

Appendix 3: Forest Condition Assessment Description

1990 Digital Orthoquads (DOQ's) of the Upper Joseph Creek Watershed were used as the image theme in ForestView™, an extension of ArcView. The 1988 EVG Stand Tag Layer was the attribute theme for delineating stand boundaries under a different set of criteria from that used to generate the EVG in '88. The 1988 criteria were significantly driven by species, overstory structure, and density changes, while the current criteria will be driven primarily by density and structural stage. 1997, 1:12000 color photography were used to perceive obvious management changes, aided by a map or theme of timber management activities from 1990 to 1997. Polygons will be combined or split to reflect management treatments interpreted from the photos.

Once the management changes were delineated, a "heads-up" map of the EVG polygons was created from the DOQ image, to conform to the density criteria (0-40%, 40-70%, and 70+%) on the forested land base. Obvious, major structural stage changes were discernable in mono. The majority of polygon changes merged two or more polygons, which may have previously been delineated based on species changes.

Detailed lists of merged polygon numbers were kept in hardcopy as the mapper proceeded, in order to rectify the attribute tables. The outcome of this process was a modified EVG Stand Tag Layer, with polygons delineated by density and gross structural stage, with acreage determined by density stratification.

Designating one mapper to perform the heads-up mapping, for consistency, enhanced quality control. Weekly inspections of the reviewers were conducted initially from Wallowa Resources and the Forest Service in order to ensure compliance with the intent of the project. The heads-up mapping was completed by November 1, 2001.

Following approval of the first completed DOQ, the 9x9 aerial photos were prepared for the field. A clear overlay was attached to alternating photos, the effective areas drawn in permanent black ink, and the EVG polygons and numbers drawn onto the overlay in blue. The data source was a hardcopy of the modified EVG layer superimposed on the DOQ.

The "Modified EVG Data Entry Sheet" contained most of the pertinent data fields to describe the stand. A field for *Structural Stage* was added and used to describe the area following the walk-through. The walk-through was accomplished by pre-planning the route through the stand to cover at least 660 horizontal feet. Stands larger than 40 acres had at least 1320 horizontal feet of coverage. The entry point, route, and exit point were noted on the overlay in red. A minimum of five observation points were established, marked and labeled by flagging, and noted on the overlay in red. At each observation point, tree layer information and relative species cover by layer was obtained with a variable plot. Trees per acre and snag densities were taken with a fixed radius plot. Fuel loads will be summarized following the walk-through, with a comparison to the photo series. Damages, growth assessment, crown ratios, forest health evaluations, and wildlife habitat analysis were recorded in summary prior to exiting the stand.

Production Schedule. The EVG modification process began October 1, 2001, with the first DOQ inspected and ready for transfer to the 9x9's by October 15. The EVG modification was finished by December 1, 2001. Four foresters conducted the field assessment process.