

Erosion - Observations and Data

Erosion is a natural process. Even though plant roots in a riparian zone hold the soil, it is natural for portions of a healthy stream bank to erode a small amount each year due to the force of water flow during flood events. When sediment drops out of the water—is deposited—it creates rich soils that are an important part of a healthy riparian zone. Erosion is considered harmful when it destroys the stream bank, lowering water quality and reducing the amount of land available for wildlife habitat, livestock foraging, and other uses.¹ Follow the steps below to investigate erosion in the zone.

1. Standing at the 0 transect mark, look upstream and downstream. Use the first part of the data sheet below to guide your observations.
2. Next, look for evidence of erosion on the banks, such as exposed soils and disturbed areas. Start at the 0 transect mark and walk along the transect line. Survey the area within 10 m on either side of the line. Use a 10-m-long string to determine these limits.
3. Use the information on the second part of the data sheet (next page) to guide your survey. Record your data in the appropriate boxes.

Signs of Erosion in the Stream Data Sheet			
Is the stream clear or muddy?	Circle one Clear Muddy	If muddy, list possible causes.	
Are stream bars present?	Circle one	If yes, indicate location (how many meters from transect site 0?)	Source of excessive sedimentation (if evident)
	Yes		
	No		

¹ Adapted from *Montana Stream Management Guide for Landowners, Managers and Stream Users* (Montana Department of Environmental Quality, 1998)

Signs of Erosion on the Banks Data Sheet

Look for:	Where along transect? (Identify site in meters)	Description or sketch of erosion site	What do you think caused the erosion?
<p>Exposed soil Examples:</p> <ul style="list-style-type: none"> • Mud along stream bank • From construction or flood event 			
<p>Disturbed areas Examples:</p> <ul style="list-style-type: none"> • Trampling • Road construction • Agricultural activities 			
<p>Other evidence of erosion Examples:</p> <ul style="list-style-type: none"> • Runoff carrying sediment • Gullies cut in soil • Collapsing stream bank 			