



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

Qualified Data

October 2017

Location/STORET Station Name: Sweetwater Creek @ 35m US of Cress Run Date: 11/21/2017
(mm/dd/yyyy)STORET # G2CE0139 WBID: 2996 Latitude: 28.69463
(Decimal Degrees)County: Seminole RQ - 2017-11-20-53 ORG ID: 21PLCEN Longitude: -81.208835
(Decimal Degrees)Receiving Body of Water: _____ Field ID: G2CE0139

Sampling Team Members					WC Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
Mike Linger Mike Drennan					☒	☒	☒	☒	☒	☒ 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 / <u>Normal</u> / Above Normal / Flooded											Meter ID# <u>Boop / non</u>		Matrix: <u>Fresh</u> / Marine / DI	
Photos: Yes / <u>No</u> / Flow: No Flow / Intestinal / <u>Flowing</u> / NA											Tide: Rising / Falling / Slack / <u>NA</u>		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. (C°)				
<u>EST</u>	<u>1120</u>	<u>0.1</u>	<u>0.2</u>	<u>6.7</u>	<u>72</u>	<u>7.2</u>	<u>0.3</u>	<u>0.2 (s)</u>	<u>576</u>	<u>19.3</u>				
CEN														

Biological Samples Collected: None <u>HA</u> SCI <u>RPS</u> Algae ID <u>LVS</u> 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 ₂ SO ₄	<u>SA7275010</u>	<u>10/2/18</u>	☒ <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-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-GFD				☐ Ice					
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA				☐ Ice					
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA				☐ Ice					
	☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R				☐ Other					

Notes:

Sweetwater Creek @ 35m US
of Cress RunDate: 11/21/2017
RQ-2017-11-20-53G2CE0139
Field ID ↑
STORET ↓
G2CE0139Signature: [Signature] Date: 11/21/17

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

Date Migrated to STORET: _____ (Initials/Date) Field Sheets Scanned/Saved: _____ (Initials/Date)

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

SAMPLE ID G2CE0139 ORG ID 21PLCEN LATITUDE 28.69463
 COUNTY Seminole STORET # G2CE0139 LONGITUDE -81.208885
 DATE 11/21/17 TIME 1120 SAMPLING AGENCY FDEP-CEROC
 SITE NAME Sweetwater Creek @ 35m US of Cress Run
 FIELD ID/NAME G2CE0139 RECEIVING BODY OF WATER Jessup

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): (100m buffer) Forest/Natural <u>5</u> Silviculture <u>10</u> Field/Pasture <u>5</u> Agricultural <u>5</u> Residential <u>5</u> Commercial <u>75</u> Industry <u>5</u> Other (Specify) <u>5.26 (Run 53, 2017)</u>								Landscape Development Intensity Index (LDI) <u>5.26 (Run 53, 2017)</u>
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 <u>1.5</u> m wide <u>0.16</u> m/s <u>0.23</u> m deep				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>2</u> Right Bank: <u>5</u>				Hydrologic Modification Score (per FT 3101) <u>5</u>				
High Water Mark: <u>0.1</u> + <u>0.23</u> = <u>0.33</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 % Coverage INVERT PERI # Times Sampled # Times Sampled			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.2</u> <u>19.3</u> <u>7.2</u> <u>6.7</u> <u>72</u> <u>576</u> <u>0.3</u> ☒ VOB Mid: <u>0.2</u> <u>19.3</u> <u>7.2</u> <u>6.7</u> <u>72</u> <u>576</u> <u>0.3</u> ☒ VOB Bottom: <u>0.2</u> <u>19.3</u> <u>7.2</u> <u>6.7</u> <u>72</u> <u>576</u> <u>0.3</u> ☒ VOB Meter ID: <u>0.2</u>		
Woody Debris (Snags) <u>0.8</u> Undercut Banks / Roots <u>1.4</u> Leaf Packs or Mat Aquatic Vegetation Rock or Shell Rubble.. <u>1.9</u> Sand..... Mud / Muck / Silt Other Rubble <u>8.3</u> Other		Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐		Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐	
Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>SA727500</u> Exp: <u>10/2/18</u>		Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐		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: <u>Clear upper 70's</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.	

SAMPLING TEAM Mike Linger, Mike Drennon SIGNATURE: [Signature] DATE: 11/21/17

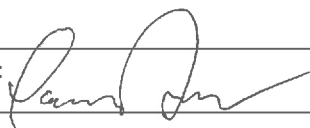
DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>FDEP-CEROC</u>		STORET STATION NUMBER: <u>G2CE0139</u>	DATE (MM/DD/YY): <u>11/21/17</u>	RECEIVING BODY OF WATER: <u>Lake Jessup</u>
REMARKS:	COUNTY: <u>Seminole</u>	LOCATION: <u>Sweetwater Crk @</u> <u>35m US of Cross Run</u>	FIELD ID/NAME: <u>G2CE0139</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>12</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 productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>4</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>13</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>8</u> ----- Primary Score <u>37</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>2</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>8</u> Left Bank <u>7</u> <u>15</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>3</u> Left Bank <u>1</u> <u>4</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>2</u> Left Bank <u>1</u> <u>3</u> ----- Secondary Score <u>24</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

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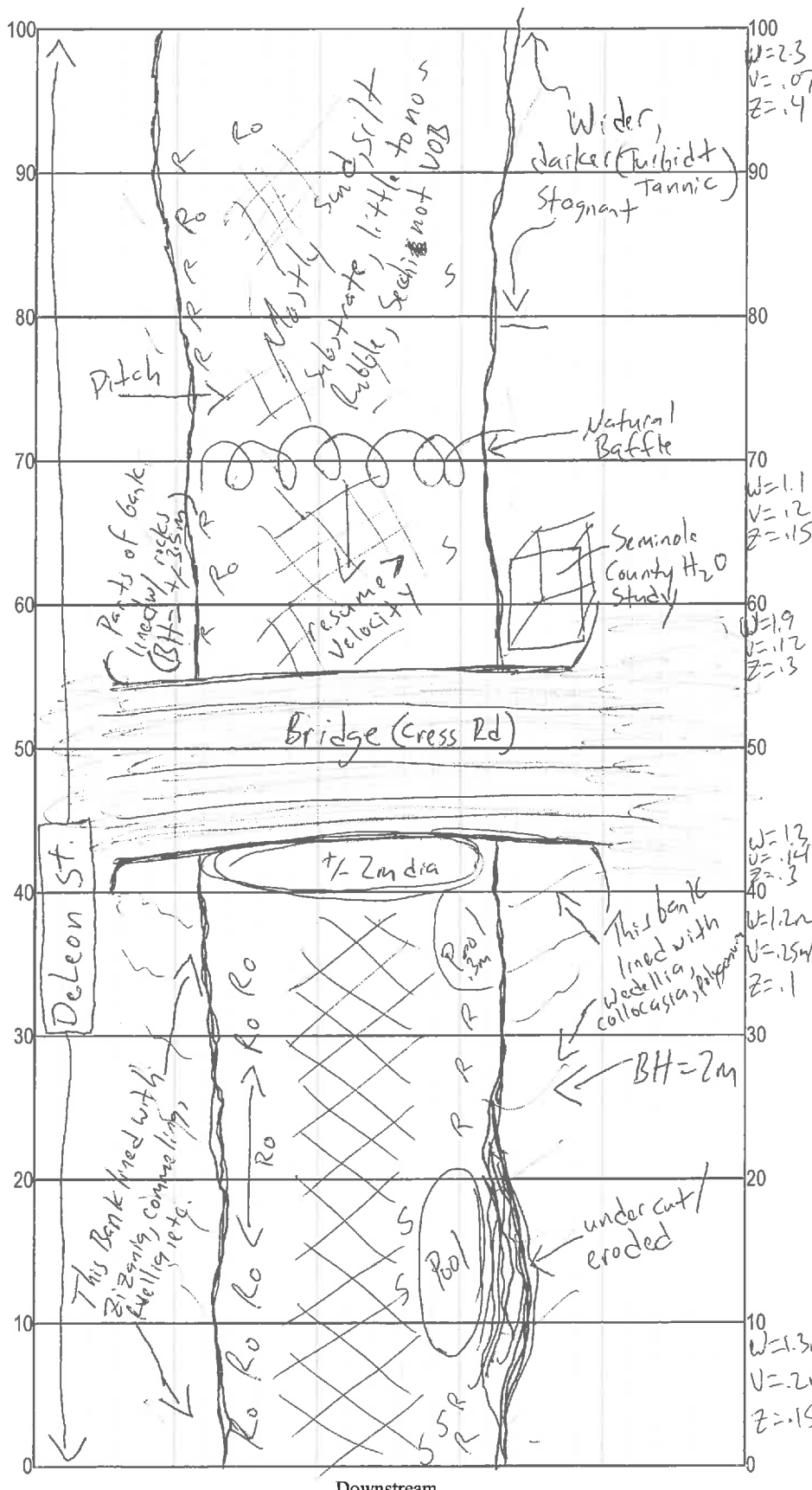
TOTAL SCORE

Date: <u>11/21/17</u>	Analyst: <u>Mike Drennan / Mike Linger</u>	Signature: 
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

S 1
2 1
0 2
1 1
1 1
1 5
0 1
0 1
1 1
2 2
2 2
1 1
1 1
2 2
0 3
1 6
2 2
1 1
0 3
1 3
1 8
1 1
2 1
2 4
1 9
2 2
2 2
2 4
1 3
0 3
2 3
2 4
1 2
1 1
2 2
2 3
1 3
1 1
2 2
2 4
1 2

Left Bank



Location: Sweetwater creek @ 35m
US of Cress Run
Date: 11/21/17
Sampler: Mike Drennan, Mike Linger

100 m: Latitude 28.69376
Longitude -81.20901
0 m: Latitude 28.69463
Longitude -81.20902

Substrates: Code key, draw proportionate habitat abundance.	%
☐ S Snags	.8
☐ R Roots/undercut banks	1.4
☐ Leaf Packs (or mats)	—
☐ Aquatic Macrophytes	—
☒ Rubble(u)	8.3
☐ Rocks	1.9
☐ Pools	total # observed = 2 # range expected = 5-10

Average width 1.52 m
Average depth 0.23 m

Velocity measured at 35, 40, 60 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:

- Aquatic Macrophytes < 2m²
- R.t. bank w/ small canopy of oaks, sweetgum, Sabal palmetto

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

62-160.800, F.A.C
S 1.2
R 2.1
Ro 2.9
U 12.6
4.7/152 = +/- 3.1% habitat

W=1.52m
V=0.16m/s
Z=0.23m
BF=0.1m > H₂O level
BH_{left}=2m, BH_{right}=3.5m (Above BF)

Revision Date: March 1, 2014

Sweetwater Creek (WBID 2996)

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Hauges Creek (upper) 0.550 m US of Burrall Lock County: Seminole Date: 11/21/17 Investigators: Mike Lipsey
Ferry Rotten Mike Drennon

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	3			60	1	2		
	2	2				2	2		
	3	2				3	2		
	4	2				4	2		
	5			92		5	2		76
	6	2				6	2		
	7	2				7	2		
	8	2				8	2		
	9	3				9	2		
10	1	2			70	1	2		
	2	2				2	2		
	3	2				3	2		
	4	2				4	2		
	5	2		84		5	2		72
	6	2				6	2		
	7	2				7	2		
	8	2				8	2		
	9	2				9	2		
20	1	2			80	1	2		
	2	2				2	2		
	3	2				3	2		
	4	2				4	2		
	5	2		92		5	2		84
	6	2				6	2		
	7	2				7	2		
	8	2				8	2		
	9	2				9	2		
30	1	2			90	1	2		
	2	2				2	2		
	3	2				3	2		
	4	2				4	2		
	5	2		84		5	2		80
	6	2				6	2		
	7	2				7	2		
	8	2				8	2		
	9	2				9	2		
40	1	2			100	1	2		
	2	2				2	2		
	3	2				3	2		
	4	2				4	2		
	5	2		72		5	2		76
	6	2				6	2		
	7	2				7	2		
	8	2				8	2		
	9	2				9	2		
50	1	2							
	2	2							
	3	2							
	4	2							
	5	2		84					
	6	2							
	7	2							
	8	2							
	9	2							

STORET Station Number:

62CE0058

62CE0139

Secchi depth 0.2
Estimated?

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- 2017-11-20-53

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%.

Waterbody: Swatwater Creek (WRID 2996)	Date: 11/21/17	County: Seminole	Storet Number: 62CE0139
Analyst: Mike Linger / Mike Drennan		Signature: <i>Mike Linger</i>	

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 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.

Imc