diversity on every acre. Create this by developing a sequence of visual experiences utilizing group selection harvest techniques applied to small treatment units (0.25 to 5 acres) in foregrounds. The effect is to have a multi-aged appearance in the corridor.
- Manage unroaded areas and wilderness with sensitivity for the visual resource.

Forest-Wide Standards (USDA Forest Service 1990, page IV – 27)

- Forest-wide standard 25: The minimum visual quality objective for the Forest is maximum modification. This visual quality objective will apply unless otherwise specified.
- Forest-wide standard 27: Rehabilitate landscapes containing negative visual elements.

Management Area Standards (USDA Forest Service 1990, pages IV – 108-112)

- Management area 14, standard 2: Meet a visual quality objective of retention, partial retention, or modification for the visible and potentially visible areas.
- Management area 14, standard 6: Design and implement fish and wildlife improvement/maintenance projects to meet visual quality objectives.
- Management area 14, standard 9: Schedule timber harvest on portions of the management area classified as “suitable” for timber management. Design timber harvest and related activities to accomplish visual resource management objectives.
- Management area 14, standard 11: Emphasize uneven-aged timber management in the foreground distance zones. The overall affect will vary from natural-appearing to slightly altered. Manage foregrounds to meet a retention visual quality objective in sensitivity level I corridors to result in a natural-appearing visual condition. Manage the foreground distance zones in level II corridors to meet a partial retention visual quality objective to result in a slightly altered visual condition.
- Management area 14, standard 12 (“Notice of Correction” letter, January 31, 1995): No regeneration or overstory removal harvesting activities will occur in foregrounds of Sensitivity Level 1 or 2 Corridors until viewshed corridor plans have been completed. Exceptions to this may be made, consistent with Forest-wide Standard #3. Other silvicultural activities, such as salvage harvest, firewood removal, commercial thinning, precommercial thinning, pruning or prescribed fire, may be conducted after the appropriate environmental

analysis process has been followed. Visual management objectives will guide the design and implementation of all such activities.

- Management area 14, standard 14: Manage middlegrounds as slightly altered (partial retention visual quality objective) in sensitivity level I corridors.
- Management area 14, standard 16: Emphasize horizontal diversity of vegetation by developing a sequence of visual experiences to be viewed as one moves through the corridor. The desired effect is to have a multi-aged appearance in the corridor (both sensitivity levels I and II).
- Management area 14, standard 17: Apply the standards for ponderosa pine, mixed conifer, and lodgepole pine while managing foreground retention areas.
- Management area 14, standard 19: Apply the standards for ponderosa pine, mixed conifer, and lodgepole pine while managing middleground partial retention areas.
- Management area 14, standard 28: Plan and time treatments in foreground distance zones to minimize adverse visual effects.
- Management area 14, standard 29: Prescribe low intensity fire with minimal scorch when appropriate.
- Management area 14, standard 30: Manage residues in middleground and background distance zones to meet visual resource objectives which are compatible with reforestation and wildlife objectives.

Malheur Wild and Scenic River Management Plan

The Malheur River was designated as a Wild and Scenic River in the Omnibus Oregon Wild and Scenic Rivers Act of 1988. The Wild and Scenic Rivers Act directed the Forest Service to develop a comprehensive management plan for the designated river corridor which will preserve the free-flowing character of the river corridor, protect water quality, and provide for protection or enhancement of the outstanding remarkable values it contains. On August 7, 1992, a Decision Notice was signed that designates a management strategy for the Malheur Wild and Scenic River. This management strategy was incorporated into the Malheur Wild and Scenic River Management Plan through a Forest Plan amendment (Amendment 14 to the Malheur Forest Plan). The decision established a new management area, MA22b (Wild and Scenic River). This new management area replaced Management Area 22 in the Malheur Forest Plan for the Malheur River Corridor.

Forest Goal – Protect and enhance the outstandingly remarkable scenic, geologic, wildlife habitat and historic values of the river corridor. Preserve the free-flowing conditions of the river. Provide facilities for recreation use and access which do not detract from the recreation opportunity settings provided. Provide for improvements in water quality and native fish habitat. Use the corridor for interpreting area history and natural history to visitors.

Wild and Scenic River Standards (USDA Forest Service 1993, pages 8-10)

- Management area 22b, standard 23: The visual quality in the Scenic segment to be managed as semi-primitive, non-motorized is retention; however, structures and facilities necessary to meet the objectives of this management area may meet partial retention.
- Management area 22b, standard 30: The visual quality in the Scenic segment to be managed as roaded natural is retention; however, structures and facilities necessary to meet the objectives of this management area may meet partial retention.

- Management area 22b, standard 37: The visual quality in the Wild segment to be managed as semi-primitive, non-motorized is preservation; however, structures and facilities necessary to meet the objectives of this management area may meet partial retention.

Resource Elements, Indicators, and Measures

The analysis indicators for assessing effects of each alternative and for comparing alternatives are included in Table 1.

Table 1. Resource elements, indicators, and measures for assessing effects

Resource Element	Resource Indicator	Measure	Source
Visual resources	Scenic integrity (description below)	Qualitative discussion on degree of change	USDA Forest Service 1974, 1990
Visual resources	Scenic stability (description below)	Qualitative discussion on degree of change	USDA Forest Service 1990, 1995, 2007

Scenic Integrity is the degree to which the scenery is free from visible disturbances that detract from the natural and socially valued appearance, including disturbances because of human activities or extreme natural events inconsistent with the historic range of variability (USDA Forest Service 2007). Integrity is used to manage the attributes of landscape character vegetative pattern, form, line, color, texture, and scale.

Scenic integrity is measured on the Malheur National Forest through six graduated levels defined by the “visual quality objectives” within the U.S. Forest Service Visual Management System, Agricultural Handbook 462 (USDA Forest Service 1974). These scenic integrity levels can be applied in two ways: (1) to describe a degree of existing scenic integrity/disturbance or (2) to describe a minimum threshold for future integrity to be achieved. These levels and descriptors of how people perceive them are shown below.

Table 2. Scenic integrity as described by visual quality objective levels

Scenic Integrity Levels (Scenery Mgt. System)	Description	Visual Quality Objective (Forest Plan)
Very High (Unaltered)	VERY HIGH scenic integrity refers to landscapes where the valued landscape character “is intact”, with only minute if any deviations. The existing landscape character and sense of place are expressed at the highest possible level.	Preservation
High (Appears Unaltered)	HIGH scenic integrity refers to landscapes where the valued landscape character “appears” intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and on such scale that they are not evident.	Retention
Moderate (Slightly Altered)	MODERATE scenic integrity refers to landscapes where the valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.	Partial Retention
Low (Moderately Altered)	LOW scenic integrity refers to landscapes where the valued landscape character “appears moderately altered.” Deviations begin to dominate the valued	Modification

Scenic Integrity Levels (Scenery Mgt. System)	Description	Visual Quality Objective (Forest Plan)
	landscape character being viewed, but they borrow valued attributes such as size, shape, edge effect, and pattern of natural openings, vegetative type changes, or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.	

Scenic integrity is measured from sensitive viewpoints inventoried by the Malheur Forest Plan, and as supplemented by project level analysis. The project's thresholds for scenery disturbance apply only to views from these locations. These viewsheds are further divided into three distance zones, as described in Table 3.

Table 3. Viewing zones that apply to visual or scenery management

Distance zone	Description
Foreground	The portions of a view between the observer and up to 0.25 to 0.5 miles distant.
Middleground	The visible terrain beyond the foreground where individual trees are still visible, but do not stand out distinctly from the stand (approximately 0.5 to 4 miles).
Background	The visible terrain beyond the foreground and middleground where individual trees are not visible, but blend into the total fabric of the stand (approximately 4 miles to the horizon).

Visual objectives were set in the 1990 Forest Plan (page L-1, Appendix L) and the Malheur Wild and Scenic River Management Plan (USDA Forest Service 1993) for the portions of two visual corridors within the project area. Table 4 summarizes the key visual features, distance zones, visual objectives, and acres present in the project area. These are the areas that are addressed in the visual/scenery effects analysis for the Cliff Knox Project.

Table 4. Visual objectives and acres for each visual feature and distance zone

Visual Feature	Distance Zone	Visual Quality Objective/Scenic Integrity Level	Acres in the Project Area
Malheur Wild River Visual Corridor (Forest Plan MA22b)	Foreground	Preservation (Very High Scenic Integrity Level)	2,616
	Middleground	Retention (High Scenic Integrity Level)	634
Malheur Scenic River Visual Corridor (Forest Plan MA22b)	Foreground	Retention (High Scenic Integrity Level)	228
Wilderness Loop Visual Corridor (Forest Plan MA14)	Middleground	Partial Retention (Moderate Scenic Integrity Level)	16

Scenic Stability is the degree to which the desired scenic character can be sustained through time and ecological progression (USDA Forest Service 1995). For the project planning area, the existing scenic stability analysis focuses on the scenery attribute of vegetation, addressing its ecosystem conditions. Scenic stability of other scenery attributes, such as landform, rock features,

and atmospheric clarity are not involved in this evaluation, since they will change relatively little over time, regardless of ecosystem and human influences.

The Cliff Knox Project scenic stability evaluation addresses current ecosystem conditions and stresses identified by field observation, data on vegetation and fire history, and interdisciplinary input from the silviculture and fuels specialists. Assessing scenic stability for vegetation is guided by methods described in Appendix J – Recommended Scenery Management System Refinements (USDA Forest Service 2007), a supplement to the U.S. Forest Service Scenery Management System to sustain socially valued scenery within an ecosystem stewardship context.

There are six scenic stability levels that can be directly correlated to vegetation information in a planning area. Scenic stability is defined at the following levels:

- **Very High Stability** – All dominant and minor scenery attributes of the valued landscape character are present and are likely to be sustained.
- **High Stability** – All dominant scenery attributes of the valued landscape character are present and are likely to be sustained. However, there may be scenery attribute conditions and ecosystem stressors that present a low risk to the sustainability of the dominant scenery attributes.
- **Moderate Stability** – Most dominant scenery attributes of the valued landscape character are present and are likely to be sustained. A few attributes may have been lost or are in serious decline.
- **Low Stability** – Some dominant scenery attributes of the valued scenic character are present and are likely to be sustained. Known scenery attribute conditions and ecosystem stressors may be seriously threatened or have already eliminated the others.
- **Very Low Stability** – Most dominant scenery attributes of the valued scenic character are seriously threatened or absent due to their conditions and ecosystem stressors and are not likely to be sustained. The few that remain may be moderately threatened but are likely to be sustained.
- **No Stability** – Dominant scenery attributes of the valued scenic character are absent or seriously threatened by their conditions and ecosystem stressors. None are likely to be sustained, except for relatively permanent attributes such as landforms.

Methodology for Analysis

This analysis was completed using the framework of the USDA Forest Service Landscape Management Series Volume 2, Chapter 1, The Visual Management System. The terms visual/scenery resources and landscape characteristics are used interchangeably throughout the analysis and all refer to visual resources.

The planning area scenic values were inventoried using a variety of methods. These methods include driving through the planning area on the major and minor roads, review of previous data gathered for various projects, and geographic information system (GIS) information (i.e. fire history, location of visual corridors, geologic information, general vegetation maps, and water resource locations). All sources of information gathered provide a more complete command of the visual landscape in the planning area. The existing condition was used with descriptions of the proposed activities to determine the extent and duration of potential impacts on visual resources. The descriptions of the silvicultural and fuels analyses were reviewed and used as a reference to determine the degree of alteration to the characteristic landscape. GIS technology was used to analyze the proposed activities regarding visual quality objectives assigned to the area. Visual

quality objectives, distance zones, and visibility were determined for the project area using the Forest's GIS data. Incomplete data includes specific locations for landings or skyline cable corridors. Site specific effects cannot be determined. However, design features are in place to minimize impacts on scenery resources.

Spatial and Temporal Context for Effects Analysis

Temporal context of the analysis:

- Short-term – 1 to 5 years
- Long-term – 6 years and beyond

Spatial context was set by the Cliff Knox planning area boundary. Direct and indirect effects analysis were determined using this spatial extent.

Affected Environment

Existing Condition

Every landscape changes over time. In turn, the landscape vegetative character continues to change whether it is actively managed or allowed to evolve naturally. Vegetation management, as a major scenery attribute of the Cliff Knox planning area, offers opportunities for both scenery and ecosystem improvement. There has been a change in historic vegetative species and patterns as described in the Cliff Knox Project Silviculture Specialist Report. The changes are mainly attributed to past timber sales and fire exclusion. In a majority of the planning area, the resulting patterns are becoming less sustainable over the long term due to increasing risk of wildfire and disease outbreaks. These factors contribute to tree mortality and a degraded forest environment for recreation and viewing scenery.

Scenic Integrity

Malheur Wild and Scenic River Corridor

The Malheur Wild and Scenic River is 13.7 miles long, with 6.7 miles of Wild classification and 7 miles of Scenic classification. The entire Wild segment and a portion of the Scenic segment lie within the Cliff Knox planning area.

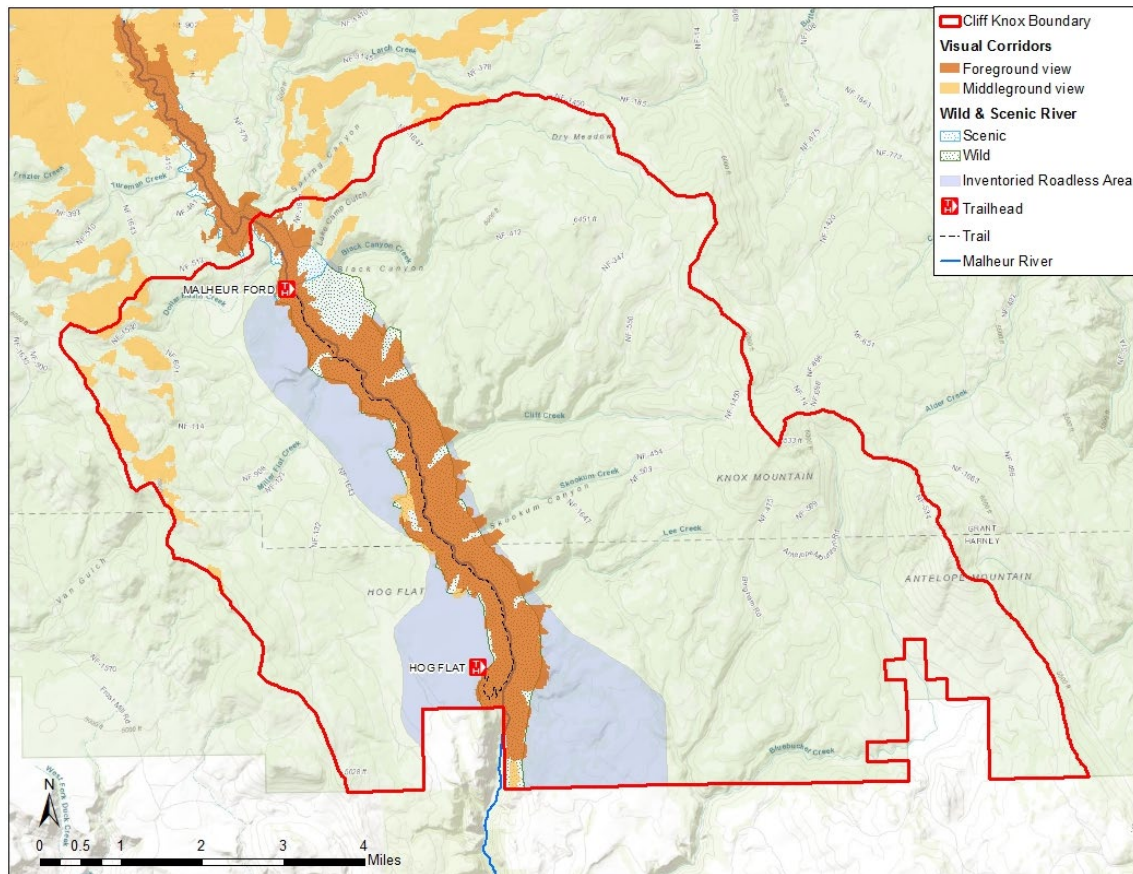


Figure 1. Map of Malheur Wild and Scenic River, inventoried roadless area, and visual corridors

The Wild and Scenic River was established to preserve the free-flowing conditions, provide appropriate recreational facilities, provide for improvements in water quality and native fish habitat, interpret area history and natural history, and to protect four outstandingly remarkable values. Congress identified these values and they were confirmed through a resource assessment process:

- Scenic – Spectacular scenic vistas from the canyon rim and from the river
- Geologic – Rugged, steep canyons, talus slopes, and rock outcrops
- Wildlife Habitat – Relatively undisturbed with a diversity of high-quality components including old-growth tree stands
- Historic Values – Early day logging evident by logging camps and high stumps, and traditionally used by Native American populations

The river corridor is characterized by a rugged and steep canyon ranging from 300 to 1,000 feet deep. The scenery of the river corridor is composed of combinations of water, landform, variety, and color of vegetation, and interesting old-growth tree stands. Evidence of man's presence within the canyon is limited. Scenic vistas from the canyon rims and views up and down canyon from the river are spectacular. There are occasional disturbances such as localized high stumps from past logging, clearings, and roadways; however, the overall landscape appears intact. The river corridor appears natural except for the denser forest structure altered only slightly by human activities which includes past timber harvest, and adjacent to the river corridor roads.

Scenic integrity is measured from the river corridor as identified in the Malheur Forest Plan and the Malheur Wild and Scenic River Management Plan. Views occur from the river and within the river corridor. The project's thresholds for scenery disturbance (Malheur Forest Plan Visual Quality Objectives) apply only to views from these locations. There are 2,844 acres of foreground and 650 acres of middleground within the Cliff Knox planning area. The lands within the corridor are considered entirely within Management Area 22b.

The river corridor appears natural, altered only slightly by human activities including National Forest System road 1651, Malheur Ford and Hog Flat trailheads, and the Malheur River National Recreation Trail. The scenery of the river corridor is composed of combinations of water, landform, variety and color of vegetation, and old-growth tree stands. The canyon geology is evident in the various rock outcrops, talus slopes and cliffs. The geologic formations of the corridor contribute to the scenic diversity of the landscape. The wildlife habitat of the corridor is unique and important because of relatively undisturbed conditions, and the location which provides connectivity between the Blue Mountains and Great Basin physiographic provinces and between adjacent lands above the canyon rims.

Within the Cliff Knox planning area, the river descends into a deep, enclosed canyon landform. Towering crags, cliffs, long talus slopes, stringers of vegetation, and steep ravines provide variety and form a highly textured, strong vertical element in the landscape. The surrounding vegetation is diverse including ponderosa pine, Douglas-fir, western larch, willow, and other deciduous plants. Variety in the form of light, seasonal color change in vegetation (larch trees turning gold in the fall and spring wildflowers), and observer positions (along the river or the canyon rim) are important variables within this landscape.

Along the Malheur River Trail, views are limited to the river, vegetation, and the towering canyon walls. In addition, there are panoramic views of the deep canyon from isolated locations along the rim of the canyon. Overall, this segment provides a high degree of visual diversity in landform, rockform, and vegetative patterns.

The existing scenic integrity meets the visual quality objective of the Forest Plan and has a range of scenic integrity levels from VERY HIGH to MODERATE. The foreground of the Wild segment of the Malheur River meets the preservation visual quality objective with very small-scale alteration that is not easily distinguishable. Areas of retention visual quality objective within the foreground of the Scenic segment of the Malheur River are intact. The middleground views from the river corridor are natural appearing with slight alterations that are small to medium in scale, meeting the partial retention visual quality objective.

Wilderness Loop Corridor

Scenic integrity of the Wilderness Loop viewshed, as inventoried by the Malheur Forest Plan, is measured from sensitive viewpoints along National Forest System road 16. The Cliff Knox Project includes 16 acres of middleground views in the northeast section of the planning area. The ponderosa pine and mixed conifer stands of this area provide a timbered landscape. Deciduous vegetation, primarily western larch, provides fall color and textural diversity.

The existing scenic integrity meets the visual quality objective of partial retention in the middleground views of the Wilderness Loop. The landscape appears slightly altered but the noticeable deviations remain visually subordinate.

Scenic Stability

Currently, there are trends in the planning area indicating that the scenic stability is in decline or rated low because the landscape has departed from historical reference conditions.

The predominant ecosystem stress influencing vegetation scenery attributes is nearly a century of wildfire exclusion. This stress has impaired many important scenery attributes (diverse, spacious, and fire-adapted forest canopies, large trees, meadows, and aspen) within widespread portions of the planning area. Continued stress will further impair and eliminate these socially valued scenery attributes.

The Cliff Knox planning area is inconsistent with, and trending away from, historical vegetation conditions and fuel profiles that are considered sustainable in this fire-adapted ecosystem (See Cliff Knox Project Silviculture and Fire, Fuels, and Air Quality Reports). The landscape within the project area had a historical fire regime of frequent low-intensity fires, which limited fire-intolerant trees, favored greater numbers of shade-intolerant trees and meadows with aspen, and removed understory woody debris. Many decades of fire exclusion have allowed a change in species composition and increased stand densities.

There is increasing risk to forested areas by insect and disease epidemics and greater fuel loads increasing the risk of large stand replacement fires. Sustainability of long-term scenery resources would continue to diminish. Natural processes associated with fire exclusion have played a role in the change in vegetation conditions and an increase in stand density. These conditions will make it difficult to keep wildfire starts from expanding rapidly and burning intensely. Fire suppression has resulted in a change in species and structural stage composition. These conditions pose a high risk of losing key components of the ecosystem and dominant scenic attributes such as the open, park-like stands of ponderosa pine and minor scenic attributes such as the aspen stands.

Because the Cliff Knox planning area's major scenic attributes share a moderate risk based on their condition and ecosystem stress, the scenic stability of the planning areas correlates best with the low scenic stability level definition below:

- **Low stability** – Some dominant scenery attributes of the valued scenic character are present and are likely to be sustained. Known scenery attribute conditions and ecosystem stressors may seriously threaten or have already eliminated the others.

Other Undeveloped Lands

Areas identified as other undeveloped lands within the project footprint were not identified to have special or unique visual resource values. Effects to the visual resource from proposed project treatment activities would not differ based on the description of land (undeveloped). Therefore, the description of effects are not differentiated further in the analysis.

Desired Condition

The optimal conditions for scenic character in the Cliff Knox planning area would offer a more open and diverse forest canopy representative of historical ecosystem conditions, typically displaying more large conifers and more wildfire-adapted species such as western white pine, ponderosa pine, and western larch, and more aspen groves and meadows interspersed within the planning area's existing conifer stands, meadows, and riparian areas. The presence of existing small and intermediate-sized trees would be reduced, especially the trees that crowd and weaken the more attractive larger trees, meadows, and aspen. Small and moderate sized irregularly shaped

openings and grass-forb meadows up to one-quarter acre in size would be more frequent, and often bounded by diverse, historical canopies including full-crowned, mature conifer and aspen trees. Last, reintroduction of wildfire is desired, primarily resulting in fine-scaled, irregular shaped, and low- to moderate-intensity burn patterns that would better reflect historical conditions.

These scenic attributes would be distributed over the landscape to offer a more attractive character in terms of vegetative forms, colors, canopy texture, and immediate foreground spatial variety, while improving and restoring the overall scenic character. These conditions would also increase the ecological resilience and stability of vegetation scenery attributes that are central to the planning area's scenic character, image, and identity.

Scenic Integrity

Malheur Wild and Scenic River Corridor (MA22b)

The visual quality objectives for the Malheur Wild River Corridor are preservation (very high scenic integrity level) in the foreground and retention (high scenic integrity level) in the middleground. The visual quality objectives for the Malheur Scenic River corridor are retention (high scenic integrity level) in the foreground and partial retention (moderate scenic integrity level) in the middleground. Management activities are permitted, but deviations must repeat the form, line, color, texture, and pattern that is common to the landscape character of the area. All management activities will be conducted according to the concepts of landscape ecology and scenic resource planning and will meet visual quality objectives. Projects will blend with the natural terrain and avoid stark contrast with the surrounding landscape.

The Malheur Wild and Scenic River will provide a river setting where future generations can still experience an area unaffected by development activities and enjoy the scenic beauty of a river corridor. The Scenic River segment of the corridor has a natural or near natural appearance. Where timber harvest has occurred, trees are in clumps, groups, or naturally spaced. Stumps are flush-cut to the ground and, therefore, not evident. The Wild segment of the corridor will be natural. Alterations in the landscape from management activities are not evident. The river corridor continues to provide an old-growth character setting.

The Malheur Wild and Scenic River Management Plan (USDA Forest Service 1993) describes a desired future condition in 10 and 50 years.

After 10 years:

- Visitors continue to see large-diameter trees, some multi-storied forests, and grasslands bisected by the shrub-lined, clear-flowing Malheur River.
- The Scenic River segment of the corridor has a natural or near natural appearance. Where timber harvest has occurred, trees are in clumps, groups, or naturally spaced. Stumps are flush-cut to the ground and, therefore, not evident.
- The Wild River segment of the corridor has a natural appearance. Alterations in the landscape from management activities are not evident. There is less uniformity and evenness; a coarser texture is provided in areas with dead trees. The old-growth character of the river corridor has been maintained.

After 50 years:

- A natural-appearing mosaic of vegetation, with varying textures and openings created through natural cycles, is evident. Only subtle changes in the appearance of the landscape are noticeable.
- Ponderosa pine is still the dominant overstory tree species within the river corridor. Large-diameter pine is common, but less evident than in the past in 50 years. A mixture of fir or lodgepole pine is dominant on some sites. The river corridor continues to provide an old-growth character setting.
- In the Wild segment where timber harvest has not occurred, the appearance of the corridor is dominated by large-diameter trees, some multi-storied forest, and grasslands. Areas of dead trees have increased the texture of the natural landscape.
- Effects of fire are periodically evident. The health and vigor of timbered stands have been maintained with prescribed fire. Visual fire effects, such as charred logs and bark, are moderately evident in some places.

Wilderness Loop Corridor (MA14)

The visual quality objective for the Wilderness Loop Corridor middleground is partial retention (moderate scenic integrity level). Management activities are permitted, and the results of the activities on the natural landscape can appear slightly altered to the average viewer as viewed from National Forest System road 16. Noticeable deviations must remain visually subordinate to the landscape character being viewed.

Scenic Stability

The Malheur National Forest has standards and guidelines for scenic stability goals as developed in Forest Service Handbook 701. The goal is to begin increasing stability towards the moderate level for the planning area.

- Most dominant scenery attributes of the valued landscape character are present and are likely to be sustained. Some attributes may have been in decline or lost.

The following scenic character goals would move ecosystem conditions towards an optimal and more sustainable desired scenic character.

- Retain and restore the historical “ecologically established” vegetation scenery attributes by reducing vegetation density, increasing large tree prominence, vitality, and presence, and increasing overall vegetation diversity (size/age, species composition, and more diverse canopy spatial/patch patterns, openings, and edge densities).
- Increase ecological resiliency and scenic variety within the forest canopy by shifting vegetation and fuels conditions towards the project planning areas ecologically established historical range. This would be achieved through wildfire cycle restoration and would result in more open canopies, improved spatial/species diversity, and an increase in larger and more fire-adapted trees.

Environmental Consequences

Methodology

Indicators of effects of the Cliff Knox Project on scenery include: (1) a description of changes to scenic integrity and (2) a determination of scenic stability (changes in the sustainability of scenery attributes). To determine these effects, Forest Service Scenery Management System (USDA Forest Service 2007) methods are applied to indicate changes in scenic character and its

sustainability (scenic stability). Changes in scenic integrity are measured using criteria established by the Forest Service Landscape Aesthetics, A Handbook for Scenery Management, Agriculture Handbook 701 (USDA Forest Service 1995) and Forest Service Visual Management System (USDA Forest Service 1974) as visual quality objectives.

Spatial and Temporal Context for Effects Analysis

The Cliff Knox planning area is the spatial extent for scenic stability analysis because this resource applies to the entire planning area. Views from the Malheur Wild and Scenic River corridor and National Forest System road 16 are the spatial analysis area for scenic integrity. Descriptions of short-term scenery effects apply to those lasting less than 10 years; long-term scenery effects span 10 to 100 or more years.

Past, Present, and Foreseeable Activities Relevant to Cumulative Effects Analysis

Past, present, and foreseeable future activities that contribute to cumulative effects on scenery resources include regeneration harvests, thinning, prescribed fire, and grazing practices that overlap in space and time with Cliff Knox Project proposed actions. The timeframe for these various, overlapping effects ranges from the time of implementation through the enduring timespan of long-term effects. The timespan of the effect can vary depending on the activity; however, most effects are not noticeable to the average forest visitor within five years. The spatial bounding is the planning project boundary, as the activities are visible from commonly used routes.

Past Activities

Settlement in the John Day area by European immigrants began in the mid-1800s, initially by ranchers and people mining for precious metals (mostly gold). Formation of the national forests in the early 1900s brought timber harvesting, fire suppression, and changed the nature of the grazing use. Past harvest activities have created long-term visual effects in the area that still persist within the Cliff Knox Project. Substantial timber harvesting that facilitated the removal of large ponderosa pine, western white pine, western larch, and Douglas-fir (generally early seral species) in the Cliff Knox planning area began in the 1920s. Since then, late seral species have grown in these areas, increasing stand densities. So, while perhaps not immediately apparent to the casual observer, stands are denser and contain a different species composition than would have been experienced historically.

Fire suppression over the last century has altered the natural fire regime. Historically, Native American burning and lightning strikes during thunderstorms were the dominant fire disturbance mechanisms in the planning area. The extent of ground fires likely varied from small areas (less than 10 acres in size) to entire slopes covering thousands of acres depending upon the season, topography, climatic conditions, and burn interval. These fires were agents of stability, supporting the health and vigor of fire-resistant species (ponderosa pine, western larch, and to a lesser extent Douglas-fir) and developing more open, park-like stands with little vertical structure. They also kept the ground vegetation, dominated by fire-adapted grasses such as pine grass and elk sedge, from accumulating fuel. Young, shade-tolerant species were generally susceptible to these fires due to their thinner bark and persistent, low hanging crown characteristics.

The historical norm of frequent, low-severity fires in this region was extinguished by the twentieth century policy of fire suppression. Cumulatively, early timber harvest and fire

suppression have changed stand conditions within the planning area, allowing for the build-up of surface fuels, increases in tree density, and growth of ladder fuels. There were 119 small fire starts recorded between 1960 and 2019 in the planning area, with 95 percent having been kept under 10 acres in size. This management approach does create the historical precedent and has slowly accumulating impacts to visual quality. Visual evidence of past fires is what is expected in a fire dependent ecosystem.

The ingrowth of susceptible tree species and increased stand densities have also created conditions promoting insect infestations. Visuals in the planning area have been impacted by these events, as evidenced by numerous dead and down trees, or live trees with poor crowns, reduced growth, and dead or forked tops. While perhaps not immediately apparent to the casual viewer, stands are denser and contain a different species composition than would have been experienced historically.

Present Activities

Recreation – Ongoing visitation to the Malheur Ford and Hog Flat trailheads, Malheur River Trail, snowmobile trails, dispersed camping, hunting, fishing, firewood gathering, and other recreational uses occur year-round (with peak use from May through November). These ongoing recreation activities are not expected to decrease the visual quality objectives associated with the Cliff Knox project planning area.

Grazing – Portions of seven allotments are currently permitted for grazing within the Cliff Knox planning area. The ongoing grazing activities are not expected to decrease the visual quality objectives associated with the Cliff Knox Project.

Invasive Plant Treatments – Ongoing or future invasive plant treatments are not expected to decrease the visual quality of the Cliff Knox planning area. Reduction in invasive plants authorized under the Malheur National Forest Site-Specific Invasive Plants Treatment Project would maintain herbaceous scenic attributes; treatments are expected to improve grassland composition, restore infested areas, and cumulatively maintain visual quality and scenic stability.

Reasonably Foreseeable Future Activities

Aquatic Restoration Project Treatments – Potential projects implemented under the 2014 Aquatic Restoration decision document include road decommissioning, road relocation, riparian vegetation treatments, large and coarse woody debris placement, erosion control, off-channel livestock watering facilities, and livestock fencing. These activities would maintain or improve the scenic integrity and stability of the affected areas.

Foreseeable activities planned or implemented in the area would perpetuate a modified scenic expression of the landscape. It is expected that this expression would improve as the present and foreseeable future actions are of a lighter, more sensitive management approach than those of the past. The resiliency of the scenic attributes is expected to improve as management activities are carried out to maintain the vegetation within the historical range of variation. These practices should improve scenic integrity and stability.

Alternative 1 – No Action

Direct and Indirect Effects

There would be no immediate direct effects to scenic integrity or stability from the no action alternative. Alternative 1 would continue two current trends: (1) scenic disturbance reductions through vegetation regrowth, and (2) scenic impairment through increased tree density and loss of attractive species variety (forest stand spatial and structural diversity with large tree character and fire-adapted vegetation such as western larch and ponderosa pine) and impaired ecosystem resilience.

Scenic Integrity

Alternative 1 would not produce any short-term visual disturbances or directly change the planning area's existing disturbances viewed from the planning area's scenic visual corridors. Many of the existing scattered minor and moderate disturbances would be diminished through vegetative renewal over the next 10 years. However, potentially strong, and adverse indirect scenic disturbance effects could become increasingly more likely with alternative 1 since declines in fire-adapted vegetation and ecological resiliency would continue in future decades throughout the planning area. In the event of an uncharacteristically large wildfire, many of the desirable elements of the project area's scenery would be lost for an extended period.

The Cliff Knox planning area's scenic integrity as viewed from sensitive viewpoints would continue to meet the preservation, retention, and partial retention levels.

Scenic Stability

Alternative 1 would cause no immediate direct or indirect effects to the existing condition. The outcomes of the no action alternative are related to increasing stand density, encroachment of less resilient species, increasing fuel loads, and high levels of mortality. This trend decreases the overall resiliency of the timber stands, causing the scenic stability to be reduced over time as conditions degrade.

Scenic stability effects are based on assumptions for a continuation of the existing adverse vegetation conditions (overly dense, small sized, and uniform vegetation), resulting in continued low stability. This level of scenic stability would likely persist for decades, unless vegetation, and climate conditions result in an exceptionally large and severe canopy-consuming disturbance event (for example, insects, diseases, or wildfire), which might lower the planning area's vegetation-based scenic attributes to the no stability level.

Cumulative Effects

There would be no cumulative impacts with no action. There are no actions, so there are no additive effects to past, ongoing, or foreseeable actions.

Alternatives 2 and 3

Both alternatives 2 and 3 propose a variety of treatments and actions, including variable-density thinning, fuel reduction treatments, riparian habitat conservation area treatments, underburning treatments, wildlife habitat enhancements, road closures, and opening roads. Alternative 3 limits activities within the Malheur River Inventoried Roadless Area which largely overlaps with the Malheur Wild and Scenic River Visual Corridor.

The following table shows the acres of treatment that would occur in the foreground and middle ground areas of the Malheur River visual corridor for alternatives 2 and 3.

Table 5. Acres of treatment by visual corridor and distance zone for both action alternatives

Visual corridor	Distance zone	Acres in the project area	Treatment	Alternative 2 (acres)	Alternative 3 (acres)
Malheur Wild River Visual Corridor	Foreground	2,616	All Silviculture Activities	0	0
			Underburning	2,616	70
	Middleground	634	Commercial/Small Diameter Thinning	272	248
			Small Diameter Thinning	167	190
			Non-commercial Thinning	27	25
			Underburning	634	634
Malheur Scenic River Visual Corridor	Foreground	228	Commercial/Small Diameter Thinning	33	4
			Small Diameter Thinning	10	40
			Non-commercial Thinning	127	114
			Underburning	228	200
Wilderness Loop Visual Corridor	Middleground	16	Commercial/Small Diameter Thinning	16	16
			Underburning	16	16

Alternative 2

Direct and Indirect Effects

Scenic Integrity

Forest restoration activities, strategic roads (fuels) treatments, and prescribed burning:

Most of the Malheur Wild and Scenic River corridor foreground (2,614 acres) within the Cliff Knox Project lies along the stretch of the river designated as Wild. This area has a visual quality objective of preservation and is to be managed to a very high scenic integrity. It has been classified as unsuitable for timber management and thus, no silviculture treatments have been proposed. The use of prescribed fire however is desired to enhance the area's scenic values and improve wildlife habitat by reducing fuel loading (USDA Forest Service 1993). Because of the sensitivity of the Wild and Scenic River corridor, measures would be taken to minimize the effects of prescribed fire ignitions as well as any fire suppression activities.

The remainder of the visual corridor foreground (228 acres) lies along the stretch of the Malheur River designated as Scenic. This segment of the corridor has a visual quality objective of retention and is classified as suitable for timber management for purposes of improving wildlife habitat and enhancing scenic values. There are about 150 acres of non-commercial thinning proposed within the designated Scenic River corridor (MA22b) itself. In addition, there are small amounts of commercial (33 acres) and small diameter (10 acres) thinning proposed within the foreground distance zone (MA14).

Forest restoration, strategic roads (fuels) treatments, and prescribed burning are proposed within the middleground of the Malheur Wild and River and Wilderness Loop visual corridors. These areas have a visual quality objective of partial retention and allow for management activities as long as they remain visually subordinate to the characteristic landscape.

Forest restoration activities and prescribed burning would produce minor, short-term scenery disturbances, including visible soil discoloration, and canopy, tree, or plant contrasts such as stumps, skid roads, burn piles, burn areas, and landings. A small portion of these effects would be visible from the planning area's visual corridors.

Commercial timber harvest leaves stumps which are visible from an immediate foreground distance (300 feet). Commercial harvest would open up the stands and allow more sunlight into the forest floor and would provide longer viewing distances into the forest stands.

Tractor logging and skidding would create some soil disturbance along skid trails, tearing up the topsoil and exposing the soil profile. Understory vegetation would also be disturbed along these skid trails, which would be visible from an immediate foreground distance. These visual effects are usually an immediate impact that dissipates within a short time; impacts are usually not visible after one growing season to the casual viewer. Skyline logging would create similar effects as tractor logging, although skid trails associated with skyline logging are usually longer than those associated with tractor logging. These trails can often be visible from middleground viewing distances. However, the effects are also short-term.

Non-commercial thinning would remove trees up to 9 inches in diameter at breast height where these trees are in excess. This would improve the scenic quality by creating greater visibility and diversity at the ground level.

Fuel treatments that would occur congruently with harvest treatments include mechanical thinning, prescribed burning of fuels, whole tree yarding, cut to length, grapple piling, and hand piling. These treatments would clean up most slash created by harvest activities. The effects are primarily beneficial to visual quality, reducing the visual impacts of human activities with a natural-appearing landscape. Removal or burning of residual material (tree stumps, snags, limbs, and brush piles), removes the "clutter" that detracts from the remaining trees or other scenic attributes. Research indicates that such forest canopy thinning and fuels reduction activities are more compatible with public scenery preferences for large trees, more open and diverse canopy structures, less woody debris, and understory vegetation that softens the effects of forest floor disturbances (Ryan 2005).

Pile burning and underburning would create scorched and blackened underbrush, saplings, bark, grasses, and forbs. These effects would continue for one to five years. There is a possibility of the prescribed fire getting into the crowns of trees. This could cause clusters of dead or scorched trees. Following the growing season, most of the effects would no longer be visible as fresh growth of forbs and shrubs would quickly sprout. There may be some minimal long-term effects such as small patches of overstory mortality; however, these patches are not expected to detract from the landscape character.

Alternative 2 would authorize the most silvicultural treatments and fuels treatments and have the greatest short-term effects to visual quality. However, adherence to the design criteria (see Cliff Knox Project Final Environmental Impact Statement, Appendix C – Project Design Criteria) would help assure that alternative 2 meet the visual quality objective standards of the Forest Plan.

Treatments would improve the long-term scenic integrity, by opening the stands up for increased visibility and visual diversity. Prescribed fire would improve conditions for fire-resistant species, which would indirectly improve the landscape character attributes of large tree character and open stands that can withstand low-intensity fires. This treatment would improve visuals into the forest understory from foreground views.

Road activities: No temporary roads, skid trails, or landings would be visible from the project area's visual corridors.

Unique habitat restoration: No aspen restoration, mountain mahogany restoration, riparian restoration, shrub steppe restoration, or meadow enhancement would be visible from the project area's visual corridors.

It is expected that all of the actions proposed would meet the visual quality objectives of the Malheur Forest Plan, and not exceed the limits of visual impacts defined by preservation, retention, and partial retention.

Scenic Stability

The scenic stability of the area depends on conditions that favor resiliency to disturbances. Currently, much of the area is outside of the historical range of variability in ways that put the forest at greater risk of uncharacteristically severe wildfire. Under alternative 2, the planning area would receive treatments that would enhance the spatial and species diversity, scenic character attributes, and resilience of the forest canopy. These enhancements would protect large trees and old forest characteristics and would promote future large tree character and spatial and species diversity within the existing overly dense stands and plantations. Vegetation density within forest stands would be reduced through thinning and fuels reduction treatments that would create more attractive, open, and structurally diverse conditions, favoring historically dominant species such as Douglas-fir, western white pine, ponderosa pine, and western larch. These more attractive, open, and diverse stand structure and species conditions would also considerably reduce the risk of scenery-damaging ecosystem disturbances (insects, disease, wildfires, etc.). More historically appropriate wildfire would better perpetuate the Cliff Knox planning area's attractiveness and historically "natural" scenic character. Reductions in ecosystem threats to the planning area's vegetation scenery attributes would increase the scenic stability level from low (most vegetation attributes are threatened or absent) to moderate (most vegetation attributes are present and likely to be sustained).

Alternative 3

Direct and Indirect Effects

Scenic Integrity

Forest restoration activities, strategic roads (fuels) treatments, and prescribed burning:

There are slight differences in area of the proposed treatments within each distance zone of the project's visual corridors, as shown in Table 6. The major difference to the visual corridors between alternatives is the limiting of activities within the Malheur River Inventoried Roadless Area. The inventoried roadless area largely overlaps with the Malheur Wild and Scenic River visual corridor. While this limit only results in small changes to the upland restoration activities and fuel treatments, it results in a greater difference in acreage of prescribed burning. The underburning proposed in the Wild section of the visual corridor drops from 2,616 acres in

alternative 2 to 70 acres in alternative 3. The underburning proposed in the Scenic section of the visual corridor drops from 228 acres in alternative 2 to 200 acres in alternative 3. This reduction in prescribed burning would reduce the short-term and potential long-term visual effects described above in the alternative 2 effects discussion.

Alternative 3 would authorize a similar amount of silvicultural treatments with a small reduction in commercial harvest. It would authorize a smaller amount of fuels treatments within the Cliff Knox planning area and have less short-term effects to visual quality. Effects from implementation activities would be reduced by project design criteria (see Cliff Knox Project Final Environmental Impact Statement, Appendix C- Project Design Criteria).

Treatments would improve the long-term scenic integrity, by opening the stands up for increased visibility and visual diversity. Prescribed fire would improve conditions for fire-resistant species, which would indirectly improve the landscape character attributes of tree size (larger preferred) and stands density (open preferred) helping these areas withstand low-intensity fires. This treatment would improve visuals into the forest understory from foreground views.

Road activities: No temporary roads, skid trails, or landings would be visible from the project area's visual corridors.

Unique habitat restoration: No aspen restoration, mountain mahogany restoration, riparian restoration, shrub steppe restoration, or meadow enhancement would be visible from the project area's visual corridors.

It is expected that all of the actions propose would meet the visual quality objectives of the Malheur Forest Plan, and not exceed the limits of visual impacts defined by preservation, retention, and partial retention.

Scenic Stability

The scenic stability of the area depends on the conditions that favor resiliency to disturbances. Currently, much of the area is outside of the historical range of variability in ways that put the forest at greater risk of uncharacteristic wildfire. Under alternative 3, the planning area would receive treatments that would enhance the spatial and species diversity, scenic character attributes, and resilience of the forest canopy. These enhancements would protect large trees and old forest characteristics and would develop future large tree character and spatial and species diversity within the existing overly dense stands and plantations. Vegetation density within forest stands would be reduced through thinning and fuels reduction treatments that would create more attractive, open, and structurally diverse conditions, favoring historically dominant species such as Douglas-fir, western white pine, ponderosa pine, and western larch. These more attractive, open, and diverse stand structure and species conditions would also considerably reduce the risk of scenery-damaging ecosystem disturbances (insects, disease, wildfires, etc.). More historical wildfire functions of the ecosystem would better perpetuate the Cliff Knox planning area's attractive and historical "natural" scenic character attributes.

The limited activities in the Malheur Inventoried Roadless Area would result in a smaller area seeing an increase in scenic stability. While the inventoried roadless area is natural in appearance and would continue to meet visual quality objectives, it would remain at greater risk of scenery-damaging disturbances. Reductions in ecosystem risk to the planning area's vegetation scenery attributes would increase the scenic stability level from low (most vegetation attributes are threatened or absent) to moderate (most vegetation attributes are present and likely to be

sustained) in the area receiving thinning and fuel reduction treatments and prescribed burning. The area that would not receive any treatment, including the inventoried roadless area and most of the Wild and Scenic River corridor, would remain at the low scenic stability level.

Cumulative Effects – Alternatives 2 and 3

The effects of past timber harvest and wildfire activities, in addition to ongoing activities, are accounted for in the existing visual quality objectives and scenic stability levels of the planning area. Actions under the 2015 Invasive Plants Treatment Record of Decision are expected to improve grassland composition, restore areas, and cumulatively maintain visual quality and scenic stability. Reasonably foreseeable future activities to be authorized under the Aquatic Restoration Decision would maintain or improve the scenic integrity and stability of the landscape in affected areas.

Summary of Effects

Table 6. Summary table of scenery effects for the Cliff Knox Project

Indicator	Alternative 1	Alternative 2	Alternative 3
Scenic Integrity	Scenic vegetation diversity is impaired, too dense, or lacks the historical volume and extent of large trees. No positive wildfire influences on vegetation structure/species.	Treatments would improve the long-term scenic integrity by opening the stands up for increased visibility and visual diversity. Prescribed fire would improve conditions for fire-resistant species, which would incrementally improve landscape character attributes (larger trees and open stands that can withstand low-intensity fires).	Treatments would improve the long-term scenic integrity by opening the stands up for increased visibility and visual diversity. Prescribed fire would improve conditions for fire-resistant species, which would improve landscape character attributes (larger trees and open stands that can withstand low-intensity fires). With the exclusion of the inventoried roadless area (IRA), the short-term effects of prescribed burning would be less than in alternative 2.
Scenic Stability	LOW Project-wide, most vegetation scenery attributes are impaired. Others are absent or not likely to be sustained due to ecosystem stress. Area is outside of the historical range of variability and at greater risk of scenery disturbing ecosystem disturbance.	MODERATE Project-wide, vegetation would shift towards historical conditions of fire-adapted scenery attributes, including meadows, aspen, and diverse conifer canopy with an increase in large, fire-adapted species. Proposed actions would reduce risk of scenery impairment from ecosystem disturbance events.	LOW/MODERATE Scenic stability across most of the project would not measurably vary from alternative 2. The increase in scenic stability would not occur in the IRA where activities are limited.

Indicator	Alternative 1	Alternative 2	Alternative 3
Meeting Visual Quality Objectives	PARTIAL RETENTION Existing disturbance is minor and widespread. No new impacts. Would meet Malheur Forest Plan's thresholds for all sensitive views. RETENTION Existing disturbance is minor and widespread. No new impacts. Would meet Malheur Forest Plan's thresholds for all sensitive views. PRESERVATION Existing disturbance is very small in scale and not easily distinguishable. No new impacts. Meets Malheur Forest Plan thresholds for all sensitive views.	PARTIAL RETENTION Widespread new minor disturbances within sensitive viewsheds. Adherence to project design criteria will reduce short-term visual impacts. Would meet Malheur Forest Plan's visual quality objective thresholds for all sensitive views. RETENTION Widespread new minor disturbances within sensitive viewsheds. Adherence to project design criteria will reduce short-term visual impacts. Would meet Malheur Forest Plan's visual quality objective thresholds for all sensitive views. PRESERVATION Existing disturbance is very small in scale and not easily distinguishable. Adherence to project design criteria will reduce short-term visual impacts. Would meet Malheur Forest Plan's thresholds for all sensitive views.	PARTIAL RETENTION Would not measurably vary from alternative 2. RETENTION Would not measurably vary from alternative 2. PRESERVATION Would not measurably vary from alternative 2.

Compliance with Forest Plan and Other Relevant Laws, Regulations, and Policies

The forest-wide direction regarding visual resources in the Forest Plan is to maintain and enhance the scenic character of the Forest. The proposed activities would rehabilitate the existing landscape back to more natural characteristics as described above in the effects analysis. Although there would be some short-term scenery effects from project activities, overall, the end goal of rehabilitating the landscape would be in compliance with the Forest Plan.

Design features are in place to minimize the effects to visual/scenery resources. If the design features are implemented, the resource management strategies outlined in Malheur Forest Plan and Malheur Wild and Scenic River Management plan would be met in all alternatives.

References

- Ryan, R.L. 2005. Social science to improve fuels management: a synthesis of research on aesthetics and fuels management. General Technical Report NC-261. USDA Forest Service, North Central Research Station, St. Paul, MN.
- USDA Forest Service. 1974. National Forest Landscape Management Volume 2, Chapter 1, Visual Management System. Agricultural Handbook 462.
- USDA Forest Service. 1990. Malheur National Forest Land and Resource Management Plan. USDA Forest Service, Malheur National Forest, John Day, Oregon. Available online at: <http://www.fs.usda.gov/main/malheur/landmanagement/planning>.
- USDA Forest Service. 1993. Malheur Wild and Scenic River Management Plan. USDA Forest Service, Region 6, Malheur National Forest. Available online at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd588791.pdf.
- USDA Forest Service. 1995. Landscape Aesthetics, a Handbook for Scenery Management. Agriculture Handbook Number 701. Available online: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd547374.pdf.
- USDA Forest Service. 2007. Appendix J—Recommended SMS Refinements, Appendix to Landscape Aesthetics, Handbook for Scenery Management, USDA Handbook 701.
- USDA Forest Service. 2019. National Visitor Use Monitoring Results. USDA Forest Service, Region 6, Malheur National Forest.