

Coastal Stream Corridor and Habitat Assessment

Maryland Department of
Natural Resources



Based on Stream Corridor Assessment protocols developed by Kenneth Yetman, and EPA Rapid Bioassessment procedures, adapted by Amanda Sullivan and Alison Armocida, Maryland DNR.

Floodplain Vegetation



Good (4) Lots of plants, bushes and trees along banks and floodplain.



Fair (3) Some plants, bushes and trees along banks and floodplain.

Floodplain Vegetation



Marginal (2) Most trees and bushes gone. Vegetation is not in its natural state.



Poor (1) Very little plant life at all. Vegetation very disturbed and ecosystem is not functioning.

Channel Alteration



Good (4) Stream allowed to meander around rocks and wood and create its own sinuous channel.



Fair (3) Channel straightened in some places but most natural bends still present.

Channel Alteration



Marginal (2) Channel straightened almost entirely but still allowed to interact with the surrounding vegetation.



Poor (1) Channel straightened and separated from the surrounding vegetation by concrete or other hard structures.

Bottom Material



Good (4) Mix of small rocks, firm sand, and silt. Some vegetation or root mats present.



Fair (3) Mixture of soft sand, mud, or clay. Some vegetation or root mats present.

Bottom Material



Marginal (2) All mud or clay or sand bottom. No root mats or submerged aquatic vegetation.



Poor (1) A uniform bottom with all clay and silt or concrete and bedrock. No vegetation or root mats.

Erosion



Good (4) Banks of the stream are just slightly above the level of the water.



Fair (3) Banks slightly higher than the level of the water. May not be as connected to its floodplain as it should be.

Erosion



Marginal (2) High banks allow water to overflow onto the floodplain only rarely. Bank ecosystem somewhat separated from stream.



Poor (1) Banks too high for stream to be connected to its floodplain through flooding.

Attachment sites for Macroinvertebrates



Good (4) A wide variety and abundance of submerged structures in the stream. Plenty of leaf litter and wood as cover and attachment sites.



Fair (3) Some wood and leaf litter. Some submerged structures in the stream as attachment sites and cover.

Attachment sites for Macroinvertebrates



Marginal (2) No wood but some leaf litter present.



Poor (1) No rocks, wood, or leaf litter present. A barren stream bottom.

Shelter for Fish



Good (4) Lots of pools, wood, undercut banks, and hiding places present.



Fair (3) Some pools, wood, undercut banks, and hiding places present.

Shelter for Fish



Marginal (2) Few pools, wood, undercut banks or other cover.



Poor (1) No pools, wood, undercut banks, or hiding places.

Riparian Buffer



Good (4) More than 50 feet of trees and brushy vegetation extending out from EACH bank of the stream.



Fair (3) 20-50 feet of trees and brushy vegetation extending out from EACH bank of the stream – OR over 50 feet on one side of the stream.

Riparian Buffer



Marginal (2) 5-20 feet of trees and brushy vegetation extending out from EACH side of the stream. Or a wider stretch of trees set back on one side of the stream.



Poor (1) 0-5 feet of trees and brushy vegetation on each side of the stream.

Bank Stability



Good (4) Lots of roots and plants covering and stabilizing the bank all the way down to the water.



Fair (3) Roots and plants, covering 2/3 of the bank down to the level of the water.

Bank Stability



Marginal (2) Roots and plants going only 1/3 of the way down the vertical part of the bank or covering only 1/3 of the bank.



Poor (1) Steep banks of bare soil with no plants or roots.

Sediment Deposition along the stream bank



Good (4) Very little sand or other sediment visible above the water in the stream.



Fair (3) Sand or other sediment visible in small patches on the banks of the stream.

Sediment Deposition along the stream bank



Marginal (2) Sand and other sediment visible in beach-like areas at most bends in the stream and along about half of the stream banks.



Poor (1) Sand and other sediment visible along most of the stream banks and sometimes in patches visible above the water as islands in the stream.