11-06

DNR&E / DFO - NEW BRUNSWICK STREAM SURVEY and HABITAT ASSESSMENT

Start Point: US end

End Point: DS end

River: Unnamed trib to Ridge Brook **Date:** 04-Sep-19

Personnel: B. Moore / L. Vicaire

Stream/River No. Stream Order No. 1

<u>1 of 1</u>

Unit No.	Stream Type	Channel Type	Chainage End	Length (m)	Ave (Width (m)			s	ubstrate (%)				Ave Depth – Wet Width (cm)	Underc 0-5	ut Bank 0%	Bank Vegetation De 0-50%		Large Woody Debris In-Stream (m)	Embedded (Criteria) 1: <20% 2: 20 · 35% 3: 35 · 50% 4: > 50%	In-Stream Vegetation	Comments
					Wet	Bank Channel	Bedrock	Boulder	Rock	Rubble	Gravei	Sand	Fines		L	R	L	R		3: 35 - 50% 4: > 50%		
1	N/A	1	55.0	55.0	0.3	1.2	0	0	5	0	0	15	80	5	0	0	30	30	0.0	4		Not enough water to determine flow type
2	3	1	201.0	146.0	1.2	1.4	0	0	10	65	20	5	0	5	5	5	20	20	0.0	2		Flow type presumed based on substrate
3	8	1	448.0	247.0	0.4	0.7	0	0	5	0	40	50	5	5	5	5	25	25	0.0	4		Flow type presumed based on substrate
			Č																			
																						Upstream
																						45.99957 / 65.36777
										:												Downstream
				-																		45.99817 / 65.36370
											i											
				77.																		

		STR	EAM TYPE		CHANNEL TYPE	SUBSTRATE	PLOW TYPE	POOL RATING	(reverse side)
FASTWATER	R			POOLS				CRITERIA (NO.)	% OF POOLS IN SITE (LETTER)
2. Cescade 7 C 3. Rate (GR.RB) 8. R	Run	10 Midcharnel 11 Convergence 12 Lateral 13 Beaver	15 Plunge	19 Gebion	 1. Main (If inseasurement refers to mean area of ment) 2. Side Charmal (water devented by mismels) 3. Spale of mean is spall into verticus different stream hyper) 4. Bogan 1. Specify Left (1), Right (R) or Middle (M)	4 Rubble = 54 - 179 mm 5 Gravel = 26 - 53 mm 6 Sand = 006 - 25 mm	1) Survey Streem 2 Spring 3 Brook/River Tribulary 4 Spring Seep	Post Depth > 1.5 m 1 - Institution Cover > 30% 2 - Institution Cover < 30% Post Depth 5 to 1.5m 3 - Institution Cover 5 5 30% 4 - Setting Cover > 30%	a -> 30% b - 10% to 30% c -< 10% a -> 20%

^{*}For different left and right parameters, values are to be written as L/R.

Rive	er: Un	name	ed trib	to Ri	dge Bi	rook																			
			Π						Stream	Banks										Pool	Rating		Pool Tall		
Valle: Slope L/M/I	y Bank Heigh H (m)	Flood Plain Width (m)	Shade (%)		Vegetar	tion (%)				Ero	sion (%)			0 ¹ (Mg/L)	Hq	Water Temperature (°C)		Fish Species				Embedded (Criteria) 1: <20% 2: 20 - 35% 3: 35 - 50% 4: >50%	Plean Substrate Size(cm)	Fines (%)	Turbulence (%)
				Bare	Grasses	Shrubs	Trees		Left Bank (0-50%)			Right Bank (0-50%)]						No.	Letter				
								Stable	Bara Stable	Eroding	Stable	Bare Stable	Eroding										L		
L	0.3	40	75	0	55	10	35	50	0	0	50	0	0				Cree	k chub						_	
L	0.2	40	60	0	10	25	65	40	0	10	40	0	10						\Box						
L	0.2	60	75	0	10	20	70	40	0	10	40	0	10												
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L																									<u> </u>
NOTE:	For select	and sales use	dy, Prese C	Autre (rev	eree tude) til	rould be don	e for a hebb	al soccament					WATER	PLOW MEASURE	MENT										
	RyFI	PLE GRAD	NENT				Т		DEFTH (cr	a I	AVERAGE	DEPTH SUM (4					PL.	DAT TIME (see)							
LENG	TH D	ROP M	GRADIE	NT	UNIT No.	STREAM TYPE	1 1 144	ET DTH IN) 144 W	ny 1/2 wáj	3/4 may	CENTIMETERS	METERS ((D. 0 -	PRICIENT smooth) - rough)	LENGTH (2m)	1/4 way	1/2 way	34 =07	A	VERAGE			FLO CHY		
L																									
L		_		\perp								<u> </u>		\rightarrow											
L	\perp																								_
Formula	(Cres) = A	N . 000.11	O_imi		(m)		Where W	4 water, D 4 dept	ri, I. = tengih, A ts.:	a coefficient for the	atream bottom (A= 0	& for rough bollom, C	(i) for emocifn)				·					<u></u> .			
С	UTERIA																								
1 2. 3	1 Chilar valuer depth equal to or graster than charved width 1 Chilar valuer depth equal to or graster than charved width 2 Ritlle, GRRS - e. a r/the Soung ever a gravel and/or subble bottom 3 Chem hamps Ritll - is a ritlle towing over 6 strough large subsettees (s.g. rock and Jur box/dar), nome of which protructes the surface 8 Yeard Extra Sad charves bread as a synthesis develor layer. 7 Yeology Dold												4 Undercut Barri 5 Over-funging i 8 Visual Embedi 7 Woody Debris.	. % of born overhory : Sark Vegetaken - % of edness - % of pands or - botal width should be :	(above water or vegetation over lines surround >10 pm in stern	ige for elream type; mang for elream typ ing the larger subst ter	Specify init (), e. Specify L. er rates, up to 107) or right FR TNL	(R)						

^{*}For different left and right parameters, values are to be written as L/R.

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DNR&E / DFO - NEW BRUNSWICK STREAM SURVEY and HABITAT ASSESSMENT

River: Unnamed trib to Ridge Brook Date: 04-Sep-19

Personnel: B. Moore / L. Vicarie

Start Point: Cross Road

End Point: Property edge

Stream/River No. 1 Stream Order No.

Jnit No.	Stream Type	Channel Type	Chainage End	Langth (m)	Ave	Width (m)			S	obstrate (%)				Ave Depth – Wet Width (cm)	Underc 0-5	Undercut Bank Over-Hangling Bank Vegetation 0-50%		Large Woody Debris In-Stream (m)	Embedded (Criteria) 1: < 20% 2: 20 - 35%	In-Stream Vegetation	Comments	
					Wet	Bank Channel	Bedrock	Boulder	Rock	Rubble	Gravel	Sand	Fines	-	L	R	L	R	1	3: 35 - 50% 4: > 50%		
1	N/A	1	97.0	97.0		1.8	0	0	0	40	40	20	0		0	0	35	35	0.0	2		
2	N/A		268.0	171.0																		
3	N/A	1	338.0	70.0		2.4	0	5	20	50	25	0	0		0	10	10	10	0.0	1	1	
															İ							
																						Upstream
																						45.99670 / 65.36682
										-												Downstream
																						45.99627 / 65.36308
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				5	TREAM TYPE					1		CHANNEL	TYPE			BU	BETRATE		FLOW TYPE		POOL	RATING (reverse inde)
	FASTWAT	TEA .				POO	1.8	1		_					-					СЯ	TERM (NO)	% OF POOLS IN SITE (LETTER)
F					I										1	المدارات			la la companyone	0		

	STREAM TYPE		CHANNEL TYPE	SUBSTRATE	FLOW TYPE	POOL RATING	(Movement andre)
FASTWATER	PO	0013				СЯГГЁНИА (МО)	% OF POOLS IN SITE (LETTER)
1 Felt 8 Brook (hodge) 2 Cascade 7 Chule 3 Refer (SGR95) 6 Run 4 Refer (RS) B Reput	11 Convergence 15 Plunge 18 12 Lateral 16 20	0 Log Structure 24 Natural Deadwater	2 Side Channel (motor divorted by inlands) 3 Split (if river is split into vertous different stream types)	2. Boulder *	Burry Street Spring Brook-River Tributary Spring Seep	Pool Depth > 1.5 on 1 - Petrogen Cover > 30% 2 - Instrucen Cover < 30% Poel Depth 5 to 1.5m 3 - Instrucen Cover 5 - 30% 4 - Instrucen Cover 5 - 30%	a = = 30%, b = 10% is a 30%, c == 10%. a = = 50%, b = < 50%,

^{*}For different left and right parameters, values are to be written as L/R.

<u>1 of 1</u>

River: Unnamed	I trib to	Ridge	Brook
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Г									Stream	Banks								Pool	Rating		Pool Tall		
Valle Slop L/M/	y Bank Heigh H (m)	Flood Plain Width (m)	Shade (%)		Vegetat	ion (%)	8			Ero	sion (%)			O ¹ (Mg/L)	pH	Water Temperature (°C)	Fish Species			Embedded (Criteria) 1: < 20% 2: 20 - 35% 3: 35 - 50% 4: > 50%	Henn Substrate Size(cm)	Fines (%)	Turbulence (%)
				Bare	Granes	Shrube	Trees		Left Bank (0-50%)			Right Bank (0-50%)						No.	Letter				
L	<u> </u>						$ldsymbol{ldsymbol{ldsymbol{eta}}}$	Stable	Bare Stable	Eroding	Stable	Bare Stable	Eroding					_					\square
L	0.2	40	85	0	10	30	60	50	0	0	50	0	0										
L		60	90	0	60	30	10																Ш
L	0.2	10	80	0	10	40	50	50	0	0	50	0	0										
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NOTE, * For selected sea study. If you col	and the series defend account of the	from the a habital accessment.

WATER FLOW NEASUREMENT

	REFILE ORA	CHENT					DEPTH (cm)		AVERAGE DI	EPTH SUM/4				,	LOAT TIME (sec)		
LENGTH M	DROP M	GRADIENT K	UNIT No.	STREAM TYPE	WET WIDTH (M)	144	1/2 way	34 way	CENTRAETERS	METERS (m)	COEFFICIENT (0.0 - smooth) (0.0 - rough)	LENGTH (3m)	14 may	10	34 way	AVERAGE	PLOW Code
																	<u> </u>
П																	

where W = width, D = depth, L = largeth, A = a positioners for the elevent bottom (A= O & for rough bottom; CB for part

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	RITERIA	
2	Chairs under depth equal to an produce than channel visible. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodiern. Ratio CR-RB - so a rifle flowing ever a gravel smaler rubble bodier	4. Undersut Bank: % of bank overhang (above water edge for stream type: Specify lot (L) or ngrit (R) 5. Over-hanging Bank Vegetation: % of vegetation overhang for stream type: Specify L or R 6. Visual Embeddedness: % of sands or fines currounding the larger substitution, up to 100% 7. Viscoep Daine: social states fessel also have the entered or desented.

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Photo 1: Upstream extent of Watercourse 1



Photo 2: Looking upstream from the end of Unit 1; Watercourse 1





Photo 3: Looking downstream from the end of Unit 1; Watercourse 1



Photo 4: Mid-point of Unit 2; Watercourse 1





Photo 5: Looking downstream from the end of Unit 2; Watercourse 1



Photo 6: Electrofishing site in Unit 2; Watercourse 1





Photo 7: Electrofishing site in Unit 3; Watercourse 1







Photo 9: Looking downstream from Cross Road culvert; Watercourse 2



Photo 10: Mid-point of Unit 2; Watercourse 1





Photo 11: Looking downstream from the start of Unit 3; Watercourse 2



Photo 12: Looking upstream from the downstreamextent of the survey; Watercourse 2