

*Gallo et al.*

## **PRELIMINARY ASSESSMENT OF THE CONDITION OF WATERSHEDS UNDER THE NORTHWEST FOREST PLAN**

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The goal of the aquatic conservation strategy is to maintain or improve the condition of watersheds. The strategy does not, however, identify a specific goal such as a desired percentage of the watersheds that are in good condition or a desired range of conditions. Thus, we infer that if the strategy is effective, then watershed condition scores should increase over time. We examined road and vegetation conditions in 250 randomly selected watersheds in the Northwest Forest Plan area. In-channel conditions were also sampled in a subset (N=55) of the 250 watersheds. A decision support model was used to evaluate all of the road, vegetation, and in-channel attributes and provide an overall estimate of watershed condition.

The aquatic conservation strategy appears to have had positive effects on the condition of watersheds. We base this conclusion on the following evidence: 1) Nearly 60 percent of the watersheds across the Plan area increased in condition since 1994; however, the changes were typically very small. Of the remaining watersheds, 39 percent did not change in condition and 3 percent decreased in condition. 2) Over 70 percent of key watersheds improved in condition, compared to 48 percent of nonkey watersheds. The strategy placed the highest priority for restoration activities on key watersheds. 3) Large changes in condition were detected in 7 watersheds. Of these, 4 watersheds decreased in condition, and each experienced significant vegetation loss due to wildfire. Nine to 16 miles of road was decommissioned in the 3 watersheds that improved in condition. 4) Factors that positively influence watershed condition, such as road decommissioning and tree growth outpaced factors that negatively influence condition, such as road construction and vegetation losses due to harvest and fires.

Roads attributes tend to be weighted more heavily than vegetation attributes in our watershed condition assessments. Riparian attributes also carry heavier weights than upslope attributes. Thus, road decommissioning, particularly in riparian and hazard (that is, prone to landslides) areas will have the greatest positive effect on watershed condition scores. Higher densities of large conifers in riparian areas will also provide a positive influence on watershed condition scores.

### **STATUS & TREND REPORTS CONCURRENT SESSIONS- Watershed Condition**

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