

Low Gradient Habitat Assessment Datasheet v3.1																		Page 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														WEATHER									
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		Scouring Rain In Last 14 Days		Y N							
Lat:												Staff:				Now: Circle 1		HR SR IS CS CO SSH					
Long:				Y N		Y N						Date:				Past 24hr:		HR SR IS CS CO SSH					
Stream Shading			STREAM FLOW (Circle 1)					INSTREAM FEATURES					RIFFLE/RUN/POOL SEQ.										
Leafed Out?			Y N			Dry Pooled Low Seasonal Normal Above Normal Flood					Average Wetted Width (m):					# of riffles in reach							
General Shading (Circle 1)			Full Partial None								Maximum Depth (m):					# of runs in reach							
											Reach Length (m):					# of pools in reach							
LOCAL WATERSHED FEATURES (Major Land Use: Check all that are present)										CHANNEL ALTERATIONS- Full, Partial or Not/None													
Surface Mining				Construction				Pasture/Grazing				Dredging:		F P N		Channelization:		F P N					
Deep Mining				Commercial				Silviculture				RIPARIAN VEGETATION											
Oil Wells				Industrial				Urban Runoff				Dom. Veg. Type:		Herbs Grasses Shrubs Trees		# of Strata:							
Land Disposal				Row Crops				Storm Sewers				Dom. Taxa:											
Residential				Forest				Permitted Outfalls															
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:								QualIMHC:				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: Bedrock/Hardpan:			Snags/Woody Dedris: Cobble/Gravel:			Leaf Packs: Silt/Sand/Fine Gravel:			Emergent Veg: Wood Sample:			Supplemental:						
Chemistry:								H2SO4 Lot #:				HNO3 Lot #:											
Multi-Probe:								Inst. ID:				Cal. Date:											
Discharge:								Inst. ID:				Beam Check:											
Other:								Other Desc:															
SUBSTRATE CHARACTERIZATION														Site Not Sampled (Reason) - Please Add Comments Land Owner Denial Too Deep/Impounded Site Not Found Unsafe Dry Other (See Comments)									
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																							
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					
	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	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 <u>not</u> 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.					
Score																					
2. Pool Substrate Characterization	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.					
Score																					
Pool Variability	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.					
Score																					
4. Sediment Deposition	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.					
Score																					
5. 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; 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.					
Score																					
6. Channel Alteration	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.					
Score																					
7. Channel Sinuosity	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.					
Score																					
Left/Right Bank	10 9					8 7 6					5 4 3					2 1 0					
8. Bank Stability	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.					
LB																					
RB																					
9. Vegetative Protection	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.					
LB																					
RB																					
10. Riparian Vegetative Zone Width	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.					
LB																					
RB																					
Total Score:	Notes/Comments:																				
General Notes:																					
Sediment Notes:																					