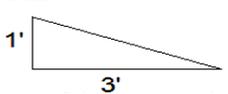
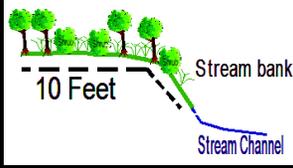


**Stream Habitat Visual Survey Data Sheet**

Stream Name and County:			Date:	
Evaluators:			River mile _____	
Evaluators:			Time:	
Site #	Downstream Coordinates: Lat.	Lon.	Total Score:	
<b>Habitat Parameter</b>	<i>Condition Category</i>			
While scoring all parameters adjust to low flow stream conditions. Survey length is 300 meters	<b>Optimal</b>	<b>Suboptimal</b>	<b>Marginal</b>	<b>Poor</b>
<b>1. Total Instream Fish Habitat</b> Note: Ex. of habitat: snags, logs, undercut banks or bridge abutments, boulder, stream bottom etc.	Greater than 70% of the stream has fish habitat present in favorable substrate (gravel, cobble, boulder)	40-70% of the stream has fish habitat present in favorable substrate (gravel, cobble, boulder)	20-40% of the stream has fish habitat present in favorable substrate (gravel, cobble, boulder)	Less than 20% of the stream has fish habitat present in favorable substrate (gravel, cobble, boulder)
<b>Score:</b>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
<b>2. Adult Instream Fish Habitat</b> Note: Ex. of habitat: snags, submerged logs, undercut banks or bridge abutments, boulder, etc.	Greater than 50% of the available stable habitat occurs in 12 inches or greater water depth.	30-50% of the available stable habitat occurs in 12 inches or greater water depth.	10-30% of the available stable habitat occurs in 12 inches or greater water depth.	Less than 10% of the available stable habitat occurs in 12 inches or greater water depth.
<b>Score:</b>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
<b>3. Embeddedness and Macroinvertebrate Colonization</b> Note: Evaluate in fastest moving water present.	Gravel, cobble and boulder particles are 0-25% surrounded by fine sediment and providing optimal diversity of niche space.	Gravel, cobble and boulder particles are 25-50% surrounded by fine sediment and still provides suboptimal diversity of niche spaces.	Gravel, cobble and boulder particles are 50-75% surrounded by fine sediment and provides marginal diversity of niche spaces.	Gravel, cobble and boulder particles are more than 75% surrounded by fine sediment and provides very little diversity of niche spaces.
<b>Score:</b>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
<b>4. Velocity/Depth Regime</b> Equal lengths of Riffle, Run, Pool, and Glide Note: Pool= > 18" depth Note: Slow is < 0.3 m/s	All four regimes present with a 1:1:1:1 ratio of: slow-deep (Pool), slow-shallow (Glide), fast-deep (Run), fast-shallow (Riffle)	Only 3 of 4 present or 1 regime is not proportionate of: slow-deep (Pool), slow-shallow (Glide), fast-deep (Run), fast-shallow (Riffle)	Only 2 of 4 present or 2 regimes are not proportionate of: slow-deep (Pool), slow-shallow (Glide), fast-deep (Run), fast-shallow (Riffle)	Only 1 regime prevalent of: slow-deep (Pool), slow-shallow (Glide), fast-deep (Run), fast-shallow (Riffle)
<b>Score:</b>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
<b>5. Channel Alteration</b> Note: Exclude habitat devices acting as streambank shoring structures	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization i.e., dredging or old dams (greater than past 20 years),but recent channelization is not present.	Channelization may be extensive; 40-80% of stream reach channelized and disrupted. Embankments or shoring structures present on both banks i.e. rip-rap, dikes	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.
<b>Score:</b>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
<b>6. Sediment Deposition: Island and Bar Formations</b> Note: Exclude habitat devices from increasing deposition along banks	Little or no enlargement of new islands or point bars and less than 20% of the bottom affected by deposition.	Some new increase in island formation or point bars; 20-50% of the bottom affected by slight deposition in pools.	Moderate deposition on old and new bars or islands; 50-80% of the bottom affected by moderate deposition in pools.	Heavy deposits of material, increased bar and island development; greater than 80% of the bottom affected by heavy deposition; pools filling in with sediment.
<b>Score:</b>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

Habitat Parameter	Condition Category											
	Optimal			Suboptimal			Marginal			Poor		
<b>7. Bank Stability</b>  Note: Determine left & right banks by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. Less than 5% of bank affected.			Moderately stable; infrequent, small areas of erosion mostly healed over. 5 – 30 % of bank in reach has areas of erosion.			Moderately unstable; 30 – 60 % of bank in reach has areas of erosion; high erosion potential during floods.			Unstable; many eroded areas; bare areas frequent along straight sections and bends; obvious bank sloughing; 60 – 100 % of bank has erosional scars.		
<b>Score (LB):</b>	10	9		8	7	6	5	4	3	2	1	0
<b>Score (RB):</b>	10	9		8	7	6	5	4	3	2	1	0
<b>8. Bank Slope and Connectivity to Flood Plain</b>   Note: a 3:1 slope or gradual incline is ideal for bank stability, vegetation, and flood plain access	Greater than 80% of the bank has a minimum of a 3:1 slope and high water flow has easy to no restrictions to access the flood plain.			80-50% of the bank has a minimum of a 3:1 slope and high water flow has moderate access to the flood plain.			50-30% of the bank has a minimum of a 3:1 slope and high water flow has limited access to the flood plain.			Less than 30% of the bank has a minimum of a 3:1 slope and high water flow has very limited to no access to the flood plain.		
<b>Score (LB):</b>	10	9		8	7	6	5	4	3	2	1	0
<b>Score (RB):</b>	10	9		8	7	6	5	4	3	2	1	0
<b>9. Immediate Riparian Zone and Vegetative Protection</b>  Note: Water's edge to the top of the bank and back 10 Feet  	Greater than 90% of the stream bank surfaces are covered by all three vegetation classes: non-woody plants, shrubs, and trees providing full canopy cover.			70 - 90% of the stream bank surfaces are covered by vegetation, but one plant class may not be represented or tree canopy is lacking			50 - 70% of the stream bank surfaces are covered by vegetation; patches of bare soil obvious; or two plant classes not represented and/or tree canopy is greatly lacking.			Less than 50% of the stream bank surfaces are covered by vegetation; disruption and bare soil is highly visible. Or very little to no tree canopy present.		
<b>Score (LB):</b>	10	9		8	7	6	5	4	3	2	1	0
<b>Score (RB):</b>	10	9		8	7	6	5	4	3	2	1	0
<b>10. Riparian Zone</b>  Note: Riparian zone = 4 times stream width but not > 18 meters (59')	Vegetative disruption is minimal or not evident; almost all plants allowed to grow naturally. Human or farming activities not evident.			Vegetative disruption is present by human or farming activities but not affecting full plant growth potential to any great extent.			Vegetative disruption is obvious by human or farming activities; plant growth is moderately affected or prohibited to grow naturally.			Vegetative disruption by human or farming activities has severely impacted plant growth resulting in little or none existing; impervious surface or bare soil is present.		
<b>Score (LB):</b>	10	9		8	7	6	5	4	3	2	1	0
<b>Score (RB):</b>	10	9		8	7	6	5	4	3	2	1	0
<b>Notes:</b>										<b>Optimal= 156-200</b>		
										<b>Suboptimal= 106-155</b>		
										<b>Marginal= 56-105</b>		
										<b>Poor= 0-55</b>		