CHAPTER ONE
PURPOSE AND NEED FOR ACTION

INTRODUCTION

This Environmental Assessment (EA) documents the analysis of an appropriate range of alternatives, including the proposed action, for timber harvest and associated activities in the 42,195 acre Layng Creek subwatershed of the Row River located on the Cottage Grove Ranger District of the Umpqua National Forest.

Chapter One describes the purpose, need, and proposed action for the Rail2 Timber Sale Project. This chapter also identifies the project area, outlines applicable management direction, addresses the scope of the decision, summarizes the scoping process, and lists the issues identified during scoping.

The 5,552 acre Rail2 Planning Area is located within the Layng Creek subwatershed, a tributary to the Row River in portions of T21S, R1E, and T22S, R1E (Figure 1). Layng Creek was a municipal watershed for the city of Cottage Grove until 2010, when the city water facilities were relocated outside of the watershed. The Layng Creek water intake still provides a public water source for approximately 110 homes and is managed by the Row River Valley Water District.

These changes in management, along with the higher level of resource protection now provided by the Northwest Forest Plan (USDA/USDI 1994), resulted in a recent amendment (2010) to the Umpqua National Forest Land and Resource Management Plan (LRMP). This amendment removed the Layng Creek Municipal Watershed Plan (Appendix G) and all references to it from the Umpqua National Forest LRMP. The removal of this Municipal Watershed Plan does not change the goal of the Umpqua National Forest to “maintain and restore water quality necessary to support healthy riparian, aquatic and wetland ecosystems” (USDA/USDI 1994).

The lower eight miles of Layng Creek is listed on the Oregon Department of Environmental Quality’s Final 2002 303(d) Water Quality Limited Stream List for temperature concerns. This includes the reach of Layng Creek that flows through the planning area. Prather Creek along with the tributary East Fork Prather Creek, Junetta Creek along with the tributary Curran Creek and Lower Dinner Creek all flow into Layng Creek within this listed section.

The planning area is in a highly productive western hemlock climax plant association. Managed and fire-regenerated stands dominate the landscape. The major overstory tree species are Douglas-fir, western hemlock, western redcedar, red alder and bigleaf maple. Western hemlock and western redcedar are the primary regenerating species. Shrubs species include vine maple, Pacific rhododendron, salal, and Oregon-grape.
ENVIRONMENTAL SETTING AND RELATIONSHIP TO OTHER PLANNING DOCUMENTS AND ANALYSES

The 1990 LRMP and its amendments to date, including the 1994 Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl (referred to as the Northwest Forest Plan), provide broad management direction for the Layng Creek subwatershed.

The Rail2 planning area is within Management Areas 10 (MA 10) and 11 (MA11) as established in the 1990 LRMP. The primary objective of MA 10 is to produce timber on a cost-efficient, sustainable basis consistent with other resource objectives. The focus of MA11 is to provide big game winter range habitat and timber production consistent with other resource objectives for wildlife habitat and water quality, visual quality, and recreation.
Under the 1994 Northwest Forest Plan, over half of the planning area is within the Matrix land allocation, where the majority of timber harvest and silviculture treatments are to occur. Less than half of the planning area is in the riparian reserve land allocation where riparian dependant resources receive primary emphasis.

An important component of the Northwest Forest Plan is the Aquatic Conservation Strategy, which is a landscape-scale approach to maintaining or improving riparian health and water quality based on maintaining the natural disturbance regime (USDA/USDI 1994).

**Figure 2. Management Direction for the Rail2 Planning Area**

Three one-hundred-acre late-successional reserve areas are located within the planning area (Figure 2). The objective for these reserve areas is to protect and enhance conditions of late successional and old growth forest ecosystems and their associated species. There are no harvest units within these reserves.

LAYNG CREEK WATERSHED ANALYSIS

The Northwest Forest Plan states that a watershed analysis is an on-going, iterative process that should expand as appropriate to consider additional available information. The Federal Guide for Watershed Analysis describes it as a stage-setting process; the results of a watershed analysis establish the context for subsequent decision making processes (USDA/USDI 1994). The original 1995 Layng Creek Watershed Analysis was updated in 2005 with its first iteration. This iteration expands upon the original WA by incorporating new information. The main changes are associated with a landscape analysis (recommended in the 1995 WA) and an assessment of fire risk (prompted by national direction) to ascertain the fire regime condition class. These new land strata, in conjunction with the results of an inventory of these habitat structures and the use of the decayed wood advisor (DecAID), were used as the basis for updating certain recommendations for snags and down wood. Original WA recommendations related to the Aquatic Conservation Strategy (ACS) were clarified, deleted, or replaced based on recent literature regarding riparian area management.

Silviculture objectives for matrix land as described in the 1995 Layng WA and its iteration include implementing a sustainable harvest program for this very productive subwatershed while stressing species diversity and stand structural diversity. The WA also recommends the use of landscape level techniques to determine priorities, connectivity, and patch size.

LANDSCAPE OBJECTIVES

The Layng Creek subwatershed consists of four broad landscape areas that are based on relationships between forest vegetation, climate, and physiography. The delineations in Figure 3 represent broad areas of land that tend to have similar disturbance processes. Inclusions of landforms that differ from this rule can be found at this scale of mapping. The units in the Rail2 timber sale project fall into three of the landscape areas—the gentle valley bottom, gentle mountain slope and steep terrain landscape areas. However, changes to the original mapping were made upon field verification to more appropriately reflect their true position on the landscape and to place units with multiple designations into one category. Units 26, 30, 31, 41, and 42 are more appropriately mapped in the gentle mountain slope landscape areas. See Chapter Three Forest Vegetation for further clarification.

The gentle valley bottom landscape area is the most likely fire refugia area. The ancient landslide deposits that filled valley bottom areas retain high moisture levels throughout the growing season. Consequently, these areas are surface-fire dominated, with limited amounts of crown fire. The gentle mountain slope areas retain less moisture, and have fewer barriers to fire spread. There is historic evidence of larger patches of stand replacement fire than are found on the gentle valley bottoms. The steep landscape area is dominated by slopes where fire intensity is generally greater and stand replacement fire is more frequent than in the other landscape areas.
A landscape analysis provides information about landscape-scale disturbances and vegetation patterns. This information is useful in developing management strategies that consider these processes. This approach is based on the principle that when an ecosystem element moves outside its historic range the element, and those elements depending upon it, may not be sustained. This coincides with the Aquatic Conservation Strategy of restoring disturbance regimes and managing landscape-scale features.

![Rail2 Landscape Areas](image)

**Figure 3. Rail2 Landscape Areas**

Two recommendations from the WA iteration are relevant for the Rail2 project:

- At the landscape scale, enlarge patches\(^1\) to approximate the acreage of large-scale disturbance, or treat groups of adjacent patches simultaneously to accelerate structural development and ultimately reduce the effects of fragmentation.

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\(^1\) Landscape patches are patches of vegetation that differ from one another by their vegetative structure. For instance an area may contain several scattered 20-50 acre plantations (patches) embedded in a matrix of old-growth forest.
• At the stand scale, focus vegetation treatments in the mature and stem exclusion stages to restore species and structural diversity.

The following 2005 WA recommendations are relevant to proposed treatments in the following landscape areas:

**Gentle Valley Bottom Landscape Area**

1) Thin stem exclusion patches that are adjacent to late-successional patches in order to accelerate stand development and decrease fragmentation.

2) Apply thinning treatments and create small canopy gaps (¼ to one acre) in early seral, stem exclusion, and mature structural stages in order to restore species and structural diversity characteristic of a mixed (moderate) severity fire regime.

3) Allow higher levels of larger diameter fuels relative to the other landscape areas based on the results of the Layng Creek Coarse Woody Debris (CWD) inventory (USDA 2005c).

**Gentle Mountain Slope Landscape Area**

1) Apply thinning, canopy gap creation (¼ to one acre), and jackpot burning to restore structural and species diversity characteristic of a mixed (moderate) severity fire regime in areas of stem exclusion, mature, and unnaturally dense understories of older stands.

2) Use prescribed fire (i.e. jackpot burning) to create snags and coarse woody debris.

3) Manage for moderate levels of larger diameter fuels based on the results of the Layng Creek CWD inventory (USDA 2005c).

**Steep Landscape Area**

1) Manage all forest stages to improve resilience to fire by opening canopies and raising canopy base heights.

2) Manage stands to maintain even-aged characteristics.

3) Manage for lower levels of larger diameter fuels based on the Layng Creek CWD inventory (USDA 2005c).

Not every project would implement all watershed analysis recommendations and objectives, and the desired condition may not be reached with the implementation of a single project. In addition, some of the watershed analysis objectives may not be implemented consistently across the land. The Rail2 project focuses primarily on the watershed analysis objectives and recommendations for stands of second growth timber in the stem exclusion stage of development.²

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² The stem exclusion stage typically occurs in 20 to 80 year old stands where new seedlings are not able to grow and some trees are dying from competition. Canopy closure is high (>50%) in these stands. Thinning accelerates stand development out of this stage.
NEED FOR ACTION

The purpose of the project is to restore species and structural diversity in stem exclusion stands of 55-78 year-old second growth timber, to improve the condition class in the municipal watershed by improving stand fire resiliency, to enhance big game winter range, and to provide wood products to the local community. Clearcutting and fire suppression practices of the past have resulted in young forests that lack the structural and species diversity that would have otherwise developed via the natural processes of a moderate severity fire regime (USDA 2005b).

A goal of the Aquatic Conservation Strategy of the Northwest Forest Plan is to maintain the natural disturbance regime (ROD B-9). As recommended in the 2005 Layng Creek Watershed Analysis Iteration 1.1, management practices would include the use of timber harvest and fuels treatments to approximate landscape patterns of vegetation structure and composition that are associated with a moderate severity fire. Where possible, thinning and fuel treatments would be planned over larger, more contiguous blocks of land. This approach is more economically efficient than harvesting individual, fragmented patches as done in the past (USDA 2005b).

The difference between the existing and desired condition defines the need for action in terms of elements that can be measured. These elements are:

ELEMENT 1: STAND DENSITY

The 55-78 year old stands in the Rail2 planning area (both in the uplands and in the riparian reserves) are densely-stocked and dominated by Douglas-fir trees of the same age class. In the stands that were previously thinned, shade tolerant conifers and hardwoods were routinely cut, leaving most of today’s stands in simplified conditions. Stand densities exceed 500 trees per acre. Most stands lack natural canopy gaps and associated understory diversity. Some stands, located on the most productive and moist sites, have receding tree crowns and are susceptible to toppling.

The desired condition for both upland and riparian second-growth stands is a more fire resilient condition that approximates what would typically exist in a moderate severity fire regime. Removing some of the standing trees in the matrix and riparian reserve land allocations would reduce stand density and canopy closure, allowing the development of understory layers. This would in turn improve stand stability in the wettest locations, and improve fire resiliency in the gentle mountain slope and steep landscape areas that show a greater degree of departure from historic conditions (USDA 2005b). Reducing crown density and creating variable crown spacing would provide more fire resilient stands.

Element 1 would be measured by:

- Acres of second growth thinned to improve conditions for species and structural diversity.
- Acres of improved crown fire resiliency.
ELEMENT 2: TIMBER PRODUCTION

In order to produce a sustained yield of timber from the matrix land allocation, harvest needs to occur on a regular basis. This is particularly true in stem exclusion stands where salvaging the predicted suppression mortality improves the growth potential of the leave trees. If left untreated, increased suppression mortality, declines in growth, and lost economic opportunities would continue in these unnaturally dense, stem exclusion stands.

Element 2 would be measured by:

- Board feet of timber produced by variable density thinning and forage openings.
- Cost-efficient timber harvest measured by benefit/cost ratio and net present value.

ELEMENT 3: BIG GAME WINTER FORAGE ENHANCEMENT

The area is dominated by dense stem exclusion stands that lack optimal winter forage for big game habitat. Known elk populations use the area for cover, travel and some forage however early seral stage structure is noticeably absent from the area. The Rail2 landscape has been identified as high value potential winter range habitat for large game.

The desired condition for both upland and riparian second-growth stands within the big game winter range management area on the north side of Layng Creek is a more open condition with a mix of seral stages that include early seral stands. These early seral areas would be relatively open areas with little to no canopy where herbaceous and shrub species dominate to provide increased quantity and higher value forage. Larger openings would reduce the speed of natural regeneration anticipated and create increased forage value for a longer period of time.

Element 3 would be measured by:

- Acres of early seral habitat created.
- Acres of seeding for high value forage potential.

PROPOSED ACTION

The proposed action was designed to meet the purpose and need to restore species and structural diversity in stem exclusion stands of second growth timber, to improve fire resiliency, to enhance big game winter range, and to provide wood products to the local community. Applicable Standards and Guidelines were applied to the proposed action and Alternative 3. The most relevant Standards and Guidelines are listed in Chapter Three of this EA; others are incorporated by reference.

In Chapter Two of this EA, Alternative 2 is thoroughly detailed and terms used are defined. Alternative 2 includes:

- Commercial thinning would occur on 1,964 acres of second growth forest. An additional 37 acres would be regeneration harvested for enhancing big-game winter range forage. Harvest would be implemented using helicopter, ground-
based, and skyline logging systems in both matrix and riparian reserve land allocations. Some areas within treated stand boundaries would not be harvested or yarded through. These areas total approximately 650 acres comprised of riparian or unique habitat areas, or where protection of rare plant species, old growth trees, or soils is a concern (Figure 4).

- Treating activity-created fuels would occur on 552 of the thinned acres by jackpot burning, machine piling and burning, or hand piling and burning.
- Six landings for helicopter logging would be used. Three landings would be new construction, and the others are existing landings that were planned for the Curran Junetta and Dinner Thin timber sales. All of the landings are located in previously disturbed areas. Each opening would be approximately ¾ acres.
- No new system roads would be constructed. Approximately 1.1 miles of abandoned non-system roads would be used, and another 0.6 miles of new temporary roads would be constructed. All temporary and spur roads would be obliterated after use.
- Road reconstruction work includes a four-inch lift of crushed rock on the 1721 road for approximately 5.5 miles. Replacement of two 18-inch ditch relief culverts and six stream crossing culverts would also be included. Road grading and ditch line maintenance would occur on 49 miles of existing road. Repair of a small road slide on the 1745-432 road would occur.
- The existing Deception rock pit would be the rock source for the road work.
- Implementing numerous similar and connected actions such as replacement of the Prather Creek Bridge on the 17 road with a temporary bridge and eventually a permanent structure (see Chapter Two, Figure 6), big game forage enhancement, planting, precommercial thinning, road inactivation, road decommissioning, snag creation, and invasive weed management (including use of herbicide).
- Implementing one project-level amendment to the 1990 Forest Plan that would allow thinning up to the boundaries of rock outcrops, dry meadows and some hardwood stands, and within 50 feet of wet meadows in areas designated as unique habitat.

**DECISION TO BE MADE**

Based on the analysis documented in this environmental assessment, the Forest Supervisor of the Umpqua National Forest would decide the following:

- To implement the project as proposed to implement a modified version (alternative) of the project that addresses unresolved issues, or to not implement the project at this time (no action).
- If the project is implemented, which monitoring requirements, water quality best management practices, project design features and similar or connected actions are necessary to achieve the resource goals and objectives of the project.
- Whether to amend the Forest Plan as proposed.
• Whether there is a significant effect on the human environment that would require preparation of an Environmental Impact Statement.

Figure 4. Rail2 Proposed Action – Alternative 2
SCOPING

The Forest Service considered all input and addressed as many concerns as possible during development of the proposed action. Formal scoping (a process used to allow issues to surface) began after the proposed action was developed and the project was first listed in the July 2010 Umpqua National Forest Quarterly Schedule of Proposed Actions (SOPA). A scoping notice and field trip announcement was published in the local paper and mailed to approximately 100 people/groups in mid August 2010 with the intent of introducing the proposed action and soliciting input. Four members of the public attended an August field trip to the area. Additional scoping was initiated with a second advertisement in response to local concerns from members in the community. Twenty people then attended a subsequent November field trip and office discussion. Comments and concerns were raised from both scoping sessions. Twenty-four letters were received and follow-up consisted of phone conversations. The Rail2 Project File contains a scoping summary that details the scoping comments received for the project.

ISSUES

Issues associated with a proposed action are unresolved conflicts expressed in terms of cause and effect relationships. In an Environmental Assessment, issues can help drive alternative development, be resolved through the addition of mitigation measures or project design features, or are carried forward into analysis to better inform the responsible official. Scoping identified a number of issues and concerns (non-issues) related to the proposed thinning in the planning area.

The following issue was used to develop an alternative to the proposed action:

Issue: Adverse Effects to Northern Spotted Owl Habitat (NSO).

Cascadia Wildlands states:

“...The [US] FWS has also proposed to protect complex northern spotted owl habitat in its final 2008 Northern Spotted Owl Recovery Plan (voluntarily withdrawn) and draft 2010 Northern Spotted Owl Recovery Plan, known as Recovery Action 32, to help reduce adverse competitive interactions between spotted owls and barred owls. Peer reviewers of the 2008 draft plan suggested protecting all suitable habitat for northern spotted owls until a range-wide population rebound occurs...”

“...Immediately west of the planning area are thousands of acres of early seral habitat found on private industrial forestlands. Arguably, there is plenty of early seral habitat in the lower Layng Creek watershed. We encourage the Forest Service to consider an alternative that forgoes five-acre clearcuts. Five-acre clearcuts, while they may have initial benefits for elk and other species, will have immediate detrimental effects, including the loss of suitable spotted owl habitat, soil disturbance that could lead to compromised water quality and infestations of noxious weeds. Additionally, there are [0].5-1 acre gaps being proposed in the thinning units that could provide early seral habitat the project hopes to attain.”
While elimination of all thinning in potentially suitable northern spotted owl habitat would not meet the purpose and need, removal of the larger openings proposed for big game forage enhancement would eliminate long-term effects (greater than 40 years) to suitable NSO habitat. For this reason, Alternative 3 was developed to remove the 37 acres of regeneration harvest designed for enhancing big game forage from the proposed action. These units would be thinned in a similar manner to the surrounding stand. To help quantify and track this issue through the analysis, the following indicator was developed:

- Acres of suitable NSO habitat with long-term effects.

**ISSUES THAT DID NOT DRIVE ALTERNATIVES**

Several other issues were resolved by clarifying the proposed action, by further discussing issues with the people who raised them, or by modifying the proposed action and mitigation measures. These issues did not require the development of an alternative to the proposed action. These are discussed below by category, and are also available in the analysis files at the Cottage Grove Ranger Station.

**ISSUES RESOLVED BY FURTHER DISCUSSION, BY CLARIFYING THE PROPOSED ACTION, OR ADDITIONAL MITIGATION MEASURES:**

**Spread of invasive weeds**

Oregon Wild suggested avoiding the spread of invasive weeds. False brome is an invasive weed within the Rail2 project area that occurs within units 9 and 10 and in several locations along the 1721 road. The Forest Service has been actively treating false brome in the area for four years to control and limit spread of the plants in the area.

This issue is resolved by implementing several mitigation measures. All action alternatives would incorporate measures to minimize the infestations and spread of false brome. These measures include skyline yarding rather than ground based in infected units to minimize soil disturbance, washing equipment, eliminating fuels treatments in infected areas, inspecting gravel prior to use on roads, seeding of selected landings and roads following the harvest to promote establishment of native plants, timing restrictions on road brushing and rock re-surfacing to avoid spread of mature seed, and treating infestations using herbicides before, during and after the sale. In addition other weed species are treated using a range of manual techniques. Pre and post activity monitoring and treatment would occur for all priority weed species in the project area.

**Retain and protect old growth**

Cascadia Wildlands and several local residents raised concerns regarding protection of existing old growth within the harvest units. Cascadia Wildlands suggested buffering around old growth clumps to protect them. Units 13 and 45 were highlighted as units with old growth clumps. GPS coordinates for an "old growth grove" within Unit 45 were provided as an area that needs protection. Concerns were raised that there are likely more of these areas throughout the project area that need protection and potentially should be buffered. This issue was resolved by clarifying and adjusting the proposed action.
Stand exam data was collected on most units. Additional field reviews were done on most stands including all that did not have stand exam data collection. Old-growth remnant trees were found in approximately half of the stands. Most of these old growth trees were widely scattered amidst the second growth regeneration, at a density of less than one tree per acre on average. Several areas were dropped from consideration during development of the proposed action where, based on initial field and aerial photo review, old growth trees were found in relatively closer proximity to each other at higher densities, and thinning was deemed unnecessary for desired stand development.

Both action alternatives would retain all old-growth legacy trees in all units. In addition, the largest diameter second-growth trees would be retained for structural diversity and for future old growth recruitment (see Forest Vegetation section). Old growth trees that still exist would be protected through prescription guidelines that retain these trees and any adjacent trees that might damage them during falling or yarding. In addition to retaining these old growth trees, the thinning prescription would reduce stand densities (basal area) only where the density is high and trees (including old growth trees) can benefit from reduced competition. Areas within the stand where large widely spaced trees occur would likely receive little to no tree removal. For example, Unit 45 has a variable nature where pockets of lower density larger trees occur in the north end of the unit and in small patches in other areas. These areas would receive little to no tree removal depending on their current basal area. In the denser portions of stands, thinning near individual old growth trees is expected to improve growing conditions by freeing up resources currently used by competing trees in the stand.

In response to these scoping comments, two additional units were dropped from the proposed action (units 33, 34). These units have somewhat higher densities of old growth legacy trees and large diameter second growth that contribute to habitat and diversity on the landscape. The area within Unit 45 designated by the GPS coordinates provided during scoping was visited again in response to the comments received. An area was located with five large old growth trees occurring within approximately two acres at 70 to 100 foot spacing. Several have dead tops while others had healthy crowns. The area has a continuous second growth component growing amongst the old growth trees. Some understory regeneration is occurring, while snags and coarse down wood are relatively absent. Thinning the second growth in this area would likely be beneficial to the residual trees by reducing density and providing more light to the understory. However, it is possible that one or more old growth trees could be damaged from the harvest. For this reason, the area (approximately two acres) is excluded from the proposed harvest and the understory would be retained by excluding equipment from the area. This protection would be incorporated into the prescription for Unit 45. Snag development associated with the connected actions would likely occur in this area to reduce some of the crown density without impacting the existing old growth. Protection of old growth in other units including Unit 13 would be accomplished through the prescription measures described above and in the Forest Vegetation section.

Minimize slash treatments to retain nutrients and minimize soil disturbance

Several comments expressed concern over slash treatments that remove valuable nutrients from the site and potentially leave exposed soil. Chipping and redistributing of material was encouraged. This issue was resolved by additional mitigation measures.
In both action alternatives, all units would require yarding to a minimum three inch diameter top to remove a large portion of slash that can create high fuel loads. Removing material to the three inch minimum standard would result in the majority of the nutrient rich needles and small diameter branches remaining on site while reducing the fuel load from the larger diameter material. This lessens the amount of additional slash treatment necessary to reduce fuel loads in the area.

Additional slash treatments are proposed on 552 acres using grapple piling, hand piling, and jackpot burning. These treatments would pile down to one inch diameter material. Reducing fuel loads on a portion of the landscape would create fuel breaks that help reduce fire intensity across the whole area. These areas are strategically located to minimize the spread of a potential large fire and to reduce the risk to private land. The overall total slash treatment would only occur on 21% of the unit acres.

Chipping of smaller material by the purchaser is an option when the market for chips can support it. However, requiring chipping of material can be very expensive if no revenue product is created. Redistributing chips back onto the site would be cost prohibitive to implementing the treatments. Chipping is left as an option for the purchaser if desired. Otherwise, some larger piles of 3 to 6 inch material may be burned at the landing or left for firewood collection. If these piles result in burning at the landing, the effects would be consolidated to the landing location as opposed to additional burning that would be necessary with slash left within stands.

**PROJECT-LEVEL FOREST PLAN AMENDMENT**

A project-level Forest Plan amendment is proposed to be implemented. Most of the standards and guidelines in the 1990 Umpqua LRMP were developed in the context of the even-aged harvest of most of the remaining old-growth forest. They were crafted to protect areas from major effects of logging and site preparation, and to retain areas of old growth timber to both help mitigate loss of habitat and to reduce risks associated with disturbance. The level of disturbance associated with thinning and gap creation in dense second growth stands is substantially less than that of clearcutting and broadcast burning old growth. In this context, the following project-level Forest Plan amendment is proposed in order to meet the purpose and need in practical and cost-effective ways.

The project level Forest Plan amendment would allow thinning up to the boundary of dry unique habitats (including hardwood stands, rock outcrops, and dry meadows) and within 50 feet of mesic to wet habitats (such as wet meadows, mesic hardwood stands, and other areas with seeps or additional moisture) in areas designated as unique habitat (see proposed action in Chapter One). Currently, prescription C5-1 states that no timber harvest is permitted within 150 feet of inventoried openings, such as; natural meadows, rock outcrops, talus slopes, or other natural openings with high wildlife values. Vegetation manipulation or structural improvement may occur if it is designed to enhance wildlife (LRMP IV-200). One purpose of the project is to restore species and structural diversity in stem exclusion stands (dense closed canopy forest). Thinning up to the boundary of dry unique habitats and within 50 feet of mesic to wet habitats would meet this purpose by allowing for the development of larger diameter trees, which would benefit wildlife habitat. Additionally, this treatment would reduce competition between hardwoods and conifers (favoring hardwoods) and hinder conifer encroachment into meadows, both of which would maintain habitats important for wildlife.
PROJECT IMPLEMENTATION

Should one of the action alternatives be selected, the Forest Service would implement the timber harvest, road construction and reconstruction through timber sale contracts. Either action alternative would likely result in three separate timber sale contracts.

In the course of implementing complex harvest projects with several fuels treatments and connected actions, minor changes may be needed during implementation to better meet on-site resource management and protection objectives. For example, fuels prescriptions may be modified if site conditions dictate and other resource objectives can still be met. Minor adjustments to unit boundaries may be needed during final layout for resource protection, to improve logging system efficiency, or to better meet the intent of the resource prescriptions. Changes in logging systems, including locations of temporary spur roads, may be required to better facilitate logging systems and provide for resource protection. Many of these minor changes would not present sufficient potential effects to require any specific documentation or action to comply with applicable laws.

In determining whether and what kind of further NEPA action is required to document any changes, the criteria for whether to supplement an existing Environmental Assessment (FSH 1909.15, sec. 18) would be followed.