Stream Habitat Assessment

Habitat assessments can be used to help determine the health of a river by examining the stream condition that make up aquatic habitat.

Stream: _____ Investigators_____

Stream Bed Substrate (*underlying layer*):

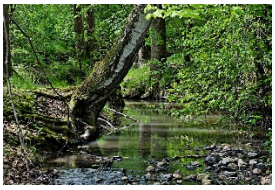
Larger sediment types (cobbles, gravels) support a wider variety of organisms than smaller sediment types (sands, silts). Check one of the following and circle the point score:

			
Silt	Sand	Gravel	Cobble

	Points:
Mixture of cobbles, gravels, and sand	3
Mixture of gravel and sand	2
Mostly sand and silt	1
Mostly silts	0

Stream Bank Stability:

Stream banks that are actively eroding generally have degraded habitats when compared to stable streams. Check one of the following and circle the point score:

		Points:
	Banks appear stable (no sign of erosion)	2
	Moderately stable banks (some areas of erosion visible)	1
	Unstable banks (lots of erosion present)	0

Depth and Velocity/Flow:

Looking at the stream (DO NOT GO INTO THE STREAM), make your best guess as to the depth of the deepest section of the river.

Deepest Pool is at Least?	**Points:**
Chest deep	3
Waist deep	2
Knee deep	1
Ankle deep	0

Flow Types?	**Points:**
Very fast (hard to stand	3
Fast (quickly takes objects downstream)	2
Moderate (slowly takes objects downstream)	1
Slow (hardly any flow)	0

Total: Pool depth + Flow type=_____

Stream Bank Cover:

Stream bank cover refers to any large items in the river that could provide habitat for fish or other aquatic animals. Check as many as you see and circle the point score:

	Points:
Rock ledges	1
Submerged logs, stumps, or tree roots	1
Large rocks	1
Man-made objects	1
Other_____	1

Assessment continues on the following pages….

Riparian/Streamside Vegetation:

The root systems of plants growing on stream banks help hold soil in place, thereby reducing the amount of erosion that is likely to occur. Check one of the following and circle the point score:

		Points:
	Mixture of trees, shrubs, and grasses	3
	Mixture of shrubs and grasses	2
	Mostly grasses	1
	No vegetation	0

Riparian Vegetation Zone Width:

A vegetation zone serves as a buffer (i.e., acts as filter) to pollutants entering a stream from runoff and helps to control erosion. Check one of the following and circle the point score:

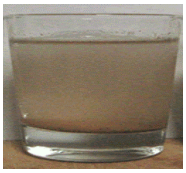
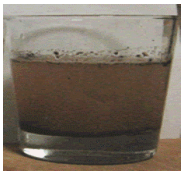
		Points:
	Buffer zone greater than 100 feet	3
	Buffer between 50-100 feet	2
	Buffer between 25-50 feet	1
	No buffer zone	0

Human Impacts

Streams can be polluted by point (direct such as a sewage pipe) or non-point (indirect such as rain water picking up fertilizer from corn fields and flowing into the stream) sources of pollution, poor development practices, or mismanaging forests and farms. Further, misuse, aquatic debris and the introduction of non-native and invasive species can affect the stream as well. While many impacts may be negative, some may be positive.

Trash	**Points:**
No trash present	3
Small amounts of trash present	2
Large amounts of trash present	1

Channel Alterations (man-made changes)	**Points:**
Channel has not been altered	3
Alterations on less than 25% of stream	2
Alterations on 40-90% of stream	1
More than 90% of stream altered	0

Water appearance	**Points:**
 Low turbidity	3
 Slightly murky	2
 High turbidity	1

Water Odor	**Points:**
No odor or minimal odor	3
Smells like rotten eggs/sewage/fishy	1

Number of discharge pipes	**Points:**
0	3
1 or more	1

Presence of Dams	**Points:**
No dam located upstream	3
1 or more dams located upstream	1

Trash _____
Channel Alterations _____
Water appearance _____
Water odor _____
Number of discharge pipes _____
Presence of dams _____
Total score for Human Impact: _____

Scoring: Add the scores for each section

Stream Bed Substrate _____
Stream Bank Stability _____
Depth and Velocity _____
Stream Bank Cover _____
Riparian Vegetation _____
Riparian Vegetative Zone Width _____
Human Impact _____
Total _____

Stream Habitat Assessment Rating: Circle the rating that applies to the total score.

Excellent: 36-20 **Good: 19-11** **Fair: 10-6** **Poor: 5-0**