FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End of Day CCV Yes / No

WIN Station Name: HELENA RUN DOWNSTREAM OF US 27 **Date:** 5/19/2022

WIN/Field ID: G1CE0120 **WBID:** 2832 **ENR:** - **Latitude:** 28.76477

County: LAKE **Org ID:** 21FLCEN **Longitude:** -81.88156

Receiving Body of Water: Lake Harris **RQ-** 2022-04-04-32

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Katie March		x		x	x
[x] Victoria Schwartz	x		x		
[ ]					
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [x] Syringe
- [ ] Carboy
- [ ] Van Dorn
- [ ] Pole

Depth measured with: Secchi

Secchi Equipment ID: Knothead

Collection Method

- [ ] Wading
- [ ] From Shore
- [ ] Other _____
- [x] Canoe/Kayak
- [ ] Electric Motor
- [ ] Gasoline Motor

Water Level: [x] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# CRAW DADDY

Photos: YES **Flow:** FLOW **Tide:**

Tide Times: High: Low:

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

SBIO ID Numbers: SBIO 84247 MACROPHYTE 12155 RPS 9934 LIMS 2328702

Notes:

SUNNY

Duplicate Sample

Time Zone: EST **Time:** _____ **Field ID:** N/A (WIN ID_DUP)

WIN DMT Activity ID: _____

Blank

Time Zone: _____ **Time:** _____ **Field ID:** _____ (Blank Type_DDMMYYYY)

DI Source: _____ **Location:** _____

DI Type: _____ **Equipment ID:** _____

DI Container (Name/ID): **DI Container Type:**

LIMS EVENT ID: CEN-DIST-2022-05-20-02 **WIN Import ID:** 33838

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 5/27/22 (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** EB 6/17/22 (Initials/Date)

Scan/Save Field Sheets KWM 6/28/22 (Initials/Date) **Migrate Data to WIN:** KWM 6/28/22 (Initials/Date) **Verify Data In WIN:** _____ (Initials/Date)

RQ-2022-04-04-32
Customer: CEN-DIST
Project ID: STRATEGIC MONITORING PLAN

Collected By: Katie March, Victoria Schwartz
Field Report Prepared By: Katie March
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: G1CE0120

Location: HELENA RUN DOWNSTREAM OF US 27

Comments:

Matrix: Fresh

(Check one) [X] GRAB [ ] COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C⁰)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTh)
5/19/2022	1250 EST	4.87	62	27.9	7.28	0.3	0.7 ☐ VOB (S)	1.7	265.9	0.12
	1253 EST	3.81	48.5	27.5	7.2	1.2	Central Lab please use top row for login purposes		267.5	0.13

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	[x] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	x ☐ Ice x ☐ H_2SO_4*	☐ <2	1	C
	Lot # SA1308030 **Exp:** 12/1/22				
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP ☐ W-HARD	☐ Ice ☐ HNO_3*	☐ <2		
	Lot # **Exp:**				
Filtered Nutrients (P125ML)	[x] W-PO4-F [x] Field Filtered 0.45 µm Filter	x ☐ Ice		1	C
	Filter Lot # 17413308	**Syringe Lot #** 1335260			
BOD (BP-1L)	☐ OV-BODUNIN	☐ Ice			
Chlorophyll (BP-1L)	[x] CHLSUITE-W	x ☐ Ice		1	C
Physical/Aggregate (Fresh) (P-1L)	x ☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-TDS / W-SO4-IC / W-	x ☐ Ice		1	C
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC	☐ Formalin			
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☐ Ice			
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice	**MCAA Exp.**		
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐ W-TR-SQ-R ☐ W-PCB-TQ-R	☐ Ice	**MCAA Lot#**		
Phytoplankton/Periphyton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Name: Katie March, Victoria Schwartz

Signature:

Date: 05/19/2022

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID _____ ORG ID _____ LATITUDE _____

COUNTY Lake ~~STORET~~ WIN # GICE0120 LONGITUDE _____

DATE 5/19/22 TIME 12:50 SAMPLING AGENCY 21FLCEN

SITE NAME Helen Run Downstream of US 27

FIELD ID/NAME GICE0120 RECEIVING BODY OF WATER Lake Hamis

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)
70				20	5		highway 5

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 : >18 Right Bank : >18

Hydrologic Modification Score (per FT 3101) _____

High Water Mark: 0.3 (m) + 1.7 (above present water level) = 2.0 (present depth) (above bed)

Artificially Impounded ☐ Yes ☑ No

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

≈ 20 m wide (21 sec)

_____ m/s	0.047 m/s	_____ m/s
_____ m deep	1.4 m deep	_____ m deep

Artificially Channelized : ☐ No ☒ Mostly recovered, more sinuous ☐ 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

	% 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			

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	27.9	7.28	4.87	62	265.9	0.12	0.7
Mid:								☐ VOB
Bottom	1.2	27.5	7.2	3.81	48.5	267.5	0.13	TOTAL DEPTH 1.7

Meter ID: Crawdaddy

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: SA1308030 Exp: 12/1/22

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

ABUNDANCE

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

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

AMBIENT FIELD CONDITIONS / NOTES:

Sunny

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM Katie March + Victoria Schwartz

SIGNATURE : KMarch / VMS

DATE : 5/19/22

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

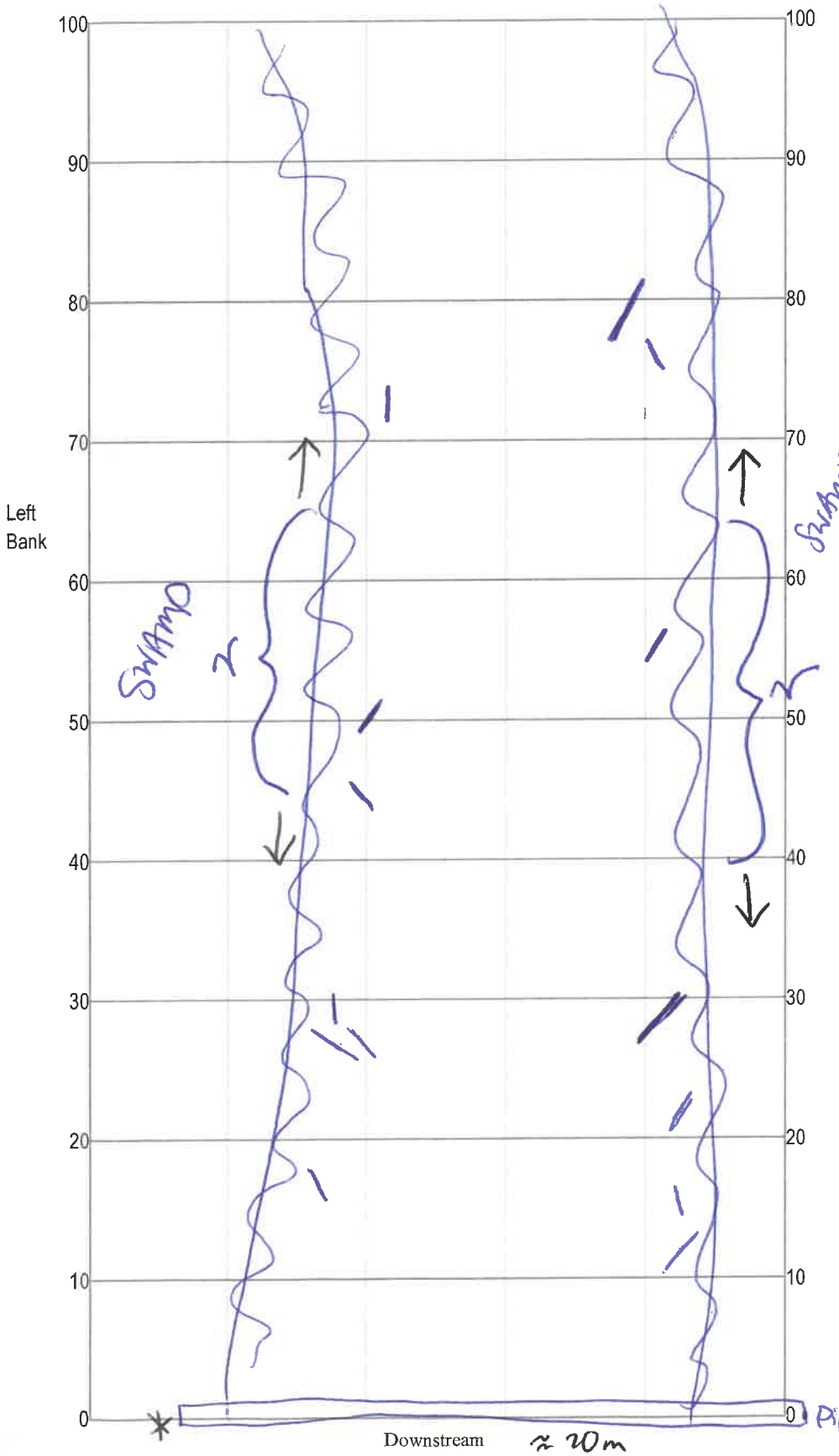
SAMPLING AGENCY:		~~STORET~~ WIN STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
21FLCEN		GICE0120	5/19/22	Lake Harris
REMARKS:	COUNTY: Lake	LOCATION: Helena Run Downstream of US 27		FIELD ID/NAME: GICE0120

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 6	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 5	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 5	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 21cm 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 10 Primary Score 26	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** 17	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 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 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. 5 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 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 77	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

103 **TOTAL SCORE**

Date: 5/19/22	Analyst: Katie March / Victoria Schwartz	Signature: KMarch / Vict Sch

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: GICE0120

Date: 5/19/22

Sampler: Victoria Schwark

100 m: Latitude _____
Longitude _____

* 0 m: Latitude 28.7629628
Longitude -81.8875133

Substrates: Code key, draw proportionate habitat abundance. %

☑	Snags	5-10 VS
☐	Roots/undercut banks	
☐	Leaf Packs (or mats)	
☑	Aquatic Macrophytes	3-5
☐		
☐		
☐	Pools	total # observed = _____ # range expected = _____

Average width 20 m
Average depth 1.4 m

Velocity measured at _____ meter mark.

WQ & chemistry taken at _____ 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:

- NO clear shoreline L+R Swamp (no defined banks)

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

Waterbody: ~~Lake~~ Helen Run Downstream of US 27 | Date: 5/9/22 | County: Lake | WIN Storet Number: GICE0120

Analyst: Katie March | Signature: KMarch

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if $1m^2$ 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											
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											
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											
Pontedaria cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana	✓										
Zizania aquatica											
Wolffiella	✓	✓	✓	✓	✓	✓	✓	✓			
P. geminatum	✓	✓									
U. gibba			✓		✓	✓					

Mostly woody plants/trees, no defined banks, just swamp

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Itchetucknee River Downstream of US 27 | County: Lake | Date: 5/19/22 | Investigators: Victoria Schwartz

STORET Station Number: GICE0120

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

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

Secchi depth	0.7
Estimated?	

# points ranked 4-6	5
total points assessed	99
% points ranked 4-6	5

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

RQ- 2022-04-04-32

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%.