

2014 MBSS Summer Habitat Assessment Training



Hood College
May 27, 2014

MBSS Summer Habitat

Why characterize habitat in summer?

- Relationship between community diversity and habitat diversity
- Commonly thought to be primary limiting factor to fish in eastern streams



MBSS Summer Habitat

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SITE Watershed Code Segment Type Year Reviewer: First / Second

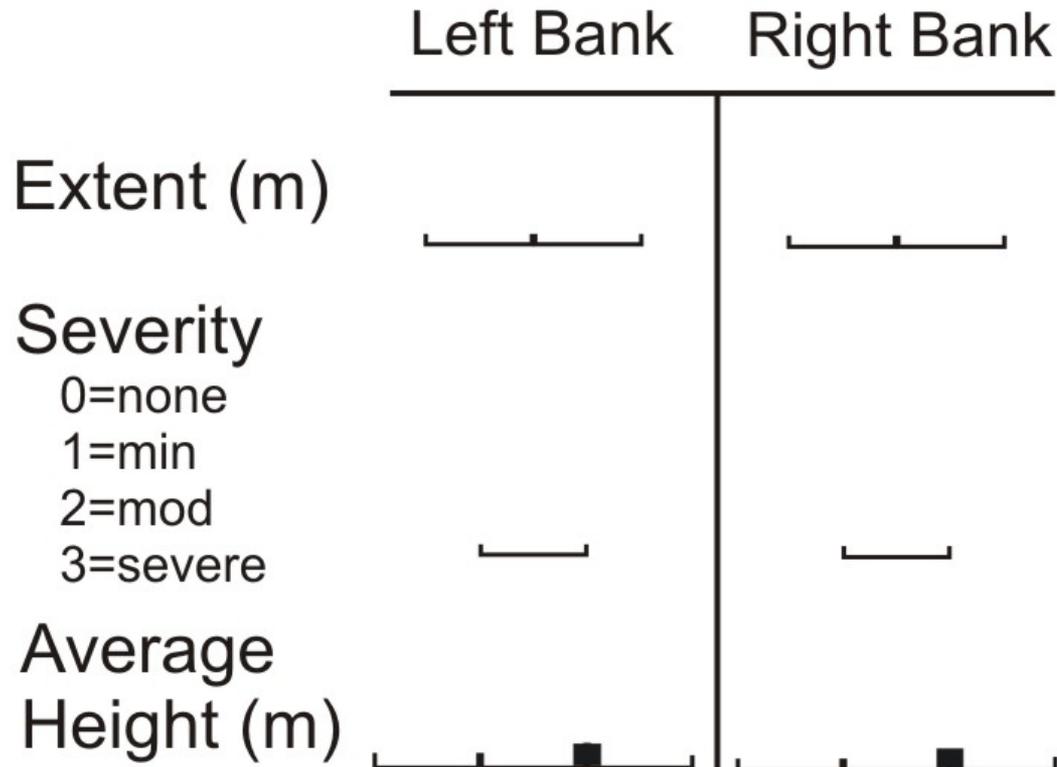
BANK EROSION Left Bank Right Bank Extent (m) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Severity <input type="text"/> 0 = none 1 = min 2 = mod 3 = severe Average Height (m) <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	HABITAT ASSESSMENT 1. Instream Habitat (0-20)..... <input type="text"/> 2. Epifaunal Substrate (0-20)..... <input type="text"/> 3. Velocity/Depth Diversity (0-20)..... <input type="text"/> 4. Pool/Glide/Eddy Quality (0-20)..... <input type="text"/> Extent (m)..... <input type="text"/> 5. Riffle/Run Quality (0-20)..... <input type="text"/> Extent (m)..... <input type="text"/> 6. Embeddedness (%)..... <input type="text"/> 7. Shading (%)..... <input type="text"/>	FLOW Lat. Loc. (m) Depth (cm) Velocity (m/s) 0 0 0 0 0 0 0 0 0 0 0		
		BAR FORMATION & SUBSTRATE Severity <input type="text"/> 0 = none 1 = min 2 = mod 3 = severe <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input type="checkbox"/> Silt/Clay		
STREAM CHARACTER <input type="checkbox"/> Braided <input type="checkbox"/> Gravel <input type="checkbox"/> Boulder >2m <input type="checkbox"/> Riffle <input type="checkbox"/> Sand <input type="checkbox"/> Boulder <2m <input type="checkbox"/> Run/Glide <input type="checkbox"/> Silt/Clay <input type="checkbox"/> Beaver Pond <input type="checkbox"/> Deep Pool (>= 0.5m) <input type="checkbox"/> Cobble <input type="checkbox"/> Overhead Cover <input type="checkbox"/> Shallow Pool (< 0.5m) <input type="checkbox"/> Bedrock <input type="checkbox"/> Undercut Bank <input type="checkbox"/> Orange Floc A = Absent P = Present E = Extensive				
Woody Debris <input type="text"/> No. of Instream Woody Debris <input type="text"/> No. of Dewatered Woody Debris <input type="text"/> No. of Instream Rootwads <input type="text"/> No. of Dewatered Rootwads	Maximum Depth (cm) Wetted Width (m) <input type="text"/> Thalweg Depth (cm) <input type="text"/> Thalweg Velocity (m/s) <input type="text"/> <input type="text"/> <input type="text"/>	Alternative Flow Measurements Distance (cm) <input type="text"/> Depth (cm) <input type="text"/> Width (cm) <input type="text"/> Time (sec) 1. <input type="text"/> 2. <input type="text"/> 3. <input type="text"/>		
COMMENTS: _____ _____ _____				

MBSS Summer Habitat Data Sheet

- **Bank Erosion**
- Bar Formation
- Habitat Assessment
- Stream Character
- Woody Debris
- Transect Measurements
- Stream Flow

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BANK EROSION



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No bank erosion

Extent = 0

Severity = 0 (none)

Average Height = 0

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Minimum bank erosion

Extent = 10 m

Severity = 1

Average Height = 0.2 m

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Moderate bank erosion

Extent = 40 m

Severity = 2

Average Height = 0.6 m

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Severe bank erosion

Extent = 75 m

Severity = 3

Average Height = 2 m



BAR FORMATION & SUBSTRATE

Severity 0=none 1=min 2=mod 3=extensive	┌───┐	<input type="checkbox"/>	Cobble
		<input type="checkbox"/>	Gravel
		<input type="checkbox"/>	Sand
		<input type="checkbox"/>	Silt/Clay

Characterize most dominant substrate type

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Bar Formation = None

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Bar Formation = Minor
(Sand, Gravel)

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Bar Formation = Moderate
(Sand, Silt/Clay)

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Bar Formation = Extensive
(Cobble, Gravel, Sand, Silt/Clay)

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SITE Watershed Code Segment Type Year Reviewer: First / Second

BANK EROSION		HABITAT ASSESSMENT	FLOW		
Left Bank	Right Bank		Lat. Loc. (m)	Depth (cm)	Velocity (m/s)
Extent (m)	<input type="text"/>	1. Instream Habitat (0-20).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
Severity	<input type="text"/>	2. Epifaunal Substrate (0-20).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Height (m)	<input type="text"/>	3. Velocity/Depth Diversity (0-20).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
		4. Pool/Glide/Eddy Quality (0-20).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Extent (m).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
		5. Riffle/Run Quality (0-20).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Extent (m).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
		6. Embeddedness (%).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
		7. Shading (%).....	<input type="text"/>	<input type="text"/>	<input type="text"/>

BAR FORMATION & SUBSTRATE

Severity: 0 = none, 1 = min, 2 = mod, 3 = severe

Cobble, Gravel, Sand, Silt/Clay

STREAM CHARACTER

Braided, Riffle, Run/Glide, Deep Pool (>= 0.5m), Shallow Pool (< 0.5m), Gravel, Sand, Silt/Clay, Cobble, Bedrock, Boulder >2m, Boulder <2m, Beaver Pond, Overhead Cover, Undercut Bank, Orange Floe

A = Absent, P = Present, E = Extensive

Woody Debris

No. of Instream Woody Debris, No. of Dewatered Woody Debris, No. of Instream Rootwads, No. of Dewatered Rootwads

Maximum Depth (cm)

Wetted Width (m), Thalweg Depth (cm), Thalweg Velocity (m/s)

Alternative Flow Measurements

Distance (cm), Depth (cm), Width (cm), Time (sec) 1, 2, 3

COMMENTS:

MBSS Summer Habitat Data Sheet

- Bank Erosion
- Bar Formation
- **Habitat Assessment**
- Stream Character
- Woody Debris
- Transect Measurements
- Stream Flow

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HABITAT ASSESSMENT			
1. Instream Habitat (0-20).....	<input type="text"/>	<input type="text"/>	
2. Epifaunal Substrate (0-20).....	<input type="text"/>	<input type="text"/>	
3. Velocity/Depth Diversity (0-20).....	<input type="text"/>	<input type="text"/>	
4. Pool/Glide/Eddy Quality (0-20).....	<input type="text"/>	<input type="text"/>	
Extent (m).....	<input type="text"/>	<input type="text"/>	
5. Riffle/Run Quality (0-20).....	<input type="text"/>	<input type="text"/>	
Extent (m).....	<input type="text"/>	<input type="text"/>	
6. Embeddedness (%).....	<input type="text"/>	<input type="text"/>	<input type="text"/>
7. Shading (%).....	<input type="text"/>	<input type="text"/>	<input type="text"/>

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MBSS Stream Habitat Assessment Guidance Sheet				
Habitat Parameter	Optimal 16-20	Sub-Optimal 11-15	Marginal 6-10	Poor 0-5
1. Instream Habitat ^(a)	Greater than 50% of a variety of cobble, boulder, submerged logs, undercut banks, snags, rootwads, aquatic plants, or other stable habitat	30-50% of stable habitat. Adequate habitat	10-30% mix of stable habitat. Habitat availability less than desirable	Less than 10% stable habitat. Lack of habitat is obvious
2. Epifaunal Substrate ^(b)	Preferred substrate abundant, stable, and at full colonization potential (riffles well developed and dominated by cobble; and/or woody debris prevalent, not new, and not transient)	Abund. of cobble with gravel &/or boulders common; or woody debris, aquatic veg., undercut banks, or other productive surfaces common but not prevalent /suited for full colonization	Large boulders and/or bedrock prevalent; cobble, woody debris, or other preferred surfaces uncommon	Stable substrate lacking; or particles are over 75% surrounded by fine sediment or flocculent material
3. Velocity/Depth Diversity ^(c)	Slow (<0.3 m/s), deep (>0.5 m); slow, shallow (<0.5 m); fast (>0.3 m/s), deep; fast, shallow habitats all present	Only 3 of the 4 habitat categories present	Only 2 of the 4 habitat categories present	Dominated by 1 velocity/depth category (usually pools)
4. Pool/Glide/Eddy Quality ^(d)	Complex cover &/or depth > 1.5 m; both deep (> .5 m)/shallows (< .2 m) present	Deep (>0.5 m) areas present; but only moderate cover	Shallows (<0.2 m) prevalent in pool/glide/eddy habitat; little cover	Max depth <0.2 m in pool/glide/eddy habitat; or absent completely
5. Riffle/Run Quality ^(e)	Riffle/run depth generally >10 cm, with maximum depth greater than 50 cm (maximum score); substrate stable (e.g. cobble, boulder) & variety of current velocities	Riffle/run depth generally 5-10 cm, variety of current velocities	Riffle/run depth generally 1-5 cm; primarily a single current velocity	Riffle/run depth < 1 cm; or riffle/run substrates concreted
6. Embeddedness ^(f)	Percentage that gravel, cobble, and boulder particles are surrounded by line sediment or flocculent material.			
7. Shading ^(g)	Percentage of segment that is shaded (duration is considered in scoring). 0% = fully exposed to sunlight all day in summer; 100% = fully and densely shaded all day in summer			
8. Trash Rating ^(h)	Little or no human refuse visible from stream channel or riparian zone	Refuse present in minor amounts	Refuse present in moderate amounts	Refuse abundant and unsightly

Instream Habitat - Habitat quality as it relates to fish

Habitat Parameter	Optimal 16-20	Sub-Optimal 11-15	Marginal 6-10	Poor 0-5
1. Instream Habitat ^(a)	Greater than 50% of a variety of cobble, boulder, submerged logs, undercut banks, snags, rootwads, aquatic plants, or other stable habitat	30-50% of stable habitat. Adequate habitat	10-30% mix of stable habitat. Habitat availability less than desirable	Less than 10% stable habitat. Lack of habitat is obvious

Instream Habitat



**Optimal
16-20**

Greater than 50% of a variety of cobble, boulder, submerged logs, undercut banks, snags, rootwads, aquatic plants, or other stable habitat

Score = 20



**Sub-Optimal
11-15**

30-50% of stable habitat. Adequate habitat

Score = 14

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Instream Habitat



Marginal 6-10
10-30% mix of stable habitat. Habitat availability less than desirable

Score = 8

Poor 0-5
Less than 10% stable habitat. Lack of habitat is obvious

Score = 4

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Epifaunal Substrate - Habitat quality as it relates to benthic macroinvertebrates

MBSS Stream Habitat Assessment Guidance Sheet

Habitat Parameter	Optimal 16-20	Sub-Optimal 11-15	Marginal 6-10	Poor 0-5
2. Epifaunal Substrate^(b)	Preferred substrate abundant, stable, and at full colonization potential (riffles well developed and dominated by cobble; and/or woody debris prevalent, not new, and not transient)	Abund. of cobble with gravel &/or boulders common; or woody de-bris, aquatic veg., undercut banks, or other pro-ductive surfaces common but not prevalent /suited for full colonization	Large boulders and/or bedrock prevalent; cobble, woody debris, or other preferred surfaces uncommon	Stable substrate lacking; or particles are over 75% surrounded by fine sediment or flocculent material

Epifaunal Substrate



Preferred substrate abundant, stable, and at full colonization potential (riffles well developed and dominated by cobble; and/or woody debris prevalent, not new, and not transient)

**Optimal
Score = 19**



Abund. of cobble with gravel &/or boulders common; or woody de-bris, aquatic veg., undercut banks, or other pro-ductive surfaces common but not prevalent /suited for full colonization

**Sub-optimal
Score = 14**

Epifaunal Substrate



Large boulders and/or bedrock prevalent; cobble, woody debris, or other preferred surfaces uncommon

**Marginal
Score = 8**



Stable substrate lacking; or particles are over 75% surrounded by fine sediment or flocculent material

**Poor
Score = 2**

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Velocity/Depth Diversity – Based on the variety of velocity/depth regimes present at a site

MBSS Stream Habitat Assessment Guidance Sheet

Habitat Parameter	Optimal 16-20	Sub-Optimal 11-15	Marginal 6-10	Poor 0-5
3. Velocity/Depth Diversity^(c)	Slow (<0.3 m/s), deep (>0.5 m); slow, shallow (<0.5 m); fast (>0.3 m/s), deep; fast, shallow habitats all present	Only 3 of the 4 habitat categories present	Only 2 of the 4 habitat categories present	Dominated by 1 velocity/depth category (usually pools)

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Pool/Glide/Eddy Quality – Based on the depth and spatial complexity of slow water habitat present at site

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Habitat Parameter	Optimal 16-20	Sub-Optimal 11-15	Marginal 6-10	Poor 0-5
4. Pool/Glide/Eddy Quality ^(d)	Complex cover/&/or depth > 1.5 m; both deep (> .5 m)/shallows (< .2 m) present	Deep (>0.5 m) areas present; but only moderate cover	Shallows (<0.2 m) prevalent in pool/glide/eddy habitat; little cover	Max depth <0.2 m in pool/glide/eddy habitat; or absent completely

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Riffle/Run Quality – Based on the depth, complexity, and functional importance of riffle/run habitat present at site

MBSS Stream Habitat Assessment Guidance Sheet

Habitat Parameter	Optimal 16-20	Sub-Optimal 11-15	Marginal 6-10	Poor 0-5
5. Riffle/Run Quality ^(a)	Riffle/run depth generally >10 cm, with maximum depth greater than 50 cm (maximum score); substrate stable (e.g. cobble, boulder) & variety of current velocities	Riffle/run depth generally 5-10 cm, variety of current velocities	Riffle/run depth generally 1-5 cm; primarily a single current velocity	Riffle/run depth < 1 cm; or riffle/run substrates concreted

Embeddedness – Measured at fastest flowing section in the 75 m site

6. Embeddedness ⁽ⁿ⁾	Percentage that gravel, cobble, and boulder particles are surrounded by fine sediment or flocculent material.
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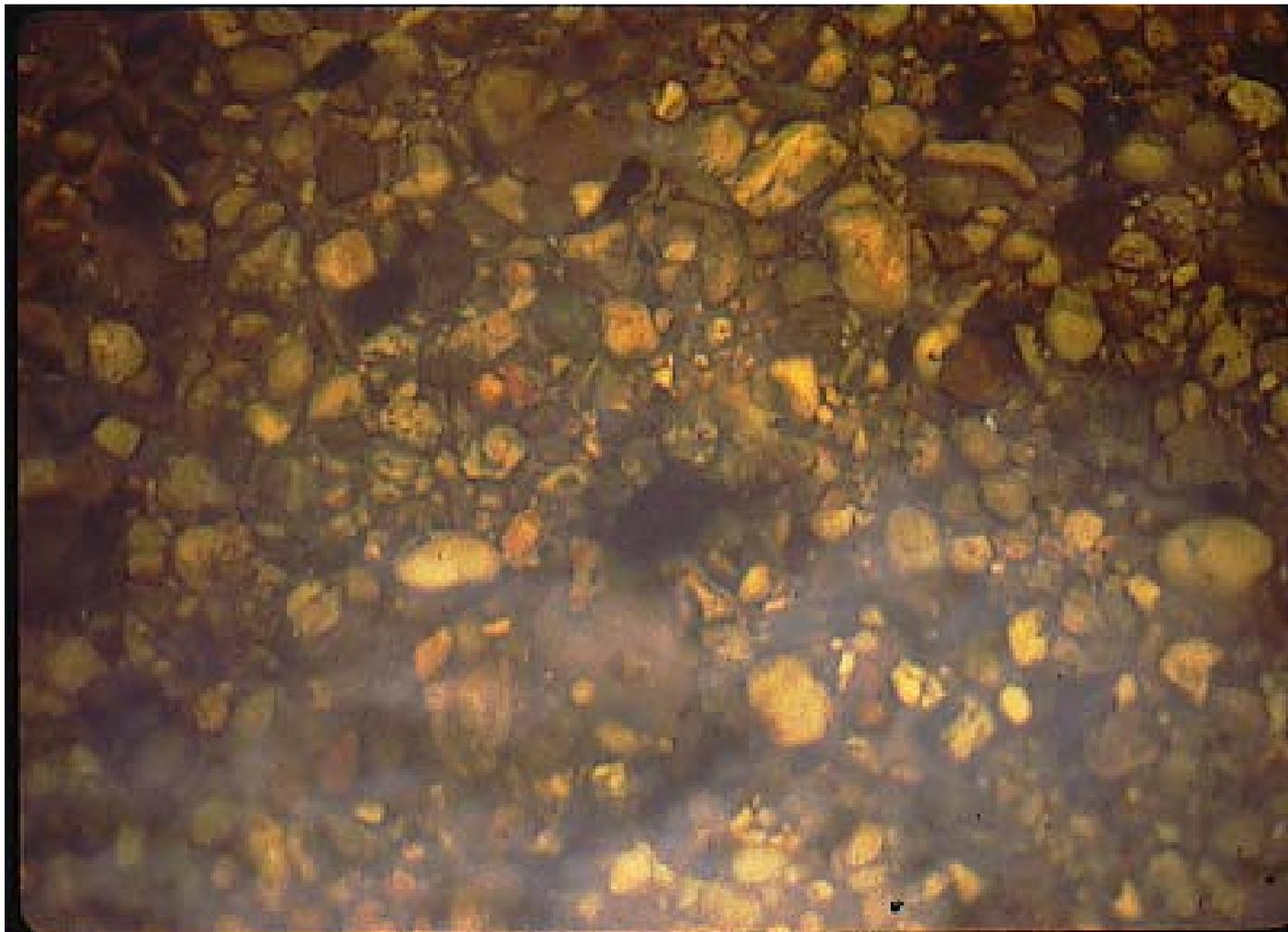
0%

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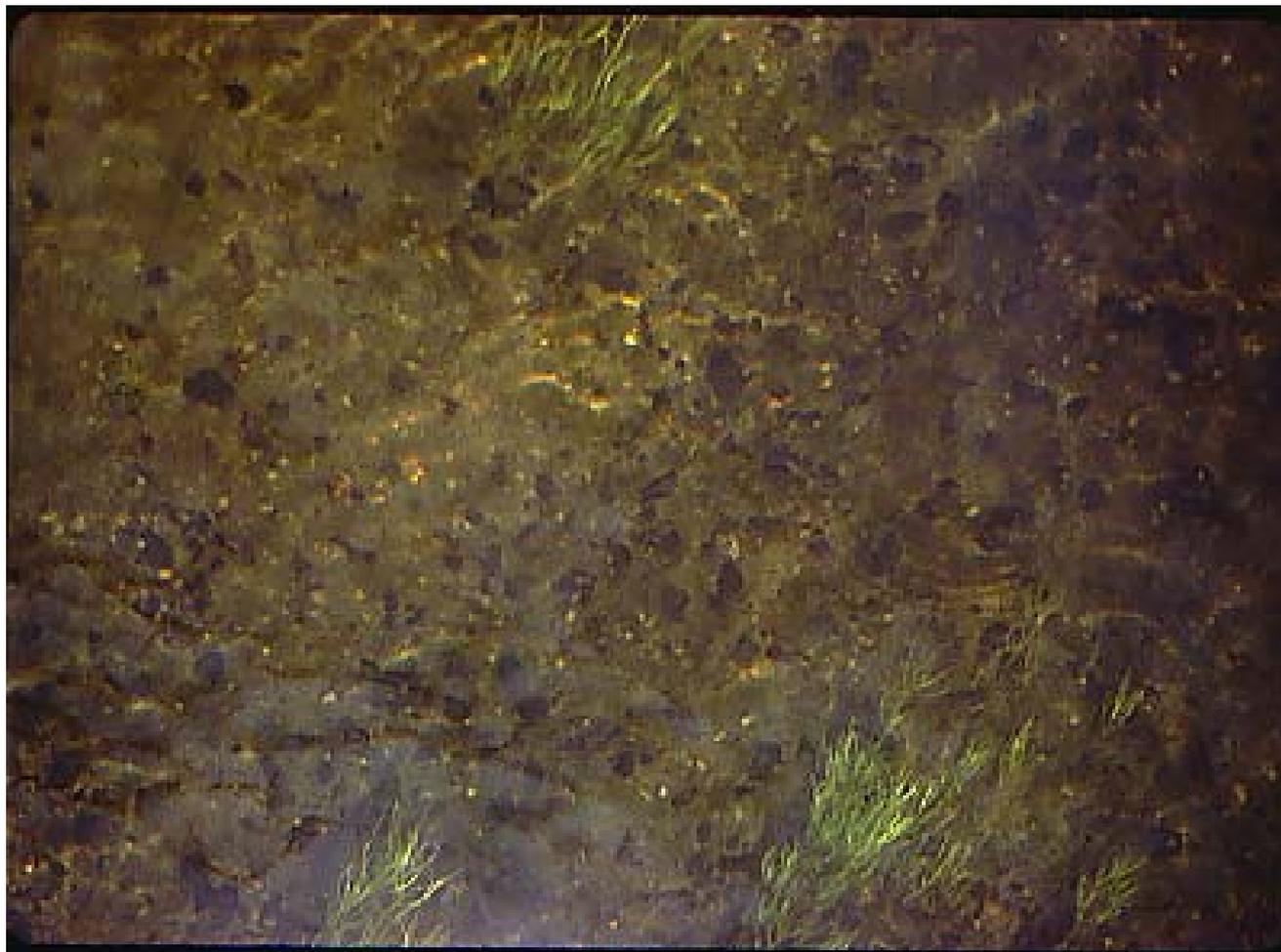
20%

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50%

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85%

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100%

Percent Shading – Rated based on degree and duration of shading at a site throughout the day

7. Shading^(g)

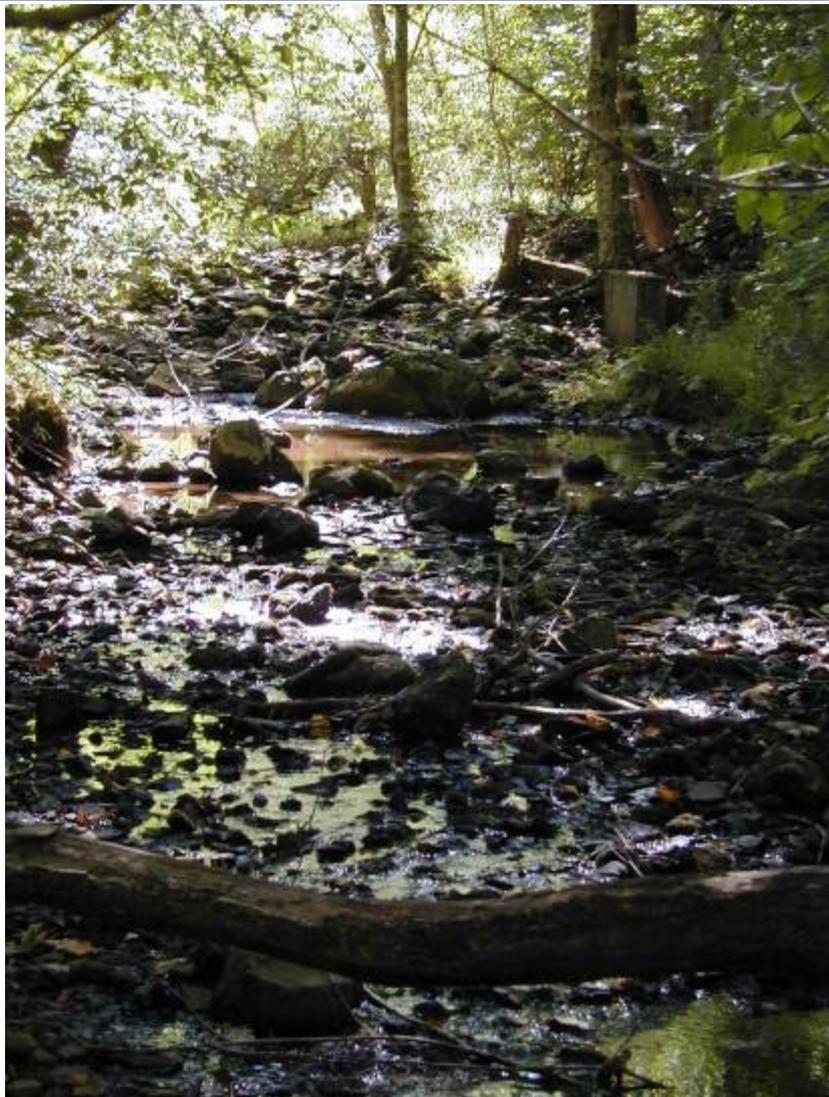
Percentage of segment that is shaded (duration is considered in scoring). 0% = fully exposed to sunlight all day in summer; 100% = fully and densely shaded all day in summer

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100%

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75%



0%

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SITE Watershed Code Segment Type Year Reviewer: First / Second

BANK EROSION		HABITAT ASSESSMENT		FLOW		
Left Bank	Right Bank			Lat. Loc. (m)	Depth (cm)	Velocity (m/s)
Extent (m)		1. Instream Habitat (0-20)		0 0 0 0	0 0 0	0 0 0
Severity		2. Epifaunal Substrate (0-20)				
Average Height (m)		3. Velocity/Depth Diversity (0-20)				
		4. Pool/Glide/Eddy Quality (0-20)				
		Extent (m)				
		5. Riffle/Run Quality (0-20)				
		Extent (m)				
		6. Embeddedness (%)				
		7. Shading (%)				

BAR FORMATION & SUBSTRATE

Severity: 0 = none, 1 = min, 2 = mod, 3 = severe

Cobble, Gravel, Sand, Silt/Clay

STREAM CHARACTER

<input type="checkbox"/> Braided	<input type="checkbox"/> Gravel	<input type="checkbox"/> Boulder >2m
<input type="checkbox"/> Riffle	<input type="checkbox"/> Sand	<input type="checkbox"/> Boulder <2m
<input type="checkbox"/> Run/Glide	<input type="checkbox"/> Silt/Clay	<input type="checkbox"/> Beaver Pond
<input type="checkbox"/> Deep Pool (>= 0.5m)	<input type="checkbox"/> Cobble	<input type="checkbox"/> Overhead Cover
<input type="checkbox"/> Shallow Pool (< 0.5m)	<input type="checkbox"/> Bedrock	<input type="checkbox"/> Undercut Bank
		<input type="checkbox"/> Orange Floe

A = Absent P = Present E = Extensive

Woody Debris		Maximum Depth (cm)			Alternative Flow Measurements		
<input type="checkbox"/>	No. of Instream Woody Debris	Wetted Width (m)	Thalweg Depth (cm)	Thalweg Velocity (m/s)	Distance (cm)		
<input type="checkbox"/>	No. of Dewatered Woody Debris				Depth (cm)		
<input type="checkbox"/>	No. of Instream Rootwads				Width (cm)		
<input type="checkbox"/>	No. of Dewatered Rootwads				Time (sec)	1	
						2	
						3	

COMMENTS: _____

MBSS Summer Habitat Data Sheet

- Bank Erosion
- Bar Formation
- Habitat Assessment
- **Stream Character**
- Woody Debris
- Transect Measurements
- Stream Flow

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STREAM CHARACTER		
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Braided Riffle Run/Glide Deep Pool ($\geq 0.5\text{m}$) Shallow Pool ($< 0.5\text{m}$)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Gravel Sand Silt/Clay Cobble Bedrock	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		Boulder $>2\text{m}$ Boulder $<2\text{m}$ Beaver Pond Overhead Cover Undercut Bank Orange Floc
A = Absent	P = Present	E = Extensive

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Woody Debris		
<input type="text"/>	<input type="text"/>	No. of Instream Woody Debris
<input type="text"/>	<input type="text"/>	No. of Dewatered Woody Debris
<input type="text"/>	<input type="text"/>	No. of Instream Rootwads
<input type="text"/>	<input type="text"/>	No. of Dewatered Rootwads

Large Woody Debris

- 10 cm diameter
- 1.5 m long

Rootwads

- 15 cm DBH

Instream

- In direct contact with water

Dewatered

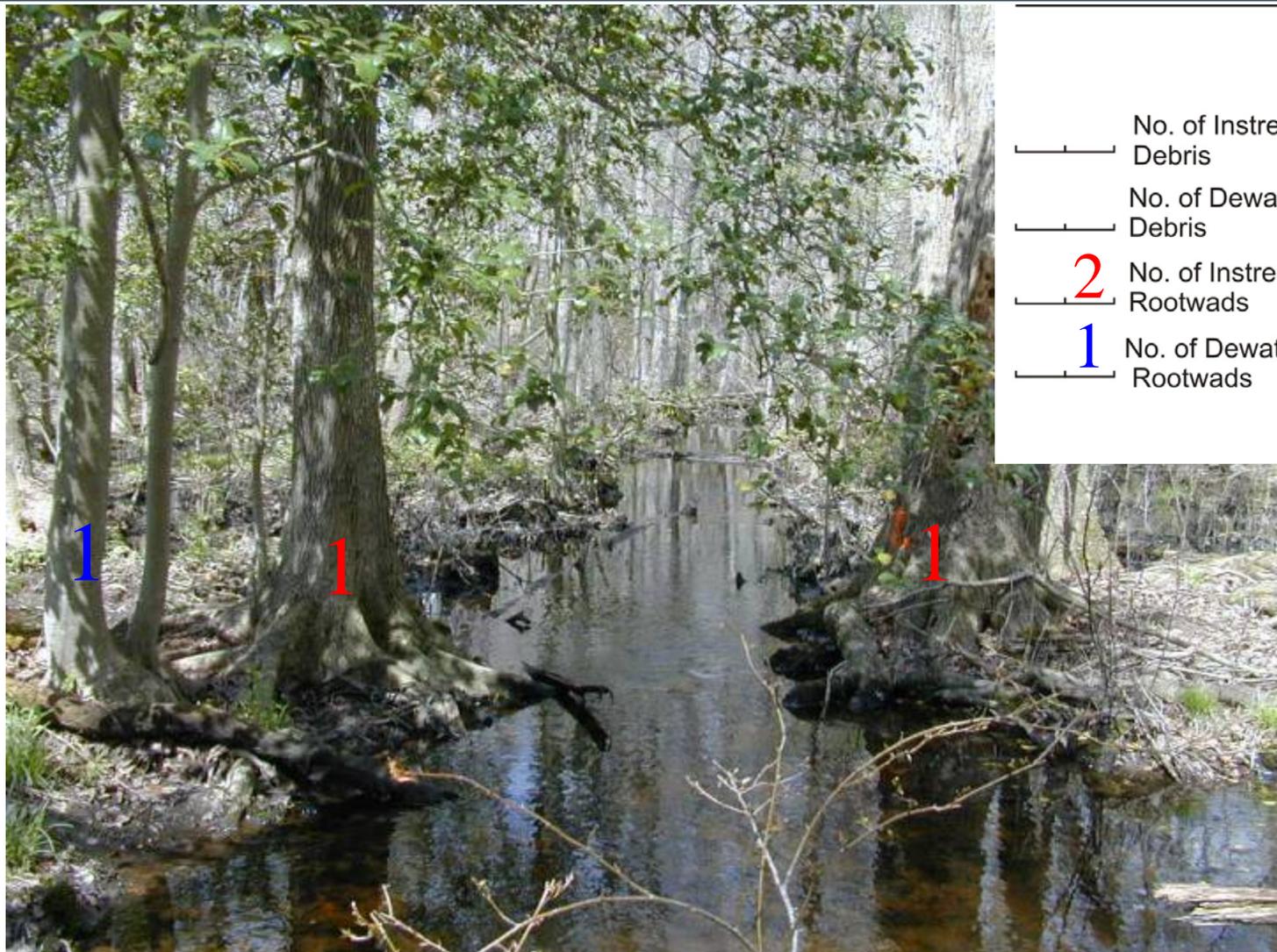
- Potential to enter stream

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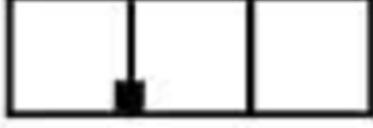
- 2 No. of Instream Woody Debris
- 1 No. of Dewatered Woody Debris
- No. of Instream Rootwads
- No. of Dewatered Rootwads

MBSS Summer Habitat

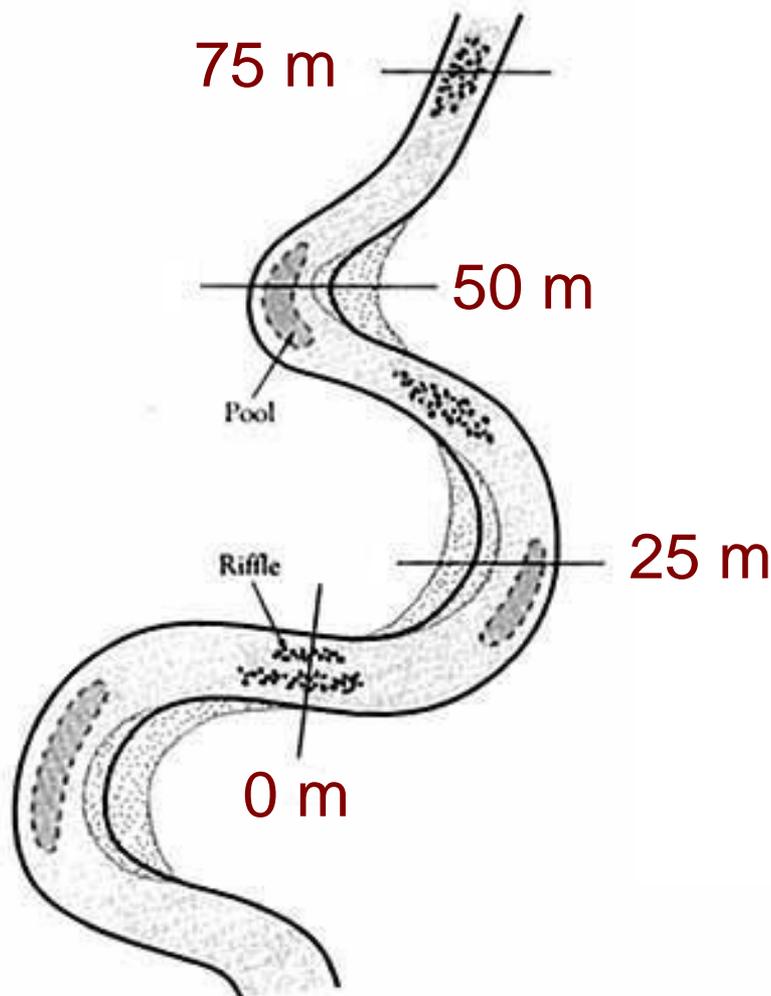


- No. of Instream Woody Debris
- No. of Dewatered Woody Debris
- 2** No. of Instream Rootwads
- 1** No. of Dewatered Rootwads

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Maximum Depth (cm)					
Wetted Width (m)	Thalweg Depth (cm)	Thalweg Velocity (m/s)			
					
					
					
					

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Wet Width (m)



Thalweg Depth (cm)





Minimum of 10 depth and velocity measurements
across width of stream

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Velocity measurements should be taken:

- At 60% of depth (measured from surface) with sensor oriented parallel to flow
- Stand downstream to avoid deflection of flows!

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Alternative Flow Measurements

Distance (cm)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Depth (cm)	<input type="text"/>		
Width (cm)	<input type="text"/>	<input type="text"/>	
Time (sec)	1.	<input type="text"/>	<input type="text"/>
	2.	<input type="text"/>	<input type="text"/>
	3.	<input type="text"/>	<input type="text"/>

- Constrict stream in a one meter section of uniform depth and width
- Record speed of floating object (e.g. leaf, stick, or trash) over a one meter distance
- Repeat three times

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Additional Habitat Parameters for Round One Repeat Sites

- Bank stability – rated on presence/absence of stabilizing bank materials, including riparian vegetation, boulders, rootwads, or other stable structures
- Channel Flow Status – rated on the percentage of the stream channel that is watered
- Minimum Riparian Buffer Width – Minimum width of the vegetated buffer within the site (50m maximum)
- Remoteness – Rated based on the absence of detectable human activity and difficulty in accessing the site

Bank Stability^(a)	Upper bank stable, 0-10% of banks with erosional scars and little potential for future problems	Moderately stable. 10-30% of banks with erosional scars, mostly healed over. Slight potential in extreme floods	Moderately unstable. 30-60% of banks with erosional scars and high erosion potential during extreme high flow	Unstable. Many eroded areas. "Raw" areas frequent along straight sections and bends. Side slopes > 60 common
Channel Flow Status^(a)	Percentage that water fills available channel			
Riparian Buffer^(a)	Minimum width of vegetated buffer in meters: 50 meters maximum; see back of Habitat Assessment Data Sheet for buffer type and land cover immediately adjacent to buffer			
Remoteness^(b)	Stream segment more than 1/4 mile from nearest road; access difficult and little or no evidence of human activity	Stream segment within 1/4 of but not immediately accessible to roadside access by trail; site with moderately wild character	Stream within 1/4 mile of roadside and accessible by trail; anthropogenic activities readily evident	Segment immediately adjacent to roadside access; visual, olfactory, and/or auditory displeasure experienced

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BANK EROSION		HABITAT ASSESSMENT		FLOW		
Left Bank	Right Bank			Lat. Loc. (m)	Depth (cm)	Velocity (m/s)
Extent (m) <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	1. Instream Habitat (0-20).....	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Severity 0 = none 1 = min 2 = mod 3 = severe	<input type="text"/> <input type="text"/>	2. Epifaunal Substrate (0-20).....	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Average Height (m) <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	3. Velocity/Depth Diversity (0-20).....	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
BAR FORMATION & SUBSTRATE		4. Pool/Glide/Eddy Quality (0-20).....	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Severity 0 = none 1 = min 2 = mod 3 = severe		5. Riffle/Run Quality (0-20).....	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<input type="checkbox"/> Cobble		6. Embeddedness (%).....	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<input type="checkbox"/> Gravel		7. Shading (%).....	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<input type="checkbox"/> Sand						
<input type="checkbox"/> Silt/Clay						

STREAM CHARACTER

<input type="checkbox"/> Braided	<input type="checkbox"/> Gravel	<input type="checkbox"/> Boulder >2m
<input type="checkbox"/> Riffle	<input type="checkbox"/> Sand	<input type="checkbox"/> Boulder <2m
<input type="checkbox"/> Run/Glide	<input type="checkbox"/> Silt/Clay	<input type="checkbox"/> Beaver Pond
<input type="checkbox"/> Deep Pool (>= 0.5m)	<input type="checkbox"/> Cobble	<input type="checkbox"/> Overhead Cover
<input type="checkbox"/> Shallow Pool (< 0.5m)	<input type="checkbox"/> Bedrock	<input type="checkbox"/> Undercut Bank
		<input type="checkbox"/> Orange Floc

A = Absent P = Present E = Extensive

Woody Debris	Maximum Depth (cm)	Alternative Flow Measurements
<input type="text"/> No. of Instream Woody Debris	Wetted Width (m) <input type="text"/> <input type="text"/>	Distance (cm) <input type="text"/> <input type="text"/>
<input type="text"/> No. of Dewatered Woody Debris	Thalweg Depth (cm) <input type="text"/> <input type="text"/>	Depth (cm) <input type="text"/>
<input type="text"/> No. of Instream Rootwads	Thalweg Velocity (m/s) <input type="text"/> <input type="text"/>	Width (cm) <input type="text"/>
<input type="text"/> No. of Dewatered Rootwads		Time (sec) 1. <input type="text"/> <input type="text"/>
		2. <input type="text"/> <input type="text"/>
		3. <input type="text"/> <input type="text"/>

COMMENTS: **Be sure to comment!**

Any impacts associated with habitat conditions at a site should be documented in the comments section