

Mowich Huckleberry Restoration Project Monitoring Plan

Management objective (from Purpose of and Need for Action, Decision Memo p. 1):

1. “maintain or improve health of huckleberry shrubs” – canopy cover % will be the surrogate measure of ‘health’);
2. “increase huckleberry production over time” – weight of berries/plant will be the surrogate measure of ‘production’).

Sampling objective: To be able to detect a 20% difference in mean canopy cover between untreated areas and treated areas; to be 80% certain of detecting that difference, if it occurs, and to accept a 20% chance that a difference exists when it really did not.

Methods: A pilot sampling scheme will be developed during field season 2007, prior to treatments. Based on this sampling, the variability will be estimated and the optimum number and size of plots for future sampling will be determined.

Plots would be permanently marked, using a durable plot center marker, GPS location information, maps, and orientation trees.

Sampling will occur in early summer initially prior to harvest/burning and at approximately the same date each year for 3 consecutive years following harvest/burning and then at least every other year to the fifth year following harvest/burning (minimum of 5 sampling seasons).

Percent cover will be measured by measuring the diameter of each huckleberry plant within the plot (or the area of plants partially within plots) and converting the total occupancy (in sq. feet) to the total plot area. Other species present in the plot will be recorded.

Randomly select a subsample of plants within each plot from which to collect all berries. Weigh each plot sample separately.

Estimated time to locate and establish plots: 1.0 day

Estimated time to sample: 1.0 day x 5 sampling seasons = 5.0 days

Total estimated cost: \$240/day x 6 days = \$1,440 (or \$240/year)