#### Habitat Assessment

\* Recommended frequency – yearly \*
\* Photographic documentation is recommended and strongly encouraged \*

Date		Time# of Adults (including you)					
IDAH₂O Monitor# Site Number							
				# of und	ler 18		
Other Volunteers Invo							
Site Description							
Was the stream dry w	<u> </u>		No				
Stream Habitat Type (	at transect – check one): R	iffle	Run		Pool	Glide	
Pebble Count Survey (	( <b>Wolman 1954)</b> (at transect	:)					
Size class	Dimension	In wette	i	Out wet	ted		
Silt/Clay	0 – 1 mm				_		
Sand	1.1 – 2.5 mm						
Very fine pebble	2.51 – 6 mm						
Pebble	6.1 – 15 mm						
Coarse pebble	15.1 – 31 mm						
Very coarse pebble	31.1 – 64 mm				=		
Small cobble	64.1 – 128 mm				=		
Large cobble	128 <b>.</b> 1 – 256 mm				=		
Small boulder	256.1 – 512 mm				_		
Medium boulder	512.1 – 1024 mm				_		
Large boulder	1024 mm and larger				_ Т	OTAL	
Embeddedness (% sub	strate embeddedness):		<u>//</u>				
<b>Stream Banks</b> (at tran	sect – check all that apply)						
<b>Left Bank</b> (facing upst	ream)	I	Right B	<b>ank</b> (facir	ng upstrear	n)	
Cut Bank – Er	oding	-	Cut Bank – Eroding				
Cut Bank – Vegetated		=	Cut Bank – Vegetated				
Sloping Bank		-	Sloping Bank				
Sand/Gravel Bar		=	Sand/Gravel Bar				
Rip/Rap		-		Rip/Rap			
Constructed E	Bank (i.e., drainage ditch)	-		Constructed Bank (i.e., drainage ditch)			
Other:	=		_Other: _				

	):		
Left Bank (facing upstream)	Right Bank (facing upstream)		
Covered stable	Covered stable		
Covered unstable	Covered unstable		
Uncovered stable	Uncovered stable		
Uncovered unstable	Uncovered unstable		
Channel Shape (at transect, check one for each bank)	):		
<b>Left Bank</b> (facing upstream)	Right Bank (facing upstream)		
Trapezoidal /\	Trapezoidal /\		
Rectangular	Rectangular		
Inverse trapezoidal \/	Inverse trapezoidal \/		
Canopy Cover (over transect – check one): 0-25%	25-50%50-75%75-100%		
Riparian Zone Width (at transect – check one for eac	h bank)		
Left Bank (facing upstream)	Right Bank (facing upstream)		
o – 5 meters	o – 5 meters		
5 – 25 meters	E as motors		
	5 – 25 meters		
Over 25 meters	Over 25 meters		
	Over 25 meters		
Over 25 meters	Over 25 meters		
Over 25 meters  Riparian Zone Plant Cover (at transect – estimate pe  Left Bank (facing upstream)	Over 25 meters rcentage of each)		
Over 25 meters  Riparian Zone Plant Cover (at transect – estimate pe  Left Bank (facing upstream) % Trees	Over 25 meters  rcentage of each)  Right Bank (facing upstream)		
Over 25 meters  Riparian Zone Plant Cover (at transect – estimate pe  Left Bank (facing upstream) % Trees% Shrubs / Low Trees	Over 25 meters  rcentage of each)  Right Bank (facing upstream) % Trees		
Over 25 meters  Riparian Zone Plant Cover (at transect – estimate pe  Left Bank (facing upstream) % Trees % Shrubs / Low Trees % Grass / Low Plants	Over 25 meters  rcentage of each)  Right Bank (facing upstream) % Trees % Shrubs / Low Trees		
Over 25 meters  Riparian Zone Plant Cover (at transect – estimate pe  Left Bank (facing upstream) % Trees % Shrubs / Low Trees	Over 25 meters  rcentage of each)  Right Bank (facing upstream) % Trees % Shrubs / Low Trees % Grass / Low Plants		

	ach – check all that apply)	
Row Crop	Park	Stairs/Walkway
Pasture	Playground	Rural Residential
Urban	Campground	Conservation Lands
Industrial	Boating Accesses	Animal Feeding
Timber	Nature Trails	Operations/Lots
Wetland	Fence	Other
Prairie	Steep Slopes	
<b>Nicrohabitats</b> (check all present in s	tream reach)	
Algae Mats	Sand	Undercut Banks
Large organic debris	Junk (tires, etc.)	Rip Rap
Root Wads	Leaf Packs	Overhanging Vegetation
Fallen Trees	Rocks	Other (describe)
Silt/Muck	Weed Beds	
luman Use Activities (along stream	reach – check all that apply)	
lease check activities you've partici <sub>l</sub>	oated in or witnessed at this site.	
Swimming	Canoeing/Kayaking	Hunting/Trapping
Tubing	Boating	Fishing
Water Skiing	Wading	Kids Playing
Wind Surfing	Rafting	Other
vidence of Human Use (along stree	am reach – check all that apply)	
lease check evidence of human use	you've witnessed at this site.	
Streamside Roads	ATV/ORV Tracks	Fishing Tackle
Footprints or Paths	Rope Swings	Evidence of Play
Dock/Platform	Camping Sites	Other
	Fire Pit/Ring	

# Physical/ Chemical Assessment

\* Recommended frequency – sample monthly at transect \*

Date	Time					
IDAH₂O Monitor #	# of Adults (including you)					
Site Number	# of under 18					
Other Volunteers Involved						
Site Description						
Was the stream dry when it was monitored? Yes	No					
Weather (check all that apply)						
Sunny Partly Sunny Cloudy Rain/Sno	w Windy Calm					
Air Temperature °Fahrenheit Precipitation in	iches over the last 24 hours					
Water Color (check all that apply)						
Clear Brown Green Oily Reddish	Blackish Milky Gray					
Water Odor (check all that apply)						
None Sewage/Manure Rotten Eggs	Petroleum Musky					
Water Temperature °Fahrenheit						
<b>Transparency</b> (record whole numbers only – no tenths) c	:entimeters					
<b>pH</b> Expiration date on bottom of bottle						
check one – 4 5 6 7 8 9						
<b>Dissolved Oxygen (</b> mg/L <b>)</b> Expiration date on back of color compar	rator					
check one – 1 2 3 4 5 6 8 10 12						
Chloride (optional) Expiration date on bottom of bottle						
mall - Convert Quantab Units to mall using the chart r	provided on the bottle					

Stream Width		
mete	ers	
Stream Flow (	along your transect)	
high	normal low	not sure
	Stream Depth (in mete	ers) Stream Velocity (in seconds)
1st Spot	·	·
2nd Spot	·	
3rd Spot		·
4th Spot		·
5th Spot	·	·
6th Spot	·	·
7th Spot	·	·
8h Spot	·	·
9th Spot	•	·
10th Spot	·	·
Maximum Stre	eam Depth (along your tra	nsect)
m	eters	
Other Stream A	Assessment Observation:	s and Notes

### Biological Assessment

\* Recommended frequency – no more than three times/year (Spring, Summer and Fall) \*

Date		Time			
IDAH <sub>2</sub> O Monitor #		# of Ad	ults (including you) _		
Site Number		# of under 18			
Other Volunteers Involved					
Was the stream dry when it was moni	tored? Yes	No			
Were Benthic Macroinvertebrates Four relevant comments in the "Other Assess you think critters are not present here?"	sment Observations ar				
Benti	nic Macroinvertebrate	es (check all four	nd)		
High Quality Group	Crawling Water	Beetle	Low Quality Gro	oup	
(pollution intolerant)	Damselfly		(pollution tolera	ınt)	
Caddisfly	Dragonfly		Aquatic Wo	rm	
Dobsonfly	Giant Water Bug	5	Black Fly		
Mayfly	Limpet		Bloodworm		
Riffle Beetle	Mussels/Clams		Flatworm		
Snail (not pouch)	Orbsnail		Leech		
Stonefly	Predaceous Divi	ng Beetle	Midge Fly		
Water Penny Beetle	Scud		Mosquito		
Middle Quality Group	Sowbug		Pouch Snail		
(somewhat pollution tolerant)	Water Boatman		Rat-tailed <i>N</i>	laggot	
Alderfly	Water Mite		Water Scave	enger Beetle	
Backswimmer	Water Scorpion		Other		
Crane Fly	Water Strider		(no tolerance gr	oup assigned)	
Crawdad	Whirligig Beetle				
Benthic Macroinvertebrate Collection	Time (check one)				
0 – 15 min 15 – 30 min	30 – 45 m	in	More than 45 min.		
Collection Nets (How many nets are yo	u using to collect critte	ers?)			
12345_	6+				
Stream Reach Length (How far along the	he stream did you sear	ch?)			
0 – 25 meters 25 – 50 m	neters 50 – 75 I	meters7	5 – 100 meters _	100+ meters	

Microhabitats (c	heck all present ir	stream reach, check if sampled)		
Algae Mats	Present	Sampled		
Logjams	Present	Sampled		
Root Wads	Present	Sampled		
Fallen Trees	Present	Sampled		
Silt/Muck	Present	Sampled		
Sand	Present	Sampled		
Junk (tires, garbage, etc.)				
	Present	Sampled		
Leaf Packs	Present	Sampled		
Rocks	Present	Sampled		
Weed Beds	Present	Sampled		
<b>Undercut Banks</b>	Present	Sampled		
Rip Rap	Present	Sampled		
Overhanging Vegetation				
	Present	Sampled		

Other (describe	e) Present	Sampled			
Stream Habita	<b>t Type</b> (check all	types sampled in s	tream reach)		
Riffle	Run	Glide	Pool		
Aquatic Plant (	Cover of Streamb	<b>oed</b> (at transect – d	theck one)		
0 – 25%	25 – 50%	50 – 75%	75 – 100%		
Algae Cover of	Stream Streaml	<b>oed</b> (at transect – d	check one)		
0 – 25%	25 – 50%	50 – 75%	75 – 100%		
	nent Observation				
Are there any	fish or sign of fis	h present?			

### Standing Water Assessment

\* Recommended frequency – monthly from ice-out to freeze-over \*

Date	Time			
IDAH₂O Monitor #	# of Adults (including you)			
Site Number	# of under 18			
Other Volunteers Involved				
Site Description				
Site Location Open Water Shore o	or Dock			
PHYSICAL ASSESSMENT				
Weather (check all that apply)				
SunnyPartly Sunny Cloudy	Rain/Snow Windy Calm			
Air Temperature °Fahrenheit Pre	cipitation inches over the last 24 hours			
Wind Direction (check one) Not applicable	le Wind Speed (check one)			
North	Calm (o-5 mph, felt on face, leaves rustle)			
South	Breezy (sustained 5-15 mph, small branches move)			
East	Gusty (15 + mph, small trees sway occasionally)			
West	Strong (sustained over 15 mph, small trees sway			
Northeast	continuously, waves form)			
Northwest				
Southeast				
Southwest				
Sasshi Disa Danth motors OD	Transparency Tube cm (record whole numbers only)			
	<b>Transparency Tube</b> cm (record whole numbers only)			
Water Temperature °Fahrenheit	Named Balan Named			
Water Level (check one) Above Normal I	Normai Below Normai			
Inches above or below normal				
Water Odor (check all that apply)				
None Sewage/Manure Rotten Eggs	Petroleum Fishy			

# **CHEMICAL ASSESSMENT** IMPORTANT: Use point sampling technique! **pH** Expiration date on bottom of bottle \_\_\_\_\_ check one – 4 \_\_\_\_ 5 \_\_\_ 6 \_\_\_ 7 \_\_\_ 8 \_\_\_ 9 \_\_\_\_ **Dissolved Oxygen (***mg/L***)** Expiration date on back of color comparator check one – 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 \_\_\_ 6 \_\_\_ 8 \_\_\_ 10 \_\_\_ 12 \_\_\_ Chloride Expiration date on bottom of bottle \_\_\_\_\_ mg/L – Convert Quantab Units to mg/L using the chart provided on the bottle **BIOLOGICAL ASSESSMENT** Water Color – Is there an obvious algal bloom? (algal mats present, water appears green or scummy) \_\_\_\_ No \_\_\_\_ Yes (if yes, please submit a photo record) BENTHIC MACROINVERTEBRATE ASSESSMENT – Use the Biological Assessment Form to record benthic data. **HABITAT ASSESSMENT** \* Conduct only once per year, preferably in July, or if a major land use change occurs \* Describe Lake Banks \_\_\_\_\_ Describe Adjacent Land Use \_\_\_\_\_ Other Observations and Notes \_\_\_\_\_