

Cliff Knox Project

Recreation Report

Prepared by:
Kevin Green
Recreation Planner

for:
Prairie City Ranger District
Malheur National Forest

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Introduction

The purpose of the Cliff Knox Project is to begin restoration and maintain healthy, resilient landscapes, with a greater capacity to adapt and thrive in the face of natural disturbances and large-scale threats. This project aims to manage forest stands across the landscape to move species composition, density, and structure towards historical range of variability. Healthy forests are essential to a variety of recreation activities.

In 2006, the Malheur National Forest completed a Recreation Facility Analysis and, in that process, developed a recreation program niche, which is a statement of our unique role and contribution to recreation offerings in the Pacific Northwest Region. The purpose of the niche is to help identify what makes each Forest special and allow us to provide the most appropriate recreation opportunities. Our niche is: “A Traditional Way of Life: A dispersed recreation destination where local communities share traditions and heritage with new generations and with visitors. Recreation visitors enjoy the freedom to hunt, drive, camp, and hike in a wild place and enjoy the beauty and diversity of forest ecosystems away from major population centers.”

The social and economic benefits of outdoor recreation on public lands are undeniable. It is not easy to quantify or capture the aesthetic, emotional, and societal values of a quality environment and of safe, sustainable recreation. Nonetheless, estimates and calculations that seek to do so are impressive. The U.S. Bureau of Economic Analysis estimated that the United States outdoor recreation economy accounted for \$427.2 billion of the gross domestic product in 2017 and grew by 3.9 percent from the previous year— faster than the 2.4 percent growth of the overall U.S. economy (USDC Bureau of Economic Analysis 2019). These numbers help illustrate the importance of including recreation in the proposed actions effects analysis of the Cliff Knox Project.

This specialist report contains an inventory of existing recreation conditions in the Cliff Knox Project planning area, a summary of proposed changes, and an analysis of the effects of the proposals.

Regulatory Framework

Malheur Land and Resource Management Plan

The Malheur Land and Resource Management Plan (USDA Forest Service 1990) (hereafter Malheur Forest Plan) establishes management areas, goals, objectives, standards, and guidelines for land management activities and other uses within the planning area (see Chapter 4 of the Malheur Forest Plan for applicable standards and guidelines). Recreation in the Cliff Knox Project planning area is managed to meet the objectives of the Malheur Forest Plan, as amended. The Final Environmental Impact Statement for the Malheur Forest Plan was adopted with a Record of Decision in 1990, followed by subsequent amendments. Objectives for management of the developed and dispersed recreation opportunities are articulated in the standards and guidelines of the Malheur Forest Plan with a strong emphasis on providing recreation opportunities.

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

- Provide a range of opportunities and settings which are consistent with public demand for a variety of activities, both motorized and nonmotorized.
- Provide for a distribution and variety of developed recreation facilities that are consistent with public demand for activities and experiences and are compatible with a forest environment.
- Provide safe, well maintained developed facilities for the public's enjoyment.
- Ensure high quality recreation experiences through facility location and design. Assure reasonably safe and accessible facilities to as many people as possible, including the handicapped.
- Provide a diverse system of trails for the enjoyment of all users and to meet administration and resource management needs.
- Encourage public participation in the development of partnerships with recreation users of the Forest.
- Provide interpretation, information, and education on ecological principals and resource uses to enhance recreation and promote understanding of land management principals.

Forest-Wide Standards

- Forest-wide standard 7: Recognize undeveloped campsites, hunter camps, or areas where concentrated recreation use occurs as being significant in providing dispersed recreation opportunities in a roaded setting. Manage these areas for partial retention (USDA Forest Service 1990a, page IV- 25).
- Forest-wide standard 11: Construct, relocate, or protect designated system trails and facilities during management activities (USDA Forest Service 1990a, page IV-25).
- Forest-wide standard 157: Plan, design, construct and maintain roads and trails to the minimum level required to meet integrated land management objectives (i.e., the needs of all resources). Minimize tie-through roads (USDA Forest Service 1990a, page IV-42).

Management Area Standards

The proposed treatments for the Cliff Knox Project are within the following management areas as defined by the Malheur Forest Plan: general forest and rangeland (Management Area 1 and Management Area 2), big-game winter range (Management Area 4A), old growth (Management Area 13), visual corridors (Management Area 14), and Malheur Wild and Scenic River (Management Area 22B). The following are recreation standards set for each management area:

- MA1, standard 1: Manage dispersed recreation for roaded modified conditions (USDA Forest Service 1990a, page IV-50).
- MA2, standard 1: Manage for dispersed recreation ranging from semi-primitive to roaded modified (USDA Forest Service 1990a, page IV-53).
- MA4A, standard 1: Manage for recreation ranging from semi-primitive to roaded modified, depending on recreation opportunity spectrum objective of adjacent land (USDA Forest Service 1990a, page IV-69).
- MA4A, standard 2: Access by motorized recreational vehicles will be prohibited December 1 to April 1, except for designated routes through winter range which are compatible with the management area emphasis (USDA Forest Service 1990a, IV-69).
- MA13, standard 1: Provide dispersed recreation setting consistent with adjacent lands (USDA Forest Service 1990a, page IV-105).

- MA14, standard 1: Manage for roaded natural recreation (USDA Forest Service 1990a, page IV-108).

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 Land and Resource Management 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 & Scenic River Standards (USDA Forest Service 1993, pages 8-10)

- MA22B, standard 1 (entire river): Manage dispersed recreation for goals of semi-primitive, non-motorized or roaded natural recreation, depending upon the segment of the corridor. Manage recreation use to provide a low incidence of contact with other groups or individuals. Recreational boating on the river is not encouraged.
- MA22B, standard 2 (entire river): Manage roads and trails to ensure the ROS [recreation opportunity spectrum] goals, objectives, and setting criteria for this management area are met. Take actions necessary to maintain an appropriate setting.
- MA22B, standard 3 (entire river): Distribute dispersed recreation use as necessary to protect river values within the ROS classification.
- MA22B, standard 4 (entire river): Maintain existing trails to minimum standards necessary for planned use.
- MA22B, standard 5 (entire river): Manage trails for non-motorized recreation use.
- MA22B, standard 6 (entire river): Construct or reconstruct trails to be consistent with management area objectives, accommodate increased use, ensure public safety, and reduce environmental damage.
- MA22B, standard 19 (scenic segment of river): Prohibit motorized vehicle use off Forest System Roads and trails except snowmobiles operating on snow.
- MA22B, standard 33 (wild segment of river): Prohibit motorized vehicle use off Forest System roads.
- MA22B, standard 34 (wild segment of river): Trails will be managed for non-motorized use.

Recreation Opportunity Spectrum

Recreation objectives are also informed by the Recreation Opportunity Spectrum (ROS) framework, which describes a diversity of recreational settings to achieve a variety of recreational

experiences. The ROS is a system for classifying and managing recreation opportunities based on the following criteria: physical setting, social setting, and managerial setting. The combination of the three criteria results in five difference ROS classes which are described below. Each class is defined in terms of the degree to which it satisfies certain recreation experience needs, based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area, and the relative density of recreation use.

The Malheur National Forest uses ROS classes to develop management direction for recreation on the Forest. The ROS is a description of various attributes that contribute to a recreational setting described in terms of the “combination of physical, biological, social, and managerial conditions that give value to a place” (Clark and Stankey 1979).

The five classes are:

1. Primitive: Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other uses is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.
2. Semi-primitive Non-motorized: Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum onsite controls and restrictions may be present by would be subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreational experience opportunities.
3. Semi-primitive Motorized: Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum onsite controls and restrictions may be present but would be subtle. Motorized recreation use of local primitive or collector roads with predominantly natural surfaces and trails suitable for motor bikes is permitted.
4. Roaded Natural: Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of humans. Such evidence usually harmonized with the natural environment. Interactions between users may be moderate to high with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.
5. Roaded Modified: Area is characterized by a natural environment that has been substantially modified by development of structures and vegetative manipulation. Sights and sounds of humans are readily evident and the interaction between users is often moderate to high. Facilities are often provided for special activities. Moderate user densities are present away from developed sites. Facilities for intensified motorized use and parking are available.

Resource Element Indicators and Measures

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

Table 1. Resource indicators and measures for assessing effects to recreation

Resource	Indicator	Measure	Indicator source
Recreation	Recreation opportunity spectrum (ROS)	Impacts to ROS classifications: Roaded Modified Roaded Natural Semi-Primitive Motorized Semi-Primitive Non-Motorized	Malheur National Forest Land and Resource Management Plan (USDA Forest Service 1990), ROS User Guide (USDA Forest Service 1982)
Recreation	Recreation opportunities	Changes in: Access to recreation Dispersed recreation Developed recreation	Malheur National Forest Land and Resource Management Plan (USDA Forest Service 1990)

Affected Environment

Desired Condition

The goal of the Malheur National Forest's recreation program is to encourage public participation and partnerships, provide interpretation, information, and education on land management and ecological principles, and to provide a range of high-quality opportunities and settings which are consistent with public demand for a variety of activities and compatible with a forest environment, including safe and accessible developed recreation facilities and a diverse system of trails.

General Recreation Objectives

- Provide a range of opportunities and settings which are consistent with public demand for a variety of activities, both motorized and nonmotorized (USDA Forest Service 1990, page IV-1).
- Provide for a distribution and variety of developed recreation facilities that are consistent with public demand for activities and experiences and are compatible with a forest environment (USDA Forest Service 1990, page IV-1).
- Provide safe, well maintained developed facilities for the public's enjoyment (USDA Forest Service 1990, page IV-1).
- Ensure high-quality recreation experiences through facility location and design. Assure reasonable safe and accessible facilities to as many people as possible, including the handicapped (USDA Forest Service 1990, page IV-1).
- Provide a diverse system of trails for the enjoyment of all users and to meet administration and resource management needs (USDA Forest Service 1990, page IV-1).
- Plan, design, construct and maintain roads and trails to the minimum level required to meet integrated land management objectives. Minimize tie-through roads (USDA Forest Service 1990, page IV-42).

Dispersed Recreation Objectives

- Construct, reconstruct, and manage trails to protect the resources and meet the objectives of each ROS class (USDA Forest Service 1990, page IV-13).
- Construct, relocate, or protect designated system trails and facilities during management activities (USDA Forest Service 1990, page IV-25).
- Undeveloped campsites, hunter camps, or areas where concentrated recreation use occurs would be managed for partial retention (USDA Forest Service 1990, page IV-25).

Developed Recreation Objectives

- Manage the following 20 campgrounds as developed facilities: Magone Lake, Yellowjacket... (USDA Forest Service 1990, page IV-14).
- Where the need is identified, upgrade, replace, and add facilities. Consider expansion or addition of new facilities where recreation demand and environmental concerns warrant (USDA Forest Service 1990, page IV-14).

Existing Conditions

Recreational Opportunity Spectrum

Figure 1 shows the classes that apply to the Cliff Knox Project planning area. They are:

- **Roaded Natural:** This is the largest recreation opportunity spectrum (ROS) setting, making up approximately 55 percent of the planning area (22,223 acres). The “area is characterized by predominately natural-appearing environment with moderate evidence of the sights and sounds of humans. Such evidence usually harmonizes with the natural environment. Interaction between users may be low to moderate, with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities” (ROS Users Guide, USDA Forest Service 1982).
- **Roaded Modified:** This is the setting for approximately 30 percent of the planning area (12,406 acres). This “area is characterized by a setting that is heavily modified by human activity. Access is generally easy for highway vehicles. The setting is generally the result of intensive commodity production. There are no size criteria. Concentration of users is low, but there is considerable evidence of others. Users have a moderate degree of isolation from the sights and sounds of other people” (ROS Users Guide, USDA Forest Service 1982).
- **Semi-Primitive Non-Motorized:** This is the setting for the Malheur Wild and Scenic River corridor, making up approximately 12 percent of the planning area (4,901 acres). This “area is characterized by a predominately natural or natural-appearing environment of moderate to large size. Interaction between users is low but there is often evidence of other users. The area is managed in such a way that minimum site controls and restrictions may be present but would be subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreational experience opportunities” (ROS Users Guide, USDA Forest Service 1982).
- **Semi-Primitive Motorized:** This is the setting for approximately 3 percent of the planning area (1,237 acres). This “area is characterized by a predominately natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum onsite controls and restrictions may be present but would be subtle. Motorized use is permitted” (ROS Users Guide, USDA Forest Service 1982).

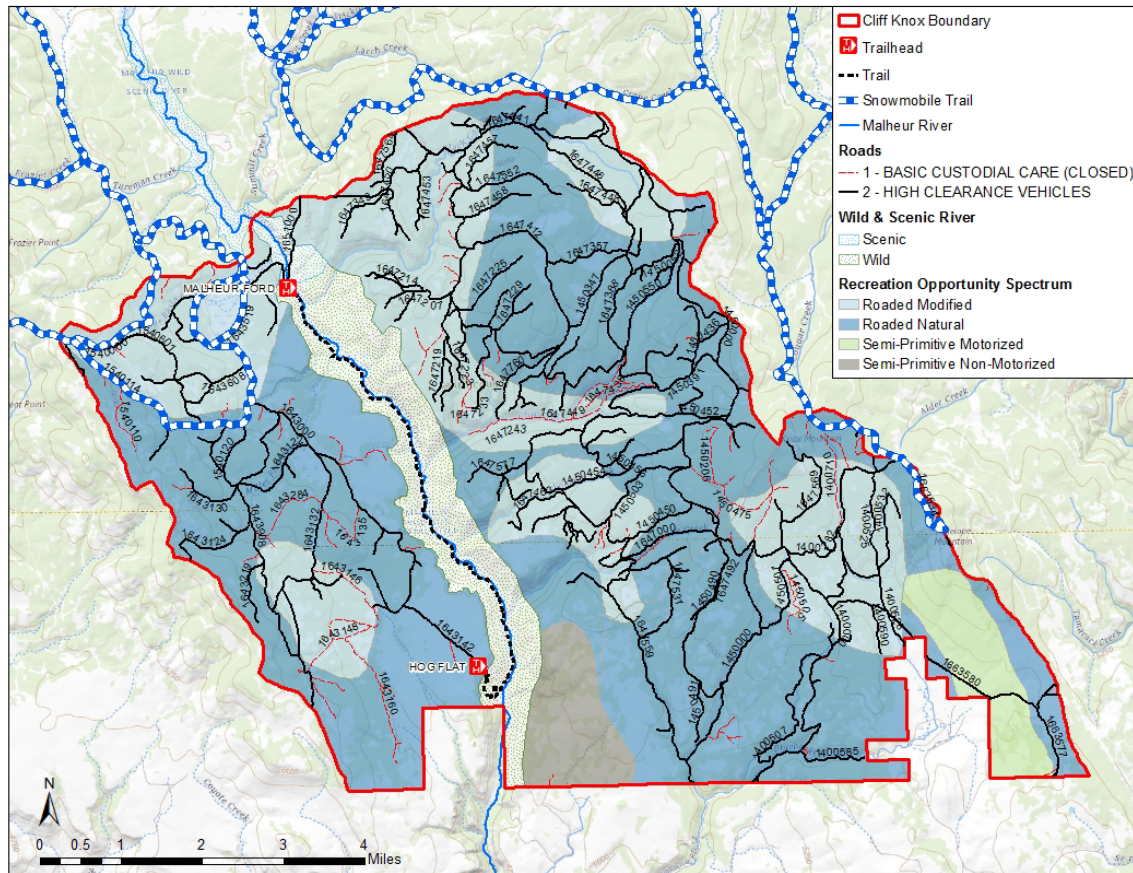


Figure 1. Map of recreation opportunity spectrum classes and developed recreation resources

Existing Recreation Opportunities

According to National Visitor Use Monitoring data, recreation on the Malheur National Forest is focused where there is access to water or access to trails for dispersed recreation. The most popular recreation activities on the Forest are hiking/walking, hunting, viewing natural features/wildlife, relaxing, and driving for pleasure (USDA Forest Service 2019). While there is limited developed recreation infrastructure, recreation opportunities within the Cliff Knox planning area are diverse and include hiking, equestrian use, off-highway vehicle riding, hunting, and camping. Peak use periods are late May to early September for hiking, equestrian riding, and off-highway vehicle use, and from August through November for hunting. Camping, fishing, driving for pleasure, and other dispersed activities such as woodcutting or mining, will often continue beyond the typical seasons unless snow makes motorized access to the area impractical. During deer and elk hunting seasons, hunting and related camping becomes the dominant recreational activities in the planning area.

Table 2. Malheur National Forest visitor use survey, 2019

Recreational Activity	Percentage of Visitors Who Participated in Activity
Hiking/Walking	47.3
Hunting	41
Viewing Natural Features	37.4

Recreational Activity	Percentage of Visitors Who Participated in Activity
Viewing Wildlife	36.1
Relaxing	33.6
Driving for Pleasure	31.4
Primitive Camping	19.5
Gathering Forest Products	16.9
Backpacking	11.9
Picnicking	8.1
Developed Camping	6.1
Fishing	4.8
OHV Use	4.2
Motorized Trail Activity	4.1
Visiting Historic Sites	4.1
Nature Study	2.9
Non-motorized Water	2.3
Bicycling	1.2
Downhill Skiing	0.7
Horseback Riding	0.3
Motorized Water Activities	0.3
Snowmobiling	0.3
Cross-country Skiing	0.2

Developed Recreation Sites

Developed recreation sites in the planning area include two trailheads:

- Malheur Ford Trailhead: Northern terminus of the Malheur River National Recreation Trail, campsites, vault toilet
- Hog Flat Trailhead: Southern terminus of the Malheur River National Recreation Trail, campsites

Developed Trails

Developed trails in the planning area include one national recreation trail with a total mileage of 7.5 miles and 10.5 miles of designated snowmobile trails.

- Malheur River National Recreation Trail: hiking and equestrian use
- Frazier Loop Trail (S-5202): snowmobile
- Dollar Basin Loop Trail (S-5206): snowmobile
- Dollar Basin Meadow Trail S-5207: snowmobile
- Antelope Lookout Trail (S-5229): snowmobile

Undeveloped Recreation

Undeveloped recreation includes hunting, fishing, wildlife viewing, driving for pleasure and camping. There are 40 known dispersed campsites within the planning area. Usage of these sites varies throughout the year, with the heaviest usage in the fall during hunting season. Sites are characterized by primitive structures such as self-made toilets, meat poles, rock rings, and log

benches. Dispersed campsites are concentrated primarily in flat areas adjacent to the existing transportation system, typically where water can be accessed. Varied degrees of vegetation and riparian zone damage have occurred throughout the watershed due to vehicles, sanitation practices, and removal of vegetation for various purposes. The use of off-highway vehicles is often associated with dispersed camping. Motorized use for both highway legal and non-highway legal vehicles is allowed on all open roads within the project planning area.

The portion of the Malheur Wild and Scenic River corridor that runs through the planning area covers 3,699 acres and spans approximately 8 miles. 2,897 acres of the river corridor within the Cliff Knox Project is classified as Wild, and the remaining 802 acres is classified as Scenic (USDA Forest Service 1993). The river provides a variety of recreational opportunities for visitors willing to travel to its remote location, including fishing, hunting, camping, and hiking.

Wildlife Management Units and Travel Management Area

The Cliff Knox Project planning area lies entirely within the Oregon Department of Fish and Wildlife's Malheur Wildlife Management Unit. In addition, the Conroy-Cliff Cooperative Travel Management area includes 10,222 acres of the Cliff Knox Project planning area and is managed cooperatively with the Oregon Department of Fish and Wildlife to reduce wildlife disturbance associated with vehicle travel during critical periods of the year. Except for "green dot" roads, the area is closed to motorized traffic during most deer and elk rifle seasons to protect soils and wildlife habitat, minimize harassment of wildlife, maintain adequate buck and bull escapement, and promote quality hunting.

Other Undeveloped Lands

Areas identified as other undeveloped lands within the project footprint were not identified to have special or unique recreation resource values. Effects to the recreation resource from proposed project treatment activities would not differ based on the description of land (undeveloped). All acres of other undeveloped lands would continue to be managed according to their Malheur Forest Plan management area allocation and Recreation Opportunity Spectrum class. Therefore, the description of effects are not differentiated further in the analysis. Activities proposed within undeveloped areas greater than 1,000 acres are described in the undeveloped section of the Cliff Knox Project Final Environmental Impact Statement.

Effects Analysis & Plan Development

Geographic information system (GIS) information was used to query and analyze data and create maps displaying the location of dispersed campsites, trails, big game management units, fuelwood gathering areas, recreation opportunity spectrum (ROS) units, and proposed treatments. Field work and observed visitor activities were incorporated to confirm GIS analyses, conduct a dispersed campsite inventory, and to provide perspective on forest recreation activities.

Spatial and Temporal Context for Effects Analysis

The spatial scope for this analysis is the Cliff Knox Project planning area. Effects to recreation resources can be short term and long term. Short term is usually considered less than 5 years, and long-term ranges from 5 to 50 years.

Project Design Criteria and Mitigation Measures

Project design criteria to protect recreation resources are included for all action alternatives. See the Cliff Knox Project Final Environmental Impact Statement, Appendix C – Project Design Criteria for additional details.

Environmental Consequences

Alternative 1 (No Action)

Direct and Indirect Effects

In alternative 1, the no action alternative, there would be no direct or indirect effects and existing conditions would be perpetuated in the Cliff Knox planning area. Seasonal use patterns and developed recreation would remain the same, including existing opportunities for dispersed camping and hunting experiences. The planning area would continue to provide the desired recreation opportunity spectrum (ROS) recreation experience and the ROS classifications would not change.

Recreational use of National Forest System roads would not be immediately affected, as there would be no changes to the existing road system. However, continued deferred maintenance would eventually impact recreational users in the following ways:

- Maintenance would remain incomplete, there would be increased deferred maintenance, and over time the risk of road failure would increase impacting public safety.
- Alternative 1 has the least impact on current access. However, in the future access would decrease due to inadequate funding for road maintenance spread thin across a large road system.
- Alternative 1 would not provide adequate funding for road maintenance and the volume of deferred maintenance on the Forest would continue to grow in magnitude (see Cliff Knox Transportation Report).

Environmental consequences of taking no action also include the compounding effects of decades of fire suppression. Over the next decade, vegetation would continue to depart from the historical norm. Increasing understory vegetation and fuels would diminish the viewshed, obstruct cross-country travel for recreationists, and diminish ecological resilience. Because healthy forests are the backdrop to a multitude of outdoor recreation activities, ecological resilience of the forests is crucial in providing the desired array of recreational opportunities (Krieger 2001). The effects to recreational values due to insect infestations would be similar to that of fire. Study results indicate that less intense fires may have beneficial economic effects, whereas intense fires may have detrimental effects on recreation values (Vaux et al. 1984). By not acting to improve the health of forest stands, legacy effects of limited or no management would be compounded, and the opportunity to reduce the likelihood of severe wildfire could be missed.

Cumulative Effects

Because there would be no direct or indirect effects, there would be no cumulative effects associated with alternative 1.

Alternative 2 and 3

Direct and Indirect Effects

Recreation Opportunity Spectrum

Effects to recreation are measured in terms of change in the recreation opportunity spectrum (ROS). There would be no effect on the ROS class for the Cliff Knox planning area from the proposed mechanical treatment units and prescribed burn blocks that fall within these land classifications; the area would continue to be classified as Roaded Modified, Roaded Natural, Semi-Primitive Motorized and Semi-Primitive Non-motorized.

Most of the project area (85 percent) is in the Roaded Modified or Roaded Natural opportunity spectrums. Roaded Modified is characterized by a setting that is heavily modified by human activity and generally the result of intensive commodity production. Roaded Natural is characterized by a predominately natural-appearing environment with moderate evidence of the sights and sounds of humans, where resource modification and utilization practices are evident, but harmonize with the natural environment. The proposed treatment activities fall below these thresholds, and therefore remain compatible with the Roaded Modified and Roaded Natural settings.

The remainder of the project area is in the Semi-Primitive Motorized and Semi-Primitive Non-motorized opportunity spectrums, including the Malheur Wild and Scenic River corridor. These settings have a natural appearing environment with subtle evidence of the sights and sounds of humans, with motorized use in semi-primitive motorized and limited road use on local roads for management activities on a limited basis. Effects to semi-primitive classes of recreation, including isolation from the sights and sounds of man, would be affected by the increase of human presence and activity during the time of proposed treatments (commercial and non-commercial treatments, prescribed burning/unplanned ignitions, and closing roads) under alternatives 2 and 3. Commercial and non-commercial treatments, and fuels treatments would have a short-term effect on scenic values, trout fishing, big game hunting, and use of dispersed campsites. Smoke may reduce the quality of the experience short term for recreationists that may be in the area. Sights and sounds of human activity would increase as mechanical timber harvest treatments and prescribed burns are implemented. However, this increase of activity would be short term, and at the conclusion of treatments, the sights and sounds of human activity would revert to pre-project levels. The short-term effects to semi-primitive classes of recreation would be increased human presence, sights and sounds of timber harvest machinery, and road treatments.” The project design criteria for alternative 2 and 3 (see Cliff Knox Final Environmental Impact Statement, Appendix C – Project Design Criteria) were created in part, to ensure that the treatment activities would harmonize with the natural environment and remain compatible with all the ROS settings.

Forest and Unique Habitat Restoration Activities

Under alternative 2, there would be approximately 27,300 acres mechanically treated, and under alternative 3, there would be approximately 26,400 acres mechanically treated. The direct effects of the treatment activities and associated noises, evidence of ground disturbances, and recreation area closures could detract from the recreation experience over the short term.

The proposed actions would have a direct effect on recreation due to activities such as cutting, skidding, and decking logs, distributing non-commercial woody material and logging slash, and

the operation of heavy machinery within the vicinity of developed recreation sites, trails, and dispersed campsites. Recreation use across the Forest often involves using travel routes while exploring multiple locations. Therefore, it is expected that the typical visitor could be exposed to some degree of harvest and treatment activities while traveling through the area. Visitors to the area could experience increased noise levels from machinery and logging activities and delays due to traffic flaggers, as well as an increase in road traffic. Some dispersed campsite users may be temporarily displaced due to a loss of access during the treatment activities. This could increase camping use at other dispersed sites. Visual evidence of treatment activities may be apparent to forest visitors at or near some of the dispersed campsites. In periods following the treatment of units, stumps and slash piles would be visible to visitors until removed. Ground disturbance from forest activities such as skid trails and temporary roads would be much less evident after 2 to 5 years.

Silviculture prescriptions would open the understory through biomass removal. Ground fuel and ladder fuel reductions would improve the safety of recreationists at developed and dispersed recreation sites by reducing wildfire risk and/or intensity. The understory biomass reductions would facilitate cross-country hiking through the forest as well as enhance the wildlife viewing opportunities. Alterations to the forest structure would also affect the movement of wildlife. Recreationists could experience increased opportunities for wildlife viewing due to a more open forest structure.

Under alternatives 2 and 3, the non-motorized Malheur River National Recreation Trail would continue to provide a semi-primitive recreation opportunity. About 5 acres of non-commercial thinning by hand would occur at the Malheur Ford trailhead under both alternatives. About 31 acres of commercial harvest and small diameter treatment would occur at the Hog Flat trailhead under alternative 2. Under alternative 3 this treatment unit would become non-commercial thinning by hand. The direct effects of the treatment activities and associated noises, evidence of ground disturbances, and recreation area closures could detract from the recreation experience over the short term.

If winter logging and plowing of haul routes on National Forest System roads 1400, 1540, 1540114, 1560, 1643, 1643519, 1651, and 1663534 occur, temporary impacts to snowmobile activities may result. The indirect effect would be a reduction in opportunities within the project area available for over snow vehicle recreation. All these roads are groomed snowmobile trails which receive moderate use. The use of these haul routes would be restricted to “logging use only” during the week and potentially closed to all travel during the weekends. In addition, area closures may be in effect for logging activity hazards near harvest units, which may affect some winter cross-country travel. Coordination with local snowmobile clubs would take place for coordination and signage and grooming.

Recreation is not one of the outstandingly remarkable values for the Malheur Wild and Scenic River corridor as identified in the Malheur Wild and Scenic River Management Plan. The outstandingly remarkable values for geology, wildlife, and history would not be changed by the activities proposed; however, any direct effects from alternative 2 and 3 would be primarily on visuals (see Cliff Knox Visuals Report).

Prescribed Burning and Unplanned Ignitions

Under alternative 2, there would be approximately 40,250 acres of prescribed burning and under alternative 3, approximately 32,970 acres of prescribed burning. Both action alternatives would

reduce the wildfire risk to developed and dispersed recreation and the surrounding recreational setting. Although prescribed burning may have short-term adverse impacts on the recreational experience, severe wildfire could considerably alter the viewshed and recreational opportunities, which would have a long-term negative impact on the corresponding recreational experiences. The activities under these alternatives would help restore historical forest structure, composition, and density, and would create more resistant and resilient forest conditions. Instead of deferring treatments, which would increase the risk of insect and disease infestations and high-severity wildfire, alternatives 2 and 3 would address the need for restoration and enhance the recreational setting over the long term.

Prescribed burn ignitions could occur during the spring or fall. The direct effect of these actions would be primarily on visuals (see Cliff Knox Visuals Report); however, there would be indirect effects through vegetation enhancement, improved wildlife habitat, and increased safety through fuels reduction. Spring or fall burning may impact recreationists by creating smoke and restricting access to prescribed burn areas. If burning occurs in the fall season, there may be effects to hunters and campers who want to access prescribed burning areas. Hunting and camping opportunities and experiences could be adversely impacted by the presence of smoke. The smoke and activity in the area could also deter big game. Recreationists may be impacted by the increased activity in the area, including an increase in traffic associated with the project, corresponding noise, and temporary road closures.

Prescribed burning is proposed throughout the planning area for alternative 2. Alternative 3 excludes the Malheur River Inventoried Roadless Area and the Wild section of the Malheur Wild and Scenic River corridor from proposed prescribed burning, so the described effects would be slightly less and exclude these designated areas. In alternative 3 under wildfire conditions, these designated areas would burn similar to alternative 1 as fuels treatments would not occur in this area. Managed fires would have limited opportunity and most fire starts would need to be suppressed in these areas as the resource benefits may be difficult to achieve. This exclusion of prescribed burning in these designated areas would increase the likelihood of an uncharacteristic, high-severity wildfire within the Malheur River Inventoried Roadless Area and the Wild section of the Malheur Wild and Scenic River corridor which would result in larger acreages of blackened landscapes compare to prescribed burning. Some forest visitors may avoid blackened landscapes until green vegetation returns after 3 to 5 years. In the event of a stand-replacing fire, the long-term adverse impacts on the recreational experience would be great.

Road Activities

Public access to recreation would generally be improved by road maintenance associated with restoration activities. Currently closed roads would be re-closed after haul, and temporary roads would be rehabilitated, thus the impacts on public access to recreation due to the utilization of closed roads for haul and construction of temporary roads would be minimal and brief. These impacts during project implementation could include, but are not limited to, reduced access to areas, increased noise, increased traffic, reduced feelings of solitude, increased dust, and temporary disturbance of wildlife.

Overall, the road actions in these two alternatives would result in a reduction of open roads in the Cliff Knox planning area. Under alternative 2, approximately 12.4 miles of road would be closed, 4.7 miles of currently closed roads would be re-opened, and 11 miles of road would be decommissioned (including 3.2 miles of new road construction to relocate decommissioned roads). Many of the roads that are proposed for closure and decommission are no longer being

used and have naturally grown in by encroaching vegetation. Recreational use of National Forest System roads would be minimally affected by changes in road closure status, as the affected roads are no longer contributing to integrated land management objectives. Under alternative 3, approximately 44.1 miles of road would be closed. Additional road closures are proposed to help shift distribution of elk use onto public lands through the creation of elk security areas and may increase recreational opportunities for hunting and wildlife viewing. The remainder of the road activities proposed in alternative 3 would be the same as described for alternative 2.

Road maintenance for haul routes would occur under alternatives 2 and 3 on approximately 179 miles of road within the Cliff Knox planning area. Recreational driving and access would benefit due to road maintenance that would occur for haul routes. Additional road activities for treatment activities would be 15.8 miles of temporary road construction and 30 miles of closed road that would be temporarily opened for hauling. These temporary actions would have minimal impact on recreation.

Alternative 2 would not remove open road access to any known dispersed campsites while alternative 3 would remove open road access to two known dispersed campsites.

Cumulative Effects

The road maintenance that would occur under alternatives 2 and 3, combined with adjacent projects, could enhance access to recreation opportunities by contributing to a safer and higher quality road network. The cumulative effects of an improved transportation system could lead to an increase in overall recreation in the area.

Past management including fire suppression, timber harvest, and grazing have contributed to the current conditions of fuels and the potential for high-severity fire. The proposed activities would reduce canopy fuels, ladder fuels, and surface fuels, reducing the potential for a high-severity fire that would impact recreation access if roads were closed due to fire suppression efforts or for public safety post-wildfire.

Past, ongoing, and reasonably foreseeable future actions have been considered for their cumulative effects on public access to recreation. Past timber harvest activities led to the construction of roads into the area, though subsequent projects have closed, opened, relocated, and decommissioned some of these roads, changing public access to portions of the Forest.

As the resources in the planning area change over time, visitor demographics and activities may also change. It is likely that dispersed camping sites would change over time along with visitor use patterns. New sites are likely to be created, while some existing sites may get less use.

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

Malheur Forest Plan

Recreation under all alternatives would meet the objectives of the Malheur Forest Plan (USDA Forest Service 1990), because proposed treatments for the planning area fall below the recreation opportunity spectrum threshold defined in the recreation resource element standard in the Malheur Forest Plan, for each of the management areas that the proposed developments would affect, as listed above in the Regulatory Framework section.

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