

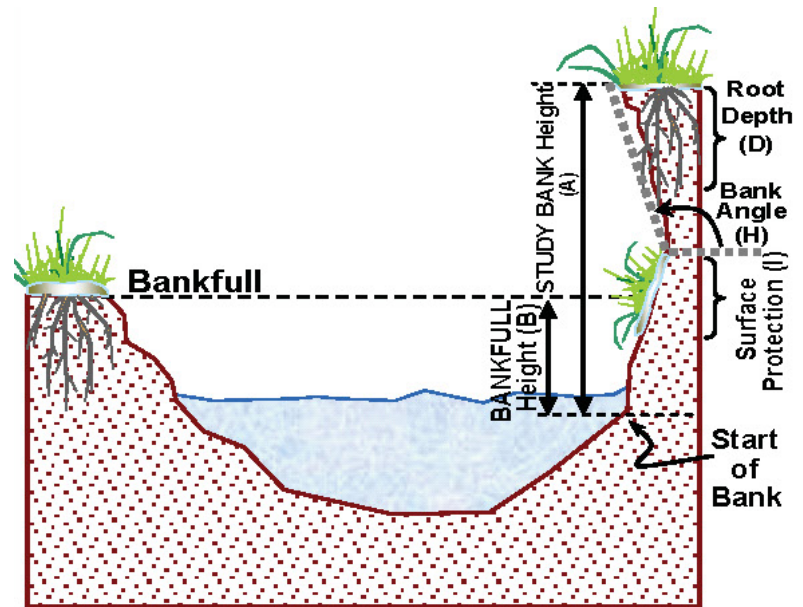
Bank Erosion Hazard Index (BEHI) Description

The Bank Erosion Hazard Index (BEHI) is a method that evaluates a streambank's susceptibility to erosion. This method integrates multiple variables that relate to combined erosional processes leading to annual erosion rates. Erosion risk is then established for a variety of BEHI variables and is eventually used to establish corresponding streambank erosion rates.

The individual BEHI variables for the erosion prediction model are:

1. Study bank height/bankfull height (study bank-height ratio)
2. Root depth/bank height (root depth ratio)
3. Weighted root density
4. Streambank angle
5. Surface protection
6. Streambank material
7. Stratification of streambank material

For a given study streambank, each variable is evaluated and recorded on a worksheet. The first five variables are converted to a BEHI score using previously developed relationships. The BEHI scores have values between 0 and 10. The scores for the first five variables are totaled and adjusted according to the type of streambank material (i.e. sand, gravel, cobble) and stratification of the streambank material to obtain an overall BEHI risk score (Total Score) that could potentially vary from 5 to 50.



The BEHI Total Score is converted to a qualitative rating which is descriptive of the streambank erosion risk, as listed below.

BEHI Total Score	BEHI Rating
5 – 9.5	Very Low
10 – 19.5	Low
20 – 29.5	Moderate
30 – 39.5	High
40 – 45	Very High
46 - 50	Extreme

Ref #1- Rosgen, D.L. 1996. Applied River Morphology. Wildland Hydrology. Pagosa Springs, CO.

Ref #2- Rosgen, D.L. 2001. A stream channel stability assessment methodology. pp. II 18-26 In Proceedings of the Seventh Federal Interagency Sedimentation Conference, Vol.2, March 25-29, 2001, Reno, NV.