

APPENDIX F

BEHI Method

BEHI Methodology

A representative group of segments for each stream were chosen based upon knowledge of the riparian vegetation. The vegetation had been assessed previously, and the number of years required for establishment of undisturbed riparian communities along each segment had been estimated. Segments were chosen such that a range of disturbance was represented. For each designated segment, approximately 1000 feet of channel were characterized on both sides yielding a total of 2000 feet of assessed stream bank. At the beginning of the segment, a stretch of stream with relatively consistent characteristics (e.g., eroded banks adjacent to pasture or crop field) was assessed for bankfull height, bank height, root depth and density, surface protection (such as rock), and bank angle. Bank materials and soil types may also be noted. The distance along the stretch of stream is measured with a digital range finder. Moving up to where the first stretch ended, the next stretch was delineated and characterized. The process was repeated until the cumulative distance assessed along one side approximated 1000 ft. Occasionally the left and right side of the stream do not coincide in where each stretch begins and ends. In such a case, the length of stretch along one side may correspond with two or more stretches totaling the same distance on the other side of the stream.

Once the data was gathered, it was entered into a spreadsheet. The relationships between the various characteristics have been determined using regression. The raw data for each stretch was modified into four discrete indices using the regression equations. The sum of these indices yielded a total index for each stretch which was compared to six predetermined ranges of indices corresponding the probability of bank erosion, i.e., 'very low', 'low', 'moderate', 'high', 'very high', and 'extreme'. The percentage of each stream segment falling into each probability category was totaled. Segments containing segments with 'high' or greater probability of erosion are of particular concern.