

California's Approaches to Protect Water Quality on Non-Federal Timberlands

Peter H. Cafferata and Clay A. Brandow
California Department of Forestry and Fire Protection

California's forest practices on non-federal timberlands are regulated by federal, state and local laws, including Forest Practice Rules (FPRs) under the Z'berg-Nejedly Forest Practice Act of 1973. The California Department of Forestry and Fire Protection (CAL FIRE) enforces the FPRs and acts as the lead agency for projects under the California Environmental Quality Act (CEQA). Foresters and timber operators must be licensed, with Licensed Timber Operators (LTOs) required to attend a two-day training session on the FPRs, as well as have adequate experience and insurance. Five different state-sponsored hillslope (i.e., on-site) monitoring programs have been conducted since 1986 to determine FPR compliance rates and effectiveness in protecting water quality. These programs have utilized agency teams, independent contractors, and CAL FIRE inspectors to collect data, with consistent results. The FPRs have generally been found to be effective when correctly implemented, with poor rule implementation the cause of most hillslope erosion features. Monitoring results have indicated a need for improved road drainage and better watercourse crossing design, construction, and maintenance. Hillslope monitoring is complemented by several cooperative instream monitoring projects. The 50-year Caspar Creek watershed study is the longest running project and has shown that implementation of the FPRs since 1973 has reduced water quality impacts. Monitoring results to date have been used to modify existing and proposed FPRs. Future needs include development of a new program to provide answers regarding the effectiveness of recent regulations developed for listed salmonid species, providing a feedback loop to policy makers for adaptive management.

30 word summary:

California's long history of monitoring forest practice water quality impacts on non-federal timberlands, both with watershed studies and hillslope (on-site) monitoring programs, is summarized.