

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

Visit ID 79164

HA# 15599

SAMPLING AGENCY: <u>21K1 WPR</u>		STORET STATION NUMBER: <u>6250032</u>	DATE (MM/DD/YY): <u>03/29/18</u>	RECEIVING BODY OF WATER: <u>St. Lawrence</u>
REMARKS:	COUNTY: <u>St. Lawrence</u>	LOCATION: <u>6250032</u>	FIELD ID/NAME:	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>2</u>	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock) 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major product habitat. Lack of habitat is obvious, substrates unstat or smothered 5 4 3 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 1
Water Velocity <u>1</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 12 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>1</u> Primary Score <u>15</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 12 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>1</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 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 3 2 1
Bank Stability Right Bank <u>1</u> Left Bank <u>1</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the 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. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>1</u> Left Bank <u>1</u>	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 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>1</u> Secondary Score <u>7</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). 3 2 1

22 TOTAL SCORE

Date: <u>3/29/18</u>	Analyst: <u>Mark Seid</u>	Signature: <u>[Signature]</u>
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visit# 79164

RPS# 9198

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site:

62SE1032

County:

St. Louis

Date:

08/03/2018

Investigators:

S. E. W. C.

STORET Station Number:

62SE1032

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

Secchi depth 1.4
Estimated? N

points ranked 4-6 0
total points assessed 99
% points ranked 4-6 0

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey
Habitat Assessment
SCI/Biorecon
Water sample
RQ-2018-00588

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

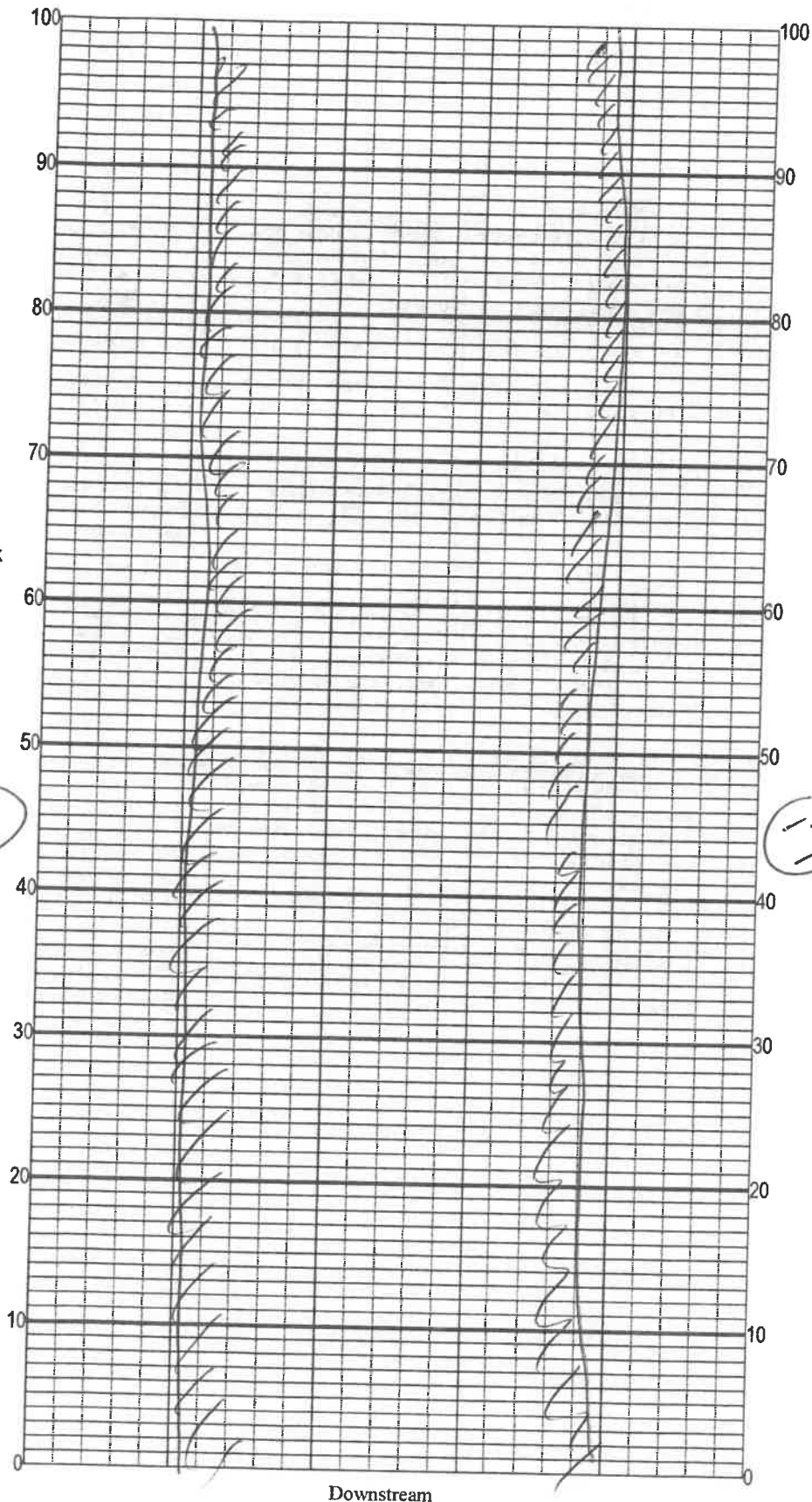
Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

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 9000-4 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: G2SE0032
Date: 03/29/2018
Sampler: Seved

100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance. %	
☐	Snags _____
☐	Roots/undercut banks _____
☐	Leaf Packs (or mats) _____
☒	Aquatic Macrophytes _____
☐	_____
☐	_____
☐	Pools total # observed = _____
	# range expected = _____
Average width <u>20</u> m	
Average depth <u>2</u> m	
Velocity measured at <u>50</u> meter mark.	
WQ & chemistry taken at <u>50</u> 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:

Pistia
Alligator weed

Waterbody: C-23 canal	Date: 3/29/18	County: St. Louis	Storet Number: 05526
Analyst: Sewell	Signature: [Signature]		
Comments:			

Waterbody: C-23 canal	Date: 3/29/18	County: St. Louis	Storet Number: 0526
Analyst: Sewell	Signature: [Signature]		
Comments:			

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note 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.

Revision Date: March 1, 2014



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

WIN Station Name: C-23 upstream of S97

Date: 03/29/2018
(mm/dd/yyyy)

WIN/ Field ID: G2SE0032

WBID: 3200

Latitude: 27.205646

(Decimal Degrees)

County: Martin

ORG ID: 21FLWPB

Longitude: -80.341269

(Decimal Degrees)

Receiving Body of Water: Saint Lucie Estuary

RQ-2018- 02-05-82

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
SKAGGS SEWELL					X	X			
MANDA						X		X	X
LIDDICK					X				

Sampling Equipment		
☐ Sample Container	☐ Van Dorn	☒ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with Secchi		
Equipment ID Tyler		

Collection Method		
☐ Wading	☐ Canoe/Kayak	
☒ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded

Meter ID# Tyler

Matrix: Fresh Marine / DI

Photos: Yes / No No Flow: No Flow Intestinal / Flowing / NA

Tide: Rising/ Falling/ Slack/ NA

Tide Times: High N/A Low N/A

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1230	2.7	0.3	1.4	7.9	91	7.9	0.56	1122	22.5
CEN										

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H2SO4	SA7233030	08/18	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GPD	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-CARB-AA	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

Contains 1:1 Sulfuric Acid
Lot No. SA7233030
Expires 08/21/18
See Safety Data Sheet (SDS)

Notes:

Place Label Here

Signature: Jordan Date: 3-29-2018

Enter Field Parameters, Verify Station ID In LIMS DMT: AM 4/26/19 QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)