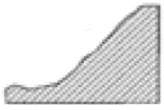
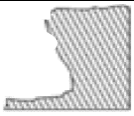
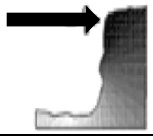
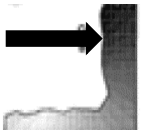
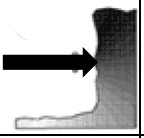
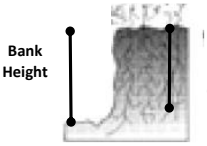
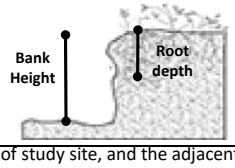
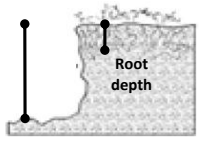
INSTABILITY ASSESSMENT RATING DATA SHEET

Location (Nearest Address or Coordinates) _____

Name and Affiliation of Inspector: _____

Date: _____

Photo(s): _____

	Category / Parameter / Measurement Method	Description of Bluff Condition			Rating (1, 2, or 3)
		Good (1)	Fair (2)	Poor (3)	
1	**Hydrology - Changes in Upland Runoff**	No recent alteration of upland area draining to study site. Drainage of bank has not been modified.	Minimal overland drainage changes upland from study site. Does not adversely affect hydrology or result in concentrated flow. No point discharge.	Surface drainage upland is discharging with an adverse affect to study site. Water is ponded above the bank. Seepage may be present.	
2	**Hydrology - Nature of Flow**	No apparent concentrated flow or channelized flow to study site from adjacent land use.	Some concentrated or channelized flow is directed to study site, causing point discharge. However, measures are in place to protect resources or discharge is limited.	Concentrated or channelized flow is heavy or results in a large point discharge observed at study site. No protection is in place.	
3	**Hydrology - Land Use**	Upland area is primarily native and undisturbed. Vegetated area is greater than 70% and is a mix of shrubs and trees. Trees larger than 12" diameter are at least 20 feet from top of bank.	Land development and/or active agricultural practices are occurring on less than 70% of the upland area. Vegetated area is between 20 and 70%. Trees larger than 12" diameter are between 5 and 20 feet from top of bank.	Upland is urban or primarily active agricultural practices (less than 30% is native or undisturbed). Vegetated area is less than 20%. Trees larger than 12" diameter are less than 5 feet from top of bank; tree roots may be exposed.	
4	**Hydrology - Distance to Roads**	No roads are on, or are within 20 feet of, the study site. No roads on or adjacent to site are proposed in 10 year plan.	No roads are on, or are within 20 feet of, the study site. No more than one major road on or adjacent are proposed in 10 year plan.	Roads are located on or adjacent to study site (less than 20 feet away) and/or multiple roads are proposed.	
5	**Hydrology - Seepage**	Upland runoff as a result of rainfall patterns, geology, and soils does not result in seepage in bank.	Upland runoff as a result of rainfall patterns, geology, and soils results in seepage in less than 10% of the bank area.	Upland runoff as a result of rainfall patterns, geology, and soils is creating seepage in more than 10% of the bank area.	
6	**Vegetation at Toe of Bluff** (strip = width of vegetation below highest annual tide line)	**Dense vegetation** >80% of contributing shoreline length has a strip >25 feet wide	**Average vegetation** 50 - 80% of contributing shoreline length has a strip >25 feet wide	**Low vegetation** <50% of contributing shoreline length has a strip >25 feet wide	
7	**Sediment Supply (Erosion)**	**Low soil erosion** Bank erosion shows no recent change or loss. Few runnels/gulleys are present on the bank face.	**Moderate soil erosion** Bank erosion is occurring: visual change and loss are observed. There are several runnels/gulleys on the bank face, all less than 6 inches deep.	**High soil erosion** Bank erosion is occurring with measurable change. There are numerous runnels/gulleys, or some that are more than 6 inches deep	
8	**Bank Slopes**	Slopes are between 3 and 8%. 	Slopes are between 8 and 20%. 	Slopes are 20% and greater or are undercut. 	
9	**Bank Height vs. High Tide Elevation**	High Tide Elevation is at or near Top of Bank 	High Tide Elevation is 1/3 below the Top of Bank 	High Tide Elevation is more than 1/3 below the Top of Bank 	
10	**Soil & Geology**	Bedrock and boulders make up the bank. Or, cohesive soil types (sand/gravel mix) mixed evenly.	No bedrock or boulders, cohesive soils (sand/gravel mix) are dominant and mixed equally. Clay to very stony sandy loam.	Soils are non-cohesive and/or highly stratified. Sand/gravel mix with larger percentage of sand, sandy loam, silt,	
11	**Bank Surface Protection (%)** = a visual assessment of the amount of bank composed of root material. Also referred to as "Root Density" **Ratio of Root Depth: Bank Height**	Surface Protection = 80 - 100% Root depth: Bank Height = 1.0 - 0.9 	Surface Protection = 55 - 79% Root depth:Bank Height = 0.5 - 0.89 	Surface Protection= < 55% Root depth:Bank Height = < 0.5 	
12	**Biology / Landscape Connectivity**	Shoreline of study site, and the adjacent area, have native bank and vegetation materials. No rip-rap or hardened structures installed.	Shoreline of study site, and the adjacent area, have native vegetation and bank materials but are impaired by invasives and/or have rip-rap or hardened structure installed.	Shoreline of study site and.or the adjacent area are hardened by a concrete headwall, or rip-rap or other structure. Limited vegetation present.	
				Total Rating (sum column):	

Images included in this form are adapted from graphics developed by David Rosgen in 1993 and presented on March 25, 2001 in "A Practical Method of Computing Streambank Erosion Rate" at the Federal Interagency Sedimentation Conference in Reno, NV.

This Instability Rating Form was developed for the Maine Coastal Program/Maine Department of Agriculture, Conservation and Forestry by the Cumberland County Soil and Water Conservation District. This work was supported by the National Oceanic and Atmospheric Administration (NOAA) Coastal Zone Management Cooperative Agreement #NA14NOS4190047 pursuant to the Coastal Zone Management Act of 1972 as amended. For more information about the Maine Geological Survey, contact mgs@maine.gov or 207-287-2801. For more information about the MCP, visit www.mainecoastalprogram.org or contact 207-287-2351.

Cumberland County Soil & Water Conservation District

maine Department of Agriculture Conservation & Forestry

Maine Coastal Program