

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV
Yes / No

WIN Station Name:	HATCHETT CREEK AT PINEBROOK RD					Sample Date:	10/24/2023
WIN / Field ID:	G3SD0103	ORG ID:	21FLFTM	ENR:	-	Latitude:	27.08968
County:	SARASOTA	WBID:	2015A	STREAM	3F	Longitude:	-82.41556
Receiving Body of Water:	Roberts Bay					RQ-	2023-10-23-22

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Monica Jaeger		x			x
Samantha Gelinas	x		x		

Sampling Equipment				
x	Sample Container		Carboy	
	Dipper		Van Dorn	
	Syringe		Pole	
	Syringe Lot#	3087881	Filter Lot#	17347262
	Secchi Equipment ID:	Slippery Disk		
Collection Method				
x	Wading		Canoe/Kayak	
	From Shore		Electric Motor	
			Gasoline Motor	
	Depth Measured With	Secchi		

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	The One
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1025	0.3	0.15	7.48	87.5	22.7	7.17	0.3	1431	0.72
								VOB (s)		

Biological Samples Collected: HA LVS RPS SCISBIO Visit ID: HA ID: RPS ID: Macrophyte ID: LIMS Sample ID
In The Macrophyte Module:

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation				
				Type	Lot#	Expiration Date	pH Check	
Microbiology	E. coli	Contract Lab	Benchmark	ICE				
Chlorophyll	CHLSUITE-W			ICE				
Physical/Aggregate	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE				
Nutrients	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE				
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:3087881; Filter Lot#:17347262			
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA3013020	01/25/2024	H2SO4 pH<2
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA3123030	05/10/2024	HNO3 pH<2
Organics (LC)	W-E8321-DIW-E8321-DI	W-E8321-MSW-E8321-MS		Ice				
Macroinvertebrates	MI-FW-QLDC			Formalin		9990517CS		
Organics (GC)	W-CT-CI-R	W-PSNP-TQ	W-TR-SQ-R	Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise			
Molecular								
Periphyton								
Phytoplankton								
BOD								
DOC								
Other(s)					SyringeLot#		FilterLot#	
Field Comments:	/ SCI Collection Time: 1230							
Comments on COC:	Microbiology sample(s) submitted to contract laboratory.							
Relinquish Date:	10/24/2023	Signature:						

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:

Save Field Sheets on Network: Migrate Data to WIN:

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID _____ ORG ID _____ LATITUDE _____
 COUNTY Sam. Sota STORET # _____ LONGITUDE _____
 DATE 10/24/23 TIME _____ SAMPLING AGENCY _____
 SITE NAME Hatchett Creek @ Pine Brook Rd
 FIELD ID/NAME G3SD0103 RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

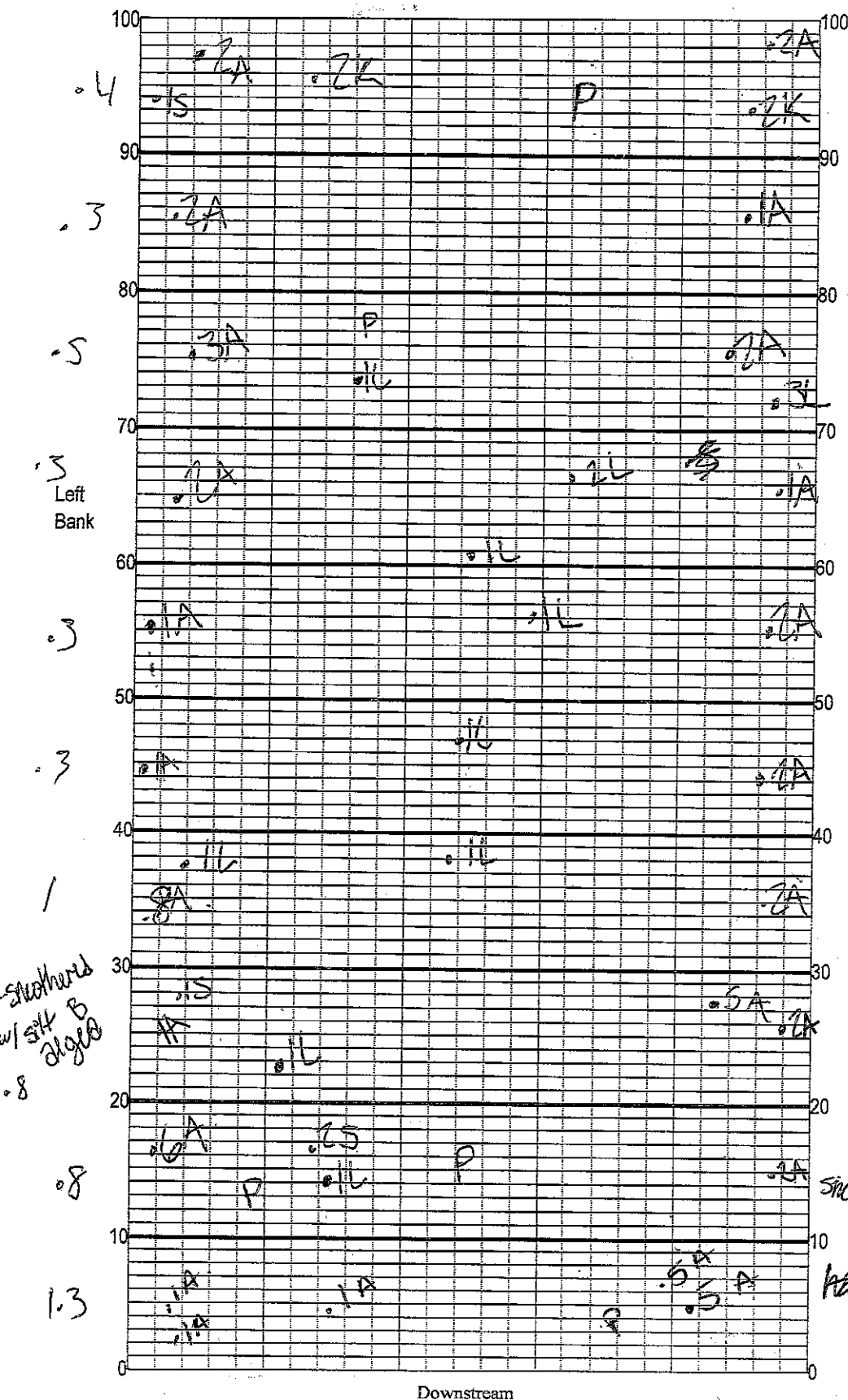
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category) : Forest/Natural <u>10</u> Silviculture _____ Field/Pasture _____ Agricultural <u>90</u> Residential _____ Commercial _____ Industry _____ Other (Specify) _____								Landscape Development Intensity Index (LDI) _____
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy				Typical Width (m) Depth (m)/Velocity (m/sec) Transect _____ m wide _____ m/s <u>0.125</u> m/s _____ m/s _____ m deep <u>0.3</u> m deep _____ m deep				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank : <u>124</u> Right Bank : <u>47.8</u>				Hydrologic Modification Score (per FT 3101) <u>5-6</u>				
High Water Mark: <u>0.2</u> + <u>0.3</u> = <u>0.5</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☒ Yes ☐ No				
Artificially ☐ No ☐ Mostly recovered, more sinuous Channelized: ☒ Some recovery ☐ Recent, severe				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)				

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse			Sediment Odors ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☒ Anaerobic ☐ Other (Specify) : _____			Smothering of Substrates Sand Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☐ Moderate ☐ Severe ☒ Algae Smothering: None ☐ Slight ☐ Moderate ☐ Severe ☒																																																																														
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td><u>0.67</u></td> <td><u>2</u></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td><u>0</u></td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat ...</td> <td><u>0.167</u></td> <td><u>6</u></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td><u>1.05</u></td> <td><u>10</u></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td><u>0.67</u></td> <td><u>2</u></td> <td></td> </tr> <tr> <td>Sand.....</td> <td><u>0</u></td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	<u>0.67</u>	<u>2</u>		Undercut Banks / Roots	<u>0</u>	<u>0</u>		Leaf Packs or Mat ...	<u>0.167</u>	<u>6</u>		Aquatic Vegetation	<u>1.05</u>	<u>10</u>		Rock or Shell Rubble..	<u>0.67</u>	<u>2</u>		Sand.....	<u>0</u>	<u>0</u>		Mud / Muck / Silt				Other				Other				WATER QUALITY <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top :</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Bottom</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Meter ID: _____							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top :									Mid:									Bottom								
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Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____			Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) _____																																																																																	
Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																																																																	
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SAMPLING TEAM Samantha Gelinas, Monica Jaeger **SIGNATURE** [Signature] **DATE:** 10/24/23

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).

Location: G3SD0103
Date: 10/24/23
Sampler: Samantha Gelinas & Monica Jaeger
100 m: Latitude _____

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance.		%
S	Snags	.067
R	Roots/undercut banks	_____
L	Leaf Packs (or mats)	.167
A	Aquatic Macrophytes	1.05 1.05
K	rocks	.067
	_____	_____
P	Pools	total # observed = 4
	# range expected =	

Average width 6 m
Average depth 0.3 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 meter mark.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation
is altered or eliminated.

Plants observed / other notes:

smooth snag

her heavy smothering

6.3 10 L 4K
~~5A~~ 59A 4S
 4P

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Hatchett Creek @ Pinebrook	Date:	County: Sarasota	Storet Number: G3SD0103
Analyst: Monica Jones, Samantha Gelinas	Signature: 		

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

Spaces for additional taxa names.		Meter Mark										Specimen collected (check)	Meter Mark										Specimen collected (check)
HERBACEOUS SPECIES		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100		HERBACEOUS SPECIES		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	
Alternanthera philoxeroides		/	/	/	/	/	/	/	/	/	/		Micranthemum glomeratum										
Bacopa caroliniana													Micranthemum umbrosum										
Bacopa monnieri													Myriophyllum aquaticum	/	/	/	/	/	/	/	/	/	/
Bidens mitis													Najas guadelupensis										
Boehmeria cylindrica													Nuphar luteum										
Centella asiatica													Orontium aquaticum										
Ceratophyllum demersum													Panicum hemitomon										
Chara													Panicum repens	/	/	/	/	/	/	/	/	/	/
Cicuta maculata													Panicum rigidulum										
Cladium jamaicense													Pistia stratioides										
Colocasia esculenta	/	/	/	/	/	/	/	/	/	/	/		Polygonum glabra										
Commelina diffusa													Polygonum hydropiperoides										
Commelina virginica													Polygonum punctatum										
Crinum americanum													Pontedaria cordata	/	/	/	/	/	/	/	/	/	/
Diodia virginiana													Potamogeton illinoensis										
Eichhornia crassipes													Ruellia simplex										
Eleocharis (wispy/viviparous)													Sacciolepis striata										
Hydrilla verticillata				/	/	/	/	/	/	/	/		Sagittaria kurziana										
Hydrocotyle			/	/	/	/	/	/	/	/	/		Sagittaria lancifolia										
Hydrophila polysperma													Sagittaria latifolia										
Hymenocallis													Salvinia minima	/	/	/	/	/	/	/	/	/	/
Lachnanthes caroliniana													Samolus parviflora										
Landoltia punctata													Saururus cernuus										
Lemna	/	/	/	/	/	/	/	/	/	/	/		Sparganium americanum										
Limnophila sessiflora													Typha										
Ludwigia leptocarpa													Vallisneria americana										
Ludwigia palustris																							

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: _____ County: _____ Date: _____ Investigators: _____

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
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STORET Station Number:

G3SD0103

Secchi depth 0.3
Estimated?

points ranked 4-6 109
total points assessed 299
% points ranked 4-6 36.3

Check accompanying data collected at same site/date.

Algal mat sample X
Linear Veg Survey X
Habitat Assessment X
SCI/Biorecon X
Water sample X

RQ-2023-10-23-22

Algal Thickness Rank	
N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

0	1	6			60	1	6		
	2	6				2	5		
	3	6				3	N		
	4	6				4	N		
	5	6		0		5	6		
	6	6				6	6		
	7	6				7	5		
	8	6				8	5		
	9	6				9	6		
10	1	6			70	1	5		
	2	6				2	5		
	3	6				3	6		
	4	6				4	6		
	5	6		0		5	5		10
	6	6				6	5		
	7	6				7	3		
	8	6				8	2		
	9	6				9	5		
20	1	6			80	1	5		
	2	6				2	6		
	3	6				3	6		
	4	6				4	6		
	5	6		8		5	3		
	6	6				6	6		
	7	6				7	6		
	8	6				8	3		
	9	6				9	5		
30	1	6			90	1	6		
	2	6				2	6		
	3	6				3	6		
	4	6				4	6		
	5	6		3		5	6		17
	6	6				6	6		
	7	6				7	6		
	8	6				8	6		
	9	6				9	6		
40	1	6			100	1	6		
	2	6				2	6		
	3	6				3	6		
	4	6				4	6		
	5	6		15		5	6		14
	6	6				6	6		
	7	6				7	6		
	8	6				8	6		
	9	6				9	6		
50	1	6				1	6		
	2	6				2	6		
	3	6				3	6		
	4	6				4	6		
	5	6		10		5	6		
	6	6				6	6		
	7	6				7	6		
	8	6				8	6		
	9	6				9	6		

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

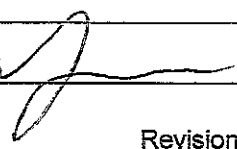
Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>SO-ROC</u>		STORET STATION NUMBER: <u>G3SD0103</u>	DATE (MM/DD/YY): <u>10/24/23</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Sarasota</u>	LOCATION: <u>Hatchett Creek @ Pine Brook</u>	FIELD ID/NAME: <u>G3SD0103</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>2</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 <u>3</u> 2 1
Substrate Availability <u>1</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 <u>1</u>
Water Velocity <u>12</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 <u>12</u> 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering <u>12</u> ----- Primary Score <u>21</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 <u>12</u> 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components Artificial Channelization <u>3</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 <u>3</u> 2 1
Bank Stability Right Bank <u>5</u> Left Bank <u>5</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. <u>5</u> 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>8</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 9	Width of vegetation >12 to 18m <u>8</u> 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>1</u> Left Bank <u>3</u> ----- Secondary Score <u>35</u>	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). <u>3</u> 2 <u>1</u>

102 TOTAL SCORE

Date: <u>10/24/23</u>	Analyst: <u>Monica Jaeger, Samantha Gelinas</u>	Signature: 
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