

Planning Area Constraints

The Division's geographic information system (GIS) was used to quantify the acres in several land classifications in order to show a snapshot of how many acres currently are in these categories. The categories were lumped into five groups based on the amount of discretion or flexibility there is in terms of environmental, economic, or social/legal constraints and are ordered beginning with the least flexible group and ending with the most flexible. The numbers presented here represent what is currently on the landscape and will change as ecological processes (e.g., disturbance, succession) or management decisions occur. The numbers presented are for the entire planning area and are not separated out by each of the six districts.

The first group, *unavailable acres*, addresses lands that are not available for the harvest of trees, including roads, non-forest stands, and deed restrictions. The second group, *FPA constraints*, addresses those lands that are set aside due to the Forest Practices Act, and includes landslide and safety locations, and wildlife areas for bald eagles, northern spotted owls (NSO) and others. The third group, *take avoidance measures*, addresses lands dedicated to compliance with the Endangered Species Act and includes marbled murrelet management areas and NSO circles. The fourth group, *forest management plan*, addresses those constraints put in place by the current plan, and includes stream buffers, inner gorges, and old growth. The fifth category, *additional ODF policy*, addresses strategies found in policy such as terrestrial anchors and stands designated as desired future condition – complex.

Category and Group Definitions – A description of how each category was calculated and any associated caveats are presented below:

Group 1. Unavailable Acres

- **Roads:** 15 foot buffer extending to both sides of existing roads in ODF's corporate road layer. Lines in the GIS lack width, so a buffer is used to designate the average width of forest roads (~30 ft.)
- **Non-forest types:** Stand Level Inventory types incapable of significant tree growth (e.g. rock outcrops, lakes).
- **Administratively removed areas:** Forestland Management Classification System Special Use areas, excepting riparian, operationally limited and wildlife subclasses.
 - Examples include power line rights-of-way, cell tower sites, rock pits, and campgrounds.
 - Caveats: This includes various easements and deed restrictions where management is limited to the point where no significant timber volume would be realized.
- **Inoperable areas:** Harvest Units determined to be unloggable, as initially determined by LEI, Inc. Reviewed and edited by ODF District Staff.
 - Refer to Inoperable Areas Description document for more details.

Group 2. FPA Constraints

- **FPA wildlife:** 600 foot buffer of bald eagle, osprey, great blue heron and band-tailed pigeon sites.
- **NSO core areas:** Harvest units that intersect NSO sites with "Pair" status totaling approximately 70 acres are selected through a manual process.
 - Caveats: These core areas are approximate, because they are 1) based on entire harvest units, and 2) are often not delineated on the ground, because ODF operations are rarely planned in close enough proximity to NSO activity centers.

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- **Landslide and Public Safety:** High landslide hazard locations and buffer within Landslide and Public Safety basins derived from Digital Elevation Models on Tillamook District and as manually digitized by Western Lane District. More information on how site risk is defined can be found in OAR 629-623-0300 (http://arcweb.sos.state.or.us/pages/rules/oars_600/oar_629/629_623.html)
 - Caveats: Other districts have not been analyzed, but generally do not have a great deal of LPS exposure.

Group 3. Take Avoidance Measures

- **Marbled Murrelet Management Areas:** Protected habitat for marbled murrelets.
 - Caveats: ODF is in the process of revising previously established MMMAs, and continues to create new MMMAs in response to survey results. The data presented here under represents the actual impact of these take avoidance policies.
- **NSO Take Avoidance:** Harvest Units representing ODF's estimated contribution to NSO take avoidance measures in the 0.7 mile radius and provincial home range radius owl circles.
 - Caveats: NSO sites appear, become vacant and move on the landscape. This estimation only reflects the current situation on ODF lands. This estimate uses a simplistic definition of habitat, accrues habitat at the scale of the model harvest unit, and selects habitat at the scale of inner and outer NSO circles generally. It does not reflect any actual Biological Assessment that may be conducted by ODF, which have much more complex considerations.

Group 4. Forest Management Plan

- **Old Growth:** Current old growth patches, as digitized by ODF District staff. Old growth is defined by the plan (p. 4-18¹) as "older forests occurring on western hemlock, mixed conifer, or mixed evergreen sites that differ significantly from younger forests in structure, ecological function, and species composition. Old growth characteristics begin to appear in unmanaged forests at 175-250 years of age."
- **FMP streams:** Buffer of modeled streams derived from Digital Elevation Models, including potential debris-flow torrents. These buffers represent the currently implemented standards in the FMP.
 - Caveats: Modeled streams are used to provide data that are consistent over the planning area. ODF's operational stream layer contains a mixture of verified and unverified data, and is progressively updated in concert with the AOP planning process.
- **Inner Gorge:** Inner gorge features as derived from Digital Elevation Models. Inner gorges are areas next to streams where the adjacent slope is significantly steeper than the gradient of the surrounding hillsides (p 4-33).
 - Caveats: Inner gorges are not evenly distributed on the landscape. The features presented here are thought to be a reasonable approximation of the amount of inner gorge, but actual locations become known through the AOP planning process.

¹ Northwest Oregon State Forest Management Plan, 2010.

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Group 5. Additional ODF policy

- **Terrestrial Anchor Sites:** Terrestrial Anchor Sites as currently digitized.
 - Terrestrial anchor sites are habitat areas intended to benefit terrestrial wildlife species of concern, especially those associated with older forest conditions or interior habitat conditions, are sensitive to forest fragmentation, or do not readily disperse across younger forest conditions.
- **Landscape Design:** Layered and Older Forest Structure desired future condition as represented by model Harvest Unit.
 - Caveats: DFC complex shown here is a selection of harvest units that intersect the DFC as digitized by ODF District staff. It generally conforms to the actual DFC in placement and amount, but the exact boundaries differ.

Table 1. Gross and net acres of land in the Northwest Planning Area that are found in each constraint group. The net column subtracts out overlapping acres from the preceding constraint types based on overlay order (e.g. net non-forest types subtracts the roads acreage).

Overlay Order	Constraint Group	Constraint Type	Gross Acres	Net Acres	Percent of total (Net)
1	Unavailable Acres	Roads	14,503	14,503	2%
2		Non-Forest Types	4,201	4,048	1%
3		Administratively Removed Areas	7,256	5,917	1%
4		Inoperable Areas	52,789	46,801	8%
5	FPA Constraints	FPA Wildlife (excluding NSO)	243	181	0.03%
6		NSO Core Areas	1,789	1,598	0.26%
7		Landslide and Public Safety (High Risk)	7,706	6,172	1%
8	Take Avoidance Measures	Marbeled Murrelet Management Areas	12,962	11,789	2%
9		NSO Circle Take Avoidance	30,316	23,907	4%
10	Forest Management Plan	Old Growth	140	61	0.01%
11		FMP Stream Buffers	77,961	59,403	10%
12		Inner Gorges	38,975	13,379	2%
13	Additional ODF policy	Terrestrial Anchor Sites	44,753	27,147	4%
14		Landscape Design - DFC Complex	183,592	83,602	14%
Total:				298,508	49% of Planning Area
Planning Area:				610,674	acres
Approximate Available Acres:				312,166	acres