

Umatilla National Forest Potential Vegetation Groups (PVG)

COLD UPLAND FOREST PVG

Cold upland forests tend to occur at moderate or high elevations in the subalpine zone. Late-seral stands are dominated by subalpine fir or Engelmann spruce, while lodgepole pine or whitebark pine often function as persistent, early-seral species. Cold forests are adjoined by a treeless alpine zone at their upper edge and by moist forests at their lower edge. For the Blue Mountains, the Cold Upland Forest PVG consists of three plant association groups – two in the cold temperature regime (Cold Moist and Cold Dry), and one in the cool temperature regime (Cool Dry). The Cold Dry plant association group is by far and away the most widespread member of the Cold Upland Forest PVG. Common cold-forest undergrowth species include herbs and dwarf shrubs (such as grouse huckleberry).



Example of a cold upland forest site, showing a relatively open overstory canopy of Engelmann spruce and subalpine fir, and an undergrowth dominated by low ericaceous shrubs.



Example of a moist upland forest site, showing a relatively dense overstory canopy of grand fir and an undergrowth dominated by low forbs.

MOIST UPLAND FOREST PVG

Moist upland forests tend to occur at moderate elevations in the montane vegetation zone, or at low elevations of the subalpine zone. Late-seral stands are dominated by subalpine fir, grand fir, or Douglas-fir, while lodgepole pine or western larch often occur as early-seral species. Douglas-fir and western white pine function as mid-seral species (except on sites where Douglas-fir is climax). Moist forests are adjoined by cold forests at their upper edge, and by dry forests at their lower edge. For the Blue Mountains, the Moist Upland Forest PVG consists of five plant association groups – three in the cool temperature regime (Cool Wet, Cool Very Moist, and Cool Moist), and two in the warm temperature regime (Warm Very Moist and Warm Moist). The Cool Moist plant association group is the most common member of the Moist UF PVG. Moist-forest undergrowths are dominated by forbs, several mid-height shrubs, and a few tall shrubs on the warm end of the PVG.

DRY UPLAND FOREST PVG

Dry upland forests tend to occur at low to moderate elevations of the montane vegetation zone. Late-seral stands are dominated by ponderosa pine, grand fir, or Douglas-fir as the climax tree species, while ponderosa pine or Douglas-fir function as early- or mid-seral species depending on plant association. Western juniper is expanding rapidly into this zone as a result of fire exclusion and climate change. Dry forests are adjoined by moist forests at their upper edge, and by the woodlands and shrublands of the foothills vegetation zone at their lower edge. For the Blue Mountains, the Dry Upland Forest PVG consists of three plant association groups (PAGs) – one from the warm temperature regime (Warm Dry), and two from the hot temperature regime (Hot Moist and Hot Dry). Of the three PAGs, Warm Dry is the most common member of the Dry UF potential vegetation group. Frequent dry-forest undergrowth species include graminoids (grasses and sedges like pinegrass or elk sedge) and mid-height shrubs.



Example of a dry upland forest site, showing a moderate canopy cover of ponderosa pine and an undergrowth dominated by graminoids (primarily elk sedge and pinegrass on this site).