



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

October 2017

Qualified Data

No

Location/STORET Station Name: Swamp Creek upstream of Railroad

Date: 12/20/17

STORET # G1WA0052

WBID: 427

Latitude: 30.663

(mm/dd/yyyy)

County: Gadsden

RQ - 2017-12-18-34

ORG ID: 21FLWQA

Longitude: -84.448

(Decimal Degrees)

Receiving Body of Water: Attapulcus Creek

Field ID: G1WA0052

(Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ben Ralys						X			
Curtis Musson					X		X	X	X

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# Biology #2

Matrix: Fresh / Marine / DI

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

Tide: Rising / Falling / Slack / NA

Tide Times: High NA Low NA

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	950	0.3	1.0	9.11	91.3	6.90	0.03	100B	72	15.47
CEN										

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

SBIO ID Numbers: SBIO-ID: 78165 HA-ID: 14956 RPS-ID: 8872 Macrophyte-ID: C2m2 LIMS#: 1955338

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	<u>7233030</u>	<u>8/21/18</u>	☒ <2
Metals	☒ W-ICPMS ☐ W-ICP	☒ Ice ☒ HNO3	<u>7261120</u>	<u>9/18/18</u>	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	<u>6827054</u>		
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	☐ Ice			
	☐ 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)

Contains 1.1 Nitric Acid
NA-7261120
EXP: 09/18/18
See SDS

THERMO FISHER SCIENTIFIC
505 NORTH MAIN STREET
ANN ARBOR MI 48106-3000
1-800-654-2711
Contains 1.1 Sulfuric Acid
Lot No.: SA7233030
Expires: 08/21/18
See Safety Data Sheet (SDS)

Notes: Kit-C Bacteria, Tracers, Markers (HF-183) SCI, RPS, LVS, HA

STORET / Field ID → Swamp Creek Upstream of Railroad

Dec 20, 2017

Signature: Curtis Musson

Date: 12/20/2017

Field Parameters Entered into LIMS: 11/3/18 (Initials/Date)

Field Parameters QC in LIMS: Cm 1-29-2018 (Initials/Date)

Date Migrated to STORET: _____ (Initials/Date)

Field Sheets Scanned/Saved: _____ (Initials/Date)

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

SRID: 78165 HAIN: 14956

SAMPLING AGENCY: Florida Department of Environmental Protection		STORET STATION NUMBER: <u>GLW40058</u>	DATE (MM/DD/YY): <u>12/20/17</u>	RECEIVING BODY OF WATER: <u>Atta Pulgus Creek</u>
REMARKS:	COUNTY: <u>Gadsden</u>	LOCATION: <u>Swamp Creek</u> <u>upstream of Railroad</u>	FIELD ID/NAME: <u>GLW40058</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components <u>8</u> Snags, Roots, Rock, Aquatic Vegetation	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>9</u>	20 19 18 17 16	15 14 13 12 11	10 <u>9</u> 8 7 6	5 4 3 2 1
Substrate Availability <u>5</u> <u>3-5</u> %	Major productive habitat present at site (>30% 27.2% 25.8% 24.4% 26.6%) 20 19 18 17 16	Major productive habitat, by aerial extent (21.6% 20.2% 18.8% 17.4% 16%) 15 14 13 12 11	6% to 15% major productive habitat (15% 13% 11% 9% 6%) 10 9 8 7 6	Less than 5% major productive habitat <u>5</u> 4 3 2 1
Water Velocity <u>17</u> <u>0.27</u> m/s	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 <u>17</u> 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>17</u> ----- Primary Score <u>48</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 <u>17</u> 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>18</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 <u>18</u> 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>5</u> Left Bank <u>5</u> If Banks are Pipe Clay, Bed Rock or Concrete at Bank full: Optimal	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. (+,+,+) <u>5</u> 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>10</u> Left Bank <u>8</u>	Width of vegetation greater than 18 m <u>10</u> 9	Width of vegetation >12 to 18 m <u>8</u> 7 6 (18m 15m 12m)	Width of vegetation 6 to 12 m. human activities close to system 5 4 (9m)	Less than 6 m of buffer zone due to intensive human activities 3 2 1 (6-5m) (4-3m) (<2m)
Riparian Zone Vegetation Quality Right Bank <u>10</u> Left Bank <u>9</u> ----- Secondary Score <u>65</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. <u>10</u> <u>9</u>	>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

113 TOTAL SCORE

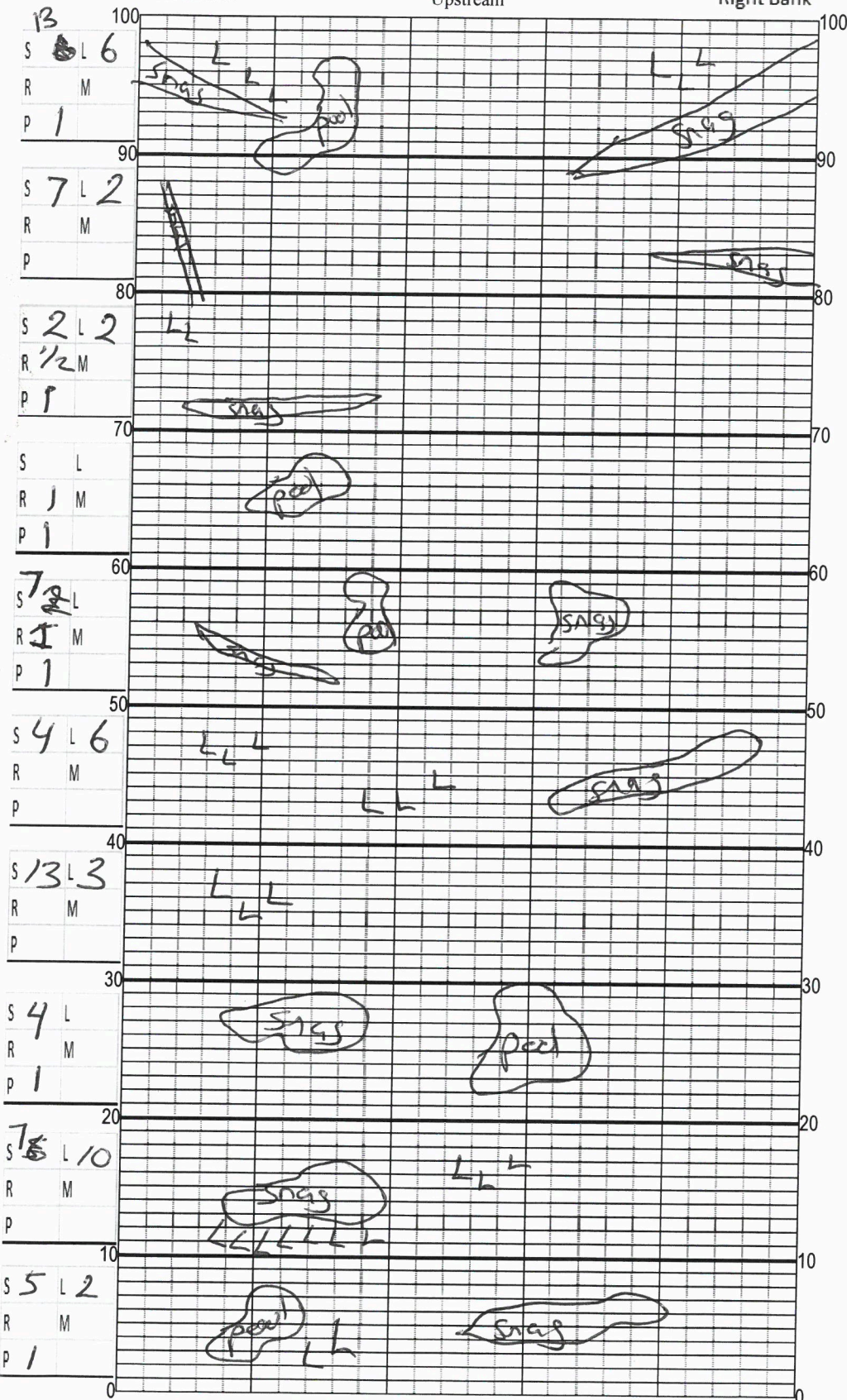
Date: <u>12/20/2017</u>	Analyst: <u>Curtis MUSSON</u> <u>Ben Ralys</u>	Signature: <u>Curtis MUSSON</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

Left Bank

Upstream

Right Bank



Location: Sway Creek

Date: 12/20/17

Sampler: Berkley, Curtis Mosen

100 m: Latitude 8
Longitude

0 m: Latitude 30.663
Longitude -84.468

Substrates: Code key, draw proportionate habitat abundance. %

S	Snags	72
R	Roots/undercut banks	71
L	Leaf Packs (or mats)	71
M	Aquatic Macrophytes	0
Rc	Rock	0
	<u>Total</u>	<u>73%</u>
P	Pools	total # observed = <u>5</u> # range expected = <u>1-3</u>

Average width 6 m

Average depth 0.3 m

Velocity measured at 40 meter mark.

Velocity 0.27 m/s

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.

Notes/Plants Observed:

2m² = 16 Sweeps

# of Sweeps	Conversion	m ²	%
Snag <u>59</u>	$\div 8.66$	<u>6.7</u> m ²	
Root <u>2.5</u>	$\div 8$	<u>0.3</u> m ²	
Leaf <u>31</u>	$\div 8$	<u>3.9</u> m ²	
Macrophyte <u>0</u>	$\div 8$	<u>0</u> m ²	
Rock <u>0</u>	$\div 8$	<u>0</u> m ²	
Total Available Habitat		<u>11.6</u> m ²	<u>3%</u>
Total Area		<u>600</u> m ²	
Total Unavailable Habitat		m ²	

Meter Mark	Depth (m)	Width (m)	Velocity Measurement (Sec)
<u>40</u>	<u>0.3</u>	<u>6</u>	<u>3.7</u>
Avg.			

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

Expected Number of Pools

$$\left(\frac{100}{12 \times \frac{1}{2} W} \right) \times 1 = 1.4$$

$$\left(\frac{100}{12 \times \frac{1}{2} W} \right) \times 2 = 2.8$$

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

SAMPLE ID 28165 ORG ID 21FLWQA LATITUDE 30.663
 COUNTY Gadsden STORET # G1W40052 LONGITUDE -84.448
 DATE 12/20/2017 TIME 09:50 EST SAMPLING AGENCY FDED
 SITE NAME Sugm Creek upstream of Rail Road
 FIELD ID/NAME G1W40052 RECEIVING BODY OF WATER Attopagus Creek

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) ☐								Landscape Development Intensity Index (LDI) ☐
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 ☐ m wide ☒ m/s ☐ m/s ☒ m/s ☐ m deep ☐ m deep ☒ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>18m</u> Right Bank: <u>718m</u>				Hydrologic Modification Score (per FT 3101) ☐				
High Water Mark: <u>1.0</u> + <u>0.3</u> = <u>1.3</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			WATER QUALITY					
Invert % Coverage Woody Debris (Snags) <u>2</u> Undercut Banks / Roots <u>01</u> Leaf Packs or Mat <u>1</u> Aquatic Vegetation <u>0</u> Rock or Shell Rubble <u>0</u> Sand <u>97</u> Mud / Muck / Silt <u>0</u> Other <u>0</u> Other <u>0</u>			Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.3</u> <u>15.47</u> <u>6.90</u> <u>9.11</u> <u>91.3</u> <u>72</u> <u>0.03</u> Mid: <u>0.3</u> <u>15.47</u> <u>6.90</u> <u>9.11</u> <u>91.3</u> <u>72</u> <u>0.03</u> Bottom: <u>0.3</u> <u>15.47</u> <u>6.90</u> <u>9.11</u> <u>91.3</u> <u>72</u> <u>0.03</u> Meter ID: <u>Bio #2</u> TOTAL DEPTH <u>0.4</u>					
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☒ ☐ ☐ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐			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>See field sheet</u> Exp:			Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify)			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 knowledge.					
SAMPLING TEAM <u>Curtis Mussion / Ben Ralrs</u>			SIGNATURE: <u>Curtis Mussion</u>			DATE: <u>12/20/17</u>		

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Swamp Creek U.S. RR County: Gadsden Date: 12/20/2017 Investigators: Co. Musson / B. Rains
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 STORET Station Number: 61410052

0	1	N	N		60	1	N	NO	
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
10	1				70	1			
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
20	1				80	1			
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
30	1				90	1			
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
40	1				100	1			
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			

Secchi depth 100
Estimated? NO
points ranked 4-6 9
total points assessed 99
% points ranked 4-6 0

Check accompanying data collected at same site/date.
Algal mat sample NO
Linear Veg Survey YES
Habitat Assessment YES
SCI/Biorecon SAI
Water sample YES
RQ- 2017-12-18-34

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

SBIO: 78165
RPS: 8872
Entered: ~~608~~ 1/3/18
QC: CM 1-29-18
Authorized: CM 1-29-18



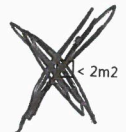
Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.
Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. 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 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Swamp Creek Date: 12/20/17 County: Gadsden Storet Number: 61640052
Analyst: B. R. Roberts, Curtis Mussen Signature: B. R. Roberts
Comments: SMP Sampling SBIO: 79165

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.

HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)												
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100													
Alternanthera philoxeroides												Myriophyllum heterophyllum																							
Bacopa caroliniana												Najas guadelupensis																							
Bacopa monnieri												Nuphar luteum																							
Bidens mitis												Orontium aquaticum																							
Boehmeria cylindrica												Panicum hemitomon																							
Centella asiatica												Panicum repens																							
Ceratophyllum demersum												Panicum rigidulum																							
Chara												Peltandra virginica																							
Cicuta maculata												Pistia stratioides																							
Cladium jamaicense												Polygonum glabra																							
Colocasia esculenta												Polygonum hydropiperoides																							
Commelina diffusa												Polygonum punctatum																							
Commelina virginica												Pontedaria cordata																							
Crinum americanum												Potamogeton illinoensis																							
Diodia virginiana												Rhynchospora inundata																							
Eichhornia crassipes												Rosa palustris																							
Eleocharis (wispy viviparous)												Ruellia simplex																							
Hydrilla verticillata												Rumex verticillatus																							
Hydrocotyle												Sacciolepis striata																							
Hygrophila polysperma												Sagittaria kurziana																							
Hymenocallis												Sagittaria lancifolia																							
Lachnanthes caroliniana												Sagittaria latifolia																							
Landoltia punctata												Salvinia minima																							
Lemna												Samolus parviflora																							
Limnophila sessiflora												Saururus cernuus																							
Ludwigia leptocarpa												Scirpus (schenoplectus) californicus																							
Ludwigia palustris												Sparganium americanum																							
Ludwigia peruviana												Typha																							
Ludwigia repens												Vallisneria americana																							
Luziola fluitans												Zizania aquatica																							
Micranthemum glomeratum																																			
Micranthemum umbrosum																																			
Mikania scandens																																			
Myriophyllum aquaticum																																			
If no Dominant or Co-Dominant were selected, indicate with "X"																																			
Indicate % cover macrophytes per section												Notes:																							
0-5% Macrophyte Coverage												No macrophytes																							
>5 and ≤10% Macrophyte Coverage																																			
>10 and ≤25% Macrophyte Coverage																																			
>25 and ≤50% Macrophyte Coverage																																			
> 50% Macrophyte Coverage																																			



Entered: 11/3/18

QC: Cm 1-29-18

Swamp SCE

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there is qualified data on this name.

Meter ID: Dio #2

RQ: 2018-12-18-34

Project: SMP

Notes: (1) Always wait for meter to stabilize before recording any readings.

(2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).

(3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	12/20/17	738	20.78	8.950	8.95	100.0	64.5	-	☒ F	☒ F
ICV	Curtis Musson	12/20/17	746	20.82	8.800	8.94	100.0	64.5	-	☒ F	☒ F
CCV	Curtis Musson	12/20/17	1211	19.86	9.111	9.24	101.4	65	-	☒ F	☒ F
CCV										P / F	L / F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	12/20/17	748	17100SD	10/20/18	1000	1000	☒ F	☒ F
ICV	Curtis Musson	12/20/17	750	17100SD	10/20/18	1000	1000	☒ F	☒ F
CCV	Curtis Musson	12/20/17	1213	17100SE	10/20/18	100	102	☒ F	☒ F
CCV								P / F	L / F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	12/20/17	752	170614B	12/20/18	7.0	7.00	22	☒ F	☒ F
Calibr.	Curtis Musson	12/20/17	753	17100SA	10/20/18	4.01	4.01	190	☒ F	☒ F
Calibr.	Curtis Musson	12/20/17	754	17100SC	4/20/19	10.01	9.98	-139	☒ F	☒ F
ICV	Curtis Musson	12/20/17	756	17100SA	10/20/18	4.01	3.96	192	☒ F	☒ F
CCV	Curtis Musson	12/20/17	1215	170614B	12/20/18	7.0	7.06	22	☒ F	☒ F
CCV									P / F	L / F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? ☒ Yes / No If yes, list date of last quarterly depth verification

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail	Lab / Field
Pressure mode in air	Curtis Musson	12/20/17	750	0.00	0.00	☒ F	☒ F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:

**Florida Department of Environmental Protection
Central Laboratory Submittal Form**

Customer: WAS-SECT

Project ID: SMP

Requester: Curtis Musson

Field Report Prepared By:

Collected By: Ben Rahs Curtis M. 2550

Cortis M55ch
FDEP

Sampling Agency:

[illegible]

Relinquished By:

Date/Time

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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[illegible]

1000

1000

Relinquished By: Alexis Long

Date/Time 12/20/17 1154

Shipping Method *hand Delivered*

Number of Coolers Shipped: 1,250

Received By:

Date/Time

Group: A	Bottle Type: ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS	P-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab
Group: A	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab
Group: A	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab
Group: A	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 1	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab
Group: B	Bottle Type: W-ICP W-ICPMS	P-500ML	# of Bottles: 1	Preservative: HNO3	Enter Number of Bottles Sent to Lab
Group: C	Bottle Type: ECOLI-18QT	P-250ML-WO-THI	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab
Group: D	Bottle Type: W-AHERB-AA W-SUC-AA-R W-UHERB-AA	BG-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab
Group: E	Bottle Type: PCR-FILTER PCR-HF183	QPCR-P-250ML	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab 2
Group: F	Bottle Type: MI-FW-QLDC	PJ-2L	# of Bottles: 2	Preservative: Formalin	Enter Number of Bottles Sent to Lab 2

Group: G	Bottle Type: ALGAL_ID	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
						0