Field monitoring of soil quality in harvest units 35 and 38 was conducted for effectiveness of mitigation measures in these units. Mitigation requirements under the Boyer Fire Salvage Timber Sale included dry season harvest, designation of skid trails and operation over a slash mat to protect soil quality.

Qualitative measures were used to assess displacement, rutting and organic matter. Tile spade estimations were done for compaction. No severe burn was found within this activity area. Burn intensity was mapped as low to moderate (a mosaic pattern) after the 1998 Boyer fire.

Skid trails were designated with a 125ft. average spacing and 10ft average width. Monitoring results identified several small areas of displacement all less than 100 square feet. Areas of platy soil structure (compaction) were found only on trails that required long skidding distances and was confined to the upper 2 inches of the soil profile. This equaled less than a third of the trails (approx. 1% of the activity area) having any notable compacted conditions that could be potentially detrimental to soil productivity. The temporary road was used, de-compacted, reshaped with organic material (course woody debris) scattered over exposed soil within a single operating season. Platy soil structure was not found on the recontoured temporary road and retained course woody debris was adequate throughout the units. No surface erosion, rills or overland flow was noticed. Seeps and wet areas identified in the unit were avoided.

Based on the activity area and size/type of disturbance from skid trails landings and temporary roads no adverse conditions that would limit land productivity were observed. Mitigation measures were followed and found to be effective. Use of an additional single season temporary road could have eliminated the longer skid distances required on some trails. Soil quality remains within the R1 Soil Quality Standards.

cc: B.Heiden, D-5