Low Gradient Habitat Assessment Datasheet v3.1

Station Visit Information

Locale Name:		Project:		Trip:		County:	
Station ID:		Loc. Desc.:				Visit Date:	
Field Lead:		Primary Bioregion:		Secondary Bioregion:		Visit Start Time:	
Team:		Stream Perm.	Eph | Int | Per	Stream Type (HW or WA):		Visit Finish Time:	

STATION POINT VERIFICATION

K-WADE Target Point		Field GPS Location		Nav. to Target Point Within GPS Error?	Target On Correct Stream?	Field GPS Error (m)	GPS Final	K-WADE Station Update	
Lat:								Staff:	
Long:				Y | N	Y | N			Date:	

WEATHER

Scouring Rain In Last 14 Days	Y | N
Now: Circle 1	HR | SR | IS CS | CO | SSH
Past 24hr:	HR | SR | IS CS | CO | SSH

Stream Shading

Leafed Out?	Y | N
General Shading (Circle 1)	Full | Partial | None

STREAM FLOW (Circle 1)

Dry | Pooled | Low
Seasonal Normal
Above Normal | Flood

INSTREAM FEATURES

Avgerage Wetted Width (m):	
Maximum Depth (m):	
Reach Length (m):	

RIFFLE/RUN/POOL SEQ.

# of riffles in reach	
# of runs in reach	
# of pools in reach	

LOCAL WATERSHED FEATURES (Major Land Use: Check all that are present)

Surface Mining		Construction		Pasture/Grazing	
Deep Mining		Commercial		Silviculture	
Oil Wells		Industrial		Urban Runoff	
Land Disposal		Row Crops		Storm Sewers	
Residential		Forest		Permitted Outfalls	

CHANNEL ALTERATIONS- Full, Partial or Not/None

Dredging:	F | P | N	Channelization:	F | P | N

RIPARIAN VEGETATION

Dom. Veg. Type:	Herbs | Grasses Shrubs | Trees	# of Strata:	
Dom. Taxa:			

HYDRAULIC STRUCTURES (Check all that are present)

Dams:		Bridge Abutments:		Fords:		Islands:		Waterfalls:		Berms:	

FIELD METER DATA

Temp (oC):		DO (mg/l):		DO %Sat:		pH (SU):		Sp. Cond (µS/cm):		Discharge CFS | Uncert.	

FIELD ACTIVITIES

Activity Completed?		Collectors	Collection Information (Check all that apply and/or enter/circle necessary information)							
Algae:			QualMHC:		Visual Form:		R4MULTI:		Other:	
Fish:			Equip:	BPEF | Seine | Barge	EF Seconds:		Seine Minutes:			
Habitat:			Habitat data other than RBP?							
Invertebrate:			1m2 riffle + MH:		MACS 20-Jab:		Other:			
Multihabs Sampled Y/N or # Jabs	Undercuts/Roots: | Snags/Woody Dedris: | Leaf Packs: | Emergent Veg: | Supplemental: Bedrock/Hardpan: | Cobble/Gravel: | Silt/Sand/Fine Gravel: | Wood Sample: |									
Chemistry:			H_2SO_4 Lot #:				HNO_3 Lot #:			
Multi-Probe:			Inst. ID:				Cal. Date:			
Discharge:			Inst. ID:				Beam Check:			
Other:			Other Desc:							

SUBSTRATE CHARACTERIZATION

Substrate Category	% Riffle:		% Run:		% Pool:		Reach Total
Silt/Clay (<0.06 mm)							
Sand (0.06 – 2 mm)							
Gravel (2-64 mm)							
Cobble (64 – 256 mm)							
Boulders (>256 mm)							
Bedrock/Hardpan Clay							

Site Not Sampled (Reason) - Please Add Comments

Land Owner Denial
Too Deep/Impounded
Site Not Found
Unsafe
Dry
Other (See Comments)

Reach Location Description:		Weather Choices:	HR = Heavy Rain | SR = Steady Rain IS = Intermittent Showers | CS = Clear Sunny CO = Cloudy Overcast | SSH = Snow Sleet
Initial Data Review By:		Initial Data Review Date:	Date Entered:

Habitat Parameter	Condition Category			
	Optimal	Suboptimal	Marginal	Poor
SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
1. Epifaunal Substrate/ Available Cover Score	Greater than 50% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new and transient).	30-50% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of new fall, but not yet prepared for colonization (may rate at high end of scale).	10-30% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 10% stable habitat; lack of habitat is obvious; substrate unstable or lacking.
2. Pool Substrate Characterization Score	Mixture of substrate materials, with gravel and firm sand prevalent; root mats and submerged vegetation common.	Mixture of soft sand, mud, or clay; mud may be dominant; some root mats and submerged vegetation present.	All mud or clay or sand bottom; little or no root mat; no submerged vegetation.	Hard-pan clay or bedrock; no root mat or vegetation.
Pool Variability Score	Even mix of large-shallow, large-deep, small-shallow, small-deep pools present.	Majority of pools large-deep; very few shallow.	Shallow pools much more prevalent than deep pools.	Majority of pools small-shallow or pools absent.
4. Sediment Deposition Score	Little or no enlargement of islands or point bars and less than 20% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 20-50% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 50-80% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; 80% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
5. Channel Flow Status Score	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <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.
6. Channel Alteration Score	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, (greater than past 20 yr.) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.
7. Channel Sinuosity Score	The bends in the stream increase the stream length 3 to 4 times longer than if it was in a straight line. (Note - channel braiding is considered normal in coastal plains and other low-lying areas. This parameter is not easily rated in these areas.	The bends in the stream increase the stream length 2 to 3 times longer than if it was in a straight line	The bends in the stream increase the stream length 2 to 1 times longer than if it was in a straight line.	Channel straight; waterway has been channelized for a long distance.
Left/Right Bank	10 9	8 7 6	5 4 3	2 1 0
8. Bank Stability LB RB	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <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; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.
9. Vegetative Protection LB RB	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; 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 native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; 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; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
10. Riparian Vegetative Zone Width LB RB	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.

Total Score:

Notes/Comments:

General Notes:

Sediment Notes: