FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

October 2017

Qualified Data

Location/STORET Station Name: Silver River 0.6 miles upstream of boat canal **Date:** 11/13/2017 (mm/dd/yyyy)

STORET # G1CE0059 **WBID:** 2772D **Latitude:** 29.2071311 (Decimal Degrees)

County: MARION **RQ -** 2017-11-13-49 **ORG ID:** 21 FL CEN **Longitude:** -81.99716711 (Decimal Degrees)

Receiving Body of Water: _____ **Field ID:** G1CE0059

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
TERRY RIORDAN	✓		✓		
NATALIE AYALA		✓		✓	✓

Sampling Equipment

- ☑ Sample Container ☐ Van Dorn ☐ Pole
- ☐ Carboy ☑ Syringe
- ☐ Dipper ☐ Other _____

Equipment ID _____

Collection Method

- ☐ Wading ☐ Canoe/Kayak
- ☐ From Shore ☐ Electric Motor
- ☐ Other _____ ☑ Gasoline Motor

Water Level: Dry / Low / Normal / Above Normal / Flooded **Meter ID#** BETTY/67 **Matrix:** Fresh / Marine / DI

Photos: Yes / No **Flow:** No Flow / Intestital / Flowing / NA **Tide:** Rising/ Falling/ Slack/ NA **Tide Times:** High Low

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPTh)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C⁰)
EST	1411	0.3	2.0	5.7	66	7.4	0.2	2.0(s)	479	23.1 / 23.09
CEN		1.5		5.7	66	7.4	0.2		478	23.1

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 ☑ H_2SO_4	SA7233030	8/21/18	☐ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO_3			☐ <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-Cl-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-GFD	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

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

SULFURIC ACID <51% — Contains 1:1 Sulfuric Acid — THERMO FISHER SCIENTIFIC 1-800-666-2711

Sticker(s) Here

Notes:

BOTTLE GROUP A

Date: 11/13/17
Time:

RQ-2017-11-13-49

G1CE0059 Field ID ↑ STORET ↓ G1CE0059

Signature: _____ **Date:** 11/13/17

Field Parameters Entered into LIMS: _____ (Initials/Date) **Field Parameters QC in LIMS:** _____ (Initials/Date)

Date Migrated to STORET: _____ **Field Sheets Scanned/Saved:** _____

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

SAMPLE ID _____ ORG ID 21FLCEN LATITUDE 29.2071311
COUNTY Marion STORET # 21CE0059 LONGITUDE -81.9971611
DATE 11/13/17 TIME _____ SAMPLING AGENCY FDEP
SITE NAME Silver River
FIELD ID/NAME 21CE0059 RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)
100							

Landscape Development Intensity Index (LDI): _____

Local Watershed Erosion (select one): ☑ None ☐ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☑ No evidence ☐ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side: Left Bank: >18m Right Bank: >18m

Hydrologic Modification Score (per FT 3101): _____

High Water Mark: 1m (m) + 2.0 (above present water level) = 3.0 (present depth) (above bed)

Artificially Impounded: ☐ Yes ☑ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

_____ m wide

N/A m/s	.17 m/s	0.17 m/s
N/A m deep	2.0 m deep	N/A m deep

Artificially Channelized: ☑ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☐ 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): N/A

Smothering of Substrates

	None	Slight	Moderate	Severe
Sand Smothering:	☐	☐	☐	☐
Silt Smothering:	☐	☐	☐	☐
Algae Smothering:	☐	☐	☐	☐

SUBSTRATE TYPE

Assessment Tool: ☐ SCI ☑ RPS ☑ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)			
Undercut Banks / Roots			
Leaf Packs or Mat			
Aquatic Vegetation			
Rock or Shell Rubble..			
Sand.....			
Mud / Muck / Silt			
Other			
Other			

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☐	☐	☐
Fish:	☐	☐	☑	☐
Aquatic Plants:	☐	☐	☐	☑
Iron/Sulfur Bacteria:	☑	☐	☐	☐

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:	0.3	23.1	7.4	5.7	66	479		2.0(2)
Mid:								☒ VOB
Bottom	1.5	23.1	7.4	5.7	66	478		TOTAL DEPTH 2.0

Meter ID: Betty/67

Water Odors Normal ☑ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils Normal ☑ Sheen ☐ Globs ☐ Slick ☐ Other ☐

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 N/A
Lot Number: _____ Exp: _____

Clarity Clear ☑ Slightly Turbid ☐ Turbid ☐ Opaque ☐

System Type: Stream ☑ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐ _____

AMBIENT FIELD CONDITIONS / NOTES:

☐ The antecedent hydrologic conditions have been met to my best know ledge.

SAMPLING TEAM Natalie Ayala / Terry Riordan SIGNATURE: _____ DATE: 11/13/17

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

SAMPLING AGENCY:		STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
FDEP		GICG0059	11/13/17	
REMARKS:	COUNTY: Marion	LOCATION: Silver River		FIELD ID/NAME: GICG0059

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 2	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 productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 (2) (1)
Substrate Availability 20	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 13	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 20 Primary Score 55	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** 20	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 10 Left Bank 10	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful 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 10 Left Bank 10	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 10 Left Bank 10 Secondary Score 80	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

135 **TOTAL SCORE**

Date: 11/13/17	Analyst: Natalie Ayala/Terry Rivadeneira	Signature:

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

Waterbody: Silver River | Date: 11/13/17 | County: Marion | Storet Number: 21FLEPD59

Analyst: Terry Riordan | Signature: [signature]

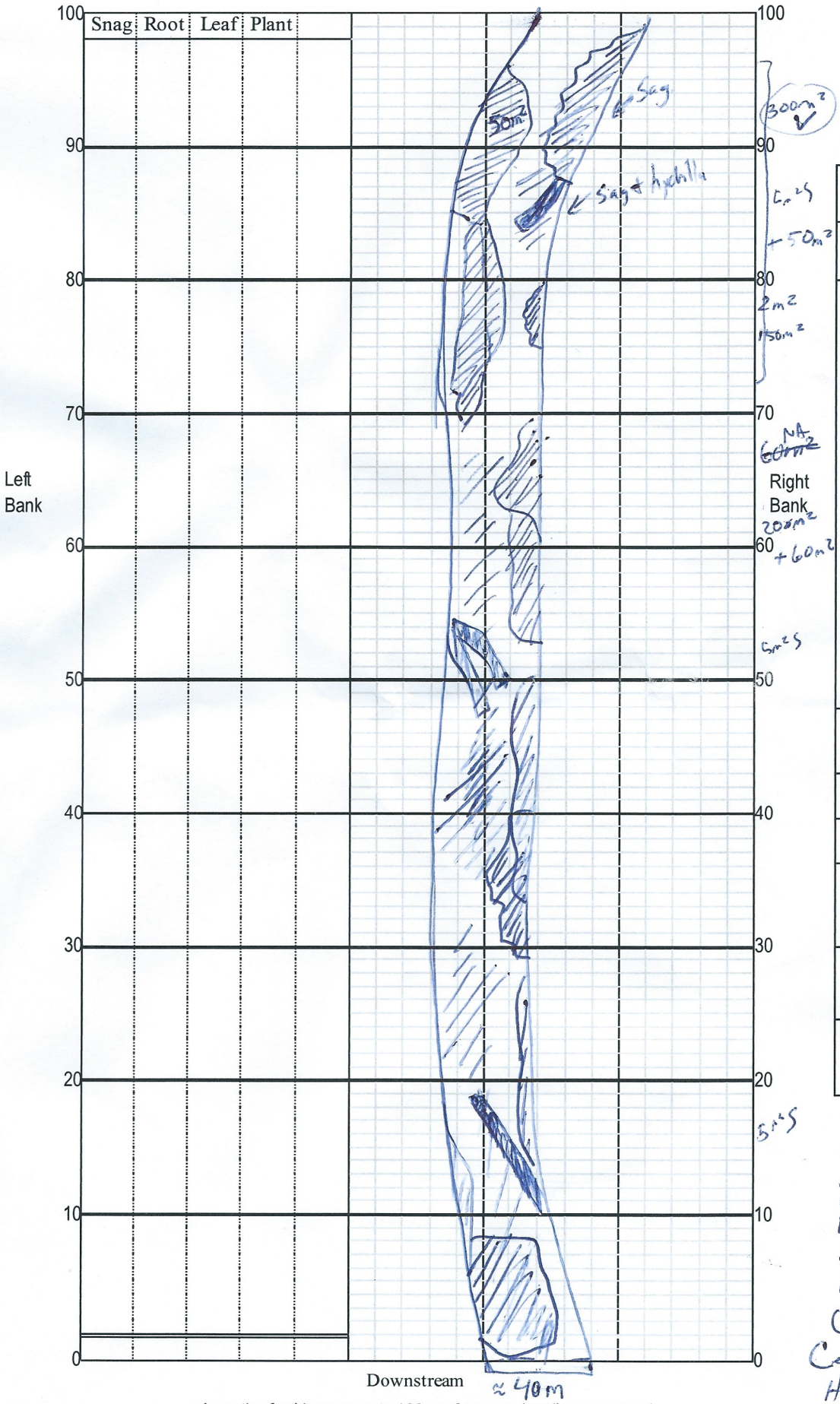
Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m^2 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.

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides									✓	✓	
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica										✓	
Centella asiatica											
Ceratophyllum demersum				✓	✓	✓		✓	✓	✓	
Chara											
Cicuta maculata			✓	✓	✓	✓	✓	✓	✓	✓	
Cladium jamaicense								NA	✓		
Colocasia esculenta								✓			
Commelina diffusa											
Commelina virginica											
Crinum americanum				✓				✓			
Diodia virginiana											
Eichhornia crassipes									✓		
Eleocharis (wispy viviparous)											
Hydrilla verticillata	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Hydrocotle											
~~Hygrophila polysperma~~				✓	✓	✓	✓			✓	
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Lemna	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
Acer rubrum				✓	✓	✓	✓	✓	✓	✓	
Crinum						✓					
persean palust							✓				
Cephalanthus							✓			✓	
Fraxinus	✓	✓	✓				✓		✓	✓	
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage											
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage											
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum			✓	✓	✓	✓	✓	✓	✓	✓	
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides									✓	✓	
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontederia cordata	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana	D	D	D	D	D	D	D	D	D	D	
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana					✓	✓		✓	✓	✓	
Zizania aquatica											
Taxodium distichum	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Nyssa	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Ilex cassine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Amaranthus			✓			✓					
Wolffiella	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
panicum dist			✓		✓	✓			✓	✓	
Aster	✓										
Magnolia virginiana					✓	✓					
Watercress Nasturtium Floridanum			✓						✓	✓	

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: S. River River

Date: 11/13/2017

Sampler: Natalie Ayala

100 m:	Latitude	29.2072
	Longitude	-81.9982
0 m:	Latitude	29.207479
	Longitude	-81.999128

Substrates: Code key, draw proportionate habitat abundance. %

☑	Snags	0.4%
☐	Roots/undercut banks	
☐	Leaf Packs (or mats)	
☑	Aquatic Macrophytes	~~Ø~~ 30%
☐		
☐		
☐	Pools	total # observed = 0 # range expected = 0

Average width 40m m

Average depth 2.0 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:

V= velocity(m/s), W=width, Z= depth

Pontederia
Lemna
Nuphar
Landoltia
Cicuta
Ceratophyllum
Hydrilla
Sag

300 m² V
16m² S

62-160.800, F.A.C

Revision Date: March 1, 2014

DEP Form 9000-25 (Modified) Rapid Periphyton Field Sheet

Site	County	Date	Investigators	STORET Station Number
		11/13/2017		GICE0059

Assessment Points

Rank Algae Thickness (N-6 or X), Est. = Estimated?

Left Bank — UPSTREAM — Right Bank

Segment Flag Point	9 (0.1m)		8		7		6(*)		5(*)		4(*)		3		2		1 (0.1m)		Segment Flag Point	Canopy Cover %
	Rank	Est.	Rank	Est.	Rank	Est.	Rank	Est.	Rank	Est.	Rank	Est.	Rank	Est.	Rank	Est.	Rank	Est.		
100	3	Y/N	N	Y/N	N	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	4	Y/N	3	Y/N	100	
90	3	Y/N	N	Y/N	N	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	N	Y/N	N	Y/N	90	
80	4	Y/N	N	Y/N	N	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	N	Y/N	N	Y/N	80	
70	N	Y/N	N	Y/N	N	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	N	Y/N	N	Y/N	70	
60	4	Y/N	N	Y/N	3	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	3	Y/N	6	Y/N	60	
50	N	Y/N	N	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	4	Y/N	N	Y/N	4	Y/N	50	
40	N	Y/N	4	Y/N	N	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	3	Y/N	3 X	Y/N	40	
30	N	Y/N	5	Y/N	N	Y/N	N	Y/N	X	Y/N	X	Y/N	\	Y/N	N	Y/N	N	Y/N	30	
20	3	Y/N	3	Y/N	3X	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	N	Y/N	N	Y/N	20	
10	3	Y/N	3	Y/N	3X	Y/N	3X	Y/N	X	Y/N	X	Y/N	X	Y/N	N	Y/N	N	Y/N	10	
00	4	Y/N	N	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	X	Y/N	N	Y/N	N	Y/N	00	

DOWNSTREAM

(N to 1 mm)
(3) 6mm
(4) 20mm
(5) 10cm
(6)

Secchi @ VOB but water clarity obscured bottom.

X = above Secchi, but can't be done by method (reached or visually estimated).

*** = Point used to determine Canopy Cover %.**

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

(> 3 considered smothered)

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%.

Secchi depth	
Estimated?	
# points ranked 4-6	
total points assessed	
% points ranked 4-6	

(Exclude X's)

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

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: 61CE0059 (SILVER RIVER) | County: Marion | Date: 11/13/17 | Investigators: Natalie Ayala / Terry Riordan

STORET Station Number: 61CE0059

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N		
	2	N		
	3	X		
	4	X		
	5	X		
	6	X		
	7	X		
	8	N		
	9	4		
10	1	N		
	2	N		
	3	X		
	4	X		
	5	X		
	6	3		
	7	3		
	8	3		
	9	3		
20	1	N		
	2	N		
	3	X		
	4	X		
	5	X		
	6	X		
	7	3		
	8	3		
	9	3		
30	1	N		
	2	N		
	3	X		
	4	X	X	
	5	X	X	
	6	2		
	7	2		
	8	2		
	9	2		
40	1	3		
	2	3		
	3	X		
	4	X		
	5	X		
	6	X		
	7	2		
	8	4		
	9	N		
50	1	4		
	2	N		
	3	X		
	4	X		
	5	X		
	6	X		
	7	X		
	8	N		
	9	N		
60	1	6		
	2	3		
	3	X		
	4	X	X	
	5	X	X	
	6	X	X	
	7	3		
	8	2		
	9	4		
70	1	2		
	2	2		
	3	X		
	4	X	X	
	5	X	X	
	6	X	X	
	7	2		
	8	2		
	9	2		
80	1	2		
	2	2		
	3	X	X	
	4	X	X	
	5	X	X	
	6	X	X	
	7	2		
	8	2		
	9	4		
90	1	2		
	2	2		
	3	X	X	
	4	X	X	
	5	X	X	
	6	X	X	
	7	2		
	8	2		
	9	3		
100	1	3		
	2	4		
	3	X	X	
	4	X	X	
	5	X	X	
	6	X	X	
	7	2		
	8	2		
	9	3		

Secchi depth	2.0
Estimated?	
# points ranked 4-6	8
total points assessed	55
% points ranked 4-6	15%

(Exclude X's)

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

RQ- 2017-11-13-49

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

(> 3 considered smothered)

(N to 1 mm)

(3) 6mm

(4) 20mm

(5) 10cm

(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%.