WAVE Water Assessments by Volunteer Evaluators

Habitat Assessment (Short Form) Site Coordinates _____

1. Epifaunal Substrate/Available Cover:

A. Optimal: Greater than 70% of stable habitat with a mix of snags, submerged logs (not new fall), undercut banks cobbles etc…

B. Marginal: 20-70% of habitat stable. New fall present but not yet appropriate for aquatic organisms to use.

C. Poor: Less than 10% stable habitat, not a lot of variety of cover types, frequently disturbed.

2. Embeddedness:

A. Optimal: The surface of larger rocks such as gravel, cobble and boulders, are covered with 25% of fine sediment.

B. Marginal: The surface of larger rocks such as gravel, cobble and boulders, are covered with 25-75% of fine sediment.

C. Poor: The surface of larger rocks such as gravel, cobble and boulders are covered with 75% or greater of fine sediment.

3. Velocity/Depth Combinations

A. Optimal: All 4 velocity/depth combinations are present. (slow/deep, slow/shallow, fast/deep, fast/shallow)

B. Marginal: 2 or 3 of the velocity/depth combinations are present.

C. Poor: Dominated by 1 velocity/depth combination. (Usually slow and deep)

4. Sediment Deposition

A. Optimal: Very little deposition of fine material like sand or clay.

B. Marginal: Some deposition in pools, new bar development and between 5% and 50% of bottom of stream is affected by fine material

C. Poor: Heavy deposition of fine material like sand and clay, increased bar development, pools few or absent due to deposition.

5. Channel Flow Status

A. Optimal: Water reaches the base of both banks with minimal amount of stream channel exposed.

B. Marginal: The channel is filled with water between 25% and 75%.

C. Poor: Very little water in the stream channel, most of which is in the form of pools.

6. Channel Alteration

A. Optimal: No evidence of human influence in the straightening or deepening of the stream channel; stream allowed to meander in a normal pattern

B. Marginal: Some channelization or artificial materials present.

C. Poor: Banks shored with gabion or cement, evidence of stream channel alteration obvious.

7. Frequency of Riffles (Bends)

A. Optimal: Riffles are frequent throughout the sampling reach of the stream. There should be greater than 2 riffles in the sampling reach
B. Marginal: Riffles present but infrequent. If there are 2 or less riffles in the reach then it would be considered marginal.
C. Poor: Water is generally flat and there are no riffles or riffles are very small and shallow.

8. Bank Stability

Left	Right (facing downstream)	
A.	A.	Optimal: Banks stable with little evidence erosion or bank failure.
B.	B.	Marginal: Some sign of erosion present or possible.
C.	C.	Poor: Banks unstable, obvious erosion and bank sloughing.

9. Bank Vegetative Protection

Left	Right (facing downstream)	
A.	A.	Optimal: Greater than 90% of stream bank surfaces and immediate riparian zone covered in native vegetation such as trees, shrubs, grasses etc… Plants allowed to grow to natural height.
B.	B.	Marginal: 50-90% of stream bank covered with native vegetation. Some bare patches, non native plants or disturbance such as mowing present.
C.	C.	Poor: Less than 50% of stream bank and immediate riparian zone covered in vegetation, disruption obvious from mowing or grazing of animals.

10. Riparian Vegetation Zone Width

Left	Right (facing downstream)	
A.	A.	Optimal: Width of riparian zone that is naturally vegetated is greater the 18 meters. Human activities such as parking lots, agriculture, lawns and clear cuts do not impact this zone.
B.	B.	Marginal: Some signs of human activities and width of riparian zone that is naturally vegetated is between 6-18 meters.
C.	C.	Poor: Width of riparian zone that is naturally vegetated is less than 6 meters. There is little or no vegetation in this zone due to human activities.