United States Department of Agriculture

Forest Service

Scenic Resources Report

Colville National Forest Plan Revision

Draft Environmental Impact Statement

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Introduction

The report provides background on the scenic resources for the Colville Forest Plan Revision DEIS. Background information includes the significant issues identified following scoping of the proposed action and an overview of the scenic resources of concern.

Overview of Issues Addressed

Old Forest Management and Timber Production Issue

Public comments raised concerns that the proposed landscape approach may not protect old forests and wildlife habitat as well as the current forest plan. Others were concerned that the landscape approach to managing old forests may result in a decrease in the supply of commercial timber products resulting in detrimental impacts to the local economy. Another concern was the landscape approach would limit the Forest Service's management options for reducing the risks of fire, especially adjacent to local communities, and options for suppression of fires. These combined issues all have the potential to affect scenery resources by changing the existing landscape character and scenic integrity of the landscape condition.

Motorized Recreation Trails Issue

Public comments raised concerns that the location and number of acres where summer and winter motorized recreation could be authorized would affect the recovery and viability of wildlife species sensitive to motorized recreation activities. Also part of public concerns with motorized recreation was the distribution of motorized and non-motorized recreation opportunities and whether local users would have access to opportunities. The location and amount of motorized and non-motorized recreational opportunities can affect visitation to local communities, which may affect the local economy. The location of motorized recreation trails have the potential to affect scenery resources by changing the existing landscape character, sense of place and scenic integrity of the landscape condition.

Access Issue

The public was concerned that the level of road access allowed under the Proposed Action may not provide the desired level of open road access for recreation use, fire suppression, and vegetation management activities such as commercial timber harvest. Other commenters were concerned that the allowed road access may adversely affect the viability of plant and wildlife species, or cause adverse impacts to plant and wildlife habitat. These combined issues all have the potential to affect scenery resources by changing the existing landscape character, sense of place and scenic integrity of the landscape condition.

Recommended Wilderness Issue

The public raised concerns that recommended wilderness and the possible designation of wilderness by Congress may result in a loss of revenue to local economies from reduced recreational opportunities for summer and winter motorized activities and mountain bike use, as well as loss of forest product outputs. Concerns were also raised about possible increases in overall wilderness management costs for the Forest if the areas are designated by Congress as wilderness.

There were concerns that the proposal recommended wilderness did not include areas that may have outstanding wilderness character, and did not include areas that may contribute to habitat connectivity. Commenters on the proposed action expressed concern that proposed direction may not maintain wilderness character prior to wilderness designation by Congress, which can be a lengthy process. These combined issues all have the potential to affect scenery resources by changing the existing landscape character, sense of place and scenic integrity of the landscape condition.

Wildlife Issue

The public raised concerns that the Proposed Action may not provide effective habitat for the grizzly bear core area due to proposed road densities. Also of concern was the amount and location of land allocations with the appropriate management direction to contribute to habitat connectivity for wildlife species such as wolverine or grizzly bear. The proposal to maintain or improve wildlife habitat by limiting the diameter of and areas where snags could be cut raised public concerns about a possible reduction in the availability of firewood for personal use. These combined issues all have the potential to affect scenery resources by changing the existing landscape character, sense of place and scenic integrity of the landscape condition.

Riparian and Aquatic Resource Management Issue

The public raised concerns that the Proposed Action may not provide watershed and aquatic resource protections that are as effective as current forest plan direction. Concerns centered on managing possible detrimental impacts of uses such as roads, livestock grazing, and/or motorized recreational trails within riparian areas. Another concern raised was whether plan direction written as a desired condition was as effective as the same direction written as a standard. These combined issues all have the potential to affect scenery resources by changing the existing landscape character, sense of place and scenic integrity of the landscape condition.

Need for Change

Old Forest Management and Timber Production

In the revision of the Forest plan, three broad scale concerns drove the need to consider how we address old forest management, especially the current reserve system approach at the landscape scale. These are:

- The recent history of uncharacteristic levels of disturbances resulting from fire and insect and disease activity that would likely continue into the future.
- The interaction between disturbances and climate change that elevates the importance of restoring landscape resiliency.
- Uncertainty about the recovery and viability of old forest-dependent species given the increased risk of uncharacteristically severe disturbances that is likely to be exacerbated by climate change impacts.

The proposed action describes management of old forest vegetation by providing desired structural stage distribution for multi and single strata old forest across the landscape. To meet the large tree desired conditions, old trees and enough of the younger larger trees would be retained. Retention of large, younger trees that are in the best condition and are not limiting growth of nearby old trees through resource competition would be prioritized. Desired conditions for old forest habitats would be at, or towards, the high end of the range of variability (considering historical and future variability) within areas that are capable of providing old forest habitat structures. Desired conditions would be described by conifer dominated vegetation group. Habitat capable areas would include the following forest series: Douglas-fir, grand fir, western hemlock, and Pacific silver fir. If habitat amounts were not currently available, areas would be identified for future old forest habitat. The proposed action does not zone the Forest into reserves and matrix or general forest.

The proposed action also describes details for providing old forest habitat for specific surrogate wildlife species (e.g., American marten, northern goshawk, and northern spotted owls).

Motorized Recreation Trails

The current forest plan provides direction for summer and winter motorized uses, including identifying areas where such use may not be authorized or is limited, mainly for protection of aquatic, plant, and wildlife habitats.

The proposed action would continue to provide recreational access on National Forest System lands and a wide range of recreational opportunities while limiting or prohibiting winter and summer motorized activities in certain areas in order to provide quality aquatic, plant, and wildlife habitat. Other areas, such as wilderness, are closed to motorized use to provide a range of recreational experience.

The goal for recreation settings and experiences would include providing a spectrum of high quality, nature-based outdoor recreational settings where visitors access the Forest, including access to the biological, geological, scenic, cultural, and experiential resources of the Forest. Where the visitor's outdoor recreational experience involves few conflicts with other users, access is available for a broad range of dispersed recreation activities such as dispersed camping, boating, mushroom and berry picking, hunting, and fishing and these experiences are offered in an environmentally sound manner, are within budget limits, and contribute to the local economy.

It should be noted that the proposed action makes broad, strategic decisions that apply at the landscape scale. The 2005 Travel Management Rule prescribed a process for making site-specific decisions to designate roads, trails and areas for motorized travel thereby closing undesignated roads, trails and areas to motorized use. Over the past few years, travel management planning has occurred on the Forest in a separate planning process with the objective of providing a Motor Vehicle Use Map showing roads, trails and areas designated for summer motorized use and resulting in the closure undesignated roads, trails and areas for summer motorized use.

Access

Three broad concerns drove the need to address road density; 1) the Forest is no longer able to afford to properly maintain road system at current operational maintenance levels, 2) the current road system is not aligned with current and future resource management objectives, and 3) the existing road management direction is confusing and difficult to follow because it is scattered throughout current Colville Forest plan, forest plan amendments, national level decisions (the Roadless Rule), and interim policy. The current Forest plan includes much direction about managing the road system.

The proposed action provides a strategic vision to guide the location and overall density of roads in the future. It includes management areas that delineate where there is a need to manage for specific road densities. These are the Active Restoration Management Areas B and C. These areas have aquatic and wildlife habitats that would benefit from reducing the negative impacts of roads by managing towards road densities of 2 miles or 3 miles per square mile. A wide spectrum of travelway types would be present in Active Restoration B and C, ranging from maintenance level 1 through 5 roads, or primitive roads to highways. Road densities would include all maintenance levels and be measured within each management area within a 5th field watershed.

The proposed action states that the goal is for the Forest to continue to have an access system of authorized roads that is safe, affordable, and environmentally sound, that meets obligations to public and private cooperators, and is efficient to manage. However, any National Forest System road that is not needed to meet resource or social and economic objectives, and/or user-created roads, would be decommissioned and the landscape restored.

Recommended Wilderness

By law, all National Forest System lands must be evaluated for possible wilderness recommendation during the plan revision process. The result of that evaluation shows whether a need exists for additional wilderness and what trade-offs may exist if the area is eventually designated part of the national wilderness system.

Currently, the Salmo-Priest Wilderness covers about three percent of the Colville National Forest and evaluation showed a need for additional wilderness opportunities on the Forest. A review of possible areas showed some are available to fill this need. The Colville Proposed Action considered recommending around 101,000 acres of additional wilderness. About 13,500 acres would be recommended for addition to the existing Salmo-Priest Wilderness and the remaining 87,500 acres would include recommending portions of the Abercrombie-Hooknose, Bald Snow, Profanity, and Hoodoo potential wilderness areas. All parcels would be managed as recommended wilderness, where existing uses would continue until Congress took action on the recommendation.

The proposed action shares information on the national approach to managing any recommended wilderness, which is that, prior to congressional designation, uses continue that do not compromise wilderness eligibility. When congressional designation is complete, these areas are managed according to the desired conditions for designated wilderness in the Forest plan. The proposed action clarifies that the following selected activities could continue to be authorized in Recommended Wilderness Areas:

- Summer off-highway vehicle use and winter motorized use (existing use could continue, but no additional use is allowed).
- Mechanized uses (existing use could continue, but no additional use is allowed).
- Vegetation management activities would not be authorized in Recommended Wilderness Areas.

Wildlife

The proposed action responds to a recovery plan for grizzly bears in the North Cascades Grizzly Bear Recovery Area that was completed in 1997 and outlines the steps needed to recover grizzly bears to a viable population level. Two of the recovery steps addressed in the proposed action are:

- Designation of management situation areas.
- Development of an access management strategy that would replace the interim policy that has been in place since 1997.

The access management strategy for the North Cascades Grizzly Bear Recovery Area follows the access management guidance provided by the Interagency Grizzly Bear Committee (IGBC). These changes pertain only to the portion of the Okanogan-Wenatchee National Forest that lies within the North Cascades Grizzly Bear Recovery Area. Core area numbers are included in the proposed action.

The proposed action emphasizes providing habitat connectivity, the need to provide wildlife and aquatic crossing structures, and managing activities adjacent to the structures so they are utilized by wildlife.

Riparian and Aquatic Resource Management

The current forest plan includes riparian management direction from the Interim Strategies for Managing Anadromous Fish-Producing Watersheds in Eastern Oregon and Washington, Idaho, and portions of California (PACFISH, USDA and USDI 1995), and the Inland Native Fish Strategy (INFISH, USDA Forest Service 1994c and 1995). These approaches appear to have either maintained or improved riparian and aquatic habitat conditions at the watershed and larger scales. The changes presented in the proposed action combined the three separate pieces of direction into one place, the revised forest plan, and fulfills the intent of replacing the interim direction (PACFISH and INFISH) with longer-term management direction

Riparian management areas are designated in the current forest plan. The proposed action carries forward this approach with some changes in widths and more information on desired conditions for riparian areas. Generally, the area widths would increase on those lands within the INFISH amendment area, for lakes and ponds greater than one acre and intermittent streams. Riparian Management Areas would remain the same for those areas of the forest within the PACFISH amendment area.

Riparian Management Areas would include portions of watersheds where aquatic and riparian-dependent resources receive primary emphasis and where special management direction applies. Riparian Management Areas would be designated for all permanently flowing streams, lakes, wetlands, seeps, springs and intermittent streams, and unstable sites that may influence these areas.

Objectives for Riparian Management Areas would give emphasis to maintaining or restoring the riparian and aquatic structure and function of intermittent and perennial streams, confer benefits to riparian-dependent plant and animal species, enhance habitat conservation for organisms that are dependent on the transition zone between upslope and riparian areas, contribute to improved water quality and flows, and contribute to a greater connectivity of the watershed for both riparian and upland species.

Desired conditions for Riparian Management Areas within any given watershed are to have compositions of native flora and fauna and a distribution of physical, chemical, and biological conditions commensurate with natural processes.

Relevant Laws, Regulations and Policy that Apply

Appendix B from the Landscape Aesthetics SMS Handbook 701: Legislation and Directives

Numerous Federal laws require all Federal land management agencies to consider scenery and aesthetic resources in land management planning, resource planning, and project design, implementation, and monitoring. These Federal laws include the following:

- Wilderness Act of 1964.
- Wild and Scenic Rivers Act of 1968.
- National Trails System Act of 1968.
- National Environmental Policy Act of 1969.
- Environmental Quality Act of 1970.
- Forest and Rangeland Renewable Resources Planning Act of 1974.
- National Forest Management Act of 1976.
- Surface Mining Control and Reclamation Act of 1977.
- Public Rangelands Improvement Act of 1978.

In addition, the Forest Service has routinely included both scenery and recreation as part of the 1960 Multiple Use-Sustained Yield Act. The following are summaries of these Federal statutes referring to aesthetic, scenic, and visual resources.

The Wilderness Act of 1964 The Wilderness Act established a National Wilderness Preservation System of federally owned lands: "[These lands] shall be administered for the use and enjoyment of the American people ... so as to provide for the protection of these areas, the preservation of their **wilderness character** ..." *(Emphasis added.)* "...wilderness, in contrast with those areas where **man and his own works dominate the landscape,** is hereby recognized as a area where the earth and its community of life are **untrammeled by man,** where man himself is a visitor who does not remain. *(Emphasis added.)* "Wilderness ... is an area of Federal land retaining its primeval **character and influence,** without permanent improvement or human habitation, which is protected and managed so as to preserve its **natural condition** and which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable ..." *(Emphasis added.)*

Wild and Scenic Rivers Act The Wild and Scenic Rivers Act of 1968 declared: "...certain selected rivers of the Nation which, with their immediate environments, possess **outstandingly remarkable scenic,** recreation, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition." A river within the system may be classified, designated, and administered as one of the following: wild river, scenic river, or recreational river. **Scenic rivers** are "...those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads." *(Emphasis added.)*

National Trails System Act The National Trails System Act of 1968 provides "for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation, trails

should be established (1) primarily, near the urban areas of the Nation, and (2) secondarily, within scenic areas and along historic travel routes of the Nation, which are often more remotely located." *(Emphasis added.)*

National Environmental Policy Act (NEPA) NEPA is the National Environmental Policy Act of 1969. NEPA covers procedures for considering all resources and values and documenting Federal land management decisions. It gives general direction for management of scenic and aesthetic resources. NEPA states that it is the "continuing responsibility of the Federal Government to use all **practicable** means to ... assure for all Americans safe, healthy, productive, and **aesthetically and culturally pleasing surroundings."** *(Emphasis added.)*

There is a difference between the words practicable and practical. **Practicable** deals with methodologies that are possible to practice or perform. **Practicable** concentrates on methods that are workable, feasible, or capable of being put into practice. Practicable methods may not be in practice currently, even though they are technically possible to put into practice. Conversely, **practical** deals with methodologies that are actually being used, or are commonly engaged in practice or actual use. Therefore, NEPA mandates agencies to develop methodologies for scenery management of **"aesthetically and culturally pleasing surroundings"** that are capable of being put into practice, even if they are not currently in use. NEPA also requires "a systematic and interdisciplinary approach which will insure the integrated use of the natural and social sciences and the **environmental design arts** in planning and decision-making which may have an impact on man's environment." *(Emphasis added.)* NEPA requires federal land management agencies to "identify and develop methods and procedures ... which will insure that presently unquantified **environmental amenities and values** may be given appropriate consideration in decisionmaking along with economic and technical considerations." *(Emphasis added.)*

Environmental Quality Act The Environmental Quality Act of 1970 "declares that there is a national policy for the environment which provides for the **enhancement of environmental quality.** This policy is evidenced by statutes heretofore enacted relating to the prevention, abatement, and control of environmental pollution, water and land resources, transportation, and economic and regional development." *(Emphasis added.)*

Resources Planning Act RPA is the Forest and Rangeland Renewable Resources Planning Act of 1974. **(RPA)** RPA states that "the **Forest Service,** by virtue of its statutory authority for management of the National Forest System, research and cooperative programs, and its role as an agency in the Department of Agriculture, has both a responsibility and an **opportunity to be a leader** in assuring that the Nation maintains a **natural resource conservation posture** that will meet the requirements of our people in perpetuity. .." *(Emphasis added.)* Regarding timber harvesting and scenery management, RPA states the following: "cuts designed to regenerate an even-aged stand of timber will be used as a cutting method on National Forest System lands only where ... the interdisciplinary review has been completed and the potential ... **aesthetic** ... **impacts** have been assessed; [and where] cut blocks, patches, or strips are shaped to the extent

practicable with the natural terrain; [and where] such cuts are carried out in a manner consistent with the protection of. .. recreation and **aesthetic resources** ..." *(Emphasis added.)* RPA requires that "Program benefits shall include, but not be limited to, **environmental quality factors** such as **aesthetics,** public access, wildlife habitat, recreational and wilderness use, and economic factors such as the excess of cost savings over the value of foregone benefits and the rate of return on renewable resources." *(Emphasis added.)*

National Forest Management Act NFMA is the National Forest Management Act of 1976. Identical language to all **(NFMA)** of the above language in RPA concerning regeneration timber cutting is found also in NFMA. In addition, the following excerpts are taken from the most recent Code of Federal Regulations (CFR) dated Sept. 30, 1982. 36CFR Part 219 concerns implementation of NFMA. 36CFR Part 219.5 directs the Forest Service to use an "Interdisciplinary approach ... Through interactions among its members, the team shall integrate knowledge of the physical, biological, economic and social sciences, and **the environmental design arts in the planning process.** *(Emphasis added.)* Regarding "Estimated effects of alternatives. The physical, biological, economic, and social effects of implementing each alternative ... shall be estimated ... (1) The expected outputs for the planning periods, including appropriate marketable goods and services, as well as nonmarket items, such as recreation and wilderness use, wildlife and fish, protection and enhancement of soil, water, and air, and **preservation of aesthetic** and cultural **resource values;** *(Emphasis added.)* "During formulations and evaluation of each alternative ... combinations of resource management prescriptions shall be defined to meet management objectives for the various multiple uses including outdoor recreation, timber, watershed, range, wildlife and fish, and wilderness. "Forest planning shall identify (1) The physical and biological characteristics that make land suitable for recreation opportunities; (2) The recreational **preferences of user groups** and the **settings needed** to provide quality recreation opportunities; and **(3)** Recreation opportunities on the National Forest System lands. *(Emphasis added.)* Part 2 19.2 1 **(f)** requires: **"The visual resource shall be inventoried and evaluated as an integrated part of evaluating alternatives in the forest panning** (sic) **process, addressing both the landscape's visual attractiveness and the public's visual expectation. Management prescriptions for definitive land areas of the forest shall include visual quality objectives.** *(Emphasis added.)* "All management prescriptions shall ... (7) Be assessed prior to project implementation for potential physical, biological, **aesthetic,** cultural, engineering, and economic impacts and for consistency with multiple uses planned for the general area; *(Emphasis added.)* Regarding vegetative manipulation, Part 2 19.27 states: "(b) Vegetative manipulation. Management prescriptions that involve vegetative manipulation of tree cover for any purpose shall **(1)** Be best suited to the multiple-use goals established for the area with potential environmental, biological, cultural resource, **aesthetic,** engineering, and economic impacts, as stated in the regional guides and forest plans, being considered in this determination; (2) Assure that lands can be adequately restocked as provided in paragraph (c)(3) of this section, except where permanent openings are created for wildlife habitat improvement, **vistas, recreation**

uses and similar practices; ... (6) Provide the desired effects on water quantity and quality, wildlife and fish habitat, **regeneration of desired tree species,** forage production, recreation uses, **aesthetic values,** and other resource yiel'ds;... *(Emphasis added.)* "(6) Timber harvest cuts designed to regenerate an even-aged stand of timber shall be carriedout in a manner consistent with the protection of soil, watershed, fish and wildlife, **recreation, and aesthetic resources,** and the regeneration of the timber resource. *(Emphasis added.)* Regarding even-aged management of timber: "When openings are created in the forest ... (1) Openings shall be located to achieve the desired combination of multipleuse objectives. The **blocks or strips cut shall be shaped and blended with the natural terrain, to the extent practicable, to achieve aesthetic,** wildlife habitat, or other objectives established in the plan ... As a minimum, openings in forest stands are no longer considered openings once a new forest is established ... Regional guides shall provide guidance for determining variations to this minimum in the forest plan, based on requirements for watershed, wildlife habitat, **scenery** or other resource protection needs, or other factors. *(Emphasis added.)* "The following factors shall be considered in evaluating harvest cuts of various sizes and shapes to determine size limits by geographic areas and forest types: Topography; relationship of units to other natural or artificial openings and proximity of units; coordination and consistency with adjacent forests and regions; effect on water quality; **visual absorption capability** ... *(Emphasis added.)*

Surface Mining Control and Reclamation Act The Surface Mining Control and Reclamation Act of 1977 "establishes a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations ..." *(Emphasis added.)* The act states that "a surface area may be designated unsuitable for certain types of surface coal mining operations if such operations will ... result in significant damage to important ... **aesthetic values** and natural systems ..." *(Emphasis added.)*

Public Rangelands Improvement Act The Public Rangelands Improvement Act of 1978 declares that "unsatisfactory conditions on public rangelands ... reduce the value of such lands for recreational and **aesthetic purposes** ..." *(Emphasis added.)*

Affected Environment

Scenic Resources

Scenic quality is an important amenity in our lives. People's interests and expectations regarding ecosystems help establish desired aesthetic conditions for the varied landscapes. Scenery provides the setting for all activities experienced by forest visitors. Forest scenery is an integral part of the larger landscape and way of life in northeast Washington. Forest lands provide a scenic backdrop for travel, work, play, and daily life. Forest scenery contributes to casual and inexpensive recreation experiences near home, and contributes to a general sense of well-being, security, and constancy. Many people point to their tie to the landscape, regardless of administration or ownership, as a major reason for living in northeast Washington.

Beyond the local level, the scenery of northeast Washington is a factor in drawing new and return tourists to the area, as well as contributing to people's decisions to move to northeastern Washington. In addition to influencing choices in where people visit and settle, scenic conditions can influence how people perceive the health of ecosystems and can be an indicator of whether or not management practices are successful.

Scenic landscapes are an important forest resource valued by many people. National Forest System lands are places where many people go to escape urban environments and immerse themselves in natural-appearing environments. People's definition of the national forest is largely based on landscape images from their own experiences in the forest or images conveyed to them by the media. They have expectations regarding the content and form of forest landscapes; therefore, it is important to realize that the designation of scenic landscapes is based on cultural values and perceptions of nature. Landscapes that are culturally perceived as having high scenic quality are generally associated with sustainable ecosystems; however, not all sustainable ecosystems are perceived as landscapes with high scenic quality. Some high quality landscapes are a result of past human activity. Regardless of whether a scenic landscape is a result of natural processes or past human activity, it is a resource whose aesthetic qualities should be maintained and/or enhanced. To ensure that landscapes are both highly scenic and ecologically sustainable, scenic integrity objectives and scenic resource management objectives related to landscape character, sense of place, scenic integrity and scenic stability (sustainability) as outlined in the Scenery Management System, would be compatible with other forest resource management objectives.

The Scenery Management System (SMS) is a systematic approach to inventory, analyze, and monitor the scenic resources. The system is used in the context of ecosystem management to determine the relative value and importance of scenery, assist in establishing overall resource objectives, and ensure high-quality scenery for future generations. The Colville National Forest uses Landscape Aesthetics - A Handbook for Scenery Management (Dept. of Agriculture Handbook #701) to inventory scenic resources for the forest plan revision. Landscape Character, Scenic Integrity and Scenic

Sustainability (Stability) are the three basic building blocks of SMS. Understanding the valued attributes of the landscape and their condition from a social and ecologic perspective is the framework to all SMS application.

Some important concepts relative to scenery include:

SMS recognizes natural disturbance processes such as fire, insects, and disease, to be part of the natural landscape and play an important role in maintaining healthy, sustainable, and scenic landscapes. These disturbance regimes are evaluated as part of an evolving landscape and can create positive changes to the scenery integrity of a landscape. A more diverse mosaic of vegetation, increased species diversity, and diversity of age classes are all potential results of natural disturbance processes that would be compared with positive attributes defined in desired landscape character descriptions. SMS planning also recognizes that without these disturbance processes, the likelihood of catastrophic events is increased and the resulting landscape would likely not meet established desired conditions for vegetation, scenery, or other natural resources.

SMS recognizes ecological processes and the resulting landscapes as a dynamic ecosystem. Instead of basing objectives for scenery on one landscape condition at one point in time, the objectives are linked to a range of conditions that link to the historic range of variability. Long term results as opposed to immediate results are considered when analyzing the effects to scenic resources. For instance, immediately after a fire, there are short term effects such as: red needles, burned trunks, snags, and possibly little or no understory vegetation. Depending on the intensity of the fires, these effects are often short term (one or two years). As the landscape recovers, the short term effects diminish and long term changes such as: mosaic of vegetation patterns, snags punctuating the new growth canopies, and variety in colors and textures begin to appear. These changes add interest and diversity to the landscape and the effects to the scenic resources are considered positive by most people.

SMS recognizes that some man-made components of a landscape contribute to the landscape's valued character and are considered as positive attributes to the overall scenic quality. This premise is different from the Visual Management System (VMS) where most human-made features were considered a negative impact to the natural environment. SMS recognizes that some human-made features add to the aesthetics of certain landscapes and are identified as positive attributes of those landscapes. Examples of human-made features that may be identified as valued, positive cultural attributes include: reservoirs, old barns, historic log cabins, split rail fencing, agricultural or rural settings, ghost towns, etc.

The following describes the existing condition for the Colville National Forest landscape character and sense of place, scenic integrity and scenic stability (sustainability).

Landscape Character and Sense of Place

The Colville National Forest contains a complex and diverse range of landscapes. The landscape character in highly unique across the entire forest with a variety of landscape patterns consisting of large scale patterns of vegetation and sense of place zones, landform of geologic features such as rocky peaks and outcrops, canyons, steep cliffs and talus slopes, and water form features of marshes, streams, rivers, potholes, ponds, lakes, and waterfalls unique to a specific landscape character type. At the regional scale, the Forest is characterized as Okanogan Highlands landscape character type. The Okanogan Highlands character type is generally rolling terrain of moderate slopes with broad rounded summits. Scattered peaks rise well above the general terrain dividing the area into several upland areas separated by a series of broad north-south river valleys. The western edge has a series of large flats and plateaus.

Sense of place is addressed to display how the area is perceived by the public, and to display the physical setting in which the project area lies. The sense of place definition is "The identity of a place created by people's social meanings and attachments, including valued scenery and recreation settings, cultural and spiritual values, economic, social and biophysical characteristics." Managers using the concept of sense of place must define a specific framework for the definition and use of sense of place. Place based planning recognizes that people are part of the natural environment, and integrates peoples' values into environmental planning. The sense of place zones document how people value the forest landscape and are displayed in a map at the beginning of desired landscape character descriptions included in Appendix A. District meetings were conducted across the Forest going through a sense of place process to develop a geographic spatial map. The Forest specialists interviewed various Forest staff and involved the public at 12 meetings to further refine the sense of place values. Sense of place varies in scale; the entire forest would fall into a regional scale while the watershed scale is more of the community scale. Given the large size of the Forest, over 1 million acres, the forest was separated into 5 sense of place areas in order to comprehensively/adequately describe the scenic resources. Since scenery is intrinsically linked to biological and hydrological processes, the sense of place zones are divided according to watershed boundaries. The five zones are Okanogan Highlands, Salmo Priest Remote Dispersed, East of Kettle Crest, West of Kettle Crest and Front Country Dispersed.

The landscape character types experienced at the community scale that are more relevant to the Colville National Forest user and sense of place ranges from the Okanogan Highlands and Salmo Priest Remote Dispersed landscape area at north eastern corner near the Canadian border and Idaho border, to the middle zone landscape areas of East of Kettle Crest, West of Kettle Crest, Front Country Dispersed and the Okanogan Highlands at the western edge of the Forest. Sense of place based planning recognizes that people are part of the natural environment, and integrates peoples' values into defining landscape character based on how people use the landscape and are tied to the land. The Salmo-Priest Wilderness area contributes to

world class scenery and has it's own sense of place and as presented in the Wilderness narrative.

In addition to the physical environment, Forest Service facilities evoke a strong sense of identity across all sense of place zones. The Rocky Mountain Province style contributes to the historic and cultural landscape character and defines sense of place and rustic style. "Rustic Style: In the first half of this century, the National Park Service and the Forest Service adapted the rustic style, which had been developed from models such as Swiss chalets and 19th century Adirondack lodges. Influential examples include the Old Faithful Inn at Yellowstone (1904 and the Timberline Lodge on Mt. Hood (1937). Rustic-style buildings, often built by the CCC, are highly crafted structures featuring native stone and unhewn logs. The scale of details can be massive, even in the cases of kiosks or cabins. The rustic style was popularized in the 1900 to 1940 era by resort developers like Averill Harriman, who called Sun Valley, Idaho, the St. Moritz of America. In the Rocky Mountain Province, the public associates images of rustic style lodges with recreation" (BEIG. Pg 4-6). Remnants of Civilian Conservation Corps "CCC" era facilities such as ranger stations, guard stations, work stations, and fire lookouts are highly valued with destination areas such as Log Flume and White Mountain, Growden CCC Historic Site, Columbia Mountain Lookout and Mill Pond being important. All "CCC" era developed recreation facilities of picnic shelters/stoves/rock barrier walls, etc. at numerous campgrounds located across the Forest contribute to the landscape character. In addition, Native American usage has occurred throughout the landscape for over 7000 years providing a social and cultural connection to the vegetation and landform through time especially related to salmon fishing, hunting and plant gathering in traditional areas. Mineral exploration and production has been substantial in areas as well as logging, cattle grazing, and human settlement patterns that contribute to the cultural and social valued landscape character. In particular, homesteading has left behind visual evidence of settlement patterns and remains of cabins in remote areas are fairly common to see.

The sense of place tied to the scenic landscape setting for the Colville National Forest is tied to year round recreational experiences; accessing developed recreation sites of campgrounds, day use sites, boat launch facilities, trails and trailheads offering motorized and non-motorized opportunities. The Pacific Northwest National Scenic trail is a regional draw and traverses east to west along the northern end of the Forest. A large portion of the sense of place for the Forest is tied to the "big backyard" experience people seek with a variety of year round seasonal recreation activities that occur with dispersed camping, hunting, sight-seeing, driving for pleasure, huckleberry picking, mountain biking, equestrian riding, snowmobile riding, cross country skiing, snowshoeing, wildlife viewing, fall color viewing, and other dispersed use.

Scenic Classes

Scenic attractiveness is the primary indicator of the intrinsic scenic beauty of a landscape and of the positive response it evokes in people. Based on commonly held

perceptions of the beauty of landform, vegetation pattern, composition, surface water characteristics, and land use patterns and cultural features, the scenery is rated on a three point scale:

- Class A – Distinctive, where landform, vegetation patterns, water characteristics and cultural features combine to provide unusual, unique or outstanding scenic quality.
- Class B – Typical, where landform, vegetation patterns, water characteristics and cultural features combine to provide ordinary or common scenic quality.
- Class C – Indistinctive, where the landscape does not have characteristics that add to the variety, unity, vividness, mystery, intactness, order, harmony or uniqueness of the scenery.

The scenic attractiveness rating is applied to the process of evaluating the value of the area's scenery resource. Inherent scenic attractiveness within the landscape character and sense of place zones were validated from the inventory done for the Colville Forest Plan in 1988 and carried forward to this current plan revision. The existing Variety Class map was developed through the Visual Management System and is available in hard copy inventory. This inventory was used to identify concern levels for landscape travel corridors on the Colville NF. This inventory was supplemented with new information gained through constituent assessment to express scenic integrity concerns and general biophysical impressions by scientists to express ecological integrity concerns. The existing visual concern level 1 and 2 roads and trails were reviewed on a map in an interdisclipinary team setting to determine the need for change. Specialists updated visual sensitivity level corridors to meet current need and desired condition in order to depict new concern level travel corridors. In addition to using the original sensitivity level maps, the updated ROS layer, the new Sense of Place layer, the updated IRA layer and the updated recreation sites, wild and scenic river, and scenic byway layers were used to determine scenic values. New areas identified of scenic concern were sent through IRM to map Seen Areas. An example of a new travel route with a high level of concern is Flowerey Trail which was assigned a concern level 1. Several GIS maps were adjusted over the process to determine the concern levels for roads. These draft map exercises are available as project background support dated June 13, 2007, July 16, 2007, August 7, 2007, November 6, 2007, November 14, 2007 and November 19, 2007. A decision was made by the Forest Revision Team Leader to assign concern levels to only nationally designated recreation or scenic trails for the mapping. The remaining trails would assume the SIO for the proposed management areas where they go through and to address the foreground of all trails to be managed for a High SIO in a narrative format for standards, guidelines and objectives.

Across the forest there are areas rated as Scenic Attractiveness Class A – Distinctive, where landform, vegetation patterns, water characteristics and cultural features combine to provide unusual, unique or outstanding scenic quality. Class A landscape types include all Wilderness's, Recommended Wilderness, Proposed Wild and Scenic Rivers, Scenic Byways, Backcountry Areas, Research Natural Areas and Special Interest

Areas. Some outstanding landform features include Hoodoo Canyon, Bodie Mountain and the Kettle Crest Range. Examples of Class A and Class B water forms include Sullivan Lake, Peewee Falls, the Wedge and Little Pend Oreille Lakes and numerous small lakes in the upper elevations. All Proposed Wild and Scenic Rivers such as the Kettle River and Salmo River add distinct variety and are rated Class A. Most of the big backyard areas are representative of Scenic Attractiveness Class B – Typical, where landform, vegetation patterns, water characteristics and cultural features combine to provide ordinary or common scenic quality. There are areas characterized as Scenic Attractiveness Class C – Indistinctive, where the landscape does not have characteristics that add to the variety, unity, vividness, mystery, intactness, order, harmony or uniqueness of the scenery. Class C areas would be found in the lower elevation foothills outside of the forested environment where the terrain has little topographic relief and no apparent variation in areas of similar vegetation, waterforms are often not visually apparent.

Vegetation within the Colville National Forest reflects a diverse, resilient, and dynamic landscape that has been shaped by both natural and human disturbances. Natural disturbances, from insects and diseases, fires, winds, floods, or landslides, all contribute to an ever-changing patchwork of structure and species composition at various scales on the landscape. Human disturbances result from land use choices that include cattle grazing, timber harvest, road construction, water diversions or dams, or species introductions that also influence the ever-changing patchwork of structure and species across the landscape. Combined natural disturbances and human disturbances influence the dynamic line, form, color, and texture features of the landscape. Vegetation on the forest scale is highly variable with a wide number of species. Five categories have been identified to help in understanding the relationships within and between vegetation communities and how these interactions create scenic landscapes. Each of these vegetation groups contributes to distinct scenic values that support a variety of human uses. The five categories are Douglas-fir Dry, Northern Rocky Mountain Mixed Conifer, Spruce/Subalpine fir, Subalpine Fir/Lodgepole pine, Western redcedar/Western hemlock. In addition, several understory/ground cover habitat types contribute to unique landscape character that include Alpine and Subalpine Vegetation, Montane Herbaceous, Montane Shrubland, Riparian Shrub and Deciduous Forest and Wetland/Riparian Herbaceous. The vegetation character is furthered described in the Desired Landscape Character Descriptions in Appendix A.

Scenic Integrity

Scenic integrity is the amount of human caused deviation in form, line, color, and texture of a landscape. Scenic integrity serves as a frame of reference for measuring scenic integrity levels based on the valued attributes of the existing landscape character being viewed. The degrees of integrity vary from VERY HIGH to VERY LOW. Scenic Integrity is measured on the Colville National Forest through Visual Quality Objective levels defined by the USFS Visual Management System's Chapter 1 USDA Handbook # 462.

The **Existing Scenic Integrity** (Condition) identifies temporary **deviations (-)** from the landscape character of a particular place and is a general indicator or impression of ecological conditions and/or trends that puts valued landscape character attributes at risk. (Very High, High, Moderate, Low, Very Low).The highest scenic integrity ratings are given to those landscapes where the valued landscape attributes appear complete and little or no visible deviations are evident. Scenic Integrity is used to describe both existing (Existing Scenic Integrity) and desired (Scenic Integrity Objective) conditions. (*Landscape Aesthetics, A Handbook for Scenery Management, USDA, FS HB 701, page 2-1).*

The following table displays the six scenic integrity objectives and conditions associated with each level (how people perceive them).Table 1. Scenic Integrity and Condition. (USDA FS, 1995, Landscape Aesthetics, p A-1)

Table 1. Scenic Integrity Objective Definitions

SCENIC INTEGRITY OBJECTIVE (SIO)	DEFINITION
Very High	Landscape is intact with only minor changes from the valued landscape character associated with significant scenic landscapes. This SIO is typically (but not exclusively) associated with specially designated areas such as wilderness or other designations that imply the landscape is natural appearing and only ecological changes occur.
High	Management activities are unnoticed and the landscape character *appears* unaltered.
Moderate	Management activities are noticeable but are subordinate to the landscape character. The landscape appears Slightly altered
Low	Management activities are evident and sometimes dominate the landscape character but are designed to blend with surroundings by repeating line, form, color, texture of landscape character attributes. The landscape appears altered.
Very Low	Management activities create a "heavily altered landscape". Changes may strongly dominate the landscape.
Unacceptably Low (Not a management objective, used for inventory only)	Management activities create an extremely altered landscape. Deviations are extremely dominant and borrow little if any form, line, color, texture, pattern or scale from the landscape character. Landscapes at this level of integrity need rehabilitation.

The Colville National Forest has a full range of scenic integrity levels from Very High, to High, Moderate, Low and Very Low; Wilderness and Recommended Wilderness is Very High.

Scenic Stability (Sustainability)

Scenic stability/sustainability is the ability of an ecosystem to maintain ecological processes and functions, biological diversity and productivity over time. The general health of the forest contributes to scenic resources, where uncharacteristic wildfire and insect and disease outbreaks can alter the natural appearance in areas where the ecosystem is out of the historical range of variability.

The Landscape Aesthetics Handbook 701 speaks to achieving landscape character goals by designing a transition strategy that moves the existing landscape character to the desired landscape character. During this Forest Planning process the mapping of where the desired landscape character is not represented on the ground is not necessary to the development of suitability layers primarily from vegetation and fire resources. The development of a map that depicts where the existing landscape character deviates from the desired landscape character simply documents the information for later use at the project level. While the time line necessary for reaching that goal "should exclude excessive increments of change" (SMS pg.5-9), the needed changes can be identified and tracked through the use of a mapping layer. This layer is a "working layer" that would be utilized at the project level, it would not be a fixed or static layer in time and can be revised as the landscape character changes through either project implementation of management activities (i.e., vegetation thinning, prescribed burning, closing and restoring roads) or natural occurring events (i.e., wildfire, flooding, landslides).

In landscape areas where an ecosystem is out of the historical range of variability the forest setting may exist at a lower scenic integrity during treatment activity and recovery in order to restore and sustain the landscape character to the assigned Scenic Integrity Objective (SIO). An example of an area that is identified on the enhancement layer are the Wildland Urban Interface (WUI) areas. Most of these areas are now allocated to the Retention Visual Quality Objective (VQO), and would likely have a High Scenic Integrity Objective (SIO) in the Forest Plan. Because the identified WUI areas may not be sustainable due to past fire suppression causing fuel buildups and now under fire risk to communities, developed recreation facilities, and concentrated use areas, treatments need to occur not only to make them safer, but to also sustain the landscape character and scenic integrity in the future. This area would then be one that would be allowed to exist in a lower scenic integrity state in the short term while treatments were occurring in order to bring it to a sustainable state that can be maintained in the long term. During the transition period, there would be variations of high, moderate, to low scenic integrity levels across the WUI landscape while treatments were occurring, as to not have the whole landscape existing in a low scenic integrity level. The landscape character to be perpetuated would be a mosaic character, the areas of moderate to high landscape character would be coordinated and compatible with meeting other natural resource goals of leaving wildlife or riparian corridors and retaining landscape patches of varying scales. The Landscape Architect would be assisting Silviculturists, Fire & Fuels planners and the interdisclipinary team in developing prescriptions to come up with acceptable methods and treatments that would accomplish all goals.

A new scenery indicator has been developed for use within the USFS Scenery Management System (applied in this analysis according to procedures described in the August 30, 2007 Appendix J of the SMS Handbook #701). Scenic stability is the degree to which the desired scenic character can be sustained through time and ecological progression. The existing scenic stability analysis focuses on the single major scenery attribute of vegetation, addressing its ecosystem conditions identified by field observation and Fire Regime Condition Class (FRCC) 7 coarse-scale data on vegetation

and fire history data. Ecosystem changes to other minor scenery attributes such as landform, rock outcrops, and winter snowfall are not as critical to the Colville Forest area's scenic character as its vegetation, since these changes are relatively stable over time regardless of fire behavior and human activities.

Evaluating scenic stability is done by considering conditions necessary to sustain desired scenic character of stands within the natural and historic range of the landscape. Appropriate stand density, species composition, and fuel loads are necessary for stands to maintain the inherent characteristics through their lifecycle. When trends such as increasing stand density, encroachment of less resilient species, increasing fuel loads, and high levels of mortality exist, the expected consequences are change in the scenic character that are beyond the historic scale. Examples of these consequences are large canopy openings from intense wildfires, large stands of dead and dying timber, and loss of distinctive characteristic such as open, large tree character pine stands and multi-layered mixed species stands. Gradual trends over time have altered the species composition, stand structure, and age classes of the forest vegetation. Stands of large mature ponderosa pine that provide an open forest are diminished due to encroaching mixed conifer species, and past harvest practices that removed pine to release shade tolerant species.

The analysis to determine scenic stability would need to be done at the project level since the landscape is dynamic and conditions change. Tree density needs to be determined at the project level to integrate range of natural or historic variability.

Scenic stability levels are defined as follows:

Very High Stability—All dominant and minor scenery attributes of the valued scenic character are present and are likely to be sustained.

High Stability—All dominant scenery attributes of the valued scenic 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 scenic character are present and are likely to be sustained. A few 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 seriously threaten 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—All 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 relatively permanent attributes such as landforms.

The greatest hazard to scenery resources are large stand replacement fires that would burn much more intensely due to the stocking levels, species compositions, ladder fuels and canopy closure that have developed over time, and large epidemics of insect or disease. The fire regime condition classes rate these factors and give an indication of the potential for fire intensity.

Condition Class: Condition class is a description of how far "current conditions" have deviated from historical conditions. Three condition classes have been developed to categorize the current condition with respect to each of the five historic fire regime groups. Current conditions are a function of the degree of departure from historical fire regimes resulting from alterations of key ecosystem components such as; species composition, vegetation structural stage, stand age, and canopy closure. The higher the condition class number the higher the relative risk of fire, insect, or disease caused losses to natural resources and other key ecosystem components. A higher condition class rating or percent from departure shows a higher risk of loss to key ecosystem components landscape wide.

The three condition classes are:

- **Condition Class 1**: Fire regimes are within or near historical ranges, and the risk of losing key ecosystem components is low.
- **Condition Class 2**: Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate.
- **Condition Class 3**: Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high.

Existing Scenic Stability Summary

The considerations to the stability of scenery resources are to be determined at the project level where project stand conditions related to departure from historical fire regimes and tree density levels are determine overstocked conditions. The following ratings apply to scenic stability levels of very high, high, moderate, low, very low and no stability:

The **FRCC 1 (Low)** corresponds to the definitions for "High" and "Very High" Scenic Stability levels described above. Both classifications have scenery attribute conditions that are within the range of natural or historic variability.

FRCC 2 (Moderate) corresponds to the definitions for "Moderate and Low" scenic stability. Both classifications include conditions outside the range of natural or historic variability.

FRCC 3 (High) corresponds to the definitions for "Very Low" and "No" Scenic Stability. They are far beyond the range of natural or historic variability.

Environmental Consequences

Methodology

Risks to scenic resources were identified. Level of risk is assessed using acres or percent of forest allocated to a management area that is associated with the risk, either increasing or decreasing the risk. Assumptions:

- Assume the budget levels would continue along current trend lines, with the possibility of the amount varying by 20 percent plus or minus.
- The expected amount of acres treated (prescribed fire or timber harvest) is the same across all alternatives.
- Use the PNW-GTR-862 prepared by Gaines to guide consideration of climate change.
- Under all action alternatives scenic integrity objectives for management areas and scenery plan direction remains the same.

Incomplete and Unavailable Information

None

Issue Indicators

Generally effects to scenic resources are from visible management changes that can be detected by the casual forest visitor. Types of activities that create changes are ground disturbing activities such as road building, mining, construction of facilities, and vegetation management activities, including timber harvest. These activities can adversely affect the scenic stability. Also the general health of the forest contributes to scenic resources, where uncharacteristic wildfire and insect and disease outbreaks can alter the natural appearance. Changes in appearance of the landscape character can adversely affect a forest visitor's sense of place, or the value of the setting to the visitor.

The three indicators used to measure the effects to scenery resources are landscape character, scenic integrity and scenic stability. These three indicators evaluate the intensity and duration of effects as well as the degree to which the alternatives would affect the stability of scenery attributes over the long term.

- Landscape Character is the naturally established landscape pattern in a geographic area that that makes each landscape identifiable or unique. It includes both the visual and cultural values and consists of the combination of physical, biological and cultural attributes that are valued by constituents. (SMS Handbook)
- 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 due to human activities or extreme natural events inconsistent with the historic range of variability. (SMS Handbook)

- Scenic Stability is the degree to which the Desired Scenic Character can be sustained through time and ecological progression. (SMS- App. J)

The following indicators were used to evaluate each management issue and to develop the variations between the alternatives:

Old Forest Management and Timber Production

Evaluation Criteria

Evaluate where old forest management would be emphasized on the landscape and the trend of likelihood of uncharacteristic wildfire, and insect and disease outbreaks, and the affect to landscape character and scenic stability.

Key Indicators:

- Proposed vegetation management direction for vegetation in each alternative.

Motorized Recreation Trails

Evaluation Criteria

Evaluate change in motorized recreation trails locations and the effect to landscape character, sense of place and scenic stability.

Key Indicators:

- Proposed motorized trail opportunities for each alternative.

Access

Evaluation Criteria

Evaluate change in road miles or average road density and the effect to landscape character and scenic stability.

Key Indicators:

- Desired road density or road miles for each alternative.

Recommended Wilderness Areas

Evaluation Criteria

Evaluate the change in areas in very high scenic integrity objective and the affect to landscape character, sense of place and scenic stability.

Key Indicators:

- Percent of total forest acreage in recommended wilderness management areas.

Wildlife

Evaluation Criteria

Evaluate the change in areas managed for wildlife and the affect to landscape character and scenic stability.

Key Indicators:

- Proposed vegetation management direction for wildlife in each alternative.

Riparian and Aquatic Resource Management

Evaluation Criteria

Evaluate the change in areas managed for riparian and aquatic resource management and the affect to landscape character and scenic stability.

Key Indicators:

- Proposed riparian and aquatic resource management direction for vegetation in each alternative.

Spatial and Temporal Context for Effects Analysis

The affected environment for direct and indirect effects is the lands administered by the Colville National Forest. The analysis addresses effects over the life of the plan, which is 10-15 years.

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

The affected environment for cumulative effects includes the Confederated Tribes of the Colville Reservation, lands administered by the Idaho Panhandle National Forest and other federal agencies; and lands of other ownerships both within and adjacent to the Colville National Forest boundaries.

Alternative 1 – No Action

This is the current Colville Forest Plan as amended. No Action means the current management direction would continue.

Summary of Effects

Old Forest Management and Timber Production

Risks of uncharacteristic wildfire to scenic resources would continue. The potential for uncharacteristically large and severe wildfire disturbance events would continue at present levels and is predicted to increase due to climate change. There is likely to be a downward trend ecological resilience, especially in the face of climate change scenarios that predict increased occurrence of insect and disease outbreaks; and more, larger areas burned by uncharacteristic wildfires. The extent and intensity of wildfire is likely to continue or increase over the long-term, which increases risks to scenic stability and landscape character.

Motorized Recreation Trails

About 6% of the forest is in management areas that don't allow motorized trails in a backcountry setting (an area without roads.) Due to budget trends the amount of motorized trail access is unlikely to increase significantly in the future, so the changes to scenic resources from introducing new trails into areas that currently are not accessible by motorized trail is negligible.

Access

Currently there is about 4,000 miles of National Forest System roads and about 80% of the forest is suitable for road construction. The current forest plan includes standards and guidelines that limit road densities to between 0.4 to 2 miles per square mile in deer and elk winter range; grizzly bear habitat areas; and lynx habitat Budget trends and need to provide quality wildlife and aquatic habitat would likely result in maintaining or reducing the total miles of National Forest System roads. Any reduction in roads would reduce risks to scenic stability. Risks to landscape character and scenic integrity would remain the same or be slightly reduced over the next 10 years.

Recommended Wilderness Areas

There is no recommended wilderness on the forest. The forest has one wilderness area – Salmo-Priest – which covers about 3 percent of the total forest area. Landscape character and scenic integrity would remain the same.

Wildlife

The wildlife habitat would be managed as it currently exists, landscape character and scenic stability would remain the same.

Riparian and Aquatic Resource Management

The riparian and aquatic resource habitat would be managed as it currently exists, landscape character and scenic stability would remain the same or be slightly reduced in areas where negative scenic deviations exist.

Monitoring Recommendations

None

Summary of Effects to All Action Alternatives

Effects to the action alternatives

Scenic Integrity Objectives are established for management areas that do not change by alternatives, except for where Recommended Wilderness Areas are located. See the Scenic Integrity Objective (SIO) map in Appendix B. SIO zones overlay the management areas. The direction for scenery management applies regardless of the management area boundary. Applicability of plan direction is guided by the principle that where there is an overlap of scenery management direction with other plan components, the most restrictive plan direction applies depending on site-specific conditions and the activity or use.

Alternatives Proposed Action, R, P, B, and O would result in the following effects.

Old Forest Management and Timber Production

Effects on scenic resources from vegetation management

The proposed action and P alternatives emphasize use of a landscape approach to vegetation management expected to result, in the long-term, in a Forest more resilient to uncharacteristic wildfire, and disease and insect outbreaks. In general, the vegetation management would be spread out more on the landscape scale with variable density thinning practices. There is likely to be improvement in ecological resilience. Risks of uncharacteristic wildfire to scenic resources would decrease. There should be fewer occurrences of uncharacteristic insect and disease outbreaks. The risks to scenic stability and landscape character would decrease. In the long term, scenic sustainability and resiliency would be improved by managing for the vegetative historical range of variability spread over the landscape.

Alternatives R, B, and O emphasize old forest management in fixed reserves and emphasize timber production outside those areas. In general, vegetation management would be contained to a smaller landscape area with boundaries with a heavier shelterwood type of prescription. This approach is less likely to improve ecological resilience in the face of predicted climate change scenarios. Risks of uncharacteristic wildfire, and insect and disease outbreaks would likely continue. These alternatives, R, B, and O would increase risks to scenic stability and landscape character. In the long term, scenic sustainability and resiliency would be reduced by focusing vegetation management in specific areas and not on a dynamic landscape scale.

Both wildfires and prescribed fires generate smoke and particulates that can temporarily degrade visibility and scenic resources. Effects to air quality from vegetation management, such as prescribed burning, are likely to result in short-term impacts to

visibility. Each prescribed burn would have unique characteristics, and the smoke impacts can be mitigated by following sound smoke management practices. Due to budget trends the amount of prescribed burning activity on the forest is likely to remain the same. Also, the amount remains the same for all alternatives. Impacts from prescribed burning to scenic stability and landscape character are expected to be small, short-term and the same for all alternatives. Also see discussion in the cumulative effects section.

Table 2. Effects on scenic resources from vegetation management

Effects on scenic resources from vegetation management						
	No Action	*Proposed Action*	*R*	*P*	*B*	*O*
Vegetation Management- landscape approach or fixed reserves *Percent of total forest acres for late forest structures* *Trend for landscape character and scenic stability*	*Old forest management areas (Fixed reserves) MA-1 and Eastside screens standard to maintain all late and old seral and/or structural live trees ≥ 21" dbh.* *MA-1 + eastside screens incorporate about 3% of the Forest* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas and not on a dynamic landscape scale.*	*Landscape approach for late forest structures* *Late forest structures are actively managed for restoration purposes on 71% of the Forest.* **23% of forest in Focused Restoration areas and 48% in General Restoration areas** *Scenic sustainability and resiliency improved by managing for the vegetation HRV spread over the*	*Fixed reserves for late forest structure on 22 % of landscape.* **22% in General Restoration areas** *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas and not on a dynamic landscape scale.*	*Landscape approach for late forest structure* Late forest structures are actively managed for restoration purposes on 67% of the Forest. **28% of forest in Focused Restoration areas and 45% in General Restoration areas** *Scenic sustainability and resiliency improved by managing for the vegetation HRV spread over the*	*Fixed reserves for late reserve structure on 43% of landscape, limited to dry plant associations only. 25% of each forest stand would remain un-thinned in all treatment units. Eastside screens standard to maintain all late and old seral and/or structural live trees ≥ 21" dbh.* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas and*	*Fixed reserves for late forest structure on 39% of landscape, limited to dry plant association only. 25% of each forest stand would remain un-thinned in all treatment units. Eastside screens standard to maintain all late and old seral and/or structural live trees ≥ 21" dbh.* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas and*

Effects on scenic resources from vegetation management						
	No Action	*Proposed Action*	*R*	*P*	*B*	*O*
		landscape		*landscape*	*not on a dynamic landscape scale.*	*not on a dynamic landscape scale.*
Timber Production – percent of total forest acres. *Trend for landscape character and scenic stability*	*Timber management allowed in MA-3A (Recreation), MA-5 (Scenic/Timber), MA-6 (Scenic/ Winter Range), MA-7 (Wood/ Forage), and MA-8 (Winter Range). These management areas incorporate 80.7 % of the Forest.* *TSPQ 26.9mmbf* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas and not on a dynamic landscape scale.*	*Timber production allowed in Focused and General Restoration areas which include 71% of the Forest.* *TSPQ 48.4mmbf* *Scenic sustainability and resiliency improved by managing for the vegetation HRV spread over the landscape*	*Timber production allowed in General Restoration areas. These areas include 22% of the Forest.* *Timber production would not be allowed in late forest structure management areas.* *TSPQ 9.3 mmbf* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas and not on a dynamic landscape scale.*	*Timber production allowed in Focused and General Restoration areas which include 71% of the Forest.* *TSPQ 48.1 mmbf* *Scenic sustainability and resiliency improved by managing for the vegetation HRV spread over the landscape*	*The Active Management Area emphasizes even-aged management for timber production on 43% of the Forest. Additional standards limit timber harvest prescriptions.* *TSPQ 23.7 mmbf* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas and not on a dynamic landscape scale.*	*The Responsible Management Area emphasizes even-aged management for timber production on 39% of the Forest. Additional standards limit harvest prescriptions.* *TSPQ 23.8 mmbf* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas and not on a dynamic landscape scale.*

Motorized Recreation Trails

Effects on scenic resources from Motorized Recreation

Motorized recreation trails can have affects to scenic conditions, especially where changes in recreation activities can improve or adversely affect landscape character, sense of place and scenic integrity for the forest visitor. The proposed action, P and O alternatives would continue with current management areas where backcountry motorized or backcountry non-motorized uses are allowed. There would be no change to the landscape character, sense of place and scenic integrity for the forest visitor under those alternatives. However, in the R and B alternatives all but 1% of the backcountry motorized area would be allocated to Recommended Wilderness. If congress designates these areas as wilderness, motorized and mechanized uses are not allowed.

These alternatives R and B, would change the landscape character on 20% of the Forest for the forest visitor. This would be an adverse impact to the motorized recreationist by changing the sense of place from destination backcountry motorized landscape character to a non-motorized landscape character. Scenic integrity would improve in areas where negative deviations exist where motorized impacts occur. Conversely an improved landscape setting for the non-motorized recreationist user would occur by changing the landscape character and adding new sense of place from motorized to a more quite non-motorized experience.

Table 3. Effects on scenic resources from motorized recreation

Effects on scenic resources from Motorized Recreation						
	No Action	*Proposed Action*	*R*	*P*	*B*	*O*
Backcountry Non-motorized Management Area – percent of total forest acres. *Change to landscape character, sense of place and scenic interity for motorized users*	*Currently 8%* *No change to the landscape character, sense of place and scenic integrity for the forest visitor*	*8%* *No change to the landscape character, sense of place and scenic integrity for the forest visitor*	*2%* *The sense of place would change for motorized users from a destination backcountry motorized landscape character to a non-motorized landscape character. Scenic integrity would improve in areas where negative deviations exist where motorized impacts occur.* *Conversely an improved landscape setting for the non-motorized recreationist user would occur by changing the landscape character and adding new sense of place from motorized to a more quite non-motorized experience.*	*8%* *No change to the landscape character, sense of place and scenic integrity for the forest visitor*	*Less than 1 %* *The sense of place would change for motorized users from a destination backcountry motorized landscape character to a non-motorized landscape character. Scenic integrity would improve in areas where negative deviations exist where motorized impacts occur.* *Conversely an improved landscape setting for the non-motorized recreationist user would occur by changing the landscape character and adding new sense of place from motorized to a more quite non-motorized experience.*	*16%* *No change to the landscape character, sense of place and scenic integrity for the forest visitor*

Access

Effects on scenic resources from Access

Forest roads are typically unpaved and used recreationally and for resource management purposes. Roads create horizontal form, line and color contrasts with the adjacent landscape and can detract from scenic integrity and landscape character, especially when the road density is higher than 1-2 miles per square mile. Alternatives with lower road densities would have fewer roads. Alternatives R and P have lower road densities, which would provide the most improvement in landscape character and scenic integity. The proposed action has a higher road density but would reduce road density in areas where it is higher than 3 miles per square mile. The trend would improve landscape character and scenic integrity. B and O both cap road miles at existing levels which has a range of miles per square mile, either above or below 1-2 miles per square mile. In all alternatives, the number of miles of road would trend downward. Alternatives R and P are likely to have the least miles of road in the long term. A reduction in road miles is likely to improve scenic stability and landscape character, so alternatives R and P are likely to improve scenic resources the most among the alternatives

Table 4. Effects on scenic resources from access

Effects on scenic resources from Access					
	Proposed Action	*R*	*P*	*B*	*O*
Desired road density range. *Effect to landscape character and scenic stability.*	*2-3 miles per square mile. Applicable in Active Restoration Mgmt Areas which cover 71% of forest.* *Road density would be reduced in areas where it is higher than 3 miles per square mile. The trend would improve landscape character and scenic integrity.*	*1-2 miles per square mile. Applicable in Active Restoration Mgmt Areas which cover 73% of forest.* *Most improvement in landscape character and scenic integrity on landscape scale.*	*1-2 miles per square mile. Applicable in Active Restoration Mgmt Areas which cover 71% of forest.* *Most improvement in landscape character and scenic integrity on landscape scale*	*Cap USFS road miles at current level. Applicable to about 74% of the total Forest Service.* *Least improvement in landscape character and scenic integrity on landscape scale.*	*Cap USFS road miles at current level. Applicable to about 74% of the total Forest Service.* *Least improvement in landscape character and scenic integrity on landscape scale.*

Recommended Wilderness Areas

Effects on scenic resources from recommended wilderness

Areas recommended for wilderness would move from a high scenic integrity objective to very high scenic integrity objective where only ecological changes occur. Ground disturbing activities would be very limited. If congress designates these areas as wilderness, the scenic integrity objective would be very high and ground disturbing activities even more limited. R and B recommend the highest amount of Wilderness and largest increase in the amount of very high scenic integrity area on the Forest. In areas where Recommended Wilderness are allocated, the experience for visitor uses would be limited to non-motorized uses, but mechanical use (mountain bikes) could continue to occur, changing the sense of place and landscape character for those users similar to the motorized recreation trails management issue. If the Recommended Wilderness becomes Wilderness, the sense of place would change for mountain bike users by eliminating the opportunity and backcountry experience for mechanized use.

Table 5. Effects on scenic resources from recommended wilderness

Effects on scenic resources from Recommended Wilderness					
	Proposed Action	*R*	*P*	*B*	*O*
Recommended Wilderness – percent of total forest acres. *Effect to landscape character, sense of place and scenic stability*	*9%* *Slight change to the landscape character, sense of place and scenic integrity for the forest visitor.*	*19%* *The sense of place would change in areas for motorized/mechanized users from a destination backcountry motorized landscape character to a non-motorized wilderness landscape character. Scenic integrity would improve in areas where negative deviations exist where motorized*	*6%* *Slight change to the landscape character, sense of place and scenic integrity for the forest visitor.*	*20%* *The sense of place would change in areas for motorized/mechanized users from a destination backcountry motorized landscape character to a non-motorized wilderness landscape character. Scenic integrity would improve in areas where negative deviations exist where motorized*	*1%* *Least change to the landscape character, sense of place and scenic integrity for the forest visitor.*

		impacts occur.		*impacts occur.*	

Wildlife

Effects on scenic resources from wildlife

Differences in management for wildlife habitat between alternatives are similar to the old forest management and timber production issue, driven by how vegetation is managed. Generally, wildlife management objectives are compatible with landscape character goals and scenic integrity objectives. The proposed action and P alternatives emphasize use of a landscape approach to vegetation management expected to result, in the long-term, in a Forest more resilient to uncharacteristic wildfire, and disease and insect outbreaks. In general, the vegetation management would be spread out more on the landscape scale with variable density thinning practices. There is likely to be improvement in ecological resilience. Risks of uncharacteristic wildfire to scenic resources would decrease. There should be fewer occurrences of uncharacteristic insect and disease outbreaks. The risks to scenic stability and landscape character would decrease. In the long term, scenic sustainability and resiliency would be improved by managing for the vegetative historical range of variability spread over the landscape.

Alternatives R, B, and O emphasize old forest management in fixed reserves and emphasize timber production outside those areas. In general, vegetation management would be contained to a smaller landscape area with boundaries with a heavier shelterwood type of prescription. This approach is less likely to improve ecological resilience in the face of predicted climate change scenarios. Risks of uncharacteristic wildfire, and insect and disease outbreaks would likely continue. These alternatives, R, B, and O would increase risks to scenic stability and landscape character. In the long term, scenic sustainability and resiliency would be reduced by focusing vegetation management in specific areas and not on a dynamic landscape scale.

Table 6. Effects on scenic resources from wildlife

Effects on scenic resources from wildlife					
	Proposed Action	*R*	*P*	*B*	*O*
Proposed vegetation management for wildlife-percent of total forest acres *Effect to*	*9%* *Scenic sustainability and resiliency improved by managing for the vegetation HRV spread over the dynamic*	*19%* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas*	*5%* *Scenic sustainability and resiliency improved by managing for the vegetation HRV spread over the dynamic*	*20%* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas*	*1%* *Scenic sustainability and resiliency reduced by focusing vegetation management in specific areas*

landscape character and scenic stability–	*landscape.*	*(reserves) and not on a dynamic landscape scale.*	*landscape.*	*(reserves) and not on a dynamic landscape scale.*	*(reserves) and not on a dynamic landscape scale.*

Riparian and Aquatic Resource Management

Effects on scenic resources from riparian and aquatic resource management

Differences in management for aquatic resources between alternatives are not expected to produce noticeably different effects to scenic resources, however scenic integrity would improve in the long term as riparian and aquatic habitats become more natural appearing. Generally, riparian and aquatic management objectives are compatible with landscape character goals and scenic integrity objectives. The sense of place may be disruptive in places where recreation occurs in riparian/aquatic areas, especially near lakes or streams if use is displaced.

Table 7. Effects on scenic resources from riparian and aquatic resource management

Effects on scenic resources from riparian and aquatic resource management					
	Proposed Action	*R*	*P*	*B*	*O*
Proposed riparian and aquatic management for vegetation - percent of total forest acres *Effect to landscape character and scenic stability*	***Acres of RHCA/RMA*** 179,236 RHCA acres 16% CNF ownership ***Key and priority watersheds*** 371,943 acres in key watersheds; 34% CNF ownership Measureable objectives for key watersheds *Scenic integrity and landscape*	***Acres of RHCA/RMA*** Same the proposed action and alternatives P and O ***Key and priority watersheds*** 451,525 acres in key watersheds; 41% CNF ownership Measurable objectives for key watersheds *Scenic integrity and landscape character would improve*	***Acres of RHCA/RMA*** Same as the proposed action and alternatives R and O ***Key and priority watersheds*** Same as alternatives R and B *Scenic integrity and landscape character would improve in the long term as riparian and aquatic habitats become more*	***Acres of RHCA/RMA*** Same as the proposed action ***Key and priority watersheds*** Same as the no action *Scenic integrity and landscape character would improve in the long term as riparian and aquatic habitats become more natural appearing*	***Acres of RHCA/RMA*** Same as the proposed action and alternatives P and R ***Key and priority watersheds*** Same as alternatives R and P *Scenic integrity and landscape character would improve in the long term as riparian and aquatic habitats*

	character would improve in the long term as riparian and aquatic habitats become more natural appearing	*in the long term as riparian and aquatic habitats become more natural appearing*	*natural appearing*		*become more natural appearing*

Monitoring Recommendations

Monitoring and evaluation efforts provide information to:

- detect magnitude and duration of changes in conditions including scenic integrity and landscape character.
- formulate and test hypotheses as to cause of the changes.
- help better understand these causes and predict impacts.

Monitoring Types

There are three types of monitoring: implementation, effectiveness, and validation.

- Implementation monitoring determines whether the standards and guidelines were followed. Some agencies call it "compliance" monitoring or said another way "Did we do what we said we would do?

- Effectiveness monitoring determines if the application of the management plan achieved or is headed in the right direction to achieve the desired future condition (DFC), in other words did the management practice or activity do what was intended. Did the standards and guides function as intended or were they not effective?

- Validation monitoring determines if new information exists which alters the validity of the assumptions upon which the plan was based. Such considerations might include changes in resource conditions, changes in constituent values and expectations or changes in legal requirements.

Monitoring Landscape Character

The objective of Landscape character implementation and effectiveness monitoring is to determine if the landscape character goal is being met or is moving toward the desired character over time. For example, the goal may be to maintain open, park-like stands of large ponderosa pine with yellow-plated bark with 20% in seeding/saplings, 40% in a black bark stage, and 20% in small saw timber.

Objective: To determine if the landscape character is moving in the direction of the landscape character goal.

Method: Identify through field review the percentage of vegetation (or other elements in the landscape character) that is moving towards the landscape character goal.

Unit of Measure: Percent of acres.

Landscape character validation is addressed through a continual constituent analysis process determining such things as the landscape character preferred by people.

Monitoring Scenic Integrity

Implementation monitoring is usually done through spot checking the scenic integrity level of activities one year after completion to see if they are in compliance with the Forest Plan.

Objective: To determine if the scenic integrity levels for projects adopted in the Forest - Plan by Management Area are being achieved.

Method: Identify through field review a stratified sample of projects in high, moderate and low integrity levels. Sampling intensity should increase with the level of scenic integrity objective.

Unit of Measure: Identify total projects within each viewshed or geographic area, including how many and what percent were monitored. Of those monitored, how many and what percent met the scenic integrity standard for the area.

Effectiveness can be checked by summarizing the existing scenic integrity levels for each viewshed or geographic area.

Objective: Are the cumulative effects of all resource activities within a viewshed meeting the integrity level standards.

Method: Determine the percentages of each integrity level being met within each viewshed. Determine if the percentages are consistent with the Forest Plan.

Unit of Measure: Total acres in each viewshed that are consistent with Forest Plan standards.

Validation is addressed through a continual constituent analysis process, determining such things as the lowest level of scenic quality acceptable to people.

Cumulative Effects

Cumulative effects include the list of past, present, and reasonably foreseeable future activities considered with regard to cumulative effects to scenic resources.

Smoke from wildland and prescribed fires can adversely affect scenic resources in the short term. The National Park Service, State of Washington, and Indian Tribes manage large tracts of lands in surrounding areas. Smoke from prescribed burning operations on these lands could individually, or in combination with other fires, affect scenic resources on the forest and in surrounding communities. Coordination and approvals of prescribed fires through Washington State would help prevent the cumulative impacts of these burns from creating unacceptable impacts to scenic resources. Under all alternatives, wildfires would continue to periodically cause temporary deterioration of scenic resources.

For all alternatives, cumulative impacts on scenic resources from forest management on private lands, where scenic integrity is not an objective, would be to have a heavily altered landscape on private lands. Where the view is comprised of adjacent federal lands, which manage for scenic resources, the cumulative effect is likely to be a natural-appearing landscape with high scenic integrity.

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Department of Agriculture's National Forest Landscape Management Series for technical guidance in managing landscape aesthetics and scenery.

Volume 1 is issued in one Agriculture Handbook (AH 434).

Volume 2 contains eight chapters issued in eight separate Agriculture Handbooks:

Chapter 1 (AH 701); "Landscape Aesthetics: A Handbook for Scenery Management."

Chapter 2 (AH 478); Volume 2, Chapter 2: "Utilities." Agriculture Handbook 478

Chapter 3 (AH 484); Volume 2, Chapter 3: "Range." Agriculture Handbook 484

Chapter 4 (AH 483); Volume 2, Chapter 4: "Roads." Agriculture Handbook 483

Chapter 5 (AH 559); Volume 2, Chapter 5: "Timber." Agriculture Handbook 559

Chapter 6 (AH 608); Volume 2, Chapter 6: "Fire." Agriculture Handbook 608

Chapter 7 (AH 617); Volume 2, Chapter 7: "Ski Areas." Agriculture Handbook 617

Chapter 8 (AH 666). Volume 2, Chapter 8: "Recreation." Agriculture Handbook 666

Volume 2, Chapter 1: "The Visual Management System." Agriculture Handbook 462.

Agriculture Handbook (AH) 462 has been superseded by AH 701, "Landscape Aesthetics, A Handbook for Scenery Management." Nevertheless, consult the superseded AH 462 for background information useful in understanding Forest land and resource management plans and other resource planning activities which utilized the Visual Management System in place prior to publication of AH 701.

Appendix A Desired Landscape Character Descriptions

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INTRODUCTION

Scenic landscapes are an important forest resource valued by many people. National Forest System lands are places where many people go to escape urban environments and immerse themselves in natural-appearing environments. People's definition of the national forest is largely based on landscape images from their own experiences in the forest or images conveyed to them by the media. They have expectations regarding the content and form of forest landscapes; therefore, it is important to realize that the designation of scenic landscapes is based on cultural values and perceptions of nature. Landscapes that are culturally perceived as having high scenic quality are generally associated with sustainable ecosystems; however, not all sustainable ecosystems are perceived as landscapes with high scenic quality. Some high quality landscapes are a result of past human activity. Regardless of whether a scenic landscape is a result of natural processes or past human activity, it is a resource whose aesthetic qualities should be maintained and/or enhanced. To ensure that landscapes are both highly scenic and ecologically sustainable, scenic integrity objectives and scenic resource management objectives, as outlined in the Scenery Management System, would be compatible with other forest resource management objectives.

Desired Landscape Character

Desired landscape character is the desired appearance of the landscape that is to be retained or created through scenery management efforts. The desired landscape character is used to promote a more complete, attractive and sustainable landscape character with high scenic integrity specific to a forest group as described in the following section.

Scenic integrity is a measure of the degree to which a landscape varies from the existing natural landscape character.

Scenery management focuses on maintenance of all naturally established existing landscape patterns. Any proposed changes to the landscape patterns will not degrade the existing character.

Scenery management also focuses on the preservation of ***sense of place***, the combination of images, meaning, and emotional and cultural attachments people use to identify a place.

Landscape Pattern consists of large scale patterns of vegetation that generally describe the landscape character of an area/sense of place zone.

Landform consists of visible geologic features that either influence landscape or a feature of the landscape.

Waterform is an element that provides diversity in form, line, texture, and color in the forest landscape. Streams and lakes are particularly scenic landscape elements that

create distinct breaks in the topography and vegetation, creating view corridors. Flowing water in the creeks and rivers provide movement, sound, and smells that are distinct elements in the landscape. Boulders and gravel bars along the shores of the water features and provide variation in shape, color and texture from the surrounding vegetation. The blue hue of the streams and lakes stands in contrast with the green and brown hues of the surrounding mountains and forest. Reflection of the sky and surrounding landscape is a distinct quality of lakes and still pools of creeks that increases scenic attractiveness.

Vegetation Patterns

Vegetation within the Colville National Forest in northeast Washington reflects a diverse, resilient, and dynamic landscape that has been shaped by both natural and human disturbances. Natural disturbances, from insects and diseases, fires, winds, floods, avalanches, or landslides, all contribute to an ever-changing patchwork of structure and species composition at various scales on the landscape. Human disturbances result from land use choices that include cattle grazing, timber harvest, road construction, water diversions or dams, or species introductions that also influence the ever-changing patchwork of structure and species across the landscape. Combined natural disturbances and human disturbances influence the dynamic line, form, color, and texture features of the landscape

Vegetation on the forest scale is highly variable with a wide number of species. A number of categories have been identified to help in understanding the relationships within and between vegetation communities. Each of these vegetation groups contributes to distinct scenic values that support a variety of human uses.

Douglas-fir Dry

The Douglas-fir Dry forest is dominated by ponderosa pine and Douglas-fir, which historically generally occurred in open, park-like stands arranged in clumps and groups in response to typically frequent low severity fire events. As ponderosa pine age and grow in size the bark turns from black to a unique orange color in a puzzle piece-like pattern providing a distinct visual variety to the landscape. Douglas-fir and grand fir can occur within this group providing textural and color variety. Below tree canopies, grass and shrub levels vary by soil moisture availability and disturbance history including cattle grazing. As these dry forest types have minimal levels of moisture, grasses are dried to a golden hue by fall. Multiple and more dense tree canopy structure occurs in patches and groups that have not had significant disturbance in more than 20 to 30 years. Regeneration of trees and ground vegetation is highly responsive to frequent disturbance from either natural sources or human land use choices. Legacy structures such as dead trees and logs are rare as insect and disease agents generally operate at background levels and frequent fire events burn up logs.

Northern Rocky Mountain Mixed Conifer

The Northern Rocky Mountain mixed conifer forest spans a wide range of soil productivity and moisture conditions that results in various mixtures of ponderosa pine, western larch, Douglas-fir, western redcedar, grand fir, western white pine, Engelmann spruce and subalpine fir. Multiple canopy structure is common due to the competitive variability of each species, disturbance history, and soil productivity. The number of trees per acre tends to be higher related to the species present, each species competitive capabilities, and site resources. Vegetation patterns reflects a disturbance history of fires that were mixed severity that often killed groups and clumps and skipped other areas or had low severity, and an insect and disease history where outbreaks occurred in cycles. Textural complexity is evident in structure and compositional elements in a dynamic patchwork across the landscape. In the fall, the deciduous conifer western larch punctuates the landscape with dramatic yellow needles. Within the mixed conifer forest zone, the presence of other deciduous tree species, such as alder, aspen, birch, cottonwood, and willow, all reflect higher levels of available soil moisture. Shrubs tend to be more prevalent and taller due to increased soil moisture and productivity. Common shrubs include Rocky Mountain maple, Oregon grape, ceanothus, prince's pine, oceanspray, ninebark, rose, snowberry, and huckleberry. Spring flowers and fall leaf colors provide seasons of color variable by the composition of the vegetation. Legacy structures such as dead trees and logs are more common due to the nature of disturbances where insect outbreaks occur in cycles, where root disease is more prevalent, and wind events usually impact larger areas.

Fall view of mesic forest with aspen

Western redcedar / Western hemlock

Species found within the western redcedar/western hemlock forest reflect high levels of moisture, more productive soils, and colder conditions. Conifer tree species include combinations of western redcedar, western hemlock, western white pine, lodgepole pine, Engelmann spruce, and subalpine fir with minor amounts of Douglas-fir and grand fir. Fire disturbance events tend to be infrequent, are often of high severity under extreme fire weather conditions due to drought, and result in large patches of fire-killed trees. Due to the infrequent disturbances, multiple canopies develop with species that can survive in the shade of other species. Deciduous trees, such as birch, willow, alder, aspen and cottonwood, are generally confined to drainages or other areas where cold air is less likely to pool. Major shrubs include rusty menziesia, Cascade azalea, beargrass,

and devil's club. Beargrass is easily identified by its very showy white flower. The densities of the forest are generally high with low textural complexity when viewed from a distance. Legacy structures such as dead trees and logs are common in older stands due to background levels of insects, higher levels of stem and root disease, and wind events that topple or break off trees.

Subalpine Fir/Lodgepole pine

The subalpine fir/lodgepole pine forest is dominated by lodgepole pine, subalpine fir, and Engelmann spruce. The short, branched nature of subalpine fir gives it a spire like appearance. Grouse huckleberry and twinflower, being cold indicator shrub species, are very common in this type. Both lodgepole pine and Engelmann spruce are susceptible to cyclical severe bark beetle outbreaks that can kill the majority of the host trees. Lodgepole pine that is initiated after disturbance tends to have a single canopy layer that is later invaded by subalpine fir and Engelmann spruce, expressing a more complex structural and textural appearance. Legacy structures such as dead trees and logs tend to follow the disturbance cycles; high levels of dead trees after fire or insect outbreaks followed by a decline in snags and an increase in logs as trees fall over until the next disturbance cycle.

Spruce/Subalpine fir

Spruce/subalpine fir forests occur in a marginal environment for tree survival due to short growing seasons and cold temperatures culminating at a tree line. Spruce/subalpine fir forests are usually intermittent and occur in patches and clumps where temperatures and soils are favorable to tree establishment. Trees are generally short due to the growing conditions and often exhibit signs of wind and, under extreme conditions, appear as bushy shrubs often referred to as krummholz. Primary tree species are subalpine fir, Engelmann spruce,and small amounts of whitebark pine. The patchy nature of the alpine forests provides a diversity of color, texture, and structure. Common juniper, and grouse huckleberry, all indicators of cold and short growing seasons, occur within the spruce/subalpine fir forest. Dead trees, or legacy structures, tend to stand for long periods due to slower decay rates.

Structural Desired Conditions within Conifer Dominated Groups

	Early %	Mid Open %	Mid Closed %	Late Open %	Late Closed %
Douglas-fir dry	6-16	2-8	4-13	38-78	1-32
Northern Rocky Mountain mixed conifer	9-25	1-3	18-30	4-6	44-60
Western hemlock / Western redcedar	4-24	0	7-27	0	55-83
Subalpine fir / Lodgepole pine	45-65	0	33-53	0	3
Spruce / Subalpine fir	14-46	0	13-41	0	29-57

Alpine and Subalpine Vegetation

The alpine and subalpine vegetation group is comprised of grasses, forbs, and shrubs including meadows, talus areas, and snowbed communities with subalpine forest intermixed. Vegetation is low statured as a product of harsh conditions that include cold, short growing seasons, drying winds, and an extended snowpack season. Vegetation that occurs is quite varied based on specific site conditions and climatic influences and includes lupine, sagebrush, rushes, grasses, sedges, short willow, prostrate manzanita and huckleberry. Spring flowers erupt in a cacophony of color at snowmelt. Tree invasions are generally tied to periods of high rainfall and warm summers, or grazing activity.

Montane Herbaceous

The montane herbaceous vegetation type consists of single layer openings within forest communities and varies along a moisture gradient from dry grasslands to meadows intermixed with tree dominated areas. Vegetation found in drier portions of this type may overlap those of the lower elevation herbaceous types. Montane herbaceous vegetation is found where tree growth is limited by topographic or soil conditions. Some of these sites are temporary, being initiated by disturbance, and will eventually be overtaken by trees. Meadows and forblands within the montane zone occur in areas too wet for trees and can include floodplains, bogs, marshes, lakeshores, springs, and basins. Vegetation varies by elevation from Idaho fescue and bluebunch wheatgrass in drier areas to green fescue and false hellebore in wetter areas and includes beargrass in higher elevation subalpine transition areas. Flower displays occur in spring consisting mainly of forbs and grasses that dry to a golden hue in summer.

Montane Shrubland

Montane shrublands include two components differing in their potential to dominate a site within forested communities. In openings where conditions limit tree growth, shrubs are considered a soil (edaphic) or topographic climax vegetation. In these conditions ninebark, Rocky Mountain maple, willows, serviceberry, snowberries, ceanothus, mountain big sagebrush, birch, and alder are common species that will persist through time. In openings created by disturbance, shrubs can initially dominate and eventually trees will displace most shrubs, barring additional disturbance. In these transitional openings, the same shrub species can be present. Some species such as ceanothus has a showy white flower that emits a distinctive sweet fragrance. Snowberries have distinctive white, round fruit that persist into the winter. Fall leaf color varies between species with some not having deciduous leaves such as the grays of sagebrush and the greens of ceanothus.

Riparian Shrub and Deciduous Forest

While this group spans a large environmental gradient, from wet to mesic, the type is characterized by the dominance of deciduous shrub and tree species in the upper canopy layers. Most of the species within this group either require a perpetual source of water, sub-irrigation, or a seasonally high water table to survive. Others occur in a variety of habitats including riparian areas or grade into aquatic, forblands, or meadows. Typical species include cottonwood, aspen, birch, dogwood, willow, alder, and maple. Flooding is a unique disturbance feature in riparian areas that perpetuates species such as cottonwood. Fall leaf colors present a pallet of color including golden aspen, yellow cottonwood, and red dogwood.

Fall view of a riparian shrub dominated by willow

Wetland/Riparian Herbaceous

Vegetation within this group occurs at pond and lake margins, wet meadows that are grass dominated, and forb dominated wetlands that encompass a wide elevational and topographic variation. Within this group there are three general sub groups: aquatic, meadow, and forb. Aquatic includes all herbaceous associations growing along natural ponds and lakes, seasonally flooded shorelines, beaver ponds, reservoirs, sloughs, and stream backwaters that includes species such as rush that grows in wetter sites, water horsetail, mannagrass, cattail, bulrush, and water lily. The meadow portion of this group is characterized as fens, poor fens, meadows, and bogs that includes a wide variety of sedges, drier site rush, mannagrass, and wetter site grasses that grow in wetter sites. Forbs within this group include lady fern, oak fern, monkey flower, globeflower, marshmarigold, lupine, and several species of saxifrage located along moist, well-drained streams that may be influenced by peak flow flooding or flash flooding, with a few areas found in springs or fens. Flowering season may tend to be longer in these types due to the availability of moisture. Structure and texture varies by type from six-foot tall cattails to ground hugging forbs. Besides mosquitoes, these vegetation types would be noted for dragonflies and frogs.

Sense of Place Zones

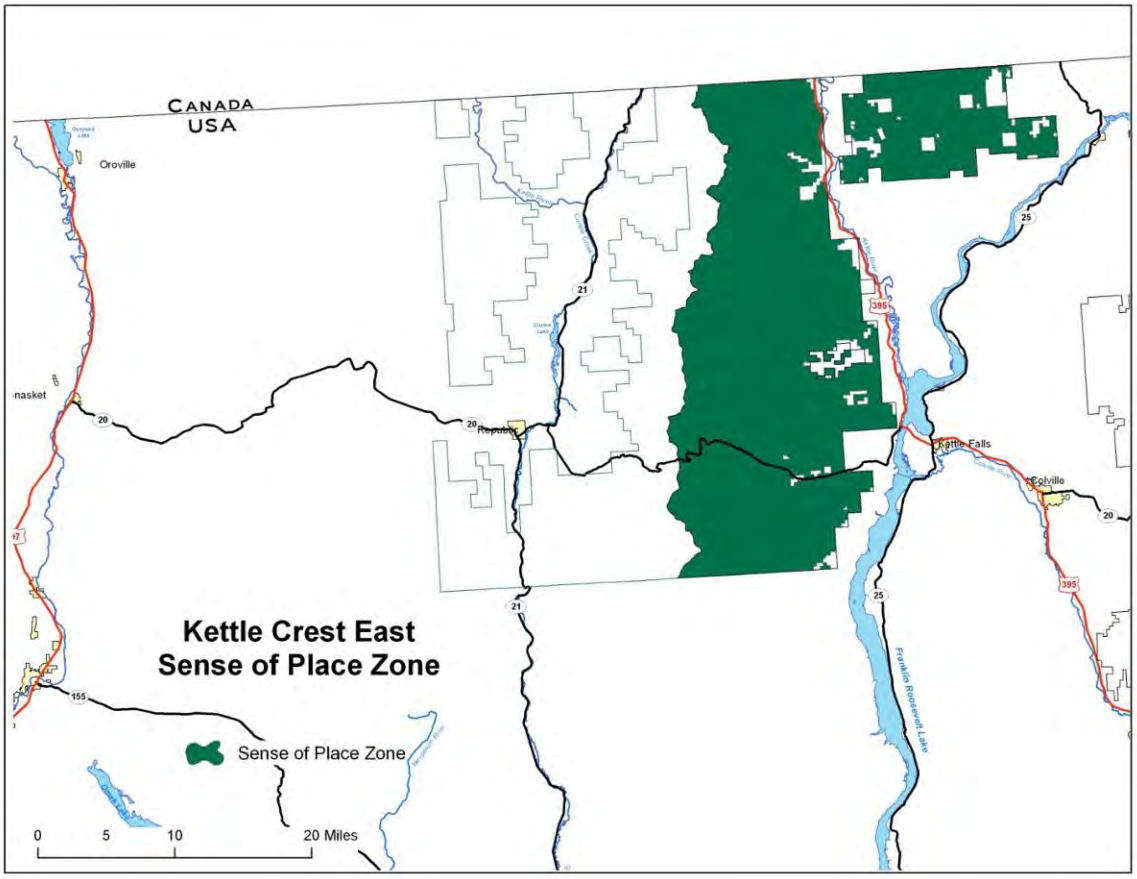
The Colville National Forests contain a complex and diverse range of landscapes. Place-based planning recognizes that people are part of the natural environment and integrates peoples' values into environmental planning. District meetings were conducted across the Forests that used a sense of place process to develop a geographic map. The Forest specialists interviewed various Forest staff and involved the public at 12

meetings to further refine the sense of place values. The sense of place zones document how people value the forest landscape and are displayed in this document in a map at the beginning of each landscape character description.

Sense of place varies in scale; the entire forest falls into a regional scale while the watershed scale is at the community scale. Given the large size of the Colville Forest, 5 sense of place zones were identified to comprehensively and adequately describe the scenic resources. The 5 sense of place zones are East of Kettle Crest, Front Country Dispersed, Okanogan Highlands, Salmo Priest Remote Dispersed and West of Kettle Crest. Since scenery is intrinsically linked to biological and hydrological processes, the sense of place zones are divided according to watershed boundaries. Several of these watershed boundaries correspond with District boundaries, creating sense of place zones. In addition to the physical environment, Forest Service facilities evoke a strong sense of identity across all sense of place zones. Historical and cultural landscape character also defines sense of place. Each of the following narratives describes the existing landscape character based on physical, biological, social and ecological elements as it relates to the scenic context and sense of place. The Rocky Mountain Province provides the rustic architectural style to be used for the introduction of the built environment associated with administrative sites and developed recreation facilities. (BEIG)

COLVILLE NATIONAL FOREST SENSE OF PLACE ZONES

East of Kettle Crest



Physical Landscape

Location

The area known as the East of Kettle Crest sense of place zone covers the portion of the Kettle River Range falling within Colville National Forest boundaries and includes the lands that drain into the Kettle and Columbia Rivers from the west.

Landscape Patterns

Non-forest lands only occur in scattered rocky openings and cliffs throughout the area as well as the dry alpine meadows along the summits of the Kettle Crest. The eastern slopes of the Kettle Crest are heavily timbered with some open stands along the ridgelines. The

vegetation on north-facing slopes tends to be dense with continuous canopy, while south-facing slopes tend to be more open with breaks in the canopy. Rock forms are prevalent in the area. Some mountaintops are capped with rocky outcrops that merge into grass balds with scattered timber. The overall appearance of the area is of natural-appearing forestlands. Western larch provides fall and spring color against a backdrop of evergreens. Over the last 20 years, large-scale fires and the resulting regeneration patterns have created a mosaic of vegetative types and ages. Summer lightning storms are frequent and lightning-induced fires have created diversity within the timber stands. Spring runoff can vary from year to year, causing bank erosion and destabilization along the steep ravines.

Landform

At the broad scale, the landscape character in the East of Kettle Crest area is typical of the Okanogan Highlands geomorphic province. A series of mountains and connecting ridges reaches from the Kettle River within Canada south through the Colville Indian Reservation lands to the Columbia River. The Kettle Crest is part of the Kettle River Range, represented by a series of north-south river valleys and rounded summits marked by glaciations. The eastern slopes of the Kettle Range stretch to where the Kettle River flows into the Columbia River. Layered metamorphic gneiss and heterogeneous metamorphic formations along the Kettle Crest and down to the Columbia River are part of the Kettle gneiss dome. Mountains and ridges average between 6000 and 7000 feet in elevation along the Crest. The land is broken by several ridges and by east-flowing drainages. Visible from roads and trails are a number of deep gorges created during catastrophic events where water released from receding ice sheets scoured out drainages.

Water Form

Lake Ellen and the lakes in the Hoodoo Canyon are set among dramatic cliff topography. Davis Lake is nested in a peaceful forested setting and has an extensive lush wetland that adds variety to the view. The Kettle River, an eligible Wild and Scenic River, and Sherman Creek, located along the Sherman Pass Scenic Byway, are the most heavily viewed water features.

Vegetation Patterns

The vegetation patterns in the lower elevations of the East of Kettle Crest area are predominately Douglas-fir Dry Forest with scattered areas of Northern Rocky Mountain Mixed Conifer Forest and non-forest with rock outcrops and dry alpine meadows on the summits. As elevation increases, the Douglas-fir Dry Forest transitions into Western redcedar/Western hemlock Forest, then transitions into Subalpine Fir/Lodgepole pineForest. Spruce/Subalpine fir Forest occupies the highest elevations of the Kettle Crest and King Mountain.

Cultural and Social Landscape

The area gets its name from the American Indians that lived at the salmon fishery known as the Kettle Falls. American Indians used fire as an agent of change in the area. Trees hundreds of years old reveal burn scars in seven-year intervals that show how fire was used as a tool to clear out the understory, creating new areas of wildlife forage and promoting the growth of berry fields. Homesteading, mining, and trapping are also historical themes represented on the landscape.

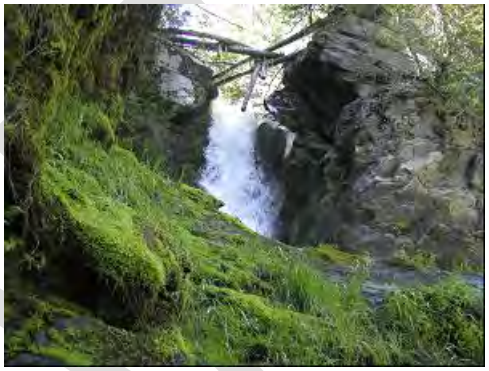
The primary commerce within this area has historically been centered on the area known as Kettle Falls and the neighboring small communities of Marcus and Orient. Major travel routes are part of the area's past history and still serve an important economic and social function. Sherman Pass Scenic Byway follows a historic route from the Kettle Falls area to the town of Republic, and provides several stops of interest for travelers. The Pass is named for General Sherman, who passed through the area somewhat to the north along the Boulder and Deer Creek drainages. The route has become popular with both motorized and non-motorized cyclists traveling Washington State Highway 20. Sherman Pass is at the summit of Washington State's highest year-round drivable mountain pass at 5,575 feet in elevation.

Visitors stopping within the area are afforded recreational opportunities ranging from paved trails along Sherman Creek that provide a cool escape from the valley heat, to semi-primitive trails along the Kettle Crest that that provide views of broad vistas. The Pacific Northwest National Scenic Trail traverses the area. Several trailheads are scattered along the base of the Kettle Range allowing visitors to vary the length of their hikes. Small campgrounds at Trout Lake, Lake Ellen, Davis Lake, and along the scenic byway support a variety of recreation opportunities such as hiking, fishing, and non-motorized boating. A groomed Nordic trail system is located at Deer Summit. All 4x4 trails on the Colville National Forest occur in this landscape offering a range of technical settings and the opportunity for high elevation views. The Kettle River is

popular for boating and tubing. The area between the Kettle and Columbia Rivers is known as the Wedge. This area lacks recreational infrastructure other than one small campground on Pierre Lake. Use is primarily dispersed recreation and the area is viewed as the “big backyard” of local residents.

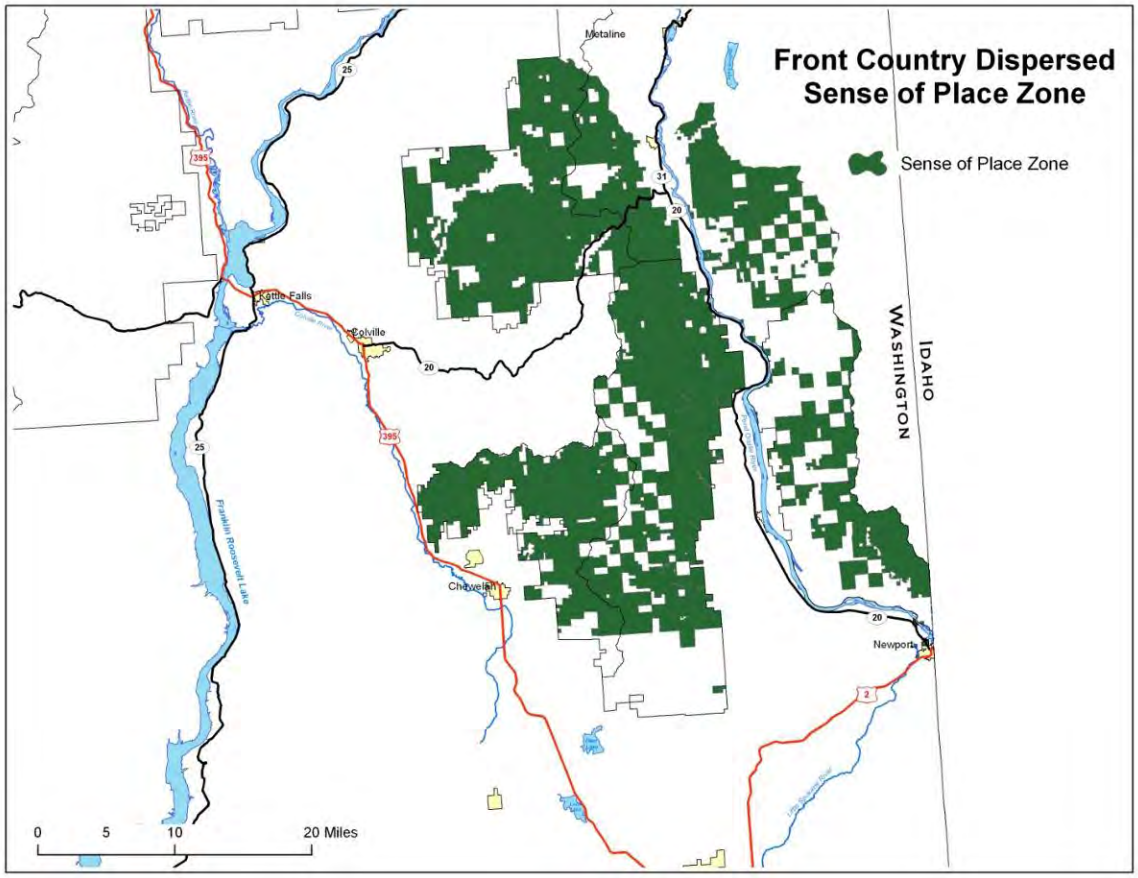
Sense of Place

The eastern slopes of the Kettle Crest are valued for the dispersed and semi-primitive recreation opportunities provided by the Kettle Range and associated ridges. The area includes the eastern gateway to the Sherman Pass Scenic Byway. The moderately developed recreation sites along the byway showcase the human history that has



defined the area. Sherman Pass is culturally important to local American Indian tribes. It was also an important travel route for early settlers and is still critical for east-west travel in the area. The eastern edge of this area and the Wedge are proximate to homes and communities, where the view is a backdrop for many residences. Special places in the area include the Kettle Crest National Recreation Trail, Growden CCC Historic Site, Log Flume, White Mountain, Columbia Mountain Lookout, Sherman Overlook, Canyon Creek, Trout Lake, Lake Ellen, Deer Summit Nordic trails, the Twin Sisters motorized 4x4 trail system, Emerald Lake, Davis Lake, Thompson Ridge, Oval Mountain 4x4 trail, Donaldson Draw Interpretative Site, Bangs Mountain, Hoodoo Canyon, and several feeder trails to the Pacific Northwest National Scenic Trail. Cultural resources, such as Civilian Conservation Corps (CCC) facilities, contribute to the valued landscape character, which is to be maintained and highlighted where appropriate through interpretive media and educational opportunities and through application of the Rocky Mountain Province architectural style when building new facilities.

Front Country Dispersed

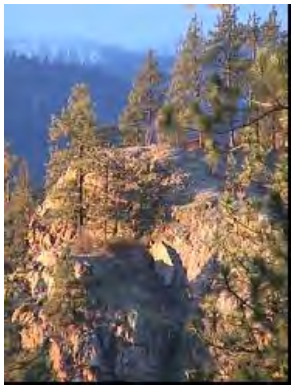


Physical Landscape

Location

The Front Country Dispersed landscape includes the lands to the south and west of Ione that drain from the east into the Columbia River and the Pend Oreille River.

Landscape Patterns



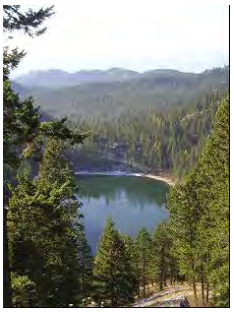
This area is characterized by large stands of continuous tree cover or stands broken by natural meadow openings and rock outcrops. Vegetation on north-facing slopes tends to be denser with continuous canopy, while south-facing slopes tend to be more open with breaks in the canopy. Where timbered, the vegetation is characterized by grand fir, Douglas-fir, larch, lodgepole and ponderosa pine. Hardwood groves provide diversity and appear

frequently in conjunction with meadows and riparian areas.

Landform

At the broad scale, the landscape character in the Front Country Dispersed area is typical of the Okanogan Highlands geomorphic province. Several episodes of continental glaciations have played a dominant role in the shaping of the Okanogan Highlands geomorphic province: mountains are scoured and summits rounded; glacial drift and outwash are deposited on slopes and east-west valleys; and valleys enlarged by voluminous outwash flows are occupied by underfit streams, streams that flow through a valley that was probably formed by a much larger stream. Much of the country is underlain by ancient Paleozoic and Pre-Cambrian metasedimentary rocks locally intruded by large masses of granite and granodiorite. Glacial drift covers bedrock in many areas and glacial terraces are common in the Pend Oreille River valley.

Water Form



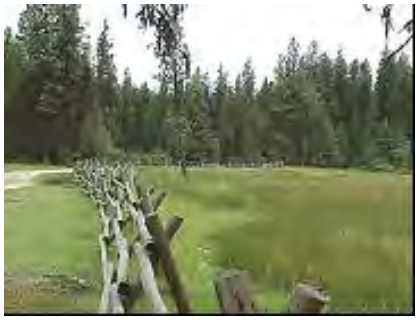
Water forms are prevalent in the area. The east and southeast parts of the area contain many lakes and ponds that have formed in depressions caused by stranded glacial ice or in drainages blocked by glacial debris. Several rivers flow through or adjacent to this area including the Colville, and Pend Oreille. Additionally, there are numerous small creeks and streams feeding into the major river courses. Big Meadow Lake, the Little Pend Oreille Lakes, Skookum Lake and Browns Lake, and Bead Lake are popular lakes for recreational activities.

Vegetation

The vegetation pattern at the lower elevation of the Front Country Dispersed Area is Douglas-fir Dry Forest with a few scattered patches of Northern Rocky Mountain Mixed Conifer Forest to non-forest areas with rocky outcrops and meadow openings. As elevation increases, the vegetation pattern transitions from Douglas-fir Dry Forest to Western redcedar/Western hemlock Forest. There are small areas of Subalpine Fir/Lodgepole pine Forest at the higher elevations of Chewelah Mountain and South Baldy.

Cultural and Social Landscape

The Front Country Dispersed area forms an outlying part of the traditional territory of the Kalispel Indians. Native American usage has occurred throughout this area for over 7000 years providing a social and cultural connection to the vegetation and landform through time.


This landscape is a backdrop to two major highways, Washington State Highway 20 and U.S. 395, which are adjacent to or pass through the area providing multiple views of the landscape. The International Selkirk Loop follows portions of Highway 20 and Highway 31. Another popular route known as “Flowery Trail” connects the Colville River valley with the Pend Oreille River valley and passes the 49 Degrees North Ski Resort. Several paved county roads provide scenic loop drives for locals from Spokane to Canada. Most of the towns, small communities, resorts, and businesses are located along these routes.

Current use is primarily dispersed among several developed camping or boating areas and along trails. Popular recreation areas include, 49 Degrees North Ski Resort, the Pend Oreille Rivers, small lakes accessed by county roads, and a chain of lakes along State Highway 20 ringed by summer homes and Forest Service campgrounds known as the Little Pend Oreille Lakes Recreation Area. The only motorized single-track trails in the area are in the Little Pend Oreille Lakes area and at Batey Bould. A small ATV trail system is also available. Bead Lake is frequented by hikers and mountain bikers. Groomed Nordic trail systems are available at the Little Pend Oreille Lakes and near Newport.


Patterns in the landscape have been created through time by the private inholdings of timber companies and homesteaders. Scattered throughout the area are the visible remains of homesteads and small communities that were unable to gain a foothold in the timbered mountains. Active restoration and preservation projects retain the historic characteristics of structures such as the Uptagrafft homestead. Through time, human populations have ultimately settled within the river valleys, and the mountainous portions have been utilized for dispersed activities such as gathering forest products or

recreating. Cultural resources contribute to the valued landscape character, which is to be maintained and highlighted where appropriate through interpretive media and educational opportunities and through application of the Rocky Mountain Province architectural style when building new facilities.

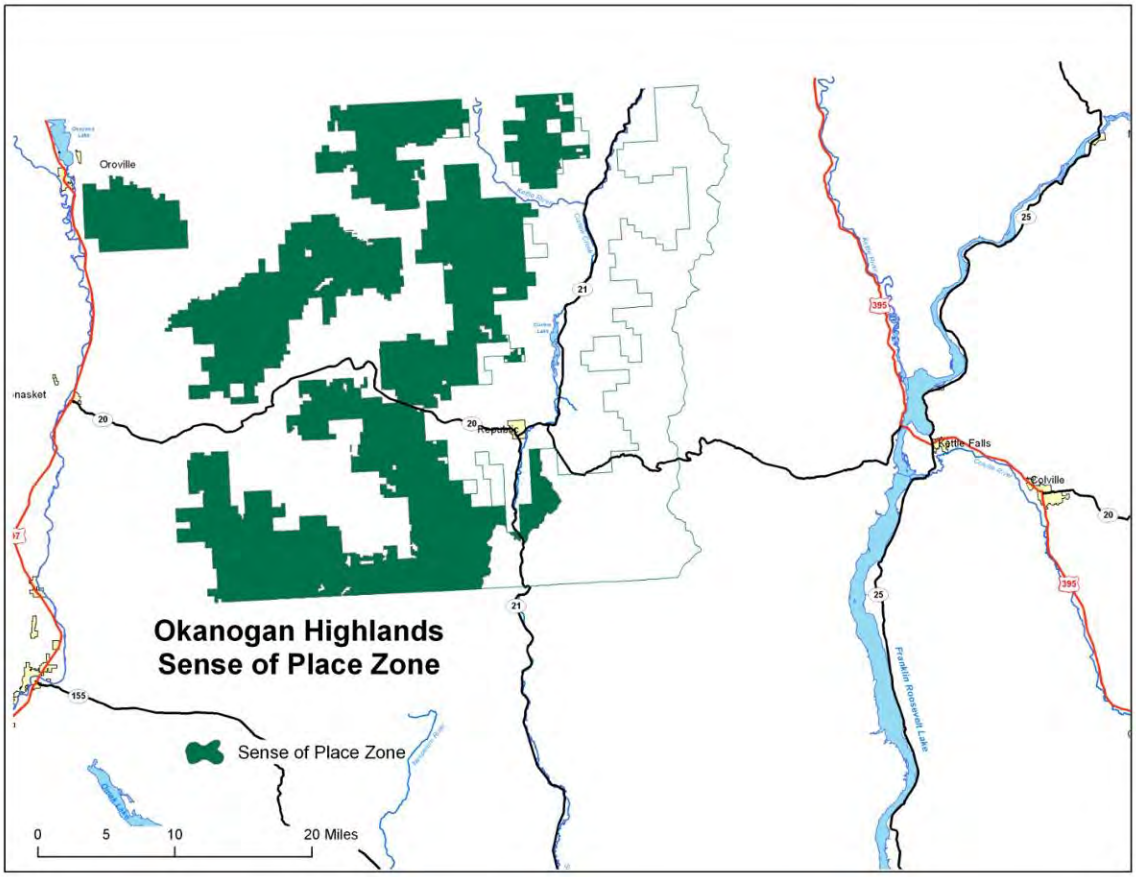
Sense of Place

The Front Country Dispersed area is a roaded backyard and scenic backdrop to the local communities and is the portion of the forest most quickly reached from Spokane. It is valued for the variety of dispersed and developed recreation sites scattered throughout the area. Several lake areas act as recreational hubs in the summer, providing opportunities for motorized and non-motorized recreation settings. In winter, the area provides opportunity for both motorized and non-motorized activities from downhill skiing to snowmobiling. The rich history of homesteading and logging is still evident throughout the area with the remains of cabins and checkerboard ownership patterns. Special places in the area include South Baldy Lookout, Big Meadow Lake, the Little Pend Oreille Lakes Recreation Area, the Skookum and Browns lakes area, Bead Lake, Pend Oreille River, and the multiple motorized trails valued for connecting users with the



forest environment.

Okanogan Highlands



Physical Landscape

Location

The Okanogan Highlands sense of place zone includes the lands that drain into the San Poil River from the west and the Okanogan River from the east. This zone includes the portion of the Tonasket Ranger District east of the Okanogan River and the easternmost portion of the Republic Ranger District.

Landscape Patterns

Vegetation is characterized by open stands of timber broken by arid grasslands along the broad rounded summits becoming denser stands within the stream channels. Hardwood groves of quaking aspen and cottonwood are predominant in the valleys. Pine stands mixed with large expanses of larch across the valley slopes provide both spring and fall displays of color. Fire plays an important role in creating and preserving the diverse

vegetative patterns throughout the character type that is distinctive for the grassy openings along hilltops with scattered timber islands. The numerous streams with the accompanying deciduous vegetation provide patterns of cool, moist zones in contrast to the warm, dry open hilltops. The landscape is distinguished by the textural and color changes provided by the rocky outcrops, vegetative diversity, and numerous water forms.

Landform

The landscape character in the area called Okanogan Highlands is typical of the Okanogan Highlands geomorphic province of north central and northeastern Washington. This province includes a series of subdued north-south mountain ranges separated by river valleys. Several episodes of continental glaciations have played a dominate role in the shaping of the Okanogan Highlands geomorphic province and all the northeast Washington landscape character types: Mountains are scoured and summits rounded; glacial drift and outwash are deposited on slopes and in east-west valleys; and valleys enlarged by voluminous outwash flows are occupied by underfit streams. Layered, high-grade metamorphic rocks form the Okanogan Dome in the western half of this landscape description area while Tertiary volcanics occupy most of the Toroda, Curlew, and San Poil valleys. Generally, rolling terrain of moderate slopes with broad rounded summits is typical. Massive bold or abrupt rocky outcrops are common and create distinct contrast to the general terrain.

Water Form

Several streams flow through the Okanogan Highlands area. Bonaparte/Lost Lake and Swan/Long/Ferry Lake are popular summertime recreation areas that offer boating and fishing opportunities.

Vegetation

The vegetation patterns in the western portion of the Okanogan Highlands area is predominately Douglas-fir Dry Forest that transitions into Western redcedar/Western hemlock Forest and then into Subalpine fir/Lodgepole pine Forest as elevation increases. Spruce/Subalpine fir Forest occupies the highest elevations of the Mount Bonaparte area. The vegetation patterns in the eastern portion of the Okanogan Highlands are

predominately Douglas-fir Dry Forest that transitions into Western redcedar/Western hemlock Forest, with scattered patches of Non-Forest throughout the area. There are scattered patches of Subalpine fir/Lodgepole pine Forest in the Fir Mountains, Cornell Butte, and Coco Mountain areas.

Cultural and Social Landscape

The Okanogan Highlands area lies directly north of the Colville Confederated Tribes reservation lands and shares many of the landscape characteristics. Native American usage has occurred throughout this area for over 7000 years providing a social and cultural connection to the vegetation and landform through time.

The primary commerce within this area is centered on the towns of Republic and Tonasket, which built up from a rich history of prospecting for gold and silver. The Tonasket Ranger District is located in Tonasket on the Okanogan-Wenatchee National Forest. Mineral exploration and production in the Republic area has been substantial for

an extended period and represent an important heritage value. Wagon trails providing supplies to miners have developed into highways accommodating travelers moving east-west through Washington State along the State Highway 20 corridor and north-south from Canada to the Columbia River along State Highway 21 and Interstate Highway 97. Scattered small communities have endured along county roads within the area as well as remnants or landmarks of those that did not. The building styles vary widely depending on current design concepts and economic considerations, but there is an attempt to retain historic buildings within the town of Republic and some small communities. Ranching and farming is an important part of the overall landscape character throughout the area.

Over the past 100 years, the federal government has played an active role in the development of the cultural and social landscape valued by the public today. The Job Corps center at Curlew has provided help with a variety of projects around the area leaving not only distinctive features on the landscape, but a social pride in the community from their involvement. There is a similar strong connection to the era of the Civilian Conservation Corps and the encampments that were built in this area. All of these cultural resources contribute to the valued landscape character, which is to be maintained and highlighted where appropriate through interpretive media and

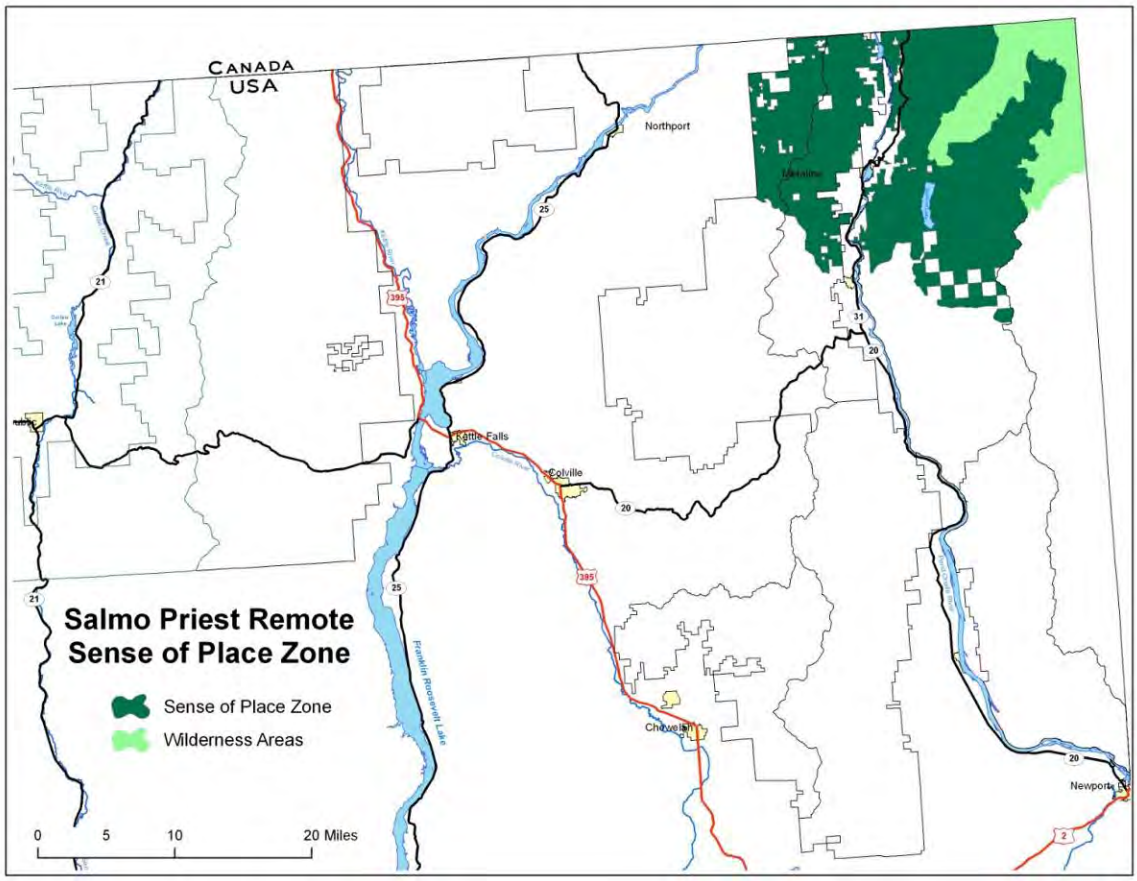
educational opportunities and through application of the Rocky Mountain Province architectural style when building new Forest Service facilities. The USDA Forest Service has provided the primary management of vegetation, recreation, and cattle grazing throughout the area, occurring after the transfer of lands from homesteading and mining interests of the past.

Recreation centers on the high country areas for hunting and snow activities, and on the lakes for camping, swimming, boating, and fishing, several key areas for berry picking, and to all areas for wildlife or fall vegetation viewing. Several small trail systems attract local residents for hiking and horseback riding. The Swan Lake area also supports an extensive road and trail system used by mountain bikers. It is also known for waterfowl viewing; the northern loon can be spotted here. Access to these recreational opportunities occurs primarily along travel routes. The local communities have also promoted traveling throughout the area to visit historic sites and their connection to each other.

Sense of Place

The Okanogan Highlands is valued for the dispersed and moderately developed recreation sites used primarily by locals living in scattered small communities. The Bonaparte/Lost Lake and Swan/Long/Ferry Lake areas act as recreational hubs in the summer, providing quiet and uncrowded recreation opportunities. The Pacific Northwest National Scenic Trail traverses the Highlands. In winter, the Highlands area provides recreational opportunity for cross-country skiers including a groomed Nordic trail system at the Highlands Nordic Ski Area. The rich history of the area is evident in the small communities and the remains of mines, tie mills, ghost towns, and lookout structures throughout the area. Other special places in the area include Mt. Bonaparte Lookout, Beth Lake, Big Tree botanical area, Beaver Lake, Mt Hull, Clackamas Mountain, Bodie Mountain, the scenic drive along the San Poil River and Crawfish Lake.

Salmo Priest Remote Dispersed



Physical Landscape

Location

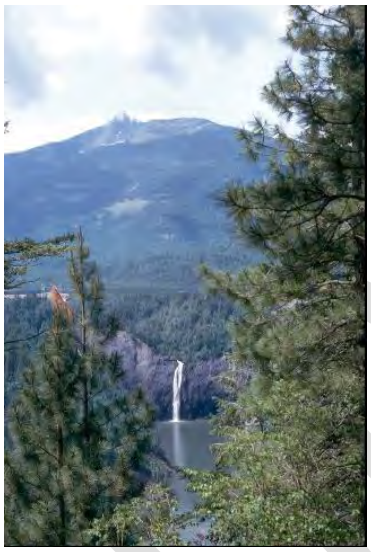
The Salmo Priest Remote Dispersed landscape includes the lands to the north and east of Ione that drain into the Columbia River from the east and the Pend Oreille River.

Landscape Patterns

Large fires dating from the 1920s have played an important role in creating the diverse vegetative patterns seen today. The characteristic landscape pattern includes a mosaic of timber stands with different ages and structure. The landscape is vegetated with broad expanses of timber varying in species and density from the moist drainages to rocky outcrops capping the high ridges. Throughout the northeastern portion, timbered slopes contain a mixture of tree species dominated by western hemlock and western red cedar. This habitat type is widespread along valley bottoms and lower slopes, spreading to higher elevations where precipitation is plentiful.

Landform

At the broad scale, the landscape character in the Salmo Priest Remote Dispersed area is typical of the Okanogan Highlands geomorphic province. Characteristically, the area is comprised of scattered peaks along ridgelines rising above a north-south river valley. Distinctive land patterns, such as large expanses of larch and aspen that provide both spring and fall displays of color, are often reflected in the bodies of water throughout the area. Durable Paleozoic and Pre-Cambrian metamorphic rocks underlie a more rugged terrain in the northeast portion of the area. This contrasts with the subdued topography associated with granitic intrusive rocks to the south. High elevation terrain in this area is highly varied and ranges from sharp, rugged peaks with glaciated cirque basins and alpine meadows. The area encompasses the northern reaches of the Pend Oreille River basin with several high elevation watersheds. As the river moves north into this area, the corridor changes from an open valley to a narrow and remote canyon with vertical walls.



Water Form

Several small lakes are within the area including the 1290-acre, glacially formed Sullivan Lake that was dammed in 1910. Sullivan Lake is a popular destination for fishing, boating, and wildlife viewing. Numerous streams and large creeks cascade through narrow drainages and provide outstanding waterfalls that can be seen upon entering the Pend Oreille River valley. Peewee Falls is a major water feature that can be viewed from the impoundment behind the Boundary Dam. The Salmo River, which flows through the Salmo Priest Wilderness, is eligible for nomination as a wild and scenic river.

Vegetation Pattern

The vegetation pattern at the lower elevations of the Salmo Priest Remote Area is

Douglas-fir Dry Forest. As elevation increases, the Douglas-fir Dry Forest transitions into Western redcedar/Western hemlock Forest, which occupies the majority of the area. There are scattered areas of non-forest meadow openings and rocky outcrops in both the Douglas-fir Dry Forest and the Western redcedar/Western hemlock Forest areas. Subalpine fir/Lodgepole pine Forest is found at the higher elevations of the western portion of the area. Spruce/Subalpine fir Forest is found at higher elevations on the northern and eastern portion of the area.

Cultural and Social Landscape

The Salmo Priest Remote Dispersed area forms an outlying part of the traditional territory of the Kalispel Indians. American Indian usage has occurred throughout this area for over 7000 years providing a social and cultural connection to the vegetation and landform through time.

This area offers large expanses of ridgelines, canyons, and drainages that are remote and

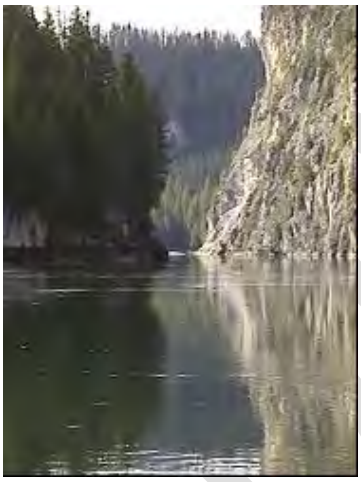
not easily accessed. Views along ridges reach into the Canadian Rockies and northern Idaho. Visitors can also find an unusual solitude within the walls of the canyon along Pend Oreille River. It is common to see the remains of cabins in remote areas that leave visitors wondering of the challenges people faced in trying to extract a living from the area. Current use is primarily dispersed among several developed camping or boating areas and along trails.

Several dams have been constructed within the area to provide water storage or direct flow for hydroelectric power generation. At Mill Pond, the reservoir is tied to historical features throughout the drainage and the town of Metaline Falls. The Sullivan Lake dam allows for the water level to be raised and held above the natural high water elevation for recreational purposes. Box Canyon Dam is set among the small towns and private land of the north Pend Oreille River Valley, while Boundary Dam is tucked into the rock faces of a remote canyon just one mile south of the Canadian border. These dams have aesthetic designs and have become a recognized part of the characteristic landscape and the history of the area.

Much of this area has a long history of mining, starting with placer mining for gold in the mid-1800s, transitioning to hard rock mining beginning about 1880. The area currently supports production of lead and zinc and active exploration for other minerals. The towns of Metaline and Metaline Falls lie on flats above the river and owe their existence

to the mining history of the area. Visible evidence of past and present mining is scattered throughout the area. Several Forest Service administrative and recreation facilities are Civilian Conservation Corps (CCC) projects. These cultural resources contribute to the valued landscape character, which is to be maintained and highlighted where appropriate through interpretive media and educational opportunities and through application of the Rocky Mountain Province architectural style when building new forest service facilities.

Sullivan Lake has been a destination for visitors since the early 1900s, particularly during the era when the railroad brought people from Spokane to Metaline Falls. The local communities recently began running a short rail tour that explains the history of the area and showcases the dramatic views of the Pend Oreille River and the remote high country. Many of these features are viewed along the International Selkirk Loop, a national scenic byway. In regards to wildlife viewing, Sullivan Lake is known for its established population of northern woodland caribou and rare sightings of grizzly bears. Hall Mountain and Abercrombie Mountain offer non-motorized trail systems that provide a diverse natural setting and sense of remoteness. Hall Mountain supports a population of bighorn sheep that allows for wildlife viewing opportunities.

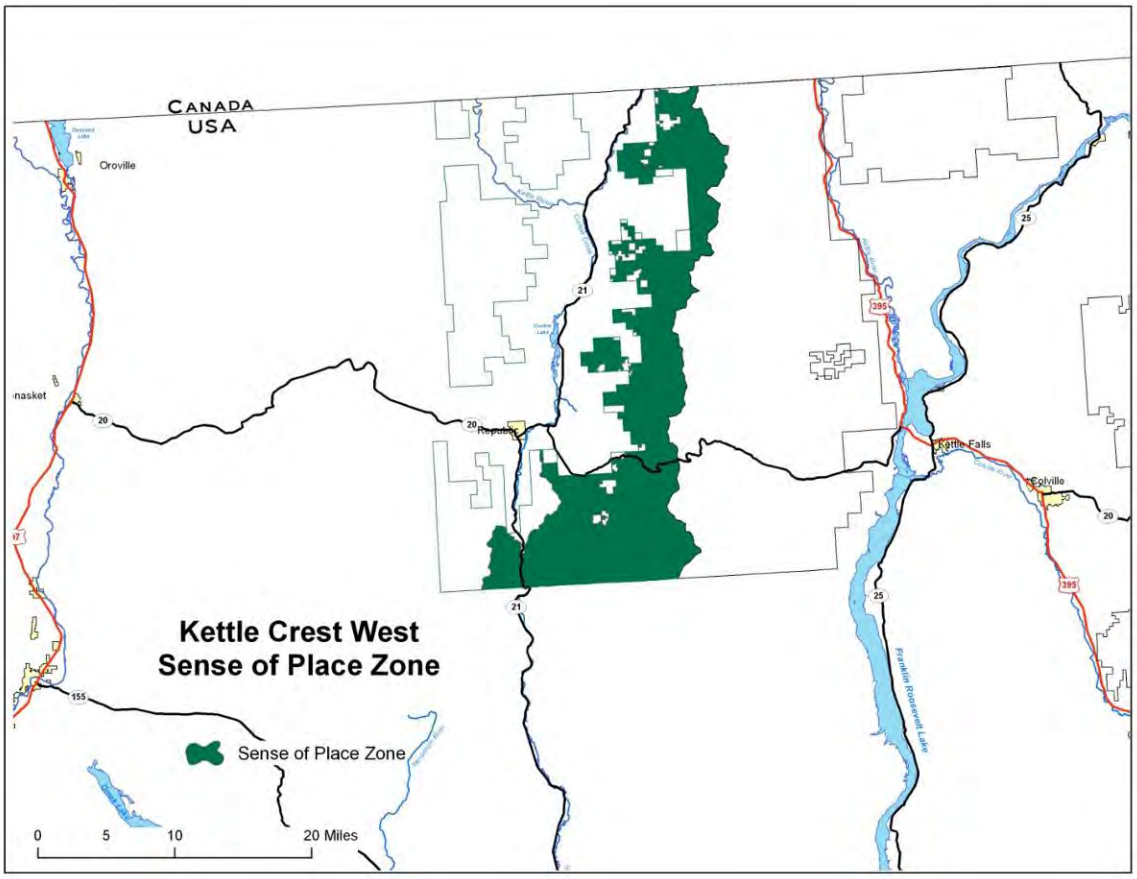


Sense of Place

The Salmo Priest Remote Dispersed area is valued regionally and locally for the mix of recreation opportunities provided within the steep and dramatic mountainous country. The Sullivan Lake campgrounds have been destination sites for many generations of visitors. The developed recreation sites along the Byway showcase human history that has defined the area. Remote trailheads provide access points to the Salmo Priest Wilderness. The wilderness provides solitude, broad vistas of the Canadian Rockies, and trails not visited by large groups. Abercrombie Mountain, Hooknose Mountain, and Salmo Mountain comprise the scenic backdrop for many rural residents. Other special places in the area include Silver Creek, Abercrombie Mountain, Hall Mountain, Gypsy

Meadows, the Pend Oreille River, Sullivan Creek, Sullivan Lake, Mill Pond Historic Site, Z Canyon, Boundary Dam, Salmo and Sullivan Lookouts, the Pacific Northwest National Scenic Trail, and the Lakeshore and Grassy Top National Recreation Trails.

West of Kettle Crest



Physical Landscape

Location

The area known as the Kettle Crest covers that portion of the Kettle River Range falling within Colville National Forest boundaries. The west side of the Kettle Crest landscape includes the lands that drain into the Kettle and San Poil Rivers from the east.

Landscape Patterns

At the broad scale, the landscape character in the area West of Kettle Crest is typical of the Okanogan Highlands geomorphic province. The Kettle River Range is part of this much broader area represented by a series of north-south river valleys and rounded summits marked by glaciations. Layered metamorphic gneiss and heterogeneous metamorphics along the Kettle Crest are part of the Kettle gneiss dome and give way to volcanic and intrusive rocks toward the Curlew Valley. Non-forest lands only occur in scattered rocky openings and as broad openings on south facing slopes. The western

slopes of the Kettle Crest are heavily timbered at the lower elevations becoming more open along the ridgelines. The various species of trees and the structure of the stands themselves testify to a history where low intensity natural fires were relatively frequent over much of the area. Several large-scale fires have occurred within the past 20 years and have contributed to the mosaic of vegetation types and stand ages. Western larch provides fall and spring color while clusters of evergreens provide contrast to the snow covered slopes in winter.

Landform

A large series of mountains and connecting ridges, reaches from the Kettle River within Canada south through the Colville Indian Reservation lands to the Columbia River. Mountains and ridges average between 6000 and 7000 feet in elevation along the crest. From the western slopes of the Kettle Crest, streams drain rapidly into narrow rocky valleys. Ultimately, these streams flow into the Curlew valley where they enter either the Kettle or San Poil rivers aligned along the valley floor. A number of deep gorges are visible from the roads and trails.

Water Form

Various streams flow from the western slopes of the Kettle Crest and ultimately flow into the Kettle or San Poil Rivers. The national forest portion of the San Poil River is a strikingly scenic narrow river canyon with abrupt rounded cliff faces. Highway 21 hugs the stream channel affording high quality viewing opportunities in a dry forest setting.

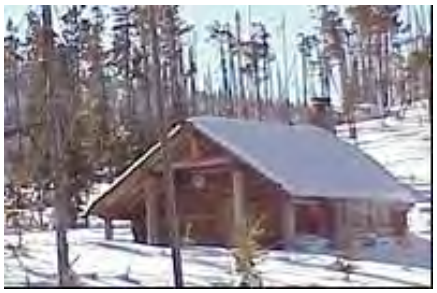
Vegetation Pattern

The vegetation pattern in the lower elevations of the southern and northern end of the West of Kettle Crest area is predominately Doduglas-fir Dry Forest with discreet patches of non-forest areas composed of low elevation meadows and exposed cliff faces. Additionally, there are a few scattered patches of Northern Rocky Mountain Mixed Conifer Forest on the northern end of the region. The Douglas-fir Dry Forest transitions into Western redcedar/Western hemlock Forest as elevations increases. At the higher elevations of Kettle Crest, the Western redcedar/Western hemlock Forest transitions into Subalpine Fir/Lodgepole pine Forest and then transitions into Spruce/Subalpine fir Forest and dry alpine meadows along the highest elevation ridgelines.

Cultural and Social Landscape

The Kettle Crest area lies directly north of the Colville Confederated Tribes reservation lands and shares many of the same landscape characteristics. American Indian usage has occurred along the Crest for over 7000 years providing a social and cultural connection to the vegetation and landform through time.

The primary commerce within this area is centered on the town of Republic and the neighboring small community of Curlew. Mineral exploration and production in the Republic area has been substantial for an extended time and represent an important heritage value. The USDA Forest Service has provided the primary management of



vegetation, recreation, and cattle grazing throughout the area, occurring after the transfer of lands from homesteading and mining interests. On private land along the foothills ranching and farming is an important part of the overall landscape character for the area.

Several Forest Service administrative and recreation facilities are Civilian Conservation Corps (CCC) projects. These cultural resources contribute to the valued landscape character, which is to be maintained and highlighted where appropriate through interpretive media and educational opportunities and through application of the Rocky Mountain Province architectural style when building new forest service facilities. While historical use of the area ties to American Indian use patterns and mining activity, current use is primarily recreational which occurs along trails and access roads that reach up the drainages. Recreation centers on access along travel routes that lead to hiking, mountain biking, equestrian, hunting, and snow recreation sites in high country. Several trailheads and small camping areas are scattered along the foothills. The non-motorized trails heading out from these sites are feeder trails that connect to the Kettle Crest National Recreation Trail (#13) which runs north and south for 35 miles along the hydrologic divide. The route has a long history of providing access to fire lookouts and some remnants of these structures remain. Views looking west from the trail reach all the way to the Cascade Range and into Canada. The Pacific Northwest National Scenic Trail traverses the Kettle Crest and the Thirteenmile Mountain area. The western end of the Sherman Pass Scenic Byway (State Highway 20) provides opportunities for motorized travelers to stop and enjoy vistas or learn more about the history and ecology of the area. Most of the area is also included in active range allotments.

Sense of Place

The western slopes of the Kettle Crest are valued as the backdrop to the lives of those living in communities and along the foothills of the Kettle Range. The area includes the western gateway to the Sherman Pass Scenic Byway. The moderately developed recreation sites along the Byway showcase the human history that has defined the area. The pass over the Kettle Crest has been and still is an important travel route. Extensive portions of the area are the backdrop view for many rural residents. Special places in the area include the Kettle Crest National Recreation Trail, White Mountain Interpretive Site, Snow Peak, Snow Peak Shelter, Ninemile Falls, Lambert Trailhead, the Pacific Northwest National Scenic Trail, Thirteenmile Creek, Deer Summit Nordic Trails, and several feeder trails to the Kettle Crest National Recreation Trail.

The Forest specialists interviewed various Forest staff and involved the public at 12 meetings to further refine the sense of place values. The following table displays the special places defined for each sense of place area with existing activities and valued aspects.

COLVILLE NATIONAL FOREST		
NAME OF PLACE	ACTIVITIES	ASPECTS/SENSE OF PLACE
PIERRE LAKE	Partying	Party place
	Family gathering	Lake environment
	Private homes	My backyard
	Fishing	Community ownership
	Boating	Easy access
	Swimming	Paved road
	Hiking	Roaded Natural
	Developed camping	
NORTH FORK CHEWELAH	Dispersed camping	Roaded Natural
	Fishing	Year-round recreation
	Hunting	Minimal developed
	Unregulated snowmobiling	Spokane's backyard First access
	ATV's	Creek environment
BIG MEADOWS RECREATION AREA	Developed Camping	
	Fishing	Lake environment
	Hunting	Disabled access
	Forest Product Gathering	Community ownership
	Wildlife viewing	My backyard
	Hiking	Huckleberry mecca
	Disabled accessible recreation	Moderate Development
	Disabled accessible hunting	
HOODOO CANYON/TROUT LAKE	Developed Camping	
	Canoeing	Non-gas boats
	Hiking	Lake environment
	Mt. biking	Scenic canyon views
	Backpacking	Semi-primitive
	Wildlife viewing	Non-motorized

		Minimal development
SILVER CREEK/SHERLOCK	Spiritual quest	Semi-primitive
	Hiking	Scenic Vistas
	Horseback riding	Equestrian environment
	Hunting	Historical remnants of lookouts & cabins
	Forest Product Gathering	Minimal development
	Back packing	
	Trailhead camping	
KETTLE CREST	Mt. Biking	High elevation-scenic vistas
	Hiking	Semi-primitive
	Horseback riding	Non-motor
	Hunting	Horse camps at some trailheads
	Snow shoeing	Historical lookouts
	Spiritual quests	Snow peaks
	Back packing	Shelter year-round rentals
	X-country Skiing	Historical significance
		Indian/stage route
		Very important to tribe
		White Mt. Southern end
		Spiritual Upliftment
		Minimal development
SHERMAN PASS	Driving for pleasure	Scenic views
	Hiking	Year-round pass
	Developed trailheads	Year-round recreation
	x-country skiing	Major travel route
	Horseback riding	Primitive Area gateway
	Mt. Biking	Highest route to get access to roads and trails
	Bike touring	Educational historical
	Developed Camping	Flumes
	Interpretation	CCC camps
	Accessible trails	Stage route and stops
	Huckleberries	
	Forest products gathering	

GILLETTE RIDGE	Motorcycles	Semi-primitive motorized
	Horseback riding	High scenic views
	Mt. Bikes	My backyard
	Hunting	Minimally improved
	Forest products gathering	
	Horse camps	
PEND ORIELLE LAKES RECREATION AREA	Developed Camping	Chain of lake environment
	Water based activities Skiing/swimming	Easy access
	Fishing	Developed recreation hub
	OHV- riding (both)	Roaded natural year-round recreation
	Hiking	Highly developed
	Mt. Biking	
	Forest products gathering	
	Beaver Lodge Resort & activities	
	Private homes activities	
	x-country skiing	
	Snowmobile	
OLD DOMINION	Snowmobiling	My backyard
	Hunting	Scenic vistas
	Forest products gathering	Close to town
CALISPEL	All the same as Old Dominion except not close to town	
SWAN LAKE RECREATION AREA (Republic)	Mt. Biking	Non gas boating
	Hiking	Recreation hub
	Fishing	Lake environment
	Facility camping	Roaded natural/modified
	Snowmobiling	Scenic canyon as entering
	Hunting	Historical setting
	ATV'ing	CCC shelter
	Motorcycling	Moderate development
	Driving for pleasure	
	Loops	

	Huckleberry mecca	
BOULDER DEER CR. SUMMIT	All the same activities as Kettle Crest	North entrance to Crest
	Job Corp adopted site	Popular travelway
	Developed Camping	Groomed ski trails
	X- country skiing	General Sherman came over this pass/historical route
		Scenic/larch/fall colors
		Hiking and skiing gateway
		Year-round recreation
TONATA CR.	Driving for pleasure	Lake environment
	Loops	Roaded natural
	Hunting	Scenic vistas
	Forest products gathering	Historical cabin
	Snowmobiling	Loop roads, accessible
	Groomed loops	Year-round recreation
	Dispersed camping	Pastoral-old ranches
	Small lakes	My backyard
	Fishing	
	Water based rec. (lakes)	Driving for pleasure
	X-country skiing	
	Mt. Biking	
	Snowmobiling	
	Horseback riding	
ABERCROMBIE	Hiking	Roadless
	Horseriding	Sense of remoteness
		High elevation scenery
		My Backyard
MIDDLE FORK/CALISPEL	Dispersed camping	Party Place (Spokanites)
	OHV's--destination	Historical homesteads
	Hunting	
	Unmanaged recreation	
	Water-based activities	
SULLIVAN LAKE/MILLPOND	Developed camping	Historic administrative site
	Water-based recreation	Lake environment
	Recreation residences	Dam/Flumesite

	Forest products gathering	Community ownership
	Wildlife viewing	My backyard
	Hiking	Huckleberry mecca
	Disabled accessible recreation	Regional Destination
		Developed
SULLIVAN CREEK	Dispersed Recreation	Very Scenic
	OHV's	Recreation staging area for dispersed activities
	Gold Panning	Local attachment
NONAME, COOKS, MYSTIC, LAKES	Dispersed camping	Party place (Spokanites)
	OHV's	Historical homesteads
	Hunting	Unregulated
	Unmanaged recreation	Fish stocked lakes
	Water-based activities	
	Fishing	
YOCUM, LOST, AND LECLERC, TACOMA AND CUSICK CREEKS	Dispersed camping	Party place (Spokanites)
	OHV's	Historical homesteads
	Hunting	Unregulated
	Unmanaged Recreation	
	Water-based activities	
	Fishing	
RUBY LOOP	OHV's	Air Force survival school
	Family activities	My backyard
		Private community
BEAD LAKE/MARTIAL LAKE	Water-based activities	Private community
	Hiking	Local ownership
	Family activities	Spokanites—Day use
		Scenic
SKOOKUM LAKES/SOUTH BALDY	Dispersed camping	Traditional camping area
	Fishing	Family oriented
	Developed camping	Rustic hideaway

	Hiking	Scenic views
	Fishing	
	Active lookout	
BROWNS LAKE	Developed camping	Non-motorized
	Fly fishing	Self-policed
SALMO LOOP	Horse-riding	Day horse rides
	Hiking	Highly scenic vistas
		Sense of remoteness
		Sense of solitude
UPPER WOLF/LOWER	Nordic Skiing	Newport--My backyard
	Hiking	Day Use
		Close to town
P.O. RIVER	Fishing	Private homes
	Water-based activities	Recreation hub
	Developed camping	Regional destination
		Lots of historical stuff
		Native American importance
		Scenic
BUNCHGRASS MEADOWS	Dispersed camping	Botanically unique
	Unmanaged recreation—Illegal snowmobile and ohv use	Scenic alpine meadow
		Grizzly Bear and Caribou
NORTH P.O. RIVER	Boating	Rugged/Highly scenic
		Sense of solitude
		Feels remote
		Unique geology
		Dramatic rock escarpments
FLOWERY TRAIL CORRIDOR	Driving for pleasure	Scenic erive
	Nordic skiing	Popular travelway
	Alpine skiing	Ski resort
		Heat relief/Fog relief

		My Backyard
BEATTY BOULD	OHV's—Single Track	Challenging motorized trails
	Dispersed camping	Motorized recreation destination
		Developed trailheads
		Historical homestead
HARVEY CREEK	Snowmobiling	Deep-Early snows
	Winter recreation	Local snowmobile destination
		Ungroomed trails
		Adjacent to private land play areas
CRESCENT LAKE/BOUNDARY DAM	Disabled access	Canadian/US Portal
	Fishing	Highly scenic
		International

Glossary

Term	Definition
Aesthetics (Esthetics)	Generally, the study, science, or philosophy dealing with beauty and with judgments concerning beauty. In scenery management, it describes landscapes that give visual and sensory pleasure.
Cultural Element	Attributes in a human-altered landscape; scenically positive cultural elements, most of which have historical backgrounds or nostalgic connotations. Examples include split-rail fences, stone walls, barns, orchards, hedgerows, and cabins.
Cultural Landscape	Human-altered landscapes, especially those slowly evolving landscapes with scenic vegetation patterns or scenic structures. Addition of these elements creates a visually pleasing complement to the natural character of a landscape.
Desired Landscape Character	Appearance of the landscape to be retained or created over time, recognizing that a landscape is a dynamic and constantly changing community of plants and animals. Combination of landscape design attributes and opportunities, as well as biological opportunities and constraints.
Distinctive	Refers to extraordinary and special landscapes. These landscapes are attractive, and they stand out from common landscapes.
Disturbance	A discrete event, either natural or human induced, that causes a change in the existing condition of an ecological system.
Ecosystem Management	The use of an ecological approach that blends social, physical, economic, and biological needs and values to assure productive, healthy ecosystems.
Expected Image	A mental picture that a person expects to see in a national forest.
Feature	A visually distinct or outstanding part, quality, or characteristic of a landscape.
Form	Structure, mass, or shape of a landscape or of an object. Landscape form is often defined by edges or outlines of landforms, rockforms, vegetation patterns, or waterforms, or the enclosed spaces created by these attributes.

Term	Definition
Human Dimension	An integral component of ecosystem management that recognizes people are part of ecosystems, that people's pursuits of past, present, and future desires, needs, and values (including perceptions, beliefs, attitudes, and behaviors) have and will continue to influence ecosystems and that ecosystem management must include consideration of the physical, emotional, mental, spiritual, social, cultural, and economic well-being of people and communities.
Landform	One of the attributes or features that make up the Earth's surface, such as a plain, mountain, or valley.
Landscape Character	Particular attributes, qualities, and traits of a landscape that give it an image and make it identifiable or unique.
Landscape Setting	The context and environment in which a landscape is set; a landscape backdrop.
Natural Landscape Character	Landscape character that originated from natural disturbances, such as wildfires, glaciation, succession of plants from pioneer to climax species, or indirect activities of humans, such as inadvertent plant succession through fire prevention.
Natural-Appearing Landscape Character	Landscape character that has resulted from human activities, yet appear natural, such as historic conversion of native forests into farmlands, pastures, and hedgerows that have reverted back to forests through reforestation activities or natural regeneration.
Positive Cultural Landscape	A landscape having human alterations that are positive cultural elements, complementing and improving a particular landscape by adding variety, unity, vividness, intactness, coherence, mystery, balance, uniqueness, harmony, or pattern.
Recreation Visitor	One who is in an area temporarily for refreshment of the body and mind. In the national forests, the visitor usually has a significant conscious or subconscious interest in the scenic qualities of the area.
Rockform	A significant composition of mineral matter constituting the Earth's crust. One of the attributes or features that make up part of the Earth's surface, such as a mountain, cliff, peak, bluff, valley wall, or bedrock.

Term	Definition
Rural/Agricultural Landscape Character	Landscape character that has resulted from extensive human activities, no longer appearing natural, such as conversion of native landscapes into extensively cultivated farmlands, vineyards, pastures, or an area of intensive domestic livestock production.
Scenery Management	The art and science of arranging, planning, and designing landscape attributes relative to the appearance of places and expanses in outdoor settings.
Scenic Integrity	State of naturalness or, conversely, the state of disturbance created by human activities or alteration. Integrity is stated in degrees of deviation from the existing landscape character in a national forest.
Scenic Resource	Attributes, characteristics, and features of landscapes that provide varying responses from, and varying degrees of benefits to, humans.
Special Places	Those specific locations and expanses in outdoor settings that have attractions and features that are identified as unique, different, distinctive, and extraordinary to people. Special places may range from a small areas, such as a particular fallen log, to large areas, such as a landscape unit.
Typical or Common Landscape	Refers to prevalent, usual, or widespread landscapes within a landscape province. It also refers to landscapes with ordinary and routine scenic attractiveness.
Urban	Landscape character that has resulted from extensive human activities, no longer appearing natural, such as conversion of native landscapes into an extensively altered landscape, such as a town, city, or metropolitan area.
Viewshed	Total visible area from a single observer position, or the total visible area from multiple observer positions. Viewsheds are accumulated seen-areas from highways, trails, campgrounds, towns, cities, or other viewer locations. Examples are corridor, feature, or basin viewsheds.
Vista	A confined view, especially one seen through a long passage, as between rows of trees or down a canyon. A vista often focuses upon a specific feature in the landscape. Unlike a view, the vista is sometimes human created and, if it is, thereby

Term	Definition
	subject to design.
Waterform	One of the attributes or features that make up the Earth's surface, such as a pond, lake, stream, river, waterfall, estuary, or ocean.
Watershed	An area of land with a characteristic draining age - - network that contributes surface or ground water to the flow at that point; a drainage basin or a major subdivision of a drainage basin.

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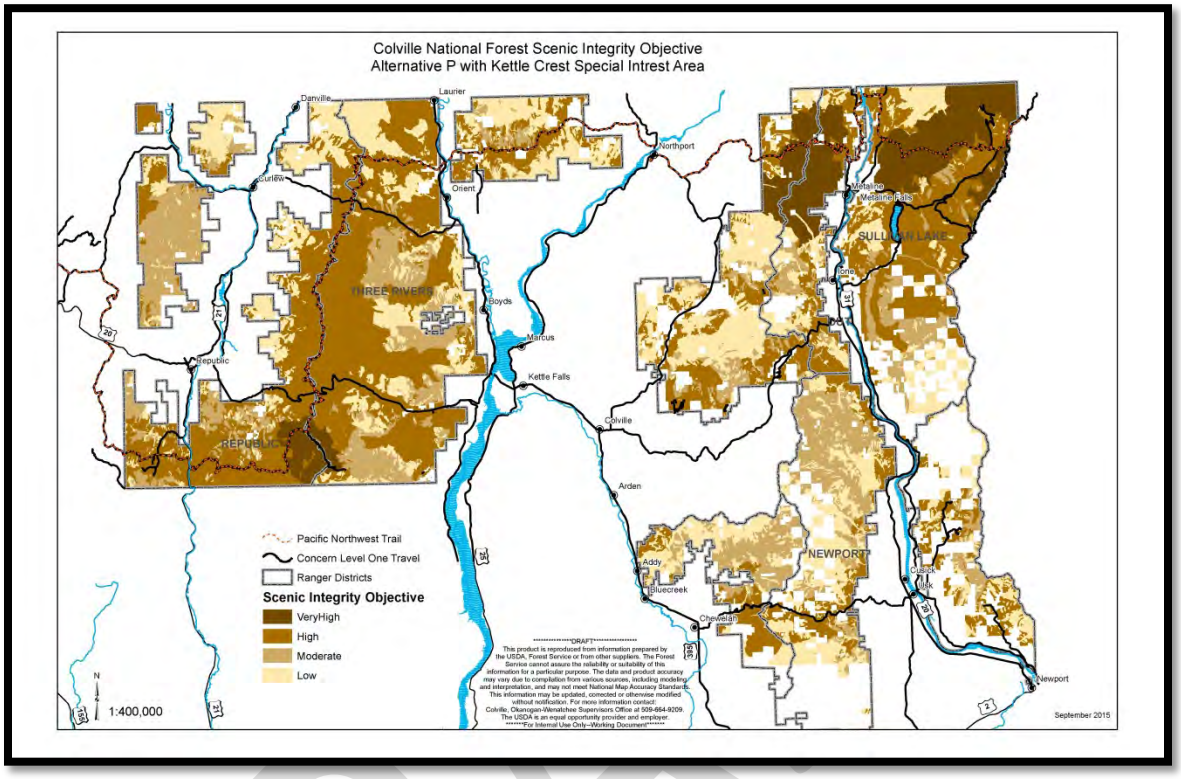
U.S. Department of Agriculture, Forest Service. 1995. Landscape aesthetics: A handbook for scenery management. [Place of publication unknown]. Agriculture handbook number 701.

U.S. Department of Agriculture, Forest Service. 2001. The built environmental image guide for the national forests and grasslands. [Place of publication unknown]. FS 710. 275p.

Williams, Clinton K.; Kelley, Brian F.; Smith, Bradley, G.; Lillybridge, Terry R. 1995. Forested plant associations of the Colville National Forest. General Technical Report PNW-GTR-360. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, OR. 375p. In cooperation with: Pacific Northwest Region, Colville National Forest.

Williams, Clinton K.; Lillybridge, Terry R. 1983. Forest plant associations of the Okanogan National Forest. R6-Ecol-132b-1983. U.S. Department of Agriculture, Forest Service, Pacific Northwest Region.

Appendix B Scenic Integrity Objective Map



Scenic Integrity Objective Mapping Process

As part of the scenery management planning process several outcomes were expected including scenery desired future condition, and scenery goals and objectives for the Colville Forest Plan. The end result would be to produce a Scenic Integrity Objective (SIO) map of all landscape areas (acres) with scenic integrity objectives assigned based on several steps and factors outlined below.

1. **Existing Visual Quality Objectives (VQO's):**Validating and carrying forward existing Colville Forest Plan 1988 standards and guidelines for scenically sensitive travel routes, recreation areas, viewsheds, etc. through an interdisclipinary planning process including specific public meetings to address areas of special scenic concern combined with internal knowledge and trends for scenic sensitivity concerns (new travel corridors that have emerged as being scenically important) and existing conditions. Part of this process included adjusting inventory to remove old travel routes that were once important but no longer hold the same values due to the road being closed, impassable, or has become less used due to other construction of travel routes, etc. to address the need for change.
2. **New Areas of Scenic Concern:** Adding new scenically sensitive travel routes, through an interdisclipinary planning process including specific public meetings to address

areas of special scenic concern and the need for change. Examples of new scenic travel routes include Flowery Trail and the Pacific Northwest National Scenic Trail**.**

3. **Landscape Visibility:** A Scenic Integrity Objective Map (SIO) will be developed by running a GIS landscape viewshed analysis delineated by distance zone areas overlayed and integrated with a seen area analysis for the identified concern level 1 and concern level 2 travel route viewsheds and the nationally designated recreation or scenic trail viewsheds. In interpreting the pages 4-14 and 4-15 in the SMS Handbook, concern Level 1 would be high in the foreground and middleground, concern Level 2 would be high in the foreground, and high to moderate in the middleground. All other travelways not identified as a concern level 1 or 2 are concern level 3 with low scenic importance. Concern level 3 travel routes were not mapped and did not have a visibility analysis run for the viewshed. Background landscape areas would be assigned either a moderate or low SIO or incorporated into the dominating SIO's surrounding that area depending on the size Note: there is not much background left after mapping all the foreground and middleground from all the important travelways and vista points.

   Distance zones are defined from the Landscape Aesthetics Handbook as immediate foreground (0-300'), foreground (300' to ½ mile), middleground (1/2 mile to 4 miles) and background (4 miles to horizon). The criteria developed for the SIO map is based on the distance zones from the travel routes with the following criteria:

   - Concern Level 1 Foreground is High SIO
   - Concern Level 1 Middleground is High SIO
   - Concern Level 2 Foreground is Moderate SIO
   - Concern Level 2 Middleground is Moderate SIO
   - Concern Level 1 Background is Moderate SIO
   - Concern Level 2 Background is Moderate SIO

In addition to travel routes, the following criteria were used for designating SIO's for Vista Points and Viewpoints:

- (Alpine and Nordic) Ski Areas as Vista Points
    a. Year round operations, High visitation
    b. permit area = high
- Vista Points Criteria
    a. Highly accessible to general public
    b. Built environment to the "point" – road, pullout, parking lot
    c. Panoramic view
    d. Destination for viewing

Tier I: (Can drive to)

- Sherman Pass – White Mountain Fire Scenic Pullout
- Sherman Overlook

- Salmo Mountain Lookout
- Sullivan Lake P14 Scenic Point
- Timber Mountain Lookout
- Boundary Dam
- Quartz Mountain Lookout (Republic)

The cross walk between the old VMS terminology and new SIO terminology is as follows:

Visual Quality Objective (VQO)	Scenic Integrity Objective (SIO)
Preservation Allows only ecological processes to take place.	**Very High** The ***valued landscape character*** is intact with only minute if any deviations. The existing landscape character and sense of place is expressed at the highest possible level.
Retention Human activities are not evident to the casual forest visitor.	**High** 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 at such a scale that they are not evident.
Partial Retention Man's activities may be evident, but subordinate to the characteristic landscape.	**Moderate** The ***valued landscape character*** appears slightly altered. Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Modification Man's activities may dominate the characteristic landscape but must, at the same time, utilize natural established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.	**Low** The ***valued landscape character*** appears moderately altered. Deviations begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles outside the landscape being viewed.
Maximum Modification Man's activities may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.	**Very Low** The ***valued landscape character*** appears heavily altered. Deviations may strongly dominate the valued landscape character. They may not borrow from valued attributes such as size, shape, edge.

4. **Scenic Integrity Objectives and Management Area Comparisons**. The Scenic Integrity Objectives were developed utilizing the direction contained in the Landscape Aesthetics Handbook 701. The draft SIO map was then compared/overlayed with the Proposed Management Area (MA) Alternative maps to ensure SIO's complimented the desired settings and outcomes prescribed by the various MAs. Some adjustments were made, primarily in designated areas where a Moderate to High SIO was essential in meeting MA direction. An example of this kind of adjustment would be assigning a high SIO to a travel route that accesses backcountry. The following table displays the correlation between MAs and compatible SIOs.

Management Area	**Scenic Integrity Objective**
Focused Restoration	Low/Moderate/High
General Restoration	Low/Moderate/High
Backcountry	High
Backcountry Motorized	High
Research Natural Areas	High
Special Interest Areas	High
Wilderness	Very High
Recommended Wilderness	Very High
Special Areas	**Scenic Integrity Objective**
Administrative and Recreation Sites	Low/Moderate/High
Nationally Designated Trails	High
Riparian	Low/Moderate/High
Scenic Byways	High
Wild and Scenic Rivers (eligible)	
Wild Segment	Very High
Scenic Segment	High
Recreation Segment	High

Note: Since the MA's Focused Restoration, General Restoration, Administrative and Recreation sites and Riparian have a mix of settings and experiences that are multi-themed across the MA, the SIOs will also vary. SIOs within these MAs range from high to moderate to low and were determined using the SMS process (as outlined in the Landscape Aesthetic Handbook 701). A decision was made by the Forest Plan Revision Team Leader and the OW Forest Landscape Architect to designate all Research Natural Areas as a High, since having isolated areas of Preservation outside of Wilderness Areas are extremely hard to manage and doesn't fit with the intent of surrounding management areas.

Some management areas overlay one another, for example a Scenic Byway can overlay a Wild and Scenic River and Riparian where all sets of forest plan components

will apply. In determining what SIO applies, keep in mind that if it's a linear feature it is mapped on the Management Area Map, if it's not mapped, such as administrative and recreation sites then the SIO needs to be following direction for Administration and Recreation Sites.

5. **Refining SIO map boundaries.** After the first draft of the seen area mapping for concern level 1 and 2 travel routes, areas of small unmanageable "unseen" polygons occurred. The goal was to map all acres into an assigned SIO, especially related to the dominating SIO surrounding the unmapped area. We decided that a manageable size of less of less than 5 acres is too fine of a scale for Forest Plan Revision. The mapping was reviewed and we compared the size of area in the unassigned (unmapped) polygons with the old Okanogan-Wenatchee & Colville Forest Plan's size for openings in designated Retention, Partial Retention, and Modification/Maximum Modification VQO areas. At this stage, the SIO mapping has already incorporated the MA overlays for fixed SIO's in certain Management Areas (Ie.Backcountry = High SIO).

Size of Opening related to VQO	**Okanogan Forest Plan** 7-27-93 Draft Scenery Management Implementation Guidelines	**Wenatchee Forest Plan**	**Colville Forest Plan**
Foreground Retention	Less than 5% of the view visible altered	3 acres or less (IV-236)	
Middleground Retention		5 acres or less (IV-236)	
Foreground Partial Retention	Less than or equal to 10% of the area in view is visibly altered	5 acres or less (IV-248)	
Middleground Partial Retention		15 acres or less (IV-248)	
Modification/Maximum Modification Foreground and Middleground	Less than or equal to 20% of the area is view is visible altered = Modification Greater than 20% of the area in view is visible altered = Maximum Modification	30 acres or less in Modification VQO's 40 acres per regional standards in Maximum Modification	

Final adjustments for the Scenic Integrity Objective Map. As another step of the first draft SIO map review process, we asked the question how do the sizes of the smaller polygons (less than 30 acres) fit with historic natural openings/gaps in the landscape character? In coordination with vegetation section guidelines for natural opening sizes, size criteria was developed to smooth out the small unmanageable slivers at the Forest Plan landscape scale. In the new Forest Plan the spatial patterns of natural openings on the historic landscape used is approximately 10 acres. We agreed to use 10 acres as a threshold for natural openings and that the areas less than 10 acres would get absorbed in the dominate SIO surrounding it. Once this initial screening was done, we then looked at areas that are 30 acres or less once the 10 acres are absorbed into the surrounding SIO. We determined that if those areas are within the viewshed buffer zones for high or moderate SIO's they would automatically be converted into the surrounding SIO of high or moderate. If the area was located in an area of low that was mapped as high or moderate, it would remain as mapped. We will not lower SIO's in a viewshed buffer zone from a high or moderate to a lower SIO. These steps will significantly simplify the proposed SIO map and clean up the thousands of small areas that would be hard to manage at that scale.

The Final Draft Scenic Integrity Objective Map is attached in Appendix xx for Alternative P, the SIO's do not change from Alternative to Alternative unless it involves changing landscape areas to Recommended Wilderness, in that case, the SIO would change predominately from a High to Very High.

Scenery Hardcopy Map Inventory, GIS Mapping & GIS Modeling

Verified by Barbara Jackson, Forest Landscape Architect, September 2011
Stored in Okanogan-Wenatchee Headquarters Office

Map	Forest Area	Relevance
Concern Levels, Important Places	Okanogan NF	Background Information 1995 and March 7, 2002
Existing Visual Condition	Wenatchee NF	Background Information, March 1998
Existing Concern Levels	Okanogan-Wenatchee NF	Background Information
Existing Visual Condition (Old VQO's)	Okanogan NF	Background Information 6-14-2004
Existing Visual Condition (Old VQO's)	Wenatchee NF	Background Information 6-14-2004
Sense of Place - Niche Larger Scale	Okanogan-Wenatchee NF	Forest Plan Record April 30, 2007
Sense of Place, EVC Note: Missing maps	Naches RD	Forest Plan Record December 15, 2004
Sense of Place, ROS, Need for Change	Cle Elum RD, Leavenworth RD	Forest Plan Record January 4, 2005
Sense of Place, Need for Change	Lake Wenatchee RD, Leavenworth RD	Forest Plan Record December 15, 2004
Sense of Place, ROS, Need for Change	Entiat RD Chelan RD	Forest Plan Record January 4, 2005
Sense of Place, Need for Change	Chelan RD	Forest Plan Record December 15, 2004
Sense of Place, EVC	Methow Valley RD Tonasket West	Forest Plan Record December 15, 2004
Sense of Place	Tonasket East	Forest Plan Record December 15, 2004
Scenic Concern Levels Draft Need for Change	Naches RD	Background Information August 28, 2007 November 6, 2007
Scenic Concern Levels Draft Need for Change Roads and Trails	Cle Elum RD	Background Information August 28, 2007
Scenic Concern Levels Draft Need for Change	Wenatchee River RD	Background Information August 28, 2007 November 6, 2007
Scenic Concern Levels Draft	Entiat RD	Background Information

Need for Change		December 15, 2004
Scenic Concern Levels Draft Need for Change Roads and Trails	Chelan RD	Background Information January 6, 2007
Scenic Concern Levels Draft Need for Change	Methow Valley RD South & West Tonasket North & East	Background Information December 15, 2004
Scenic Concern Levels Draft Need for Change Roads & National Trails	Okanogan NF	Background Information June 13, 2007
Scenic Concern Levels Scenic Integrity Need for Change Draft 2 Roads & National Trails	Wenatchee NF	Background Information June 13, 2007
Scenic Concern Levels Need for Change Roads Only	Wenatchee NF	Background Information July 16, 2007
Scenic Concern Levels Need for Change Draft Roads & National Trails	Wenatchee NF	Background Information August 7, 2007
Scenic Concern Levels Need for Change Draft Roads & National Trails by district	Wenatchee NF	Background Information November 6, 2007
Scenic Concern Levels Need for Change Draft Roads & Trails	Colville NF	Background Information November14, 2007 November 19, 2007
ATM Data Roads & Trails	Okanogan-Wenatchee NF	Background Information March, 2009
Scenic Integrity Objective Map Draft	Wenatchee NF	Background Information June 8, 2010
Scenic Integrity Objective Map Desired Condition Draft-Final	Colville NF	Project Record March 2015