

## ARP

The Aggregate Recovery Percentage model (ARP) is used by the Mt. Hood National Forest to help monitor a watershed's health. The ARP model is intended for forested lands, and is used to only indicate a general state of recovery. This model helps identify the existing and post treatment percentage of canopy cover in a watershed, which indirectly influences timing of water runoff especially rain-on-snow events during winter months. Canopy cover percent thresholds have been identified for each watershed and can be found in the Mt. Hood National Forest Land Resource Management Plan (LRMP) 1990. These thresholds help predict when a watershed can withstand a rain-on-snow event from having watershed scale damage occur during rain-on-snow events. To determine the thresholds for watersheds located in the eastern edge of the Cascades (including Clear Creek) the Mt. Hood National Forest uses fire regimes for the vegetation types found in the watershed. The model predicts this risk solely on the basis of the state of hydrologic recovery of vegetation and does not account for variation in climatic, geographic, or other environmental factors. The LRMP uses a minimum desired threshold of 65% based on the fire regime of vegetation found in the Clear Creek watershed. The watershed impact area should not exceed 35%.

An analysis of the White River watershed during the 1995 WRWA showed that the ARP was 70.5%. For this planning activity on 1999, the ARP for the Upper White River watershed was calculated at 82% and 76% for the Clear Creek 6<sup>th</sup> field watershed. No additional timber harvest has occurred in the Clear Creek 6<sup>th</sup> field watershed since the ARP model was last calculated, but several other timber-planning areas are present in the watershed.

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