## Stream Habitat Assessment Field Data Sheet – Rocky Bottom Sampling *(p 1 of 3)*

ALL of the following data sheets MUST be completed for the web host.

Date: Year _____ Month _____ Day_____ Time: Hour _____ Minute _____

Site ID #_____ Volunteer(s) ID #(s) _____ Recorder ID # _____

| Habitat Parameter | Category: Optimal | Suboptimal | Marginal | Poor |
|---|---|---|---|---|
| 1. Attachment Sites for Macro-invertebrates | Well-developed riffle and run; riffle is as wide as stream and length extends 2 times the width of stream; cobble predominates; boulders and gravel common. | Riffle is as wide as stream but length is less than 2 times width; cobble less abundant; boulders and gravel common. | Run area may be lacking; riffle not as wide as stream and length is less than 2 times the stream width; gravel or large boulders and bedrock prevalent; some cobble present. | Riffles or run virtually nonexistent; large boulders and bedrock prevalent; cobble lacking. |
| Score: | 20 19 18 17 16 | 15 14 13 12 11 | 10 9 8 7 6 | 5 4 3 2 1 |
| 2. Embedded-ness | Fine sediment surrounds and fills in 0-25% of the living spaces around and in between the gravel, cobble, and boulders. | Fine sediment surrounds and fills in 25-50% of the living spaces around and in between the gravel, cobble, and boulders. | Fine sediment surrounds and fills in 50-75% of the living spaces around and in between the gravel, cobble, and boulders. | Fine sediment surrounds and fills in more than 75% of the living spaces around and in between the gravel, cobble, and boulders. |
| Score: | 20 19 18 17 16 | 15 14 13 12 11 | 10 9 8 7 6 | 5 4 3 2 1 |
| 3. Shelter for Fish & Macro-invertebrates | Snags, submerged logs, undercut banks, cobble and large rocks, or other stable habitat are found in over 50% of the site. | Snags, submerged logs, undercut banks, cobble and large rocks or other stable habitat are found in over 30-50% of the site. | Snags, submerged logs, undercut banks, cobble and large rocks or other stable habitat are found in over 10-30% of the site. | Snags, submerged logs, undercut banks, cobble and large rocks, or other stable habitat are found in less than 10% of the site. |
| Score: | 20 19 18 17 16 | 15 14 13 12 11 | 10 9 8 7 6 | 5 4 3 2 1 |

Total _____ (1-3)

**Stream Habitat Assessment Field Data Sheet – Rocky Bottom Sampling** *(p 2 of 3)*

| Habitat Parameter | Category | | | |
|---|---|---|---|---|
| | Optimal | Suboptimal | Marginal | Poor |
| 4. Channel Alteration | Stream straightening, dredging, artificial embankments, dams or bridge abutments absent or minimal; stream with meandering pattern. | Some stream straightening, dredging, artificial embankments or dams usually in areas of bridge abutments; no evidence of recent channel alteration activity. | Artificial embankments present to some extent on both banks; at 40 to 80% of stream site straightened, dredging, or otherwise altered. | Banks shored with gabion or cement; over 80% of the stream site straightened and disrupted. |
| Score: | 20 19 18 17 16 | 15 14 13 12 11 | 10 9 8 7 6 | 5 4 3 2 1 0 |
| 5. Sediment Deposition | Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition. | Some new increase in bar formation, mostly from coarse gravel; 5-30% of the bottom affected; slight deposition in pools. | Moderate deposition of new gravel coarse sand on old and new bars; 30-50% of the bottom affected; sediment deposits at stream obstructions and bends; moderate deposition in pools. | Heavy deposits of fine material, increased bar development; more bottom affected; pools almost absent due to substantial sediment deposition. |
| Score: | 20 19 18 17 16 | 15 14 13 12 11 | 10 9 8 7 6 | 5 4 3 2 1 0 |
| 6. Stream Velocity & Depth Combinations | Slow (<1 ft/s)/deep (>1.5 ft); slow/shallow; fast/deep; fast/shallow combinations all present. | 3 of the 4 velocity/depth combinations are present; fast current areas generally dominate. | Only 2 or the 4 velocity/depth combinations present. Score lower if fast current areas missing. | Dominate by 1 velocity/depth category (usually slow/shallow areas). |
| Score: | 20 19 18 17 16 | 15 14 13 12 11 | 10 9 8 7 6 | 5 4 3 2 1 0 |
| 7. Channel Flow Status | Water reaches base of both lower banks and minimal amount of channel substrate is exposed. | Water fills >75% of the available channel; <25% of channel substrate is exposed. | Water fills 25-75% of the available channel and/or riffle substrates are mostly exposed. | Very little water in channel and mostly present as standing pools. |
| Score: | 20 19 18 17 16 | 15 14 13 12 11 | 10 9 8 7 6 | 5 4 3 2 1 0 |

Total_____ (4-7)

**Date** _____/_____/_____

**Site ID #** _____

**Stream Habitat Assessment Field Data Sheet – Rocky Bottom Sampling** *(p 3 of 3)*

| Habitat Parameter | Category | | | |
|---|---|---|---|---|
| | Optimal | Suboptimal | Marginal | Poor |
| 8. Bank Vegetative Protection<br><br>Note: determine left or right side by facing upstream<br><br>(score each bank) | More than 90% of streambank surfaces covered by natural vegetation, including trees, shrubs, or other plants; vegetative disruption, through grazing or mowing, minimal or not evident; almost all plants allowed to grow naturally. | 70-90% of the streambank surfaces covered by natural vegetation, but one class of plant is not well-represented; some vegetative disruption evident; more than one-half of the potential plant stubble remaining. | 50-70% of the streambank surfaces covered by vegetation; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining. | Less than 50% of the streambank surfaces covered by vegetation is very high; vegetation has been removed to 2 inches or less in average stubble height. |
| Score:<br>Score: | Left Bank 10 9<br>Right Bank 10 9 | 8 7 6<br>8 7 6 | 5 4 3<br>5 4 3 | 2 1 0<br>2 1 0 |
| 9. Condition of Banks<br><br>(score each bank) | Banks stable; no evidence of erosion or bank failure; little potential for future problems. | Moderately stable; infrequent, small areas of erosion mostly healed over. | Moderately unstable; up to 60% of banks in site have areas of erosion; high erosion potential during floods. | Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank collapse or failure; 60-100% of bank has erosional scars |
| Score:<br>Score: | Left Bank 10 9<br>Right Bank 10 9 | 8 7 6<br>8 7 6 | 5 4 3<br>5 4 3 | 2 1 0<br>2 1 0 |
| 10. Riparian Vegetative Zone Width<br><br>(score each bank riparian zone) | Width of riparian zone >50 feet; no evidence of human activities (i.e. parking lots, roadbeds, clear-cuts, mowed areas, or crops) within the riparian zone. | Width of riparian zone 35-40 feet; little evidence of human activities (i.e. parking lots, roadbeds, clear-cuts, mowed areas, or crops) within the riparian zone. | Width of riparian zone 20-35 feet; moderate evidence of human activities (i.e. parking lots, roadbeds, clear-cuts, mowed areas, or crops) within the riparian zone. | Width of riparian zone <20 feet; much evidence of human activities (i.e. parking lots, roadbeds, clear-cuts, mowed areas, or crops) within the riparian zone. |
| Score:<br>Score: | Left Bank 10 9<br>Right Bank 10 9 | 8 7 6<br>8 7 6 | 5 4 3<br>5 4 3 | 2 1 0<br>2 1 0 |

Total _____ (8-10)
Total _____ (1-3)
Total _____ (4-7)
_____ **Total (out of possible 200)**

**Date** _____/_____/_____
**Site ID #** _____