

Hunter Integrated Resource Project Information Sheet

Introduction

The Clackamas River Ranger District (CRRD) of the Mt. Hood National Forest (Forest) is proposing a number of activities in the Hunter project area (described below). Based on a review of field conditions and available data, there are needs to improve forest conditions, aquatic/riparian habitat and opportunities to make changes to the transportation system within the project area. An interdisciplinary team of agency resource specialists has developed a proposed action to address the needs and opportunities within the project area. These activities emphasize enhancing forest health and stand growth, improving critical habitat for northern spotted owl (NSO), enhancing Late-Successional Reserves and Riparian Reserves, and providing early-seral habitats. They also include changes to the transportation system to address areas of resource concern, improve road conditions along specific road segments, and identifying the maintenance level appropriate for project area roads. More detail on the proposed action can be found below.

Hunter Project Area

The Hunter project area is located along the eastern edge of the Clackamas River Ranger District in the Upper Clackamas Watershed. Portions of the planning area border lands administered by the Willamette National Forest as well as the Confederated Tribes of Warm Springs. This watershed is approximately 101,000 acres in size and includes 5,585 acres of land owned by the Confederated Tribes of Warm Springs as well as 137 acres of private land in the vicinity of Austin Hot Springs. The project area is located in the southeast portion of Clackamas County, Oregon and the northeast portion of Marion County, Oregon.

Management Direction

The Mt. Hood National Forest Land and Resource Management Plan (Forest Plan), as amended, provides direction for the management of resources contained within the Mt. Hood National Forest. The Forest Plan identifies the location of and describes the goals and objectives associated with the Forest's Land Allocations.

Northwest Forest Plan Land Allocations within the Hunter Project Area

Land Allocation	Acres in Project Area	Management Theme
Congressionally Reserved	11,243	These lands are reserved by acts of Congress to be managed for specific objectives such as Wilderness and Wild and Scenic Rivers.
Late-Successional Reserves	24,759	Late-successional reserves are to be managed to protect and enhance old-growth forest conditions. Thinning or other silvicultural treatments inside these reserves may occur in stands up to 80 years of age if the treatments are beneficial to the creation and maintenance of late-successional forest conditions.
Administratively Withdrawn	1,827	These are areas where the existing Forest Plan land use allocation indicates scheduled timber harvest is not allowed. Specific management direction for these areas is located in the Forest Plan.
Riparian Reserves	8,712	Riparian reserves are areas along all streams, wetlands, ponds, lakes, and unstable or potentially unstable areas where the conservation of aquatic and riparian-dependent

		terrestrial resources receives primary emphasis. The main purpose of the reserves is to protect the health of the aquatic system and its dependent species; the reserves also provide incidental benefits to upland species. These reserves will help maintain and restore riparian structures and functions, benefit fish and riparian-dependent non-fish species, enhance habitat conservation for organisms dependent on the transition zone between upslope and riparian areas, improve travel and dispersal corridors for terrestrial animals and plants, and provide for greater connectivity of late-successional forest habitat.
Matrix	48,590	Matrix is the remaining area outside the above allocations and is the area where most timber harvest and other silvicultural activities are conducted. Management objectives for matrix lands are specified by Forest Plan land use allocation objectives.

Mt. Hood National Forest Land Allocations within the Hunter Project Area

Land Allocation*	Total Acres	Management Theme
A1 Wild and Scenic Rivers	7,386	Protect or enhance the outstandingly remarkable values of the Clackamas River. There are scenic and recreational segments. There is substantial overlap with Wilderness and Late-Successional Reserves.
A2 Wilderness	4,507	Preserve wildness. Two segments of the Clackamas Wilderness are in the project area: Big Bottom and Sisi. There is substantial overlap with Wild and Scenic Rivers and Late-Successional Reserves.
A4 Special Interest Areas	8,013	Protect and, where appropriate, foster public recreational use and enjoyment. Includes parts of the Olallie Lake Scenic Area.
A5 Unroaded Recreation	200	Provide a variety of year-round unroaded recreational opportunities in a semi-primitive non-motorized setting and undeveloped forest environment.
A9 Key Site Riparian	2,845	Maintain or enhance habitat and hydrologic conditions.
B2 Scenic Viewshed	14,249	Provide attractive, visually appealing forest scenery with a wide variety of natural appearing landscape features. Utilize vegetation management activities to create and maintain a long term desired landscape character. A secondary goal is to maintain a healthy forest condition through a variety of timber management practices.
B3 Roaded Recreation	1,472	Provide a variety of year-round recreation opportunities in natural appearing roaded settings. A secondary goal is to maintain a healthy forest condition through a variety of timber management practices.
B8 Earthflow	569	Maintain hydrologic and physical balances to prevent reactivation or acceleration of large, slow moving earthflow areas. Allow for the management and utilization of forest resources through the use of special management practices.
B10 Deer & Elk Winter Range	43	Provide high quality deer and elk habitat for use during most winters. Provide for stable populations deer and elk. A secondary goal is to maintain a healthy forest condition through a variety of timber management practices.
B11 Deer & Elk Summer Range	6,756	Provide high quality summer rearing habitat for deer and elk. A secondary goal is to maintain a healthy forest condition through a variety of timber management practices.
B12 Back Country Lakes	167	Protect or enhance the recreation, fish and wildlife, or scenic values of designated lakes. A secondary goal is to maintain a healthy forest condition through a variety of timber management practices.
C1 Timber Emphasis	25,334	Provide lumber, wood fiber, and other forest products on a fully regulated basis, based on the capability and suitability of the land.

* Acreage for the B and C allocations includes the area in Matrix.

Other Land Delineations that are not Land Allocations

Category	Total Acres	Management Theme
Spotted Owl Critical Habitat	54,890	Where critical habitat overlaps the above land allocations, each land allocation would have an additional objective to enhance owl habitat. Approximately 30,633 acres of the Matrix land allocation overlap critical habitat.
Key Watershed	24,609	Key watersheds provide refugia for at-risk stocks of anadromous and resident fish. This delineation includes parts of the Upper Clackamas Watershed in a narrow band along the river. It is entirely overlapped by Late-Successional Reserve.
Inventoried Roadless Areas	3,893	This area is identified in the Forest Plan Appendix C and is in the Olallie Lake Scenic Area.

Purpose and Need for Action and Proposed Action

The Hunter Integrated Resource Project includes several types of connected projects in the Upper Clackamas watershed. They are organized into the following headings: Vegetation Management, Transportation System Management and Aquatic/Riparian Management. For each heading, the purpose and need is described in terms of desired conditions which are not currently being met, followed by the proposed actions which will move the landscape closer to desired conditions. Desired conditions and other management direction come from the Forest Plan as amended.

Vegetation Management

Forest Health & Diversity—Densely Stocked Stands

A primary purpose of this project is to improve the health and increase diversity of forested areas within the Hunter project area. The project area contains approximately 30,000 acres of plantations of various ages. Regeneration harvests created these plantations in the past, and the stands were subsequently planted with conifers. Trees were placed in a uniform pattern throughout the stands. Approximately 1,880 acres of these plantations have reached a stage in their development where tree growth is slowing due to overcrowding. In addition, the project area contains about 260 acres of forested land that seeded in following a fire approximately 100 years ago. Both the 1,880 acres of plantations and 260 acres of fire-originated stands are characterized by densely stocked trees that are now competing for resources such as soil nutrients, water, and sunlight. Tree growth has been curtailed due to overcrowding, and absent any management additional tree mortality is likely. Trees are expected to slowly grow taller, but are not likely to increase substantially in diameter. Trees in these stands are likely to be less resistant to insects, disease, and wind events. Also, because the stands are densely stocked they are more susceptible to catastrophic fires. There is a need to reduce tree density in these overstocked stands to reduce competition between trees, improve stand health, increase tree growth, and reduce fuel loads. A related need is to keep forests productive to sustainably provide forest products now and in the future. It is particularly important to address this need in the Matrix land allocations.

Diversity within these densely stocked forested stands is also lacking. The lack of structural diversity is evident in plantations as well as fire-originated stands. These stands contain trees of mostly the same age class and with a single canopy layer. Plantations, in particular, typically

lack species diversity as they were primarily planted with Douglas-fir. In addition, because these stands are densely stocked with trees, little light reaches the forest floor. This has resulted in low levels of diversity of ground vegetation.

Where these plantations and fire-originated stands occur in Late-Successional Reserves and Riparian Reserves, the forest is not meeting the desired condition. Late-Successional Reserves are to be managed to protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth related species including the northern spotted owl. Riparian Reserves are intended to protect the health of the aquatic system and its dependent species and are to be managed for late-successional forest consistent with the Aquatic Conservation Strategy Objectives. In these land allocations, there is a need to hasten the transition of these stands to a forest with mature characteristics, including a multi-layered canopy with large diameter trees, a well-developed understory, more than one age class, and sufficient quantities of snags and down woody debris. (NWFP p. B-5, p. C-31)

Where these plantations and fire-originated stands occur in the Matrix land allocation, the forest is not meeting the desired condition. Within the Matrix, the desired condition is to have a mix of seral stages including early-seral habitats. There is a need to improve forest health within these stands by reducing competition, encouraging growth, and reducing fuels. There is also a need to increase diversity of forest conditions within the Matrix. Maintaining the health and diversity of forested stands in the Matrix is important, as many of the land allocations within the Matrix include timber production as either a primary goal (in the “C” allocation) or secondary goal (in the “B” allocations).

Forest Health & Diversity—Lodgepole Plantations

The project area contains approximately 116 acres of lodgepole plantations in the Matrix land allocation in areas to be managed for timber emphasis (C1) and deer and elk summer range (B11). These plantations are also within northern spotted owl critical habitat. The plantations have off-site lodgepole pine trees growing in areas that originally had other species. Instead of using the clearcut method 50 years ago, it is now known that the shelterwood method should have been used to ameliorate harsh site conditions. When attempts to plant other species failed, lodgepole pine was planted to use as a ‘nurse’ crop to eventually provide shelter trees. There is a need to re-establish other conifer species more appropriate to the site. Doing so is appropriate in these land allocations and in spotted owl critical habitat to move the stands toward late-successional conditions. Lodgepole pine stands are not capable of growing into late-successional stands without this intervention.

Forest Health & Diversity—Disease

Approximately 81 acres of forest within the project area are infected with dwarf mistletoe, a parasite specific to hemlock trees. These stands, which are located in critical habitat for the northern spotted owl, are almost exclusively comprised of hemlock; very few other tree species are present. The parasite is causing the older hemlock trees to die and fall over and the young trees to grow very slowly and in a contorted fashion. This condition has resulted in relatively open stands with dense rhododendron brush inhibiting other species from seeding in. Without active management, these stands are unlikely to develop into suitable habitat for the northern spotted owl.

There are approximately 250 acres where western white pine is present in the project area. White pine blister rust, a non-native disease, has caused a dramatic decline in western white pine populations on the Forest. There are few mature trees remaining of this species that was once common and provided important ecological functions. There is a need to enhance the resiliency of western white pine to blister rust and to encourage young trees to survive to maturity.

Deer & Elk Habitat Enhancement

The Forest Plan directs land managers to consider the forage and cover needs of deer and elk (Four-7). Changes in forest management direction and practices over time have resulted in practices that favor the development of late-successional features over large areas of the forest. In the Hunter project area, for instance, nearly 55,000 acres are designated critical habitat for spotted owl. Additional areas are managed for wilderness characteristics, riparian values, and habitat for species dependent on late-successional forest. These changes make it prudent to consider the forage needs of deer and elk and to seek out opportunities to create and enhance forage opportunities where appropriate. The Hunter project area contains numerous small forest openings amounting to approximately 115 acres that provide forage opportunities for deer and elk. There are at least 18 known openings ranging from 2 to 16 acres in size. Conifer encroachment and the spread of invasive weeds are beginning to affect the value of these openings as forage areas for deer and elk. There is a need to maintain and enhance existing openings as well as consider opportunities to create new openings where appropriate. In addition, the project area contains a natural meadow approximately 11 acres in size. There is an opportunity to improve the quality of forage available within this meadow.

Utility Corridor Management

The project area contains power lines managed by Bonneville Power Administration (BPA). When the power lines were built in the 1960s, they crossed a landscape with some existing plantations. Where there was mature timber, the right-of-way was cleared to approximately 700 feet in width. Since then trees have seeded in from the edge. BPA has maintained a swath of ground approximately 250 feet wide where the lines were close to the ground and left the trees to grow in some areas where the lines were higher. As trees grow taller and get too close to the line, either underneath or to the side, they become hazardous to the safe operation of the power lines. The risks include trees falling and striking the wires and electric discharge which is similar to lightning, where electricity can arc between the wires and vegetation starting fires. As the trees under and adjacent to the lines grow, BPA cuts them down when the hazard becomes great enough to meet their maintenance thresholds. There are commercial sized trees in areas underneath and adjacent to the power line that pose a safety hazard. There is a need to provide for safety along power lines as trees grow. The goal is to remove trees before the hazard becomes imminent.

Roadside Hazard Management

The Hunter project area contains pockets of forested land with small concentrations of dead trees adjacent to Forest Service roads. These trees are referred to as danger trees, which are typically dead or leaning trees that are within striking distance of a road or some other developed feature. The danger trees remain standing for now, but can be expected to fail and fall in the near future. There are seventeen discrete areas within the Hunter project area covering a wide array of land use allocations where danger trees are concentrated within striking

distance of a Forest Service road. There are also individual scattered danger trees that also pose a hazard. There is a need to remove danger trees to enhance safety for everyone using the roads in this area.

Vegetation Management Proposed Actions

The following table includes a summary of proposed actions related to the purpose and need for vegetation management described above. More detailed descriptions of the proposed actions follow. Please note that activities proposed here are located on National Forest System lands administered by the Mt. Hood National Forest. No activities are proposed for private lands or lands under other jurisdiction.

Summary of Vegetation Management Actions

Purpose & Need	Proposed Action	Acres	Notes
Improve Forest Health and Diversity in Plantations	Variable Density Thinning with Skips and Gaps	1,880	<ul style="list-style-type: none"> • 1,480 acres in Matrix • 400 acres in Late-Successional and Riparian Reserves
Improve Forest Health and Diversity in Fire-Originated Stands	Variable Density Thinning with Skips and Gaps	260	<ul style="list-style-type: none"> • 240 acres in Matrix • 20 acres in Riparian Reserves • 16 stands ranging from 3 to 62 acres in size (mean = 16 acres)
Improve Forest Health and Diversity in Lodgepole Pine Plantations	<ul style="list-style-type: none"> • Shelterwood Harvest • Planting 	116	<ul style="list-style-type: none"> • All in Matrix
Improve Forest Health and Diversity in Stands Hemlock Stands Affected by Dwarf Mistletoe	<ul style="list-style-type: none"> • Site Preparation • Planting 	81	<ul style="list-style-type: none"> • All in Matrix
Protect Western White Pine Stands from White Pine Blister Rust	Pruning	250	<ul style="list-style-type: none"> • Occurs on a variety of land allocations
Create Early-Seral Habitat for Deer and Elk	<ul style="list-style-type: none"> • Regeneration Harvest with Reserves • Seeding with Forage Species • Guzzler Installation 	98	<ul style="list-style-type: none"> • All in Matrix
Maintain Forage Openings for Deer and Elk	<ul style="list-style-type: none"> • Control Invasive Plants • Seed with Native Forage Species • Prune/Cut Shrubs • Remove Encroaching Small Conifers 	115	<ul style="list-style-type: none"> • 18 openings ranging from 2 to 16 acres in size (mean = 6 acres)
Enhance Forage for Deer and Elk	Prescribed Burning	11	<ul style="list-style-type: none"> • All within A9-Key Site Riparian land allocation
Utility Corridor Management	Tree Removal Under & Adjacent to Power Lines	66	<ul style="list-style-type: none"> • Linear corridors crossing a variety of land allocations • 23 separate areas to be managed ranging in size from less than half an acre to 12 acres in size (mean = 3 acres)
Roadside Hazard Management	Danger Tree Removal Along Forest Service Roads	175	<ul style="list-style-type: none"> • Occurs on a variety of land allocations

Forest Health & Diversity - Densely Stocked Stands

The Clackamas River Ranger District proposes to thin 1,880 acres of plantations and 260 acres of fire-originated stands to address the purpose and need to improve forest health and diversity in densely stocked stands. Thinning is a timber harvest technique that involves removing the smaller trees in a stand while retaining the larger ones. Through thinning, competition between trees is reduced, and the residual trees can become more resilient to disturbance agents. Residual trees will also grow larger more quickly than if the stand is left untreated. While thinning is appropriate to provide for the health and growth of stands, the density of leave trees and the variability introduced during thinning can enhance other stand elements such as diversity. A thinning technique called variable density thinning is proposed to enhance diversity in these stands. The following are some of the features available through this technique to achieve desired conditions:

- Leave-tree spacing would vary within units and between units.
- Skips (areas where no trees are removed) and gaps (areas where most or all trees are removed) would be created in a variety of sizes. The sizes and total quantity would vary within and between units.
- Skips may be placed where there are special features such as clumps of minor species, large snags, wet areas, or locations of rare species.
- Leave trees may include minor species as well as trees with the elements of wood decay.

Compared to no treatment, where stands remain dense and uniform, variable density thinning provides both larger trees and greater levels of vertical and horizontal diversity. It would allow more sunlight to reach the forest floor in some areas increasing plant species that need more light and increasing the natural seeding of trees that will in time add a new stand canopy layer. It would at the same time have skips where very dense conditions would persist. Variable density thinning is considered an appropriate tool to accelerate the development of late-successional habitat for northern spotted owls and many other species.

This thinning activity is proposed on a variety of land allocations, including 420 acres in Late-Successional and Riparian Reserves and 1,720 acres within the Matrix. Within the Matrix, the affected land allocations include: C1-Timber Emphasis, B2-Scenic Viewsheds, and B-8 Earthflow. In addition, some of these activities are proposed within designated critical habitat for northern spotted owl. These land allocations and designations have different objectives, but all would benefit from variable density thinning with skips and gaps. Silvicultural prescriptions prepared for the affected stands would consider the special requirements of and desired conditions for each of the land allocations and designations.

Forest Health & Diversity - Lodgepole Plantations

To address the need to re-establish conifer species in the lodgepole pine plantations described above, the Clackamas River Ranger District proposes to thin out the lodgepole pine trees to a shelterwood spacing and plant non-lodgepole conifers on 116 acres within the Matrix land allocation, which is further subdivided into C1-Timber Emphasis and B11-Deer and Elk Summer Range land allocations. The action also occurs in designated critical habitat for the northern spotted owl. This activity is appropriate in these land allocations and in northern spotted owl critical habitat to move the stands toward late-successional conditions.

Forest Health & Diversity - Disease

For the 81 acres of forest within the project area infected with dwarf mistletoe, the Clackamas River Ranger District proposes to remove brush as well as the stunted, small diameter hemlock trees and to plant the stands with species not susceptible to the parasite. These stands, which are located in critical habitat for the northern spotted owl, are not likely to develop into suitable owl habitat without the proposed activity.

In addition, to enhance the resiliency of western white pine to blister rust and to encourage young trees to survive to maturity, the Clackamas River Ranger District proposes to prune western white pine on about 250 acres. Pruning the lower branches of young western white pine trees greatly decreases the risk of white pine blister rust infection.

Deer & Elk Habitat Enhancement

To address the purpose and need of creating early-seral habitat and maintaining and enhancing forage for deer and elk, the Clackamas River Ranger District proposes a variety of activities. They are described in the following bulleted list:

- A regeneration harvest is proposed for a 98-acre plantation in the Matrix within the B11-Deer and Elk Summer Range land allocation. The unit contains palatable brush species that are being shaded out by conifers. Within this unit, approximately 15% of the trees would be retained in skips and as scattered individual trees. Some areas would be seeded with appropriate forage species, and some large shrubs would be cut to encourage resprouting. Skid trails, landings and temporary roads would be decompacted and seeded to provide additional forage. In addition, this area has limited water resources. Installation of a wildlife ‘guzzler’ is proposed to provide a dependable water source for wildlife.
- Forage maintenance and enhancement is proposed for approximately 115 acres within the project area. The forage areas identified are small and widely scattered. They occur on many land allocations including C1-Timber Emphasis, B2-Scenic Viewsheds, A1-Wild and Scenic River, A9-Key Site Riparian Area, Riparian Reserves and Late-Successional Reserves. These areas are relatively open and have grass and shrubs that are valuable to deer and elk. The proposed action is to maintain and enhance forage in these areas by actions that are site-specifically tailored to the needs of each site including invasive plant control, prescribed fire, seeding with appropriate native forage species, and shrub pruning/cutting to encourage resprouting and removal of encroaching conifers.
- A prescribed burn is proposed on approximately 11 acres to enhance forage at Rhododendron Meadow. This area is in the A9-Key Site Riparian Area land allocation. Prescribed burning to maintain open meadows is consistent with the management direction for this land allocation (Forest Plan, Four-183, A9-026).

Utility Corridor Management

In conjunction with BPA, the Clackamas River Ranger District proposes to remove trees underneath and along 50-foot strips of forested land adjacent to sections of the power lines where trees are growing so tall that they are becoming hazardous. The need for safety while operating around live power lines constrains how much of this work is feasible. In total, this

proposal amounts to approximately 66 acres. The trees are similar in size to those in the plantations being thinned nearby. The mix of land allocations is roughly similar to that described for plantation thinning above. The Forest Plan allows for administrative activities necessary to manage existing utility corridors, even when they cross multiple land allocations (Forest Plan, Four-125, FS-659).

Roadside Hazard Management

To address the need to improve the safety of the transportation system within the Hunter project area, the Clackamas River Ranger District proposes to remove danger trees within seventeen known areas where they occur in concentrations and scattered individuals along Forest Service roads. Only trees that meet the definition of a danger tree would be removed, and removal would be limited to those danger trees that have the capacity to affect the roads.

Transportation System Management

The desired condition is to have a landscape accessed by an appropriate network of roads that provide for management access and visitor safety while minimizing risk to aquatic resources. These desired conditions are described in the Forest Plan on pages Four-3, Four-5 & Four-34 and the Northwest Forest Plan on page C-32.

Road Use and Management for Vegetation Management Activities

The vegetation management activities described above will require the use, maintenance and repair of some roads that are part of the Mt. Hood National Forest's existing transportation system. In addition, the vegetation treatments will require the creation of temporary access roads that are not part of the transportation system. These needs may properly be considered connected actions associated with the project's vegetation management activities.

Transportation System Management for Reducing Resource Risks and Maintenance Costs

The Forest has been making periodic decisions to decommission roads or change their maintenance status since the 1990s. Previous planning efforts that overlap the Upper Clackamas Watershed and the Hunter project area include: *Collawash and Upper Clackamas Restoration EA* (1996), *2007 Clackamas Restoration Projects EA* (2007), *Clackamas Road Decommissioning for Habitat Restoration EA* (2009) (sometimes referred to as Increment 1), and *Clackamas Road Decommissioning for Habitat Restoration, Increment 2* (2011). These projects resulted in decisions to close or decommission roads on the Forest's transportation system.

In 1999, the Mt. Hood National Forest completed an Access and Travel Management Plan (ATM). This plan devised the strategy, goals, and objectives for managing the Forest's travelways in a manner consistent with sustainable use of forest ecosystems and maintaining or restoring watershed health. It also identified the appropriate operational and objective maintenance level for each road that comprises the Forest's transportation system. These maintenance levels define the principle use of a road, how it would be maintained, and what its fate was intended to become at some point in the future.

In 2003, a Forest-wide Roads Analysis was completed to examine the transportation system and the risk it poses to aquatic habitat and other resources. The Roads Analysis, which addressed both the access benefits and environmental impacts of roads, highlighted the fact that Forest

Service budgets have not kept pace with what it costs to maintain all roads in a properly functioning condition. If the Forest’s road maintenance budget, augmented by work accomplished by timber operators, is not sufficient to adequately keep up with road maintenance needs, then the Forest’s backlog of roads needing maintenance and repair could impact hydrologic function. The Roads Analysis recommended decommissioning road segments having high environmental risk factors coupled with low access needs, and it recommended closing and storm-proofing roads that would likely be needed again for Forest management.

In 2015, the Forest completed a Travel Analysis Report which was a synthesis of previous efforts and set the stage for project-level decisions about whether to retain roads, close or decommission them, and what level of maintenance they should receive.

As stated previously, there have been many efforts since the mid-1990’s to make changes to the transportation system that overlap what is now called the Hunter project area. Nevertheless, based on a review of previous travel management analyses and recommendations, there remain opportunities to make additional adjustments to the transportation system to either reduce resource risks or maintenance costs. There is also a commensurate need to consider long-term administrative and public access needs when making proposals to change the transportation system within the Hunter project area.

The table that follows summarizes the existing condition of the Hunter project area transportation system.

Existing Condition of the Forest Service Transportation system within the Hunter Project Area

Forest Road Status	Approximate Miles
National Forest System Roads Prior to the 1990’s Road Decommissioning Efforts	489
Current National Forest System Roads	300
Decommissioned National Forest System Roads (no longer part of the Forest’s Transportation system)	189
National Forest System Roads Authorized to be Decommissioned (not yet completed)	16
National Forest System Roads Currently Closed	55

Transportation System Management Proposed Actions

Road Use and Management for Vegetation Management Activities

To facilitate the vegetation management activities proposed for the Hunter project area, it is important to ensure that the roads to be used by log trucks are safe for use by such trucks. To address this need, the Clackamas River Ranger District proposes to conduct road maintenance and repair activities on 127 miles of Forest Service System Roads. Maintenance and repair include activities such as brushing, blading, deep patch repairs, culvert replacement, ditch cleaning, culvert cleaning and the addition of aggregate rock to road surfaces.

To address the need to access areas where vegetation management activities are proposed, there is a need to create temporary access roads to treatment units. The Clackamas River Ranger District proposes to construct or reconstruct approximately 13.7 miles of temporary road for this

purpose. There are numerous existing road alignments available on which to create temporary access routes. Placing temporary access routes on existing road alignments is generally preferable to constructing a temporary road where no road has previously existed. About 8.6 miles of former Forest Service System Roads are proposed to be used for temporary access. In addition, the project area contains an additional 3.1 miles of former temporary roads that are proposed to be used for temporary access. Finally, there are some areas proposed for treatment where new temporary roads need to be created. These temporary roads would amount to approximately 2 miles.

Because temporary roads are not intended to remain on the landscape for administrative or public uses, all of these routes will be rehabilitated following the completion of vegetation management activities. Temporary roads are bermed at the entrance, water barred, decompacted and roughened as needed with the jaws of a loader or excavator, and debris such as rootwads, slash, logs or boulders are placed on the surface where available. A few roads will use a different technique for rehabilitation called entrance management. On approximately 1.5 miles of roads the entrance management technique involves installing water bars along the entire road length, roughing up the first 1/8 mile of road, and installing large berms at the road entrance.

Transportation System Management for Reducing Resource Risks and Maintenance Costs

To address opportunities to reduce resource risks and maintenance costs associated with Forest Service System Roads, the Clackamas River Ranger District proposes to decommission 1.4 miles and close about 28 miles of system road. Each system road in the project area was examined and evaluated for access needs and resource impacts. Decisions made in previous planning efforts were not reevaluated. The current suite of road options includes closing roads, increasing or decreasing the maintenance level and decommissioning. The Clackamas River Ranger District has received comments from both the public and other agencies about the confusing use of the term ‘decommission.’ The term has not been used consistently across the Region. New Forest direction recommends that when it is known that roads would be used again in the future they should be retained on the Forest’s transportation system and not decommissioned. While that policy is used in the road proposals for this assessment, there are past decisions and road statuses that reflect an earlier concept.

In addition to these transportation management changes, the Clackamas River Ranger District proposes to return former Forest Service System Road 5731015 back to the system. This road is an access route to a power line managed by the Bonneville Power Administration (BPA). This route was proposed to be decommissioned in the Increment 2 Environmental Assessment, and a decision was made to decommission the road. However, no road decommissioning work has occurred on the ground, and the road is needed to continue to provide BPA access to its utility lines. If authorized, this change in management direction would be reflected in the Forest Service roads database.

Summary of Transportation System Management Actions

Purpose & Need	Proposed Action	Miles	Notes
Manage the Road System to Allow for Safe Timber Hauling	Maintain and Repair Forest Service System Roads	127	<ul style="list-style-type: none"> The intensity of work varies based on location and the work recently accomplished by the Forest and other operators.
Provide Temporary Access for Vegetation Management	Construct and Reconstruct Temporary Roads & Rehabilitate Following Use	12.2	<ul style="list-style-type: none"> 2.0 miles of temporary road construction in locations where no road alignment previously existed. 3.1 miles of temporary road reconstruction on road alignments that were once temporary roads. 7.1 miles of temporary road reconstruction on road alignments that were once system roads.
	Construct Temporary Roads & Conduct Entrance Management Following Use	1.5	<ul style="list-style-type: none"> 1.5 miles of temporary road reconstruction on road alignments that were once system roads. After use, return roads to the condition they are now with entrance management.
Reduce Resource Risks and Maintenance Costs Associated with Forest Service System Roads	Decommission Forest Service System Roads	1.4	<ul style="list-style-type: none"> Includes a combination of active and passive decommissioning of roads no longer needed.
	Close Forest Service System Roads	28	<ul style="list-style-type: none"> Includes closing roads primarily with berms.
Ensure Important Access Needs are Met	Return Former Forest Service System Roads to the Road System	0.3	<ul style="list-style-type: none"> Road 5731015 accesses powerlines managed by the Bonneville Power Administration. This access need was inadvertently overlooked during previous planning.

Aquatic/Riparian Habitat Management

The desired condition for streams, lakes and riparian areas is to maintain them in a fully functional state to meet the needs of aquatic and riparian species and to provide clean water. It is also desirable to maintain an appropriate network of roads and access points that provide for visitor enjoyment of the Forest while minimizing risks to aquatic resources. These desired conditions are described in the Forest Plan on pages Four-3, Four-5 & Four-34 and the Northwest Forest Plan on page C-32.

The Forest has accomplished numerous aquatic and riparian habitat management projects in the recent past, including replacing undersized culvert, introducing large woody debris in streams to enhance habitat for fish and aquatic species, restoring areas affected by unauthorized off-highway vehicle (OHV) use, decommissioning roads, and planting in riparian areas. While much has been done, there are additional opportunities within the Hunter project area to improve aquatic and riparian habitat. There is a need to accomplish restoration activities to improve water quality and habitat for fish and other organisms. This is particularly important because the area's streams provide habitat for threatened fish species.

Aquatic Habitat Enhancement - Culverts

Culverts that are not the correct size can serve as a barrier to fish passage, effectively shrinking the amount of habitat available for fish as well as other aquatic species. Improperly functioning culverts can also lead to erosion and sedimentation into streams. The Hunter project area contains at least two culverts that are undersized and one culvert that is not functioning properly. There is an opportunity to improve aquatic habitat by addressing these culverts.

Stream Habitat Enhancement - Large Woody Debris

Large woody debris within streams enhances the habitat available for fish and other aquatic species. The Hunter project area contains stream reaches that lack a desirable amount of woody debris. There are areas along Lowe Creek and Pot Creek that were clearcut and burned in the past. There has been no recruitment of large trees into these streams in these particular locations since those vegetation management activity occurred. There is an opportunity to enhance stream habitat in these locations.

Riparian Habitat Enhancement - Dispersed Camping Areas

Dispersed camping is a popular recreation activity that involves camping outside of developed campgrounds. Many dispersed campers prefer to camp both close to their vehicles and close to water sources such as streams or lakes. When enough dispersed use occurs at a particular location, unauthorized user-created access routes are created. These access routes can compact soils, produce erosion, and damage vegetation. This is particularly undesirable in riparian areas close to rivers and lakes.

Within the project area, there are opportunities to restore areas where dispersed camping activities have damaged riparian resources and to discourage off-road vehicle use to prevent further damage. There is a network of unauthorized access routes leading to dispersed campsites along the Clackamas River just downstream of an area known as Austin Hot Springs. In addition, there is another heavily used dispersed recreation site near Pot Creek and the spur roads that lead from Forest Service Road 46 (4600045 and 460046). Heavy recreation use at these sites has resulted in damage to riparian resources.

Aquatic/Riparian Management Proposed Actions

To address the purpose and need associated with aquatic and riparian habitats, the Clackamas River Ranger District proposes the following activities.

Aquatic Habitat Enhancement - Culverts

There are two culverts within the planning area that are known to be too small to accommodate flood flows and to allow for adequate fish passage. They are the Pot Creek culvert on Forest Service Road 46 and the Lowe Creek culvert on Forest Service Road 4672. The proposed action is to remove the existing culverts at these locations and replace them with culverts that will accommodate higher flows and allow for fish passage.

There is another culvert on Lowe Creek at Forest Service Road 4671. This is a very large open arch culvert that is being undermined by the creek. There are signs of erosion immediately upstream of the culvert. The proposed action is to stabilize this stream crossing through reinforcement of the culvert to prevent additional damage and erosion.

Stream Habitat Enhancement - Large Woody Debris

There is opportunity to address the deficit of large woody debris in Lowe Creek and Pot Creek. The proposed action is to either fell trees into these creeks or bring logs in from off-site and place them in the creek. This would occur in the area where a proposed thinning unit (Unit 48a) borders Lowe Creek and along an eighth of a mile stretch of Pot Creek just downstream of the Forest Service Road 4660 creek crossing. In these areas, 20 to 30 trees would be introduced into the creeks at each site. Where opportunities allow, trees removed to construct temporary roads associated with the vegetation management activities proposed in this project may be used for placement into streams.

Riparian Habitat Enhancement - Dispersed Camping Areas

There is opportunity to enhance riparian habitat through restoring areas damaged as a result of heavy dispersed camping use. The proposed action is to build a new access point for dispersed camping on an old, partially revegetated, flattened spoil piles adjacent to the Clackamas River just west of Austin Hot Springs and to close and rehabilitate other areas in the vicinity where heavy dispersed camping use has damaged riparian habitat. The proposed action also includes restoring a portion of a heavily used dispersed camping site near Pot Creek and the roads that lead from Forest Service Road 46 (4600045 and 460046). This camping area is currently about 4 acres in size. The proposed action is to rehabilitate about a third of this area and discourage use in the rehabilitated area. Specific activities include decompacting soils; strategically placing boulders, logs, or root wads to discourage access; and planting native vegetation.