ENVIRONMENTAL ASSESSMENT
Draft

Drift Key Watershed Roads Project

USDA FOREST SERVICE
SIUSLAW NATIONAL FOREST
HEBO RANGER DISTRICT

Lincoln County, Oregon

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Chapter 1 Purpose of and Need for Action

This environmental assessment is written to fulfill the purposes and requirements of the National Environmental Policy Act (NEPA), as well as to meet policy and procedural requirements of the USDA Forest Service. The intent of NEPA, its implementing regulations, and Forest Service policy is to evaluate and disclose the effects of proposed actions on the quality of the human environment.

These procedures are meant to improve the quality of decision-making, as well as make the decision-making process more accessible and transparent to the affected public.

Chapter 1 includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded.

Introduction

In the fall of 2004 the Hebo Ranger District completed a review of the Forest Roads[1] in the Drift Creek Key Watershed to determine which Forest Roads may pose a risk to downstream aquatic habitat if they fail; or are not needed to manage National Forest resources at this time; or cannot be properly maintained or repaired due to reduced maintenance funding.

The Siuslaw National Forest Roads Analysis (2003) designated two categories of Forest Roads, Key Forest Roads and Non-Key Forest Roads. Key Roads comprise a network of long-term-use roads forming connections between communities; roads considered vital for forest management; and roads connecting to State, Federal and County routes. Non-Key Roads are generally not considered vital to community connections or needed for constant access for forest management. Non-Key Roads can be considered for lower maintenance standards, restricted access, closure, or decommissioning during watershed or project level analysis (Siuslaw National Forest, Roads Analysis, January 2003, page 14). The system of Key and Non-Key Roads is a management strategy responding to the reduced level of funding available for maintenance. This management strategy helps to prioritize available maintenance funding to the Key-Road system and relies primarily on project-level funding for Non-Key Roads needed for periodic forest-management access.

Proposed Action

In response to the need for actions discussed below, the Hebo District Ranger proposes to decommission about 6 miles of Non-Key Forest Roads in this Watershed and construct a small parking area for about 3 vehicles near the north entrance of the Drift Creek bridge located south of the Drift Creek Organizational Camp. The list of these Roads is in Chapter 2 Alternatives, Proposed Action Alternative.

[1] Forest Road: A road wholly or partly within, or adjacent to and serving the national Forest Road system and which is necessary to protect, administer, and use the national forest system and its resources (23 USC 660.105)

Purpose and Need for Action

Existing Conditions

- Current budget allocations do not provide adequate funding to maintain the Forest Road network to established standards. The limited maintenance funds that have been allocated to the Key Road system, focused on ditch line and drainage clearing, brushing roadsides to maintain visibility and road surface treatments. More significant needed repairs of failing roads surfaces, replacing failing culverts, failing cut and fill slopes, major resurfacing and signing have been deferred. Although decommissioning and stabilizing Non-Key Roads have reduced the overall maintained Forest Road system, current and expected budget allocations are still far below funds required to adequately maintain the existing Forest Road system. (Siuslaw National Forest, Roads Analysis, January 2003, page 11)

- Most of the fills and culverts proposed for removal at stream crossings are on roads that were built between mid 1950s and 1970s. Due to the age and size of culverts identified along these road segments there is a risk of failure during storm events. Some of the culverts proposed for removal are not large enough to handle flows associated with floods larger than those with a 25-year recurrence interval. If failures occur from inadequate drainage, the resulting debris torrents may scour the channel downstream and degrade fish habitat and water quality. Roads constructed with unstable sidecast material on steep slopes may have a risk of failing and causing debris slides or torrents.

- Analysis and decision through the NEPA process is needed before a Forest Road is decommissioned and removed from the National Forest Road and Trail System.

- This project is located in the Drift Creek Tier 1 Key Watershed. The Siuslaw Land and Resource Management Plan (Forest Plan) identifies Key Watersheds as the highest priority for watershed restoration (page B-19, Record of Decision, for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl, April 1994). Forest Roads in this watershed that are not properly maintained may contribute sediment that can degrade aquatic habitat. Forest Roads also fragment habitat for a variety of species, and serve as pathways for invasive species.

Desired Condition

The desired condition is a safe, efficient, and serviceable Forest Road system that can be maintained to minimize impacts to terrestrial and aquatic species, while providing access for recreation, forest products, access to non-Federal land and future management of National Forest resources.

Decision Framework

The Responsible Official for this project is the Hebo District Ranger of the Siuslaw National Forest. The Hebo Ranger District has developed and analyzed the effects of the proposed action (Alternative 2). The District Ranger will determine through a Decision Notice:

- To what extent, if any, will activities called for in the proposed project (Alternative 2) be implemented?

- What management requirements and mitigation measures (project design criteria) will be applied to these activities?

The primary factor that will influence the District Ranger's decision is based on how well the purpose and need are addressed. The Decision Notice will document and describe what activities will be implemented to address the purpose and need. The decision will be consistent with the Siuslaw Forest Plan, as amended by the Northwest Forest Plan, and will incorporate the associated project design criteria.

Summary of Scoping

Information and concerns were gathered about the proposed action from within the Forest Service and from the public. The following two methods were used by the Hebo Ranger District to notify the public about the proposed action.

- Starting in the winter of 2003 the Project has been listed in the Project Update, the Siuslaw National Forest's Schedule of Proposed Actions (SOPA), which is published and mailed quarterly to a Forest mailing list of interested groups and individuals. No comments were received by this scoping method.

- On July 19, 2004, the Hebo Ranger District mailed the Drift Creek Key Watershed Project scoping letter to about 200 interested individuals, including Native American tribes and organizations that have expressed interest in similar projects. In addition, a legal advertisement notifying the public about the project was published in the Lincoln City News-Guard newspaper. Ten letters were received. The comments are located in the project analysis file. Most of the comments concerned the decommissioning of the Forest Road1701, 1770 and segment of Forest Road 1900. These Roads access non-Federal land. The land owners wish to maintain access to their lands. One commenter was concerned that the proposed decommissioning of segments of Forest Road 1900 would limit access to Drift Creek for fishing. One group is concerned that unstable Non-Key Roads may be allowed to decay further. Based on these comments and further analysis, the Forest Service changed the proposed action described in the scoping document. The modified proposed action is described in Chapter 2 Alternatives, Proposed Action Alternative.

Issues

The responsible official, Hebo District Ranger, considered all comments that were received about this project and determined which were relevant or significant to the proposed action and which were not significant. An issue is significant based upon the topographic distribution (extent), the length of time the issue is likely to be of interest (duration), or the level of interest or resource conflict (intensity). Significant issues can serve to formulate alternatives, prescribe mitigation measures or analyze environmental effects. The responsible official has determined that there are no significant issues for this project, because the comments received about the proposed Forest Road decommissioning were, generally, supportive of this action, and the proposed action was modified to mitigate the non-federal landowners concerns regarding access to their lands.

Forest Service regulations (1950, chapter 11(3) require that issues that are not significant to the project or that have been covered by prior environmental review be identified and eliminated from detailed study. Discussion of these issues should be limited to a brief statement of why they would not have a significant effect on the human environment or a reference to their coverage elsewhere. These issues are in the section of this EA titled, Other Issues in Appendix B.

Relationship to Forest Plan and Other Analyses

This Environmental Assessment is tiered to the Siuslaw National Forest Land and Resource Management Plan (Siuslaw Forest Plan) and Final Environmental Impact Statement (USDA Forest Service, 1990). The Siuslaw Forest Plan was amended by the Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and ROD Attachment A (Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Related Species Within the Range of the Northern spotted Owl) (USDA, USDI, 1994), commonly known as the Northwest Forest Plan. Hereafter, the above mentioned plans will corporately be referred to as the Forest Plan.

All the land administered by the Forest Service (FS-20,242 acres and Bureau of Land Management (BLM – 2,198 acres) is designated in the Forest Plan as part of the Northern Coast Range Adaptive Management Area (AMA). General objectives for AMA's, as well specific direction for the Northern Coast Range AMA, are given in the Record of Decision (ROD) (USDA and USDI 1994c, D-1, D-4, D-8, D-15).

All but 851 acres of federal land in the watershed analysis area are designated as Late Successional Reserves (LSR) in the Northwest Forest Plan. See pages C-9 through C-21 of the ROD for LSR objectives, standards and guidelines.

Overlaying all the land allocations are approximately 12,963 acres of riparian reserves. Drift Creek watershed (exclusive of Schooner Creek) is designated as a Tier 1 Watershed (26,548 acres). Riparian reserves and key watersheds are two components of the Northwest Forest Plan's Aquatic Restoration Strategy. See the ROD pages B-9 through B-20, C-9, C-30-38, and D-9 for a full description of these allocations and applicable standards and guidelines.

This EA also incorporates by reference the Drift (Siletz) Watershed Analysis (1996), Late-Successional Reserve Assessment for Oregon's Northern Coast Range Adaptive Management Area ((1998) and the Siuslaw National Forest Roads Analysis (2003).

Drift (Siletz) Watershed Analysis (WA)

This document provides existing condition information and contains recommendations for attainment of the desired conditions in the Watershed Analysis. One of the issues in this WA is the need to provide stable roads and trails to the extent needed to meet public and agency needs. (WA page 17) The premises of this issue are:

- The greatly reduced level of road maintenance funding on federal land poses a danger to public safety and increases the risk of road failure.
- The effective management of roads is a basic step in restoring degraded watersheds and is the primary basis for this analysis.

Late-Successional Reserve Assessment for Oregon's Northern Coast Range Adaptive Management Area

This assessment provides a broad scale description of the resources and issues which affect late-successional habitat, describes management objectives and desired future conditions, and provides a context for future decision making. The Assessment includes recommendations for a variety of management activities considered appropriate for achieving the goal of the Forest Plan. This includes closing of roads (pages 89-90).

Siuslaw National Forest Roads Analysis, 2003 (RA)

On January 12, 2001, the Forest Service issued the final National Forest System Road Management Rule. This rule revised regulations concerning the management, use and maintenance of the National Forest Transportation System, and requires each Forest to complete a Roads Analysis. The Siuslaw Forest Roads Analysis is designed to provide decision makers with information to develop Forest Road systems that are safe and responsive to public needs and desires, are affordable and efficient, and are in balance with available funding for needed management actions.

Chapter 2 Alternatives

This chapter includes a description of the reasonable range of alternatives developed to respond to the need for actions described in Chapter 1, a list of the design criteria (mitigation measures) that would be implemented to minimize or prevent adverse effects on environmental, economic, and social resources in the Drift Key Watershed Roads Project Area, and be consistent with standards and guidelines of the Forest Plan.

The first section of this Chapter, *Alternatives Studied in Detail*, describes those alternatives that meet the need for actions described on page 2 of this EA. The second section, *Alternatives Considered but not Studied in Detail* describes the alternatives considered but dropped from further analysis. With each is an explanation of why it was dropped.

Alternatives Studied in Detail

Alternative 1 No Action

The No Action Alternative is an alternative studied in detail because it provides the baseline for analysis for the action alternatives. It is required by NEPA (40CFR 1502.14(d)).

In this alternative, no change to the existing Forest Road system would be made. However, due to a limited Forest Road maintenance budget, not all of the Forest Roads identified in Table 1, totaling about 6.0 miles would be maintained. In the event that those Forest Roads identified fail, they may not be repaired.

The No Action Alternative does not address water resource concerns of reduced Forest Road maintenance funding for existing Forest Roads. This alternative does not meet the desired conditions described in Chapter 1, Purpose and Need section of this Environmental Assessment or the Forest Plan direction to restore this Tier 1 Key Watershed.

Alternative 2 Proposed Action

This alternative proposes to decommission[2] all or portions of the Non-Key Forest Roads listed in Table 1, totaling about 6.0 miles. Decommissioning actions vary by road although in general the road templates are not obliterated.

Culverts and fills would be removed. The fill material would be placed on the road surface to reduce exposed cut banks created when the road was built. Native seed would be applied to areas of exposed soil.

[2] Decommission: Activities that result in the stabilization and restoration of unneeded roads to a more natural state.

Table 1

Forest Road	Proposed decommission lengths
1928	From its junction with 1928-111 to Forest Road 1900. (about .20 mile)
1928-111	All (about 0.50 mile)
1928-113	The last about 0.20 mile
1928-114	All (0.10 mile)
1928-116	All (about 0.60 mile)
1928-118	About The last 0.30 mile
1929-118	All (about 0.40 mile)
1700-150	All (about 0.30 mile)
1700-158	The last about 0.20 mile
1730	About the last 0.30 mile
1730-114	All (about 0.10 mile)
1730-115	All (about 0.20 mile)
1730-119	All (about 0.30 mile)
1730-120	All (about 0.20 mile)
1730-121	All (about 0.10 mile)
1900	Portion 1: The portion that extends from Odell Creek to private land in Section 6. Portion 2 Decommission from the north side Drift Creek Bridge to the first main drainage in Section 10. *A small parking area would be created just north of the bridge. The north bridge entrance would be blocked to prevent vehicle traffic crossing the bridge. The bridge would remain. (Total miles for both portions is about 1.6 miles)
1900-111	About the last 0.50 mile
Total	**6.1 miles**

These Road locations are shown on the Drift Key Watershed Forest Roads Project- Proposed Action Map included with this EA.

*The small vehicle parking area for about 3 vehicles on the south side of the Drift Creek Bridge would not be accessible once this road segment is decommissioned. To compensate for this loss, a small parking area near the north bridge entrance would be constructed large enough for about 3 vehicles.

Design Criteria

To meet the Forest Plan Standards and Guidelines and reduce or prevent the adverse impacts decommissioning, the following project design items (mitigation measures) would be implemented.

1) Operation of heavy equipment in live stream channels would be restricted to the dry season, generally July 1 to September 15. Operation outside of these dates may be possible if stream flows remain low, adult salmon have not yet entered the stream, and a waiver is obtained from the Oregon State Division of Lands. Extensions of the In-Water work period involving listed species also require written approval from NOAA.
2) Fill material would be disposed in stable locations. Waste piles would be compacted and contoured to mirror adjacent road cut banks or contoured to slopes of 30 percent or less on flat ground. Waste sites would be at least 60 feet from stream channels to minimize erosion potential. Straw mulch would be placed where there is potential for surface erosion,.
3) Equipment cleaning for all “off road” equipment would be included in the contract.

4) Waterbars would be constructed to decrease water concentration and surface erosion in accordance with the Siuslaw National Forest Road Obliteration and Upgrade Guide. Waterbars would be out sloped from the existing road cut bank to the outer edge of the road to facilitate proper drainage of surface water and to prevent ponding. Waterbars would be located in areas where drainage would not destabilize road fills. Waterbars would be constructed adjacent to and uphill from fill removal sites.
5) All disturbed areas would have straw mulch placed as soon as practicable to minimize erosion and prevent colonization of noxious weeds. Native seed and weed-free straw mulch would be used on fill slopes to reduce the amount of sediment entering the stream channel.
6) Existing vegetation would be left where possible to reduce the risk of erosion and mass soil movement.
7) A fish biologist and/or hydrologist would be consulted prior to modifying any of the project design criteria that could impact aquatic resources.
8) Dirt berms would be constructed to close proposed Forest Roads to vehicle access.

Monitoring

Implementation monitoring would be the responsibility of the Contractor Officer's Representative administering the project to ensure the project design criteria is met.
Since road decommissioning is considered routine, no specific effectiveness monitoring is planned.

Alternatives Considered but not Studied in Detail

Decommission all Non-Key Forest Roads

This alternative would decommission all of the Non-Key Forest Roads in the watershed. This alternative would allow more maintenance to occur on the Key Roads, as there would be fewer Roads to maintain in the future. This alternative was eliminated from detailed study, because:

1. Many of the Non-Key Roads are needed for management of National Forest resources and are used by the public to access areas of the watershed for a variety of reasons They can be managed through the Forest Road maintenance program, because many of these Roads have been hydrologically stabilized and closed to public travel, and require minimal funds to maintain them.

Implement the original proposed actions

This alternative would implement the following three major actions included in the Drift Roads Scoping Document:

1. Existing Key Forest Roads improvements (maintenance) may include: replace old culverts, improve drainage by installing additional ditch relief culverts and improve travel surfaces by adding gravel and pavement repair.

2. Decommission Forest Roads that cross unstable areas and/or are not needed for long term management. Decommissioning may include pull back of sidecast material, removal of old culverts and breaking up the road surface to reduce compaction.

3. Close Forest Roads to public travel that are not needed for present management, but are needed in the future. These roads would be stabilized, which may include removal of some fill above culverts or removal of the culverts, to reduce the potential of downstream damage if they fail and installation of waterbars to road drainage. These roads would remain on the Forest Service Road system in maintenance Level 1. The goal of this action is have a stable Forest Road system in place for future management needs that requires minimal maintenance.

This alternative was eliminated from detailed study because:

1. The maintenance of the Forest Roads as described in the Scoping Document is a routine activity that is covered by the Forest Plan. Additional NEPA analysis is not needed for this activity.
2. Some of the Forest Roads proposed for decommissioning provide access to land not managed by the Forest Service. Those that own or manage these lands desire to maintain the access and have indicated they will work with the Forest Service to maintain these roads. These roads include Forest Roads 1701, 1770 and a portion of Forest Road 1900 that accesses the private land in T8S. R 10W, Section 6.
3. No NEPA decision is needed to change the maintenance level of a Forest Road.

Chapter 3 Affected Environment and Environmental Consequences

Introduction

This chapter describes the physical, biological, social and economic conditions that may be affected by the alternatives studied in detail described in Chapter 2. In some Environmental Assessments (EAs) and most Environmental Impact Statements (EISs), the existing conditions and environmental consequences have been presented in separate chapters. They are combined into one chapter for this EA to lessen repetition, reduce the length of the document, and provide a format in which existing conditions can be easily compared with predicted effects.

As directed by the Council for Environmental Quality (CEQ) implementing regulations for National Environmental Policy Act (NEPA), the discussion focuses on resource conditions in the Drift Key Watershed Roads Project area that may be affected by the planned actions. Only those descriptions necessary to understand the effects of the actions are provided.

Environmental consequences are discussed in terms of direct, indirect and cumulative effects. Direct effects are caused by implementing proposed activities and occur at the same time and place. Indirect effects are caused by implementing proposed activities and occur later in time or further removed in distance, but are still reasonably foreseeable. Cumulative effects result from incremental impacts of proposed activities when added to other past, present and reasonably foreseeable future actions regardless of what Agency or person undertakes such other actions. Some resource conditions consider a larger area if predicted effects extend beyond the Drift Key Watershed Roads Project Area.

Access/Transportation

Introduction

The following is summarized from the *Drift Key Watershed Roads Project Roads Analysis Report,* April 1, 2005.

Existing Condition and Trends

There are about 770 miles of Key and 1,510 miles of Non-Key Forest Roads on the Siuslaw National Forest. Since 1990 about 350 Forest Road miles have been decommissioned. The trend is a reduction of miles of road that need to be maintained to better match road maintenance funding.

The Forest is funded at about 25 percent of the need to accomplish annual routine maintenance on the Key Forest Road system. The Forest Roads Analysis recommends prioritizing the available funding across the Key Forest Road system as needs arise. Consequently, few Forest Roads receive full routine maintenance as available funding is applied to prioritized individual segments. Additionally, changes in forest management direction have reduced the availability of cooperative deposits associated with timber sales and reduced the ability to use timber-generated funds for reconstruction and repair of the Forest Road system. This reduction in routine maintenance funding and a lack of appropriated funds to address the increasing maintenance backlog is resulting in continued deterioration of the Key Forest Road network in the watershed.

Most of the Non-Key Roads on the forest have been stabilized with waterbars and either closed with physical barriers, or left to be closed naturally by vegetation encroachment. The Non-Key Roads are typically maintained only when access is needed for specific project activities such as vegetation management or habitat restoration. The lack of maintenance on the Non-Key Roads has resulted in many roads being inaccessible or accessible only with a high-clearance vehicle, sometimes requiring four-wheel drive.

Analysis of Direct, Indirect Effects and Cumulative effects

Alternative 1 No Action Alternative

This alternative would not change current Forest Road maintenance strategy, miles of Forest Road available for access or total miles of Forest Roads within the Drift Key Watershed. It is expected that the Non-Key Roads would become less accessible over time due to encroachment of vegetation and the condition of the Key Roads would continue to decline.

Alternative 2 Proposed Action

This alternative would decommission about 6.0 miles of Non-Key Forest Roads. The proposed decommissioning would have a minimal effect on access as most of these roads are either currently closed or in non-drivable condition for any vehicles other than small four wheel drive units. Those roads proposed for decommissioning have not been maintained for travel for about ten years allowing the roads to passively close as brush encroaches on the travelways. The effect of this project to meet the desired future condition described on page 2 of this EA is small. However, this project combined with other projects being completed and planned on the Forest should help meet the desired condition described on page 2 of this EA, in the long term.

Water Quality

Existing Condition and Trends

The Hebo Ranger District hydrologist provided the following information. Most of the fills at stream crossings that are at risk are on Forest Roads built between the mid-1950s to the mid-1970s. Due to the age and size of culverts identified along these road segments there is a risk of failure during storm events. Some of the culverts proposed for removal are not large enough to handle flows associated with floods larger than those with a 25-year recurrence interval. Some of the metal culverts in these older Forest Roads have rusted through, allowing water to seep into surrounding fill material, further reducing structural integrity of the roads at the stream crossing.

Analysis of Direct, Indirect and Cumulative Effects

Alternative 1 No Action

In this alternative, the culverts at 10 stream crossings (See Table 3, EA page 20) on these Forest Roads would not be cleaned over time, due to lack of maintenance funding. There is a high likelihood that many of these stream-crossing culverts would plug and eventually fail. As organic debris and soil clog these culverts during storm events, water would pond up and begins to flow over the road, cutting down through the road fill. The fill could also begin to saturate because of the ponded water behind it, and in many cases, the entire fill may fail and head down to a stream below. Fill failures could contribute much more sediment than just the amount in the road fill due to the amount of hillslope material added to the failure as the resulting debris torrent scours a path down to the main stream below (Benda, 1990).

In places where failures have already occurred, pulses of sediment would continue to be released over time as over steepened slopes seek equilibrium. It may take a decade or more for stabilization to occur on these sites. Because various fills would fail at different times in the future, these stream crossing road fills would represent long-term point sources of sediment over the next several decades.

The Forest Roads proposed for decommissioning where stream crossing exist were built using sidecast road building techniques. As such, there are several locations where sidecast material is unstable or has a high probability of becoming unstable as evidenced by cracking and slumping on the outside edge of the road. Over the next decade, large storms could saturate these locations, causing debris torrents to deliver fine sediment to streams below.

Failures at stream crossings and unstable sidecast areas would produce direct effects to hill slope vegetation and stream morphology. Road related debris torrents on steep hill slopes often remove trees, soil and rocks as they scour a path to the valley below. Additions of excessive amounts of sediment can overload a stream's ability to transport sediment, causing the stream to braid and take on very different stream bed conditions than before.

Indirect effects to water quality would continue to be evident over time. Road related debris torrents have the power to scour gravel bed channels to bedrock. Although road related debris torrents have the potential to add some needed large woody debris to streams, the addition of moderate to high amounts of fine sediment may negatively impact water quality.

Alternative 2 Proposed Action

This alternative would reduce accelerated sediment input to the stream systems by the reduction of the possibility of debris slides and torrents, and erosion of road fills. Road fills in stream crossings which have the potential to divert streams or yield significant quantities of sediment would be excavated.

Short-term increases in fine sediment to stream channels would be expected from erosion of disturbed areas caused by removal of fills and sidecast pullback. Most of this fine sediment would result from removal of fills and culverts due to their proximity to flowing water. Summer season of operation would allow some time for disturbed areas to revegetate before large storm events begin. Other measures that would buffer short-term erosion include the placement of downed vegetation at an angle to side slopes that have been excavated back, and straw mulching of all exposed areas.

Disturbed areas greater than 60 feet from live stream channels have a very low risk of contributing fine sediment to the stream channel unless water is concentrated across the surface. Burroughs and King (1989) found that in highly erodible Idaho soils, the average distance sediment was transported where it was not subjected to concentrated runoff (e.g., from a compacted road surface) was 26 feet. In areas where there was concentrated runoff, average travel distance was 59 feet. Properly spaced waterbars in abandoned road surfaces would help to deter surface erosion potential under this alternative.

In the long-term, fine sediment that would have potentially adverse effects on fish, macro-invertebrates and other aquatic organisms would be eliminated, or would be entering the stream at highly reduced rates.

The cumulative effect of removing multiple stream crossings in one drainage could increase turbidity. If all 10 crossings were removed in the same summer in-stream work period increased turbidity on a localized scale could occur. Increased turbidity would be short in duration occurring during culvert removal and for possibly several hours to several days following work. Resulting turbidity increases downstream would vary, depending on degree of culvert removal, stream flow at the time of removal and channel characteristics downstream of work area. Work of this nature is typically spaced over several years. It is highly unlikely that all 10 culverts would be removed in the same summer work period. Temporal spacing of the 10 culvert removals would affect the timing and magnitude of the cumulative effects that could occur as a result of this project. If culvert removals are spaced out over time the cumulative effects of the removal of multiple stream crossings in one drainage should not be additive. Also most of the stream crossings affected by the Proposed Action cross first and second order streams that would not have fish in them during excavation. Although some short-term turbidity would be created, streams would clear within days. The affects of turbidity are expected to be limited and temporary.

If all 10 stream crossing culverts were removed in the same in-stream work period increased turbidity would be additive. The increased turbidity would still be short lived, during the culvert removal activity and for several days following the activity. The identified stream channels are small 1-5 foot bankfull and are laden with wood, adding considerable stream channel complexity and the ability to filter sediment entering the water from such activity. Turbid water travel distances are not expected to exceed 0.25 miles downstream and long term benefit to water quality by the removal of the poorly functioning culverts identified is anticipated.

Aquatic Conservation Strategy

On March 22, 2004 the USDA Under Secretary for Natural Resources and the Environment signed Record of Decision (ROD) amending the Northwest Forest Plan. The decision clarifies provisions relating to the application of the ACS. Specifically, the amendment removes the need for deciding officials to certify that individual projects meet ACS objectives at the site-specific level and short time frames. Instead, the ROD requires individual projects to meet ACS standards and guides and that ACS objectives be met at watershed or larger scales (5^{th} field hydrologic fields or greater) and over longer time periods of decades or more. Project records must also demonstrate how the decision maker used relevant information from watershed analysis to provide context for project planning.

Relevant information from the Drift (Siletz) Watershed Analysis (September, 1996), and the fisheries Biological Evaluation, Drift Roads Project is incorporated by reference into this environmental analysis. Based on this information, all project activities will meet the ACS standards and guides, and all ACS objectives will be met at the 5^{th}-field watershed scale and over longer time periods of decades or more.

Conifer Stands

Introduction

The following information is summarized from *Silviculturist's Report for the Drift Key Watershed Roads Project,* February 25, 2005. The effects analysis area is the Drift Key Watershed.

Naturally regenerated conifer stands in the Drift Creek Tier 1 Key Watershed are generally 120 to 130 years old, with a few small pockets of 100 year-old stands. Interspersed throughout the natural stands are young managed conifer stands that range from 10 years to 60 years old. In this watershed, natural conifer stands occupy about 6,310 acres and young managed conifer stands about 4,210 acres.

The young managed conifer stands developed from clearcuts and were usually planted with Douglas-fir seedlings following the harvest. Natural conifer stands near the clearcuts often had western hemlock, Sitka spruce, red alder, and western red cedar in their over-story, so these species naturally seeded into the young stands. As the young conifer stands matured they were often precommercially thinned to promote individual tree growth and stand health, focused on Douglas-fir and western red cedar, the primary species of commercial interest to local economies. Additionally, many of the naturally regenerated conifer stands were commercially thinned in the 1970s and early 1980s. The Forest Roads were developed for removal of the harvested timber. The most efficient way to treat the young managed conifer stands is to use these existing Roads that access them.

All of the National Forest land in this Watershed has been designated by the Forest Plan as Late-Successional Reserve. A goal of the Forest Plan for this land allocation is the development of large blocks of late-successional-forest, dominated by conifers, by treatment, primarily by commercial thinning the managed conifer stands 110 years old and younger.

Recent studies indicate that the young managed stands are so uniform that they are likely to stagnate for long periods of time before disturbances occur at a large enough scale to move them toward the late successional forest characteristics. This can be accomplished by several entries into these stands. The first entry is, usually, a precommercial thinning. Its goal is to reduce the number of stems per acre to provide growing space for the better trees. The next entries are commercial thinnings. Their goal is to reduce the number of stems per acre and create diversity in the stands.

Analysis of Direct and Indirect Effects

Alternative 1 No Action

There would be no direct effect on management of the conifer stands in this Watershed, because there would be no change in the Forest Road system. The lack of funds to maintain the roads would have an indirect effect, in that some the access to the managed stands may be damaged to the point that it may not be economical to treatment them.

Alternative 2 Proposed Action

The Forest Roads planned for decommission access about 90 acres of young managed stands in the watershed. Of these acres, 85 acres would be commercially thinned prior to the proposed decommissioning. Due to the expense of helicopter yarding, it is unlikely that further management would take place on these acres once decommissioning is implemented. The roads proposed for decommissioning also access approximately 534 acres of natural stands, age 100 to 130 years, that were commercially thinned in the 1970's and 80's. Under the Forest Plan no further harvesting is permitted in these stands.

Cumulative Effects

The cumulative effect of forgoing a second entry in these stands is minor.

Wildlife

Introduction

The following information is summarized from the *Biological and Wildlife Report for Drift Roads Project*, March 22, 2005. As described in the LSR Analysis for Oregon's Northern Coast Range Adaptive Management Area (USDA-USDI 1998), the federal lands in this area are within LSR R0269 and a Reserved Pair Area (RPA) for Northern spotted owls. The National Forest land is within Critical Habitat Unit (CHU) OR-43 for Northern spotted owls and within CHU OR-02-c for the marbled murrelet.

Direct and Indirect Effects

Species Considered and Evaluated

The following table includes federally listed or proposed species for the Siuslaw National Forest as provided in the September 2002 list from the Regional Office. The species noted as excluded on the table below will not be discussed further in this document.

Common Name	*Species*	Status	Species Excluded	Reason for Exclusion
Bald eagle	Haliaeetus leucocephalus	Threatened	NO	
American Brown Pelican	*Pelecanus occidentalis*	Endangered	YES	Lack of suitable habitat
Western Snowy Plover	*Charadruis alexandrinus nivosus*	Threatened	YES	Lack of suitable habitat
Northern Spotted Owl	*Strix occidentalis caurina*	Threatened	NO	
Marbled Murrelet	*Brachyramphus marmoratus*	Threatened	NO	
Oregon Silverspot Butterfly	*Speyeria zerene hippolyta*	Threatened	YES	Lack of suitable habitat

The following table includes Regional Forester Sensitive Species for the Siuslaw National Forest. Sensitive animal species are from Regional Office lists updated in July 2004. The species noted as excluded on the table below will not be discussed further in this document.

Common Name	Species	Species Excluded	Reason for Exclusion
BIRDS			
Bufflehead	*Bucephala albeola*	YES	Lack of suitable habitat
Harlequin Duck	*Histrionicus histrionicus*	YES	Lack of suitable habitat
Peregrine Falcon	*Falco peregrinus anatum*	YES	Lack of suitable habitat
Streaked Horned Lark	*Eremophila alpestris strigata*	YES	Lack of suitable habitat
Aleutian Canada Goose	*Branta canadensis leucopareia*	YES	Lack of suitable habitat
MAMMALS			
Baird's Shrew	*Sorex bairdii bairdii*	NO	
Pacific Shrew	*Sorex pacificus pacificus*	YES	Not within species range
Pacific Fringe-tailed Bat	*Myotis thysanodes vespertinus*	NO	
California Wolverine	*Gulo gulo*	YES	Historical sighting only
REPTILES			
Northwestern Pond Turtle	*Clemmys marmorata marmorata*	YES	Distribution Willamette Valley, riparian buffers established
AMPHIBIANS			
Southern Torrent Salamander	*Rhyacotriton variegatus*	NO	
Columbia Torrent Salamander	*Rhyacotriton kezeri*	YES	Not within species range
Foothill Yellow-legged Frog	*Rana boylii*	YES	Not within species range

Alternative 1 No Action

No changes to the Forest Road system would occur under this alternative. As Forest Roads continue to close because of the lack of funds, there is a beneficial effect to less human disturbance and more area available for species to inhabit.

Alternatives 2 Proposed Action

The following table summarizes the direct, indirect and cumulative effects on those species that may be in area by the proposed decommissionings.

Common Name	Species	Status	Determinations of Effects	
			A1t. 1 No Action	Alt. 2 Proposed Action
Bald eagle	*Haliaeetus leucocephalus*	Threatened	*No Effect*	*No Effect*
Northern Spotted Owl	*Strix occidentalis caurina*	Threatened	*No Effect*	**May Affect, Likely to Adversely Affect*
N.S.O. Critical Habitat			*No Effect*	*NE*
Marbled Murrelet	*Brachyramphus marmoratus*	Threatened	*No Effect*	***May Affect, Likely to Adversely Affect*
M.M. Critical Habitat			*No Effect*	*No Effect*
Baird's shrew	*Sorex bairdii*	Sensitive	*No Impact*	*No Impact*
Pacific fringe-tailed bat	*Myotis thysanodes vespertinus*	Sensitive	*No Impact*	*No Impact*
Southern torrent salamander	*Rhyacotriton variegatus*	Sensitive	*No Impact*	*No Impact*

*Although no surveys have been conducted, there is a high likelihood that the Northern spotted owls utilizes the area for dispersal and occurs in the vicinity of the proposed action. Some of the individuals could be negatively affected by treatment activity. Temporary direct effects, such as individual and prey displacement, may occur during operation. Direct beneficial effects, such as improved habitat quality and quantity, are likely to occur as a result of the road decommissioning. Temporary indirect effects, such as increased noise levels, could occur during operation.

**Although no surveys have been conducted, there is a high likelihood that the marbled murrelet occurs in the vicinity of the proposed action. Activities within a .25 mile range of a nest site that result in above ambient noise levels may disrupt reproductive behaviors of murrelets at inland forest sites by causing nest abandonment, aborted feeding visits or significant alteration of breeding success. No known nest sites exist within the project area and the closest one is located .73 mile away. Some of the individuals could be negatively affected by treatment activity. Temporary direct effects, such as individual displacement, may occur during operation. Direct beneficial effects, such as improved habitat quality and quantity, are likely to occur as a result of the road decommissioning.

Management Indicator Species (MIS)

Siuslaw National Forest Plan (USDA 1990) MIS species are those that represent a larger group or guild of species that are thought to be indicators of habitat change. The MIS species on the Siuslaw Forest include marten for mature older age stands, northern spotted owl for old growth conifer communities, pileated woodpecker for large snags and defective trees, primary cavity nesters (i.e. downy and hairy woodpeckers, red-breasted sapsucker, flicker, and red-breasted nuthatch) for small to medium size dead and defective trees, and ruffed grouse for hardwood and deciduous mixed habitats.

Effects to MIS from the proposed action include: The proposed action occurs outside mature forest stands, management activities are not expected to have negative impacts on local populations or habitats of American marten or pileated woodpecker, which have been identified to indicate health of late and old growth forests. Primary cavity nesters and ruffed grouse may be temporarily displaced by the disturbance activities of the mechanical operations but are not expected to abandon the project area.

Land birds

Landbirds, including migrant and resident species, are those that generally use terrestrial and wetland habitats. Habitats these species could be found using include forest canopies, snags, understories, ground vegetation/structure, existing openings and a wide variety of structural types and successional stages. Some landbirds expected in the project area include olive-sided flycatcher, tree swallow, Swainson's thrush, varied thrush, winter wren, warbling vireos, and purple finches. Impacts to landbirds can come from either disturbance or habitat alteration or both. Impacts from disturbance are due to activities above normal ambient levels proximate to nesting or feeding areas. Alternative 1 would have no disturbance impact on any landbirds because no activities are planned. Alternative 2 has planned activities that could occur during the later portions of the breeding season for some species that would potentially be proximate to nesting and feeding sites. Since the planned activities would occur during the later part of the nesting season, and many of these species nest multiple times over the spring-summer period, only the very last nesting would potentially be disturbed allowing for at least one or possibly two clutches to be successful even during years of disturbance. Disturbance from flushing from feeding sites would have far less potential impact to landbirds than nesting disturbance. Feeding birds have much greater flexibility to locate and feed elsewhere when contrasted with fixed nest location. Overall, the number and location of alternative feeding sites in the geographic area described above further reduces the likelihood of actually incurring any measurable feeding disturbance.

Since the project will occur during the land bird nesting season, there is potential for nesting disruption or harm to young of the year. However, due to the small number of individuals that might be impacted, negative impacts to local populations of land birds within the drainage are not expected. No intentional take of migratory birds will occur under this project.

Cumulative Effects

The planned decommissioning may occur at the same time as activities associated with the Windjammer and Diamond Peak projects. These projects involve the commercial thinning of 1,400 acres of young managed stands on National Forest land in the Drift Key Watershed. Windjammer includes five sales of which three are scheduled to be sold by and operations started by 2006, tentatively completed by 2009. The remaining two sales are scheduled to be sold by and operations started by 2007, tentatively completed by 2010. Diamond Peak includes two thinning sales which are scheduled to be sold by and operations started by 2008 and tentatively completed by 2011. Even though the units may not be spatially separate, ranging anywhere from a 1/8 of a mile to 5 ½ miles apart, they are temporally separated from one to five years.

Three commercial sale units include roads that would be decommissioned by the proposed action. These include Roads 1928-111, 1928-116 and the last portion of Road 1730. There would not be any cumulative effects from disturbance because these roads would be decommissioned after operations within the units are completed. It is expected that the other planned decommissionings would be done after the sales are completed. If they do occur when the sales are operating the cumulative effect would not be significant because the amount of work to decommission most roads is estimated to be one or two days per road and the roads are spread throughout the watershed. This means the effects that may occur would not be concentrated in one area for a long period of time.

State, BLM and Private Land---The activities on these land ownerships are difficult to quantify. The private land BLM and State land managed lands are located on the periphery of the project area and are not close enough to the Windjammer, Diamond Peak or Drift Roads Project areas to have an effect.

Fish Species

The following information is summarized from the *Biological Evaluation, Fish Species, Drift Roads Project,* March 25, 2005. This Biological Evaluation (BE) evaluates the effects of the Drift Creek Roads Project on Sensitive, MIS and T&E species. In addition it also analyzes the effect on Essential Fish Habitat (EFH) under the Magnuson-Stevens Act. The analysis area covered by this Biological Evaluation is the Drift (Siletz) Key Watershed. This area lies between the drainages of the Salmon River and Siletz River and drains into Siletz Bay. The project area is located in the Drift (Siletz) 5th field Watershed. The proposed actions would occur in portions of two 6th fields (Schooner Creek, Lower/Drift Siletz). The analysis area consists of 48,000 acres.

The Oregon Department of Environmental Quality's 303d list for water quality limited streams has included in the Drift (Siletz) Watershed; Drift, Gordey, North and Sampson Creeks for temperature from headwaters to mouth. Drift Creek is also listed for sedimentation.

Analysis of Direct and Indirect Effects

Alternative 1 No Action

In this alternative, no change to the existing Forest Road system would be made. However, due to a limited road maintenance budget, not all of the Forest Roads would continue to be maintained. Those roads that fail may not be repaired. These failures may damage downstream aquatic habitat.

This alternative does not address water resource concerns of reduced road maintenance funding for Forest Roads. This alternative does not meet the desired conditions described in Chapter 1, Purpose and Need section, of this Environmental Assessment or the Forest Plan direction to restore this Tier 1 Key Watershed.

Alternative 2 Proposed Action

Direct/Indirect Effects to T&E Species

There are no listed fish species in the analysis area, however Coho Salmon (*Oncorhynchus kisutch)* is proposed for listing and the National Oceanic and Atmospheric Administration (NOAA) expects a decision by 7/15/05. During this period the US Forest Service will Conference with NOAA concerning potential effects on the species or their habitat. The road activities covered in this BE fit the criteria, and thus are covered, by the Programmatic Biological Opinion issued by NOAA on February 25, 2003. The BO allows for 5 miles of LAA and 5 miles of NLAA road activities each year in the basin.

Coho utilize these watersheds for both spawning and juvenile rearing. In freshwater Coho need clean gravel for spawning, cool temperatures, and suitable habitat for~ 16 months of freshwater rearing. Ideal rearing conditions include off channel rearing habitat, and pools with complex Large Woody Debris (LWD). Coho numbers in the Oregon Coast ESU have been depressed, but are showing signs of recovery. Coho are present in both the Lower Drift and Schooner 6th fields. According to the Drift (Siletz) Watershed Analysis road density is a concern in the watershed. This project would reduce the total miles of Forest Roads in the watershed from 49.6 to 43.6 miles. This would reduce the road density on FS land from 4.64 to 4.07. This would also reduce the risk of sedimentation from inadequately maintained Forest Roads or culverts.

Road decommissioning with associated culvert removal has the potential to mobilize sediment. Table 2 lists those Forest Roads with a potential to affect fish or their habitat. The distance from ESA habitat, construction BMP's, and small size of the streams involved limits potential effects. Only one of the proposed road decommissionings has any potential to affect coho or their habitat (#1900). This project also reduces the risk from potential road or culvert failures from inadequately maintained Forest Roads.

Table 2

Forest Road #	Proposed decommissioning description and length	Culverts* Removed	Miles **NLAA	Miles ***LAA	Miles Total
1928	From its junction with 1928-111 to Forest Road 1900. (about 0.2 mile)	0	0.20	0	0.20
1928-111	All (about 0.5 mile)	2	0.50	0	0.50
1928-113	The last about 0.2 mile	0	0.20	0	0.20
1928-114	All (0.05 mile)	0	0.10	0	0.10
1928-116	All (about 0.6 mile)	4 (log)	0.60	0	0.60
1928-118	About The last 0.3 mile	0	0.30	0	0.30
1929-118	All (about 0.4 mile)	0	0.40	0	0.40
1730	About the last 0.3 mile	0	0.30	0	0.30
1900	Portion 1: The portion that extends from Odell Creek to private land in Section 6. Portion 2 Decommission from the north side Drift Creek Bridge to the first main drainage in Section 10. A small parking area would be created just north of the bridge. The north bridge entrance would be blocked to prevent vehicle traffic crossing the bridge. The bridge would remain. (Total miles for both portions is about 1.6 miles)	4	1.0	0.60	1.6
1900-111	About the last 0.5 mile	0	0.50		0.50
	Totals	**10**	**4.1**	**0.6**	**4.7**

*Stream crossing.

**Not Likely to Adversely Affect determination

***Likely to Adversely Affect determination

Species	Proposed T and E species that may be affected	Determination
Coho Salmon	*Oncorhynchus kisutch*	May Affect / Not Likely to Adversely Affect

Direct/Indirect Effects to Sensitive Species

Common Name	Species
Chinook Salmon	*Oncorhynhus tshawyscha*
Chum Salmon	*Oncorhynhu keta*
Coastal Steelhead	*Oncorhynhu mykiss*
Coastal Cutthroat Trout	*Oncorhynchus clarki clarki*

Chinook salmon

Chinook salmon utilize the watershed for spawning and rearing. Adult Chinook spawn in the late fall in the mainstems of the streams in the basin. The eggs incubate in the gravel and in the spring the young migrate down to the Siletz estuary. The young reach the estuary by early summer and then spend the summer rearing in the estuary. The project activities are occurring in the forested upper portions of the watershed. The project design should minimize the possibility of sediment impacting the spawning and rearing areas. The project would also reduce the risk from inadequately maintained Forest Roads and reduce the overall road miles in the watershed.

Chum Salmon

Chum salmon utilize the lower watershed for spawning. This area is on the southern fringe of the range of cum salmon. Chum salmon spawn in late fall and the juveniles migrate immediately upon emergence. They spend a brief time (~2 weeks) in the estuary and then migrate into the ocean. The project activities are occurring in the forested upper portions of the watershed. The project design should minimize the possibility of sediment impacting the spawning and rearing areas. The project would also reduce the risk from inadequately maintained Forest Road and reduce the overall road miles in the watershed.

Coastal Steelhead

Steelhead of all life history stages can be found in the project area at various times. Steelhead utilize these watersheds for both spawning and juvenile rearing. In freshwater Steelhead need clean gravel for spawning, and cool temperatures. Ideal conditions include off channel rearing habitat, and pools with complex Large Woody Debris (LWD). The project design should minimize the possibility of sediment impacting the spawning and rearing areas. The project would also reduce the risk from inadequately maintained Forest Roads and reduce the overall road miles in the watershed.

Coastal Cutthroat Trout

Cutthroat have a complex Life History pattern including both resident and anadromous populations. Cutthroat of all life history stages can be found in the project area at various times. Cutthroat utilizes these watersheds for both spawning and juvenile rearing. In freshwater Cutthroat need clean gravel for spawning, and cool temperatures. Ideal conditions include off channel rearing habitat, and pools with complex Large Woody Debris (LWD). The project activities are occurring in the forested upper portions of the watershed. The project design should minimize the possibility of sediment impacting the spawning and rearing areas. The project would also reduce the risk from inadequately maintained Forest Roads and reduce the overall road miles in the watershed.

Direct/Indirect Effects to Management Indicator Species

Common Name	Species
Coho Salmon	*Oncorhynhus kisutch*

Coho utilize these watersheds for both spawning and juvenile rearing. In freshwater Coho need clean gravel for spawning, cool temperatures, and suitable habitat for~ 16 months of freshwater rearing. Ideal rearing conditions include off channel rearing habitat, and pools with complex Large Woody Debris (LWD). Coho numbers in the Oregon Coast ESU have been depressed, but are showing signs of recovery. Coho are present in both the Lower Drift and Schooner 6th fields. The project design should minimize the possibility of sediment impacting the spawning and rearing areas. The project would also reduce the risk from inadequately maintained Forest Roads and reduce the overall road miles in the watershed.

Direct/Indirect Effects on Essential Fish Habitat

The Magnuson –Stevens Act (Act) designated Essential Fish Habitat for coastal coho and Chinook populations. The effects of the proposed actions discussed in this BE are covered by the Programmatic Biological Opinion February 25, 2003 issued by NOAA for ESA and the Act.

Cumulative Effects

All of the species discussed are salmonids and have similar habitat requirements. There may be short localized impacts from some ground disturbing activities. However, these are geographically separate from salmonids habitat, and any impacts should be minimal and short lived. The removal of these miles of Forest Roads should reduce potential impacts from road runoff and also reduce the chance of road or culvert failures.

Other Activities on National Forest System Land-- The other foreseeable routine actions, which may include noxious weed control, road maintenance, administrative road use, public recreational use, and small forest products gathering for personal use. Additional terrestrial enhancement projects involving the thinning of overstocked plantations are planned for the area, the Windjammer and Diamond Peak projects. These projects would occur in the Drift/Schooner basin. These projects would commercial thin about 1,400 acres of young managed stands. The plan is to have eight sales offered over a three year period beginning in 2005. Sale activities should be completed in 2011. These two projects would create 1.1 miles of temporary roads, reopen about 14 miles of closed temporary and Forest Roads and decommission about 0.75 miles of Forest Road. Both the temporary and reopened roads would be closed at the end of the project. Appropriate design criteria and mitigations would be applied to all projects so that no significant cumulative detrimental impacts on aquatic resources are anticipated.

State, BLM and Private Land---The activities on these land ownerships are difficult to quantify. Most of the private land management in the watershed consists of removing forest product, primarily by clearcutting. These actions are guided by the Oregon Forest Protection Act. This act requires streams to be buffered. However, the conifer stands on private land are managed for short rotations, so the development of large conifer trees does not occur. The BLM manages the land similar to the Forest Service.

Air Quality

Existing condition and trends

The existing condition and future trends are described in the Land and Resource Management Plan Siuslaw National Forest (1990), pages III-107-108.

Analysis of Direct, Indirect and Cumulative Effects

Alternative 1 No Action

There would no direct, indirect or cumulative effects on air quality from this alternative, because no actions would be implemented in the project area.

Alternative 2 Proposed Action

The air quality of the project area may be reduced for a short period of time from dust and equipment exhaust. Other activities in the project area that could affect air quality are routine road maintenance and activities of the Windjammer and Diamond Peak projects if they are implemented at the same the planned Forest Roads are decommissioned. It is difficult to quantify exactly how particulate matter may be in the air at one time. The expected effect is anticipated to be low even if they occur at the same time, because these projects are separated by distance and would operate for short periods of time throughout the year, allowing the particulate material that may be in the air to dissipate.

Recreation, Land and Minerals

The following information is summarized from the *Recreation, Lands and Minerals Report for the Drift Key Watershed Roads Project, March 11, 2005.*

Analysis of Direct and Indirect Effects

Alternative 1 No Action

There would be no direct effects on recreation, lands or minerals programs in the project area. If some of the Forest Roads fail due to the lack of maintenance funding the amount of recreational access may be reduced. However, since some of the Forest Roads that would be decommissioned are closed to public travel, this effect is expected to be small.

Alternative 2 Proposed Action

The project area is very popular for a wide variety of dispersed recreation opportunities and forest products gathering (commercial and non-commercial). Virtually every open road is used for access to big game, small game, and predator hunting; firewood and special forest products gathering; camping, picnicking, and hiking; and recreational driving for off highway vehicles (OHVs), wildlife viewing, and other forms of relaxation. Decommissioning open Forest Roads would reduce vehicle access for these types of activities. However, road closures would also reduce noise impacts caused by vehicles in the immediate vicinity of the decommissioned Roads, increasing the opportunity for recreationists seeking quiet and solitude.

Forest Roads 1700, 1701, 1770, 1784, 1900, 1928, 1929, and 1958 (via 1980) provide access to popular fishing spots on Drift Creek. Proposed decommissioning of portions 1900, and 1928 would increase hiking distances to the lower and upper portions of the creek, limiting access for less mobile or less physically fit people. Closure of Forest Road 1900 at the Drift Creek Bridge would block access to a popular area for parking just east of the bridge. However, similar parking could be developed just to the west of the bridge.

Lands (Special Use Permits) and Minerals

There is one special use permit in the project area, the Drift Creek Organizational Camp. Forest Roads 1700, 1900, and 1929 provide the only access route to the camp. A portion of Forest Road 1900 east of the camp is proposed for decommissioning from the Drift Creek Bridge east to the previously closed and decommissioned portion of Forest Road 1900. The Key Forest Roads that access the Camp are not affected by this project.

The telephone line to the Drift Creek Organizational Camp is buried along the portion of the road proposed for decommissioning and crosses Drift Creek suspended on the bridge. This line is a vital communications link from the camp to emergency services and all most other services needed to operate the camp. This line extends from the Siletz Highway and follows along Forest 1900 to the camp. Originally the line was buried along the road. However, due to storm damage in 1996 and the lack of funds to maintain this road, several culverts in this road were removed. In these areas the line is either suspended on poles or laying on the ground. Maintenance of the line is done by foot in these areas and vehicles were the road is still drivable. Closing the road on the west side of the bridge and decommissioning this portion of the 1900 road would eliminate vehicle access for maintaining the telephone line. The telephone line buried along the segment of road proposed for decommissioning would still be accessible on foot.

Decommissioning of the Forest Roads proposed in this project would not eliminate access to any known locatable, leaseable, or common variety mineral sources.

Recreation, Lands and Minerals-Cumulative Effects

Overtime it is expected that more Forest Roads in the project area would close because to the lack of funds to maintain them. As Forest Roads continue to become closed to vehicle access, there would be a cumulative loss of recreational opportunities. Exactly what this effect may be cannot be determined at this time, because it is not known which roads may become impassable.

Environmental Justice

The action alternative was assessed to determine if there would be a disproportionately impact to minority or low income populations, in accordance with Executive Order 12898. The areas that may be influenced by the proposed activities are Lincoln and Tillamook Counties, Oregon. Based upon census information from the State, Native Americans are the only minority group in these counties whose population level is higher than the state average. They were contacted about the proposed activity during the scoping process. They did not comment on the project. Since these activities are small in size and duration, it appears that Native Americans would not be adversely affected.

The poverty level in Lincoln County, based upon State information, is above the state average. This means the number of families in the county that have incomes below the state's poverty level is higher than the state's average. For Tillamook, this is reversed. These activities if done may provide some employment to these families. However, the effects would be temporary, because these activities are small in size and duration.

Fire/Fuels

The following information is summarized from the *Fire and Fuels Assessment for the Drift Key Watershed Roads Project,* January 28, 2005.The fire occurrence in the project area is relatively low, but the potential for a very damaging wildfire does exist when conditions are right. The highest potential for ignition is the human factor, for example fires are more likely to be started by recreational users of the forest, commercial activity, and arson. Most if not all lightning is accompanied by a significant amount of rainfall, sufficient to reduce the probability of wildfire ignition.

Direct, Indirect Effects and Cumulative Effects of the Alternatives

The proposed Forest Roads to be decommissioned do not serve as good fuel breaks. Most of these roads are mid-slope and too over grown to facilitate safe, effective fire suppression. There is no difference in the No Action Alternative and the Proposed Action Alternative due to the existing conditions of most of the roads to be decommissioned.

Hebo Ranger District's highest ignition source is from escaped campfires. Reducing access would decrease the possibility of a human caused fire in these areas.

Chapter 4 Probable Environmental Effects That Cannot Be Avoided

Implementation of any alternatives may result in some adverse environmental effects. The severity of the effects can be minimized by adhering to the Design Criteria listed in Chapter 2, Forest Plan Standards and Guidelines and Best Management Practices. If management activities occur, however, some effects cannot be avoided. Even the No Action alternative has effects.

Wildlife

Threatened species (northern spotted owl and marbled murrelet) may be temporarily affected by operating mechanical equipment if they are near where the machinery is working. Other wildlife that may be in the area may be affected by the noise of the machinery doing the work. Closure of open roads by either management actions or as a result of the lack of maintenance may reduce human activity in the area which is a beneficial effect for wildlife.

Water Quality

For the proposed action alternative, it is expected there would be a slight and temporary increase in fine sediment in the streams where the culverts are removed. For the no action alternative risk of road failure could increase. If stream crossing failures occur, sediment could reach streams and impact water quality.

Fish species

Culvert removal would increase the short term potential for sediment to reach fish bearing streams. For the No Action Alternative risk of road failure could increase. If stream crossing failures occur, sediment could reach streams and impact aquatic habitat.

Recreation

It is expected that there would be slight decrease in recreational opportunities as the open Forest Roads are closed to public travel.

Relationship between Short-Term Use and Long-Term Productivity

Short-term uses are those uses that generally occur annually. Long-term productivity refers to the ability of the land to produce a continuous supply of a resource.

The effects of the proposed actions are short term. A positive long term benefits are compacted ground would return to production of various vegetative species and the potential sedimentation effects to aquatic habitat would be reduced.

Irreversible and Irretrievable Commitments of Resources

An irreversible commitment of resources refers to the loss of production or use of a resource due to a land use decision that once executed cannot be changed. An irretrievable commitment of resources applies to losses of production or use of renewable resources for a period of time.

There would be no irreversible commitment of resources as a result of the proposed actions. There may slight loss in recreation opportunities, temporary sedimentation of streams near where the culverts are removed, and dust from areas where machinery is working may temporarily reduce the quality of the air shed near the work sites.

Required Disclosures

Effects of Alternatives on Social Groups: There would be no overall differences between alternatives in effects on minorities, Native American Indians, women, or the civil liberties of any American citizen.
Effects on Floodplains and Wetlands: There are wet meadows, and ponds within the project area. These should not experience any significant adverse effects from management activities. The floodplains within the project area would not receive measurable impact by upstream influences. Management activities designed to protect these resources conform to the federal regulations for floodplains (Executive Order 11900) and wetlands (Executive Order 11990).
Energy Requirements and Conservation Potential of Alternatives: The energy required to implement the alternatives in terms of petroleum products would be insignificant when viewed in light of the production costs and effects on the national and worldwide petroleum reserves.
Effects of Alternatives on Prime Rangeland, Forest Land, and Farm Land: The alternatives presented are in compliance with Federal Regulations for prime lands. The definition of prime forest land does not apply to lands within the National Forests. No federally-managed land in the project area is classified as rangeland. In all alternatives, Federal lands would be managed with the appropriate consideration to the effects on adjacent lands.

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Nathan Pearson	Hebo Ranger District, Siuslaw NF	Fuels and Fire Management
Janet Moser	Hebo Ranger District, Siuslaw NF	Wildlife
Kami Ellingson	Hebo Ranger District, Siuslaw NF	Soils and Hydrology
Brent Erskine	Hebo Ranger District, Siuslaw NF	Team Leader, EA writer, Recreation
Wayne Patterson	Hebo Ranger District, Siuslaw NF	Silviculture
John Johansen	Hebo Ranger District, Siuslaw NF	Silviculture
John Casteel	Hebo Ranger District, Siuslaw NF	Fisheries
Ken McCall	Supervisor Office, Siuslaw NF	Transportation Planner

Agencies and Persons Consulted

NOAA

The proposed actions are covered by the programmatic for Endangered Species Act Section 7 Consultation Biological Opinion and Magnuson-Stevens Conservation and Management Act Essential Fish Habitat Consultation, issued by the National Marine Fisheries Service on February 25, 2003.

U.S. Fish and Wildlife Service

In their biological opinion of the following Siuslaw National Forest biological assessment, the U.S. Fish and Wildlife Service (FWS) has concurred with our findings that the project will not jeopardize the existence of bald eagles, northern spotted owls, and marbled murrelets. The FWS terms and conditions will be applied to the project design criteria:

- Programmatic Biological Assessment of Fiscal Year 2004-2005 Projects in the North Coast Province Which May Disturb Bald Eagles, Northern Spotted Owls, or Marbled Murrelets. FWS biological opinion reference #: 1-7-02-F-1113.

Native Americans

The Confederated Tribes of Coos and Lower Umpqua, the Confederated Tribes of Grand Ronde and the Confederated Tribes of the Siletz were informed of the proposed action during scoping. No comments on the proposed decommissionings were received from these tribes.

Appendix

A. Project Files located at the Hebo Ranger District

Analysis Reports

Biological Evaluation and Wildlife Report, Drift Key Roads Project, March 22, 2005; author, Janet Moser, Wildlife Biologist, Hebo Ranger District, Siuslaw National Forest

Biological Evaluation, Fish species, Drift Roads Project, March 25, 2005; author, John Casteel, Fish Biologist, Hebo Ranger District, Siuslaw National Forest

Drift Key Watershed Roads Project Roads Analysis, April 1, 2005; author, Ken McCall, Transportation Planner, Siuslaw National Forest.

Forest Road 1980, December 8, 2004: author Douglas C. Shank, District Geologist, Willamette National Forest.

Recreation, Lands and Minerals Report for the Drift Key Watershed Roads Project, March 11, 2005; author, Wayne Patterson, Operations Management Assistant (Recreation, Lands and Minerals), Hebo Ranger District Siuslaw National Forest.

Silviculturist's Report for the Drift Key Watershed Roads Project, March 14, 2005; author, Wayne Patterson, Certified Silviculturist, Hebo Ranger District, Siuslaw National Forest

Fire and Fuels Assessment, Drift Key Watershed Roads Project, January 28, 2005; author, Nathan Pearson, Fuels Technician, Hebo Ranger District, Siuslaw National Forest.

B. Other Issues

Introduction

The following are the comments and concerns received during scoping that were determined to be non-significant issues, because: 1) They are covered by an alternative discussed in Chapter 2. 2) They are covered by design criteria discussed in Chapter 2. 3) Do not address specific aspects of the proposed actions and, therefore are irrelevant to the decisions that may be made. 4) The anticipated effect(s) of the concern is not considered sufficiently significant that development of an alternative is required. The issue or concern is listed and with it is a reason or reasons why it is not considered significant.

Plum Creek

Forest Road 1701 is a vital component to our current and future forest management. Decommissioning Forest Road 1701 will impact Plum Creek in a variety of ways. The decommissioning will limit general access, reduce recreational opportunities and reduce fire protection for our property. In the past, we have used the 1701 road for haul, but discontinued using the road due to high road use fees, but may resume haul when road use fees are cost effective. Plum Creek feels that the two pipes on Forest Road 1701 need to be replaced and road remains open.

Discussion: This Forest Road is a very important access route for various non-federal landowners. This road would not be decommissioned by this project. Long term maintenance agreements will be developed with the appropriate landowners based on use of the road.

Oregon Natural Resource Council

ONRC agrees with and supports the proposed actions. One concern is the unstable Non-Key Roads may be allowed to decay further. Please be sure that road decommissioning plans do not allow this. Roads need to be properly decommissioned to insure they do not cause more damage to slopes and streams than they did when they were open.

Discussion: The Forest Service is also concerned about this. This project focuses on those Non-Key Forest Roads that are a problem.

ONRC is supportive of this project, because of the potential benefits to uninventoried roadless areas within the watershed. For example, decommissioning the end of Forest Road 1980 could lead to expansion of the 1,431 Bear Creek roadless area and decommissioning parts of Forest Road 1900 and 1928-111 could lead to the expansion of the 2,084 acre Lower Drift Creek roadless area if the surrounding land is relatively unimpacted. Other road closures are also very close to the roadless boundaries and could lead to improved connectivity between wild areas. We support decommissioning and road closures near roadless areas.

Discussion: The Siuslaw National Forest has not developed a list of uninventoried roadless areas.

Oregon Department of Fish and Wildlife, North Coast Watershed District

Two roads proposed for decommissioning require specific comments. We support decommissioning Forest Road 1770, because its use in the past has resulted in problems with campers and stream habitat degradation. We have concerns with proposed Forest Road 1701 decommissioning. This is currently and traditionally used by many hunters in the fall and winter as a major thruway from Gravel Creek and the upper mainstem of the Siltez River to Lincoln City. The most likely alternative route would be around the Horner Ranch through Box Canyon, approximately 7 additional miles of travel. Although over time these folks will likely adjust and use a variety of other routes, it will likely cause confusion and many complaints from the public at first.

We suggest the Ranger District consider the proposed 1701 road decommissioning carefully and discuss with the industrial forest landowners adjacent to this area as they will likely bear the brunt of the public attempting to find alternative routes.

Discussion: As discussed previously, this Forest Road would not be decommissioned. The Forest Service plans to block to vehicle access, but not decommission this road. This Road is needed for future management of National Forest resources and provides access to lands not managed by the Forest Service.

City of Lincoln City

Lincoln City strongly protests the closure of a portion of Forest Road 1900. Lincoln City currently owns over 40 acres in the Gordey Creek Watershed. Lincoln City uses this route as it is the only means to access the Gordey Creek watershed on which it is has existing infrastructure and timbered property that is responsible for managing. The road provides access to Gordey Creek for water monitoring purposes where no other access is available. This monitoring is critical to compliance issues for maintaining the community's water rights and assures that state and federal regulations are met.

While the road does have some minor areas of slumps at one location, our weekly observations over the past 20+ years indicates that area has not continued to fail since the initial movement. Please forward the survey data that enforces your conclusion that the road is continuing to move and is in eminent danger of failure.

Discussion: This Forest Road provides important access to non-federal land, and an agreement of how this Road would be maintained between the landowners and Forest Service has not been completed. Therefore, this Road would not be decommissioned by this project.

George R. Bodyfelt

I have no problem with the proposed action under the financial situation. But I sure want the main roads taken care of to some maintenance level for fire reasons and emergencies.

Discussion: The Key Forest Roads would continue to be maintained.

Dennis V. Higgins

In light of budgetary constrictions, your proposed road closures are a reasonable choice. It is not clear whether the change of Forest Road 1900 (from 1900-114 to Drift Creek) would be trail for hikers, horses or off-road vehicles.

Discussion: The original proposal was to close this portion of Forest Road 1900 road near its junction with the road that accesses the Drift Creek Camp. The modified plan is to close the Road near the existing bridge that crosses Drift Creek. A small parking area would be constructed near this closure site. This change in the planned action was done to allow closer access to Drift Creek. There is also a relatively flat area near the bridge that the planned parking area can be developed that does not exist where the road into the Camp joins the 1900 road.

Green Diamond Resource Co.

The closing and decommissioning of the following roads in the Drift Key Watershed Project Area significantly impairs our ability to access and manage our lands and creates a scenario of disaster relative to fire danger. We respectfully request that you consider the impacts of your project on neighboring ownerships and public safety relative to fire and either submit viable alternative access strategies or a proposal to acquire our affected parcels by exchange or monetary compensation as soon as possible.

Forest Road: 1770 is the only access to our 320 acre parcel in Section 36, T. 7S., R.10W. Without this access or land would be completely cut off and essentially land locked. As an alternative to decommissioning, we propose the placement of a gate the junction of Forest Road 17 and 1770. This would prevent vehicles from traveling on Forest Road 1770 and would discourage illegal dumping as may occur should a gate be placed further along Forest Road 1770.

Discussion: This Forest Road would not be decommissioned by this project. This Road would be closed to public travel. This Road is needed for management of national forest resources and access to other lands not managed by the Forest Service.

Forest Road 1701 is a main thoroughfare for accessing nearly 6 sections of our tree farm in T. 7S., R. 9W. We have no other viable economic means of ingress and egress from these lands. In addition, we believe this road and Forest Road 17, were originally built to access the homesteads in the Horner Ranch area and are therefore, public roads constructed and used well before the USFS took control of them.

Discussion: This road would not be decommissioned by this project. Long term maintenance agreements will be developed with the appropriate landowners based on use of the road.

Boise Building Solutions

Boise and the Forest Service have contiguous ownership in Sec 6, T 8 S, R 10W. Our land located north of will become inaccessible for forest management purposes by decommissioning this section of Forest Road 1900. We have previously gone on record and expressed our concerns to the Forest Service on decommissioning this section of the 1900 Road (when the other sections were decommissioned).

Discussion: This road segment would not be decommissioned by this project.

An additional area of concern is the proposed decommissioning of Forest Road 1980. A review of our future timber harvest plans suggest that the 1980 road may provide the most direct route to reach the upper ridge of our ownership in this area. Please keep us appraised of any information that could affect our long term management access.

Discussion: Previous preliminary analysis of the section of this road proposed for decommissioning indicated that it was unstable and may fail, because of the presence of small landslides that have occurred on this road. However, analysis completed in January 2005, shows that this road is stable and major failures of this road section are not expected to occur. This road would not be decommissioned by this project.

C. Response to EA comments

Map