

# **Wynoochee Restoration and Roads Management Project Proposal**

## **Purpose and Need for Action**

The Olympic National Forest has identified a need to improve the Wynoochee River watershed through old growth forest development, road management, recreational site adjustments, and restoration of riparian and aquatic resources. Detailed maps of proposed activities and other project information is available on the project website at:

<https://www.fs.usda.gov//project/?project=53124>

The Wynoochee River Watershed Analysis and recent surveys conducted in the area have documented changes and degradation to both terrestrial, riparian, and aquatic habitats as a result of road construction and timber harvest over the last several decades.

The forest in the project area is mostly dense, second-growth (previously logged) stands of similar size and age that are declining in health. These stands do not provide high-quality habitat for species associated with late-successional and old-growth forests. Riparian areas that once supported large conifers now have high percentages of smaller trees, reducing amounts of large wood (large woody debris) in streams that provide habitat for fish and other aquatic species.

The Wynoochee project area contains about 230 miles of Forest system roads. A majority of roads on the Forest were built to facilitate timber harvest in the 1900s. These roads were not designed to current state and federal drainage capacity requirements (e.g., withstanding 100-year flood events). In addition, a declining trend in annual road maintenance funding allows for maintenance of only about one-third of the approximately 2,000 miles of system roads on the Forest. As a result, road maintenance needs are exceeding available resources, compelling the Forest Service to identify the highest priority roads for maintenance each year. Lower priority roads that are not maintained are vulnerable to large scale failures during heavy rain events due to major drainage issues such as plugged culverts and ditchline failures. Over time, this results in increased risks to natural resources and public safety.

The purpose of this project is to restore terrestrial, riparian, and aquatic habitat toward desired long-term conditions as described below. Existing conditions of the area are described further in the Wynoochee Watershed Analysis and the Hood Canal South Late-Successional Reserve Assessment. In addition, other forest level assessments have informed this proposal. Forest planning documents and assessments, including the Forest Plan are available on the Forest website: <https://www.fs.usda.gov/main/olympic/landmanagement/planning>.

Olympic National Forest Land and Resource Management Plan (Forest Plan) land allocations in the project area include: Timber Management; Developed Recreation/Administrative Site; Eagle Habitat; General Level River Corridor; Natural Level River Corridor; Scenic; Botanical Area; and Undeveloped Recreation Motorized. Northwest Forest Plan (NWFP) land allocations include: Tier 1 Key Watershed; Adaptive Management Area (AMA); Late-Successional Reserve

(LSR); and Riparian Reserve (RR). The project will be analyzed in compliance with Forest Plan goals, objectives, and standards and guidelines.

Based on the current conditions in the project area, the purposes of taking action are to:

1. Increase structural and habitat diversity and accelerate the development of late-successional forest characteristics by reducing the crowding of trees in second-growth stands in Late-Successional Reserve and Adaptive Management Area land allocations.

The purpose of LSR is to maintain and enhance late-successional forest as a network of existing old-growth forest ecosystems. AMA land allocation is meant to provide opportunities for development, demonstration, and testing of techniques that emphasize restoration of late-successional forest conditions and riparian zones, and that integrate commercial timber harvest with ecological objectives.

Desired characteristics of late-successional and old-growth forest habitat include:

- patchy, multilayered forest canopy with trees of different sizes and ages;
  - a healthy and diverse forest understory comprised of herbs, shrubs, and tree seedlings and saplings;
  - large, overstory trees with large branches, broken tops and decaying wood; large standing dead trees (snags);
  - and woody debris on the forest floor.
2. Improve Riparian Reserve conditions to meet Aquatic Conservation Strategy (ACS) objectives. Riparian Reserves are a central component of the ACS, include areas along streams, wetlands, ponds, lakes, and unstable or potentially unstable areas. Desired characteristics for RRs include:
    - late-successional forest characteristics (see purpose 1., above);
    - promote stream shading to reduce stream temperatures and improve water quality;
    - accelerated growth of conifers to provide future large wood for recruitment into in stream aquatic habitat;
    - maintenance of streambank and hillslope stability to reduce erosion and sediment transport/deposition and improve water quality;
    - appropriate instream habitat conditions and connectivity to achieve salmon recovery goals;
    - stable roads that do not impact streams and waterbodies with a disproportionate amount of sediment; and
    - appropriate hydrology and soil productivity to maintain watershed health.

3. Contribute to the economic viability of local communities.

While maintaining and enhancing late successional forest is the primary objective, a goal of the NWFP is to provide a sustainable level of forest products for local and regional economies and to provide jobs. Implementation of an economically viable project alternative that directly meets the primary benefit of improving conditions in LSR, RR, and AMA land allocations as described above, would provide the added benefit to local economies through utilization of local industry capabilities and infrastructure.

4. Identify a road system that meets transportation needs while reducing aquatic risk associated with specific roads.
  - Make progress toward identifying a smaller transportation system that will meet standards for public safety, meet multiple resource needs for the long term, including administrative needs, and that can be maintained within expected future levels of maintenance funding.
  - Restore and protect the watershed from impacts of the road system such as road-related sediments entering waterbodies. For those roads needed as part of the transportation system, there is a need to stabilize and upgrade roads and stream crossings to reduce the risks to riparian and aquatic conditions.
5. Adapt the recreation resources and opportunities within the project area directly associated with project roads and forest health to better align with natural resource concerns and management capacity.

## Proposed Action

The proposed action was developed by the interdisciplinary team to meet restoration goals and management needs as described above.

### Restoration Thinning

Commercial treatment using a variable density thinning approach<sup>1</sup> is proposed on about 5,044 acres in AMA and LSR land management allocations. Potential thinning units within the project area were reviewed to determine the need for restoration treatment and feasibility for thinning operations. Screening criteria included: stand age, access to stands using the existing road network and temporary road construction, and potential economic feasibility.

**Table1: Summary of acres proposed for restoration thinning by logging system.**

Commercial Thinning Logging System	Acres
Cable	2,895
Downhill Cable	686
Ground Based	1,085
Skip (unthinned areas)	378
Total	5,044

### Temporary Roads

Temporary roads provide access for thinning operations. About 12 miles of temporary roads are proposed; this includes about 5 miles of new temporary road construction, and about 7 miles of reconstruction of old, existing road alignments. Temporary roads are not part of the Forest road

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<sup>1</sup> A type of thinning to increase the variation in tree spacing across the stand and promote the development of multiple canopy layers (structural complexity). More information on variable density thinning can be found here: <https://www.fs.fed.us/pnw/olympia/silv/ohds/index.html>

system and would be rehabilitated after use. Forest system roads will be used for log haul. Roads will be assessed for condition to determine maintenance needs to accommodate log haul.

## Road Management

Closure, decommissioning, or downgrading road objective maintenance levels is proposed to better reflect priorities for maintenance and align with declining budgets. The interdisciplinary team reviewed about 230 miles of system roads within the project area. The table below summarizes roads by current operational maintenance level and the proposed objective (desired) maintenance level. Roads proposed for closure would remain on the Forest road system and stored for future use or access. Roads proposed for decommissioning would be removed from the Forest road system. Treatments for road closure and decommissioning depend on the condition of the roads.

Roads posing a risk to forest resources, especially high risk to aquatic resources are generally considered the highest priority for decommissioning or closure. Treatments would reduce the potential for management-related mass wasting and surface erosion. Specific decommissioning actions may include:

- Removal of all stream crossing culverts and fills;
- Removal of all cross-drain culverts;
- Construction of waterbars or other resilient, maintenance free, drainage features to reduce the potential for water diversion and restore hillslope hydrology;
- Mulching and native revegetation of disturbed areas;
- Removal of unstable sidecast fill material, scarification of the road surface where necessary to improve infiltration and help restore soil productivity; and
- Obliteration of the roadbed by recontouring or full outslipping in some locations.

The objectives and treatments on road segments proposed for maintenance level 1 closure (or storage) are similar for the road segments proposed for decommissioning. However, an additional objective would be to retain as much of the existing roadway prism as possible for future access needs. Closure would focus treatments on stabilizing areas of high risk to aquatic resources as appropriate.

**Table 2: Summary of proposed road system changes in miles (mileage is approximate).**

Current Road Status		Proposed Changes			
Current Maintenance Level	Total Miles in Project Area	Proposed Convert to Trail	Proposed for Decommissioning	Proposed for ML1 Closure	Proposed ML2
ML 1 – Currently Closed	94	1.3	52	NA (41 miles remain closed)	0
ML 2 – High Clearance Vehicles	100	0.5	15	45	NA (39 miles remain as ML2)
ML 3 – Suitable For Passenger Cars	30	0	0	0	19
ML 4 – Moderate Degree of User Comfort	3	0	0	0	0
Total	227	1.8	68	39	21

### Aquatic Restoration

Several activities are proposed to reduce risk to water quality and aquatic organisms.

- Improve aquatic organism passage at sites with known fish passage barriers.
- Tip trees within Riparian Reserves to enhance instream wood and channel complexity.
- Decommission roads to reduce impacts to fish and fish habitat.
- Rehabilitate impacted floodplain areas.

### Recreation Site Adjustments

- Relocate Wynoochee Pass Trailhead to the junction of road 2270000 and the 2270400 spur. Convert road to trail (~1.7 miles) and create new parking area for up to three vehicles.
- Convert the last 0.3 miles of the 2270500 road spur to trail.
- Remove diseased trees at Coho Campground to reduce safety hazards and increase vigor of remaining trees.

### Wildlife Restoration/Enhancements

Several activities are proposed that would enhance or restore wildlife habitat features within the project area.

- Create snags, coarse wood, and slash piles to enhance wildlife habitat.
- Seed and plant for deer and elk forage and native plant restoration.
- Install nest boxes for flying squirrels and owl prey enhancement.
- Enhance marbled murrelet suitable nest trees by removing branches or adjacent trees to encourage growth of larger branches for roosting and use as nesting platforms.

## **Other Activities and Connected Actions**

### *Slash Treatments*

To reduce risk of wildfire, logging slash (residual woody debris as the result of commercial thinning activities) would be reduced near trails and along roads open to public. The slash would be used to the extent possible and could be reduced by: removing slash; scattering slash on-site; pulp wood sale and utilization of smaller diameter material for poles, pallet wood, and biomass; fuelwood collection opportunities; or piling and burning the slash.

### *Invasive Species Treatments*

Invasive species are currently being inventoried within the project area. Some weed treatments, including herbicide, will be applied prior to implementation. Treatments are authorized under the 2008 Olympic National Forest Beyond Prevention: Site Specific Invasive Plant Treatment Record of Decision.

### *Rock Sources*

When feasible, on-Forest rock sources, as opposed to off-Forest commercial sources, would be used for road maintenance, repair, and construction. Rock source expansion may be necessary to extract needed material.

## **Project Design Criteria and Mitigation Measures**

Project Design Criteria and mitigation measures are developed by resource specialists to mitigate or prevent expected impacts from the proposed activities on forest resources. They are integrated into the design, physical layout of the project, and implementation of the proposed actions.

Project Design Criteria for this project may include measures to: temporarily close areas during road and logging operations for public safety; allow for parking space and/or walking access on decommissioned roads when feasible; establish no-cut operational buffers along streams to protect riparian areas; define seasonal operating periods for road construction and logging activities in order to protect Endangered Species Act listed fish and wildlife species and habitat, unstable and sensitive soils, and water quality; define locations and requirements for road maintenance and temporary road construction to protect resources; protect/buffer suitable nest trees and legacy trees and other habitat elements for wildlife benefits. These measures would be further developed as part of the project planning process.

## **Monitoring**

Monitoring activities will be outlined in the upcoming Environmental Assessment for this project. Activities may include: verifying that silvicultural prescriptions meet project objectives; Forest Service personnel inspection of stand prescription implementation and erosion control practices during implementation; review of thinned stands following implementation to assess for stand damage, snag and large woody debris abundance, and need for restoration of temporary roads, landings, and thinning gaps.