Willamette National Forest

Roads Vocabulary

(draft – 8/13/13)

This "Roads Vocabulary" clarifies and makes consistent across the Willamette National Forest some of the commonly used words related to roads management. In the past, it was not uncommon for Ranger Districts, employees, and the public to be using the same word to describe a proposed road treatment, yet have different images or expectations in mind. The goal of this document is to avoid that confusion.

Maintenance Levels

All Forest Service roads are designated a Maintenance Level of 1-5. Maintenance levels define the level of service provided by a specific road and the maintenance required to maintain that level of service.

Maintenance Level 1 (ML1): The road is closed to public and administrative use, but remains part of the NFS Road System.

Maintenance Level 2 (ML2): Road is open to public and administrative use, however, it is only maintained to allow access by high clearance vehicles.

Maintenance Levels 3-5 (ML3-5): Road is open to public and administrative use and is maintained to allow access by passenger car.

- ML 3: Road maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities.
- ML 4: Road provides a moderate degree of user comfort and convenience at moderate travel speeds.
- ML 5: Road provides a high degree of user comfort and convenience.

Road Decommissioning:

A decommissioned road is closed to all motorized use and is removed from the Forest Service road system with no expected need to restore administrative or public motorized access in the future. Decommissioning includes treatments necessary to ensure long-term hydrologic stability, minimize aquatic risks[1], and initiate the restoration of ecological processes and functions. Restoration of the road bed may include some or all of the following:

a. Assuring proper closure at the beginning of the road using a berm or other obstruction
b. Installing water bars; reestablishing drainage-ways, removing unstable fills, pulling back road shoulders, and scattering slash on the roadbed;
c. Reestablishing former drainage patterns, stabilizing slopes, and restoring vegetation
d. Completely eliminating the roadbed by restoring natural contours and slopes (also referred to as Road Obliteration)
e. Other methods designed to meet the specific conditions associated with the unneeded roads.

Depending on the aquatic risks of the road, the extent of the treatments can vary from roads with little to no aquatic risk that require few treatments and rely on more passive restoration, to road obliteration, which is rarely used and generally only in particularly sensitive habitats like wetlands and riparian areas.

[1] **Aquatic Risk:** An estimate of the risk that a road presents to aquatic organisms and water quality. This includes both chronic, long-term sources of sediment from road surface runoff as well as episodic pulses of sediment caused by crossing failure during large storm events. This risk is weighed in terms of potential to affect both sensitive and threatened fish species and municipal drinking water.

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Stored Road:

A stored road is closed to all motorized use and it remains in the Forest Service road system (Maintenance Level 1). In most cases, stored roads are hydrologically stabilized, as determined by a hydrologist or aquatics professional, prior to closure. Access to a stored road is blocked by a berm, big rocks, or other obstruction. There is the expectation of future administrative need, often related to timber management. There is no expectation that public motorized use will be restored.

Primarily for internal purposes, there are three levels of storage (1, 2 and 3), **determined by the amount of treatment needed to make a road hydrologically stable**. With all storage categories, any waterbars, culverts and other road drainage structures left in place should continue to function without routine maintenance. All storage categories assume that roads will be encroached by brush and trees over time. Treatments in these three storage levels are outlined below.

There may be rare cases when a line officer decides there is sufficient rationale to choose road treatments different than described below, based on treatment costs, anticipated future uses of the road, or other factors. In these cases, it is important to discuss the full spectrum of tradeoffs, including the potential for aquatic risks left on the landscape, costs to store and reopen a road, and years until a road will be needed again.

Storage level one:

To hydrologically stabilize the road and reduce aquatic risk, the road typically requires non-drivable waterbars strategically placed to assure proper drainage in the absence of maintenance. Existing drainage structures and bridges can often remain in place. This level of storage typically costs $800-$1,500/mile[2] to implement, and has a typical cost of $5,000/mile to restore access.

Storage level two:

To hydrologically stabilize the road and reduce aquatic risk, the road has non-drivable waterbars and as necessary for hydrologic stability, includes the removal of most culverts with low to moderate fills on perennial and intermittent streams. Treatments may also include pull back of unstable side cast material on outside shoulders. In rare cases, it may include reducing fills over hydraulically appropriate and structurally sound culverts. Large drainage investments that present little to no aquatic risk may be retained in place.

This level of storage typically costs $3,500 - $6,000 per mile to implement and has a typical reconstruction cost of $27,000 per mile to restore access.

Storage level three:

To hydrologically stabilize the road and reduce aquatic risk, most/all drainage structures in perennial and intermittent streams are removed and the remainder of the road is waterbarred (non-drivable). Removal of these drainage structures may include excavation of deep fills. These treatments typically cost $9,000 - $20,000/mile, or more in some cases. Where there is little to no aquatic risk to leaving them in place, high investment structures such as bridges and large culverts may be retained. Typical cost to restore access is about $54,000/mile.

[2] Actual costs may vary, depending on project location and other variables.

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System Road and Trail Descriptions

Most general description of road	More specific description of road	Motorized public access?	Motorized administrative access?	NFS System Road?	What does it look like on the ground?	Intent to reopen road?
Open to motor vehicle use	Open to motor vehicle use	Yes	Yes	Yes (ML 2-5)	Road is drivable as determined by its Maintenance Level	N/A
Closed to motor vehicle use	Gated/ Administrative closure/ Seasonal Closure	No, not when closure is in effect	Yes	Yes (ML 2-5)	Locked gate prevents public access to road during closure, which may be seasonal or all year; road is drivable for administrative use only	Road remains open to administrative use. Public use may be restored with rescission of the Forest Order that closed the road.
	Stored/storage	No	No	Yes (ML 1)	Varies, depending on treatments necessary to minimize aquatic risk and hydrologically stabilize the road	Yes, for land management activities (generally fire suppression or timber management). Public access is not likely to be restored.
	Decommissioned	No	No	No	Varies, depending on passive or active restoration and treatments necessary for long-term hydrologic stability	No
Road to trail conversion	Motorized trail	Yes	Yes	No	Part of trail system; motorized vehicles permitted	No
	Non-motorized trail	No	No	No	Part of trail system; non-motorized use only	No

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