

North Clack Integrated Resource Project Information Sheet

Introduction

The Clackamas River Ranger District of the Mt. Hood National Forest (Forest) is proposing a number of activities in the North Clack project area (described below) to achieve the goals of the Forest Plan as amended. Based on a review of field conditions and available data, there are needs and opportunities to improve forest conditions, provide wood products, manage recreation, enhance aquatic/riparian habitat, manage wildlife habitats, reduce fire hazards, and make changes to the transportation system within the project area. An interdisciplinary team of agency resource specialists has developed a proposed action to address these needs and opportunities. More detail on the proposed action can be found below.

The District has developed [story maps](#) that utilize ArcGIS Online software to help display some of the information in this letter in an interactive-map format. They explain some background and history of the area and include access to the raw maps and data.

North Clack Project Area

The North Clack project area is located along the western edge of the Clackamas River Ranger District. It includes parts of the Middle Clackamas Watershed. It is bounded by the Clackamas River on the southwest, Roaring River on southeast, by the Forest boundary on the northwest, and the watershed boundary on the northeast. This project area is approximately 25,000 acres in size and is located in Clackamas County, Oregon. Within the project area the Forest has established an Off-Highway Vehicle (OHV) management area at LaDee Flat.

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 North Clack Project Area

Land Allocation	Acres in Project Area	Management Theme
Congressionally Reserved	6,907	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	2,534	Late-successional reserves are to be managed to protect and enhance old-growth forest conditions.
Administratively Withdrawn	510	These are areas where the existing Forest Plan land use allocation indicates scheduled timber harvest is not allowed.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	3,757	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

Land Allocation	Acres in Project Area	Management Theme
		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	10,775	Matrix is the remaining area outside the above allocations. Management objectives for matrix lands are specified by Forest Plan land use allocation objectives.

Mt. Hood National Forest Land Allocations within the North Clack Project Area

Land Allocation	Total Acres	Management Theme
A1 Wild and Scenic Rivers	2,814	Protect or enhance the outstandingly remarkable values of the Clackamas and Roaring Rivers. There are wild and recreational segments. There is substantial overlap with Wilderness.
A2 Wilderness	5,739	Preserve wildness. There is substantial overlap with Wild and Scenic Rivers.
A4 Special Interest Areas	739	Protect and, where appropriate, foster public recreational use and enjoyment. Includes parts of the Roaring River Scenic Area. The Special Interest Area within this project area is entirely within a Late-Successional Reserve.
A6 Semi-Primitive Roded Recreation	69	Provide a variety of year-round dispersed motorized semi-primitive recreational opportunities. The portion of the project area allocated for Semi-Primitive Roded Recreation is entirely within a Late-Successional Reserve. (This area is not included in the LaDee Flat OHV area.)
A9 Key Site Riparian	687	Maintain or enhance habitat and hydrologic conditions. The Key Site Riparian land allocation overlaps Riparian Reserves.
B2 Scenic Viewsheds	283	Provide attractive, visually appealing forest scenery with a wide variety of natural appearing landscape features. The portion within the project area allocated for Scenic Viewsheds is entirely within a Late-Successional Reserve.
B3 Roded Recreation	151	Provide a variety of year-round recreation opportunities in natural appearing roded settings. The portion of the project area allocated for Roded Recreation is entirely within a Late-Successional Reserve. (This area is not included in the LaDee Flat OHV area.)
C1 Timber Emphasis*	10,775	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 C allocation includes the area in Matrix. A portion of matrix lands (C1 Timber Emphasis) could be made part of a proposed pilot project with Clackamas County to develop a "Purpose Driven Harvest Plan" pending USDA Wood Innovation Grant approval. The pilot project would support harvest and climate smart conditions in providing lumber, small diameter utilization for the emerging mass timber market. See additional information below under the heading "Provide Forest Products."

Other Land Delineations that are not Land Allocations

Category	Total Acres	Management Theme
Key Watershed	13,916	Key watersheds provide refugia for at-risk stocks of anadromous and resident fish. This delineation includes the Roaring River Watershed and a narrow band along the Clackamas River. It is substantially overlapped by Late-Successional Reserve and Wilderness.
Inventoried Roadless Areas	1,146	This area is identified in the Forest Plan Appendix C and is adjacent to the Salmon-Huckleberry Wilderness. It was not added to the Wilderness system in the 2009 Omnibus bill that added other Wilderness in the project area. Parts are overlapped by Late-Successional Reserve and Matrix.

Purpose and Need for Action and Proposed Actions

An interdisciplinary team of agency resource specialists has reviewed existing conditions within the project area against the desired conditions specified in the Forest Plan, as amended. Based on this review, Clackamas River Ranger District is proposing a variety of actions to address the needs. The North Clack Integrated Resource Project includes several different types of projects in the project area. These proposed actions are organized into the following headings: Improving Forest Health, Diversity, and Productivity; Transportation System Management and Aquatic/Riparian Habitat Enhancement. 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.

Improving Forest Health, Diversity, and Productivity

- A. The desired condition for the matrix component of the landscape is to have live productive forest stands that can provide wood products now and in the future. This need is described in the Northwest Forest Plan on page 26 and Forest Plan on pages Four-3 & Four-26. A primary purpose of this project is to keep forests productive to sustainably provide forest products now and in the future.

The project area has been dramatically affected by multiple wildfires that have combined to create a landscape with little to no old growth and vast areas of second growth. Some of the second-growth fire-originated stands are 60 to 70 years old and some are 100 to 120 years old depending on fire burn patterns. There are also some more traditional looking plantations that range from 25 to 70 years-of-age. Approximately 5,000 acres of fire-originated stands have been thinned in the past few decades and several thousand acres more exist in the project area that have never been thinned. Most of these stands are currently in a condition where thinning treatments or regeneration harvest treatments may be appropriate to move stands toward the desired conditions which are unique for each land allocation.

An important element of this purpose and need is to deal with as many mid-aged stands as possible within the parameters of the Forest Plan to move them toward desired conditions in an operationally efficient manner.

The proposed actions described in the sections below provide forest products while achieving several other stand and landscape scale objectives. There is additional detail below under the heading, “Provide Forest Products.”

- B. Another desired condition is to have stands that are relatively healthy with growth rates commensurate with site capability. This desired condition is discussed in the Forest Plan on pages Four-3, Four-5, Four-26, Four-91 & Four-289. There are many stands in the project area that are overcrowded and relatively uniform. A primary purpose of this project is to improve the health and increase diversity of forested stands.

There is an opportunity to gain greater variability of vertical and horizontal stand structure by the inclusion of skips, gaps in the thinning prescriptions. This technique to develop non-uniform conditions in a stand is an example of variable-density thinning. Thinning is proposed on various land allocations: each with a different emphasis. The features of variable-density thinning will vary between units to achieve the differing goals of each land allocation.

For example, in Riparian Reserves and Late-Successional Reserves there is an opportunity to make some of these changes to accelerate and promote desired conditions in these land allocations. The desired condition in reserves is a multi-layer canopy with large-diameter trees, a well-developed understory, more than one age class, and sufficient quantities of snags and down woody debris. These desired conditions are described in the Forest Plan on page Four-67 and in the Northwest Forest Plan on pages B-5, B-6 and C-32.

In the Matrix land allocation, particularly where it overlaps the C1 Timber Emphasis land allocation, the emphasis of thinning is for timber production, health and growth. The Forest Plan also includes objectives and Forest-wide Standards and Guidelines that apply to all Matrix land allocations for the enhancement and protection of many resources. Some of these other resources can be enhanced by the incorporation of variable-density thinning and other treatments, such as underburning, that are designed to achieve timber production, health and growth goals while at the same time achieving other objectives such as owl habitat, enhancing forage for deer and elk, providing scenic views, and promoting huckleberry productivity. There is additional detail below under the heading, “Enhance Wildlife Habitat.”

Some of the fire-origin stands have scattered legacy trees that survived the fires; these large live fire-scarred trees would be retained. Some stands also contain large-diameter snags that have been dead for a century, most of which are crumbling down. Snags would be retained unless they pose a safety hazard.

- C. One desired condition for this area is to have forest stands across the landscape with a mix of ages and densities. Within this mix is early-seral habitat that would provide for dependent species including forage for deer and elk. This desired condition is discussed in the Forest Plan on pages Four-22 & Four-71. The project area is a relatively uniform landscape with an abundance of second-growth stands. In recent years, early-seral habitats have declined across the project area. Deer and elk are management indicator species that require a mix of habitat types, including early-seral habitats that provide forage. A primary

purpose of this project is to change that uniformity by introducing regeneration harvests that result in variable-looking early-seral stands.

- D. While achieving the primary needs discussed above, there are additional opportunities to alter vegetation to meet other objectives as well.

One such opportunity is to reduce hazardous fuels to minimize resource impacts from fire, and to provide for enhanced firefighter and public safety. The desired condition is to have a landscape of primarily live trees with relatively low fire hazard. The project area has had a history of repeated fires and there is a concern that fires could start within, and spread out from adjacent wilderness areas. There is also an adjacent wildland-urban interface that is a concern. The goal is to have an appropriate fire suppression response on the stands in the project area. These desired conditions and goals are discussed in the Forest Plan on pages Four-3, Four-4, Four-9 Four-25 & Four-76. The proposed action would treat activity fuels in some harvest units and create fuel breaks along a portion of Road 4610 and along the Forest boundary.

Another opportunity is to reduce the occurrence of invasive plant species, particularly where they are at risk of spreading and competing with native vegetation. The desired condition is to have a landscape where ecosystem-altering invasive plants are not present and where common invasive plants are kept in check. These desired conditions and goals are discussed in the Forest Plan on pages Four-82. The project area has some concentrations of Scotch broom and other invasive plants that may spread from their typical occurrence along roadsides into forest stands where they would compete with desired vegetation. The treatment of invasive plants is covered by the "Site-Specific Invasive Plant Treatments for the Mt. Hood National Forest and Columbia River Gorge National Scenic Area in Oregon, including Forest Plan Amendment #16" FEIS, which was completed in 2008. This FEIS identifies appropriate herbicides and non-herbicide treatments for sites that were known at the time, and includes an Early Detection / Rapid response strategy for uninventoried and newly established populations. The North Clack Environmental Assessment will not revisit the decisions made in 2008, but will identify areas of potential treatment so that they may be coordinated with other proposed actions. There are some concentrations of Scotch broom, herb Robert, Canada thistle, bull, thistle, tansy ragwort, St. John's-wort, and other invasive plants that were discovered during project reconnaissance.

Vegetation Proposed Actions

Purpose & Need	Proposed Action	Acres	Notes
Improve Forest Health, Growth and Diversity while Providing Forest Products	Variable-density thinning with Skips and Gaps	4,619	<ul style="list-style-type: none"> • 2,154 acres in Matrix, with two acre gaps and heavy thins for forage enhancement • 191 acres in LSR • 947 acres in Riparian Reserves • 202 acres of Matrix with an emphasis of improving owl habitat in the home range • 88 acres of thinning with a huckleberry enhancement emphasis • 985 acres of young-stand thinning and brushing • 52 acres of young-stand thinning and brushing and the removal trees in diseased areas followed by planting
Improve Owl Habitat	Create gaps	60	Cut and leave trees in small gaps to improving owl habitat in Matrix
Provide Forest Products and Create Early-Seral Habitat while Providing Forest Products	<ul style="list-style-type: none"> • Regeneration Harvest with Reserves • Site Preparation and Planting 	255	In Matrix,
Enhance Forage	<ul style="list-style-type: none"> • Meadow Burn 	2	
Fire Hazard Reduction	<ul style="list-style-type: none"> • Burning • Fuel Break 	541	<ul style="list-style-type: none"> • 150 acres of piling and burning of slash along Road 4610 and property lines • 136 acres of under burning of thinned stands • 255 acres of under burning and grapple piling in regeneration harvest units

Enhance Wildlife Habitat

The North Clack project area contains one historic northern spotted owl nest site. Owl home ranges should contain at least 40% suitable habitat. Because of past fires in the area, the habitat for owls is marginal and suitable habitat in the home range is currently at 41%. Even though the area is just above the minimum threshold, there is an opportunity to enhance some other stands in the home range to put them on a trajectory to become suitable habitat sooner than would occur with no treatment. Within the home range, some actions are proposed to make the owl habitat situation better. Approximately 323 acres of stands were identified for light thinning to accelerate development into suitable habitat. Many other stands within the home range would be treated as well that would eventually benefit the owl's habitat in the long term, including variable-density thinning (249 acres) and sapling thinning (321 acres).

The project area also provides habitat for deer and elk, including both winter range and summer range. While cover is very abundant in the project area, forage is lacking. There are opportunities to enhance forage within the planning area through application of vegetation treatments such as creating openings in areas with palatable understory plants, underburning, creating gaps in thinned stands, and burning a meadow.

Provide Forest Products

The North Clack project area contains over 10,000 acres of forest that has been allocated to the C1-Timber Emphasis land allocation (Forest Plan, p. Four-289). A primary goal of this land

allocation is to provide lumber, wood fiber, and other forest products based on the capability and suitability of the land. A secondary goal is to enhance other resource uses and values that are compatible with timber production. The desired condition of lands allocated to the C1-Timber Emphasis land allocation is to provide for extensive stands of trees at various stages of development, arranged in a mosaic pattern that is somewhat random but shows the clear influence of landform, productivity, and management objectives.

The C1-Timber Emphasis lands within the North Clack project area do not currently meet the desired condition specified in the Forest Plan. The forested landscape is characterized by stands that are primarily of the same age class. There is an opportunity to increase the diversity of age classes within the project area at this time.

In addition to enhancing the diversity of age classes within the C1 portion of the project area and working toward a mosaic of age classes, there is also an opportunity to provide for a variety of forest products from the project area. Treatments to meet land management objectives both within and outside of the C1 portion of the project area will yield raw products that have commercial value. There are several products made from the logs that are removed from the Forest including sawn lumber and logs peeled for plywood. Other incidental products can include chips, pulp for paper, and firewood.

There are also emerging technologies that utilize wood products in innovative ways to provide alternatives to steel and concrete to frame mid and high-rise buildings. Clackamas County, for example, is working to foster the development of the cross laminated timber (CLT) industry within the county to encourage sustainable forestry and contribute to local economies, especially as the demand for CLT grows in urban communities such as Portland. The Clackamas River Ranger District will be working with Clackamas County to explore supply-side needs and harvest considerations associated with the CLT market, while meeting multiple vegetative objectives described above.

The Transportation System Management

The North Clack project area currently includes approximately 83 miles of system roads, with 62 miles currently open for public and administrative use. 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. A primary purpose of road management is to provide access to the other proposed projects, and to reduce resource risks and maintenance costs while providing appropriate and safe access to the Forest.

Existing Condition of the Forest Service Transportation System within the Project Area

Forest Road Status	Approximate Miles
Total National Forest System Roads in 1990*	103
Decommissioned National Forest System Roads (no longer part of the Forest's Transportation system)	9
National Forest System Roads Converted to Motorized Trails	11
Current National Forest System Roads	83
National Forest System Roads Currently Closed	21
Total Motorized Trail Network including Dual Use Roads	24

*Does not include 7.8 miles of State Highway 224.

Road Use and Management for Vegetation Management Activities

The proposed vegetation management activities will require the 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 new roads that are not part of the current transportation system. These needs are considered connected actions associated with the project's vegetation management activities.

Transportation System Management for Reducing Resource Risks and Maintenance Costs

In 2015, the Forest completed a Travel Analysis Report, which was a synthesis of previous transportation planning 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.

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 project area.

Unauthorized User Created Routes

In 2010, the Mt. Hood National Forest issued a Record of Decision for the Off-Highway Management Plan Environmental Impact Statement. Prior to this decision, off-highway vehicle (OHV) use was allowed both on and off National Forest System Roads unless a road or area was designated closed to such use. The 2010 decision established three OHV areas across the Mt. Hood National Forest and closed all other areas to OHV use. The North Clack Project Area contains one of the three OHV areas: the LaDee OHV Area. However, the project area contains numerous unauthorized, user-created trails. Such trails can result in damaged soils, bare ground that may serve as vectors for noxious weed infestations, and undesirable erosion and sedimentation. Within the project area, there are at least 7 miles of mapped unauthorized routes. There is opportunity reduce negative resource impacts associated with unauthorized routes closing them to use and rehabilitating the land.

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	70	The intensity of work varies based on location and the work recently accomplished by the Forest and other operators.
Provide Access for Vegetation Management	Construct and Reconstruct Temporary Roads	19.1	<ul style="list-style-type: none"> • 13.1 miles of new road construction in locations where no road alignment previously existed. (1.55 mi of this is needed due to OHV conversion of system roads to trails) • 4.1 miles of existing road alignment reconstruction on road alignments that were once temporary roads.(0.63 mi of this is needed due to OHV conversion of system roads to trails) • 1.9 miles of existing road alignment reconstruction on road alignments that were once system roads.(1.1 mi of this was decommissioned by OHV plan)
Reduce Resource Risks and Maintenance Costs Associated with Forest Service System Roads	Decommission and Close Forest Service System Roads	31.9	<ul style="list-style-type: none"> • 5.7 miles of active and passive decommissioning of roads no longer needed. • 26.2 miles of road closures that remain on the System.
Reduce Resource Risks and Maintenance Costs Associated with Forest Service System Roads	Convert Road to Non-Motorized Trail	1.2	4611 Remove culverts, retain a trail tread
Provide Access for Vegetation Management	Return Former Forest Service System Road Back to the System	1.2	4610115
Reduce Resource Impacts Associated with Unauthorized OHV Routes	Rehabilitate Unauthorized OHV routes	7.1	

Aquatic/Riparian Habitat Enhancement

The desired condition for streams, lakes and riparian areas is for them to be fully functional 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 in the Northwest Forest Plan on pages B-9 and C-32. A primary purpose of this project is to enhance aquatic and riparian habitat. The proposed action includes restoring and repairing the following areas.

Aquatic Habitat Enhancement – Culverts

Culverts that are not the correct size can serve as a barrier to fish and aquatic organism passage, effectively shrinking the amount of habitat available for aquatic species. Improperly functioning

culverts can also lead to soil erosion and sedimentation into streams. The desired condition is to have transportation system culverts that allow the passage of organisms and flood waters. There are seven culverts within the project area that are known to be too small to accommodate flood flows and to allow for adequate passage. These culverts would be replaced or removed based on the availability of funding in the following priority order:

1. 4611 at upper crossing of Winslow Creek (Replace)
2. 4613130 at Whisky Creek (Remove)
3. 4614120 at Whisky Creek (Replace)
4. 4613 at Dry Creek (Replace)
5. 4612 at Boyer Creek (Replace)
6. 4613 at Bedford Creek (Replace)
7. 4612140 at NF Boyer Creek (Replace)

Stream Habitat Enhancement - Large Woody Debris

Within riparian areas, the desired condition is to have mature riparian vegetation with large trees that periodically fall into streams to provide large woody debris and the in-stream diversity needed to provide for good water quality and aquatic habitats. Due to past fires and management practices, large trees are lacking adjacent to project area streams. There is opportunity to take actions to enhance stream habitat by increasing the amount of large woody debris in streams.

In the streams that lack desired levels of large wood, trees would be felled, pushed, or pulled over, or brought in with helicopters to create better quality fish habitat than currently exists. The exact stream reaches for large wood addition would be selected from areas where fish are present, wood is lacking, and access is feasible. Unit 43 is proposed to be thinned to achieve riparian objectives, and the trees removed would be used as fish logs as needed. Large woody debris placement is proposed in the following streams to move them toward the desired condition (in priority order).

1. North Fork Clackamas River
2. Bedford Creek
3. Winslow Creek

The proposed action also includes identifying young conifers adjacent to streams that are trying to grow up through a dense alder overstory and felling a few alders at each site to release individual conifers or small groups of conifers. These would be released to grow larger and eventually provide woody debris to streams when they die.

Beaver Habitat and Wetland Restoration at Tumala Meadows

The desired condition is to have properly functioning wetlands. Tumala Meadows was once much wetter than it is today and has downcutting streams in an area that once was well maintained by a stable beaver population. By damming streams, beavers create pond and wetland complexes that increase spatial heterogeneity and geomorphic complexity, species and habitat diversity, and therefore ecosystem resilience to climate-induced environmental change. Beaver impoundments slow stream velocity allowing sediment suspended in the water column to settle, aggrading incised stream systems, and reconnecting streams with their floodplains.

The increase in surface water promotes groundwater recharge, storage, and supplementation during base flows. The increased geomorphic complexity also promotes higher thermal variability and coldwater refugia in deeper waters and in areas of downstream upwelling.

The proposed action includes installation of in-channel structures, or Beaver Dam Analogues (BDAs), to simulate beaver dams and to encourage beavers to build dams in incised channels and across potential floodplain surfaces. The dams are expected to entrain substrate, aggrade the bottom, and reconnect the stream to the floodplain. Protection of the culvert on road 4610 from flooding will occur using one of a variety of techniques of 'beaver baffles'. The relocation of beaver to Tumala Meadows in coordination with Oregon Department of Fish and Wildlife, may also be part of this project if they do not reestablish on their own.