FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
PHYSICAL-CHEMICAL CHARACTERIZATION FIELD FORM

Survey/Project: ~~Refer~~ Reference Stream

STORET Station Name: 3101005I (Use label if available)

County: Liberty

STORET Station ID: Sweetwater Creek (SWTREF) **WBID:** ~~2018-02-0571~~ 728 **Latitude:** 30.524078

Date: 02/07/2018 (mm/dd/yyyy) **Time:** 1245 EST / CST **RQ:** 2018-02-05-74 **Longitude:** -84.973653 (Decimal Degrees)

Receiving Waters: APPALACHICOLA RIVER **ORG Code/Agency ID:** FL21W2SP

Sample Depth (m)		pH	Temp. (C°)	DO (mg/L)	DO (%SAT)	Sp COND (µmhos/cm)	Salinity (ppt)	Secchi Disk (m)	Total Depth (m)	Data Qualified (Y/N)
Top	0.1	7.0	16.9	10.4*	107%*	~~28.2~~ 765.1			0.2	N
Mid										
Bottom										

Meter ID# 1463 **Photos:** Yes / No **Tide:** High / Low / Ebb

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J. JACKSON – TRAINING, RPS					
A. ONEAL – RPS, HA		X		X	X
A. RANKIN – SCI			X		
ROSEMARY MURPHY – TRAINEE FROM BRYANT CHOCTAW	X		X		

Sampling Equipment
- ☑ Sample Container ☐ Van Dorn ☐ Pole
- ☐ Carboy ☐ Syringe
- ☐ Dipper ☐ Other
- Equipment ID

Collection Method
- ☑ Wading
- ☐ From Shore
- ☐ Other (note below)

Via Boat:
- ☐ Canoe / Kayak
- ☐ Electric Motor
- ☐ Gasoline Motor

Water Level: Dry / Low / (Normal) / High / Flooded

System Type: Stream ✓ Lake ___ Wetland ___ Estuary ___ Other ___

Biological Samples Collected: None (HA) (SCI) LVS (RPS) LVI Other NO PLANTS IN WATER

Hydrologic Modification (per FT 3101): 1-2 (Best) ___ 3-4 (Slight) ___ 4-5 (Moderate) ___ 7-8 (Poor) ___ 9-10 (Very Poor) ___

Canopy Cover: Open (≤ 10%) ___ Lightly Shaded (11-45%) ___ Moderately Shaded (46-80%) ✓ Heavily Shaded (>80%) ___

Parameter Suite	Parameter Methods (check, circle or write in)	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☑ NH3 / NO2NO3 / TKN / TOC / TP ☐ PO4 ☐ Field Filtered 0.45 µm Filter	☑ Ice ☑ H2SO4	7163030	6/21/18	☒ <2
Metals	☐ ICPMS ☑ ICP	☑ Ice ☑ HNO2	708606	3/27/18	☒ <2
Chlorophyll	☑ CHLOROPHYLL	☑ Ice			
Physical/Aggregate	☑ Alkalinity / F / TSS / TURBIDITY / Cl / COLOR / SO4 / TDS, BR	☒ Ice			
Macroinvertebrates	☑ SCI OTHER:	☑ Formalin			
Microbiology	☑ E Coli ☐ F Coli ☐ Entero ☒ QPCR	☑ Ice			
Periphyton	☑ AlGAL-ID OTHER:	☐ Ice			
Other		☐ Ice ☐ Other			

Place Preservative Label(s) Here (if available)

Notes & Observations; (weather, watershed disturbance, erosion, sediment of water odors, etc.)

OVERCAST; LIGHT RAIN; WATER LEVEL TYPICAL. USED WIDER STRETCH FOR HA THAN PREVIOUS VISITS
* DO METER NOT FUNCTIONING PROPERLY - DATA NOT USEABLE.
ALL SWEEPS PERFORMED BY A. RANKIN & R. MURPHY

Print Name:	Signature:	Date:
J. JACKSON		2.7.18

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

Field Parameters Entered into SBIO: ___ (Initials/Date)

Date Migrated to STORET: ___ (Initials/Date)

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

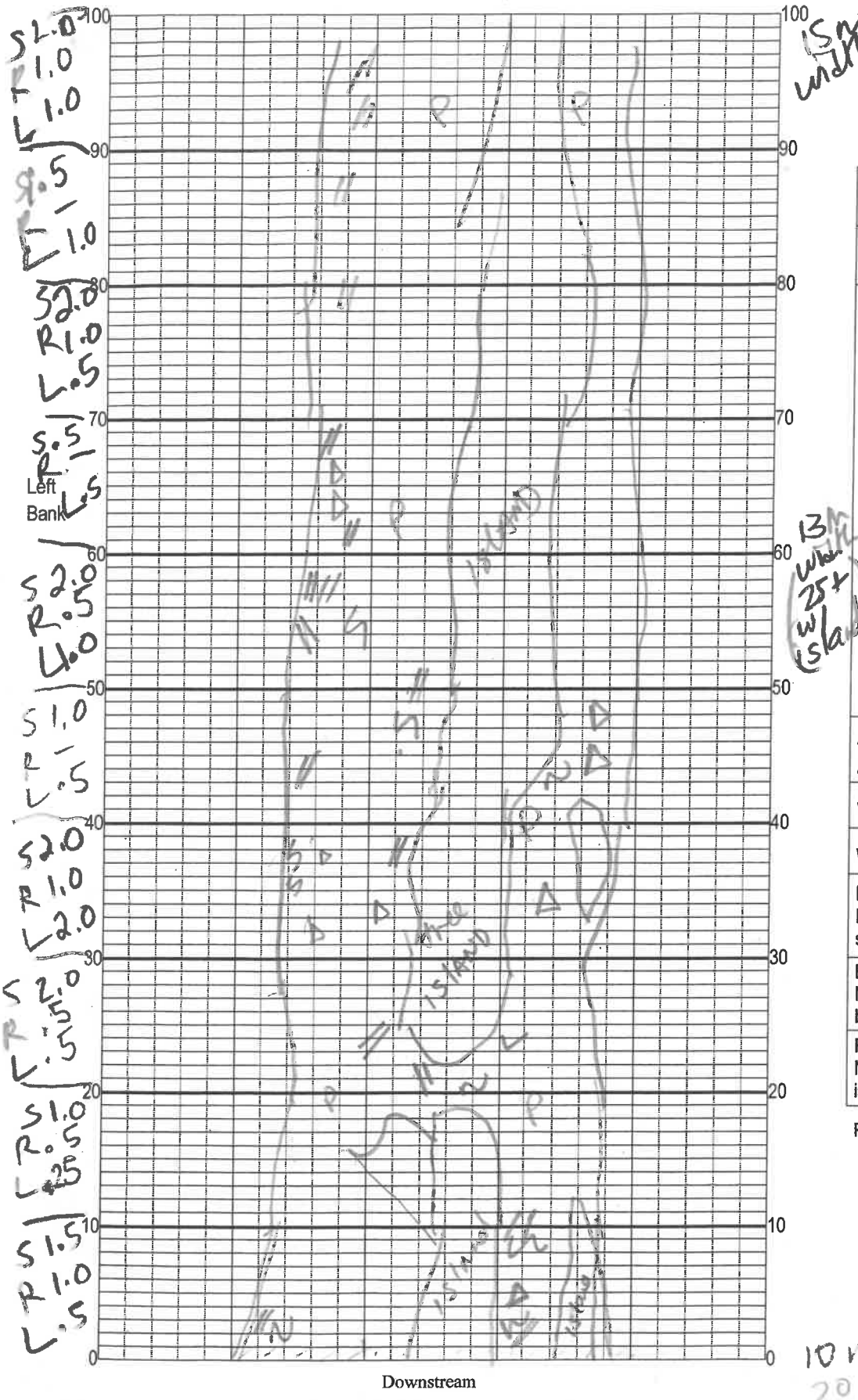
SAMPLING AGENCY:		STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
FDEP- AEQA		31010051	2.7.18	APALACHICOLA RIVER
REMARKS:	COUNTY:	LOCATION:		FIELD ID/NAME:
ECO REF	LIBERTY	SWEETWATER CREEK		SWTREF

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 15	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 3	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 20	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 18 Primary Score 56	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

136 **TOTAL SCORE**

Date:	Analyst:	Signature:
2.7.18	Ashley Dread	Ashley Dread

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: Sweetwater Creek

Date: 2/7/2018

Sampler: AO, JJ, AR

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance.	%
Snags	1.3
Roots/undercut banks	.5
Leaf Packs (or mats)	.75
Aquatic Macrophytes	
2.6% total	
Pools — total # observed = ____ ; # range expected = ____	

Average width _____ m
Average depth _____ 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:

62-160.800, F.A.C

Revision Date: March 1, 2014

Form FD 9000-25

FDEP Rapid Periphyton Survey (DEP SOP FS 7230)

Revised 6/12/12

Site: Sweetwater | County: Liberty | Date: 2/7/18 | Investigators: AC JT AR

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover
0	1	N	
	2		
	3	1	
	4		
	5		36
	6		
	7		
	8		
	9	↓	
10	1	N	
	2		
	3		
	4		
	5		86
	6		
	7		
	8		
	9	↓	
20	1	N	
	2	5	
	3	5	
	4	N	
	5	N	84
	6	N	
	7	N	
	8	4	
	9	N	
30	1	N	
	2	N	
	3	N	
	4	N	
	5	N	87
	6	N	
	7	N	
	8	N	
	9	4	

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover
40	1	N	
	2	N	
	3	N	
	4	N	
	5	N	48
	6	N	
	7	N	
	8	N	
	9	N	
50	1	N	
	2		
	3		
	4		
	5		78
	6		
	7		
	8		
	9	↓	
60	1	N	
	2	1	
	3		
	4		
	5		78
	6		
	7		
	8		
	9	↓	
70	1	N	
	2		
	3		
	4		
	5		90
	6		
	7		
	8	↓	
	9		

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover
80	1	N	
	2		
	3		
	4		
	5		20
	6		
	7		
	8	↓	
	9		
90	1		
	2		
	3		
	4		
	5		48
	6		
	7		
	8		
	9	↓	
100	1	↓	
	2		
	3	1	
	4		
	5		76
	6		
	7		
	8		
	9	↓	

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

Secchi depth:

Check accompanying data collected at same site/date.	
Algal mat sample	
Habitat Assessment	
Linear Veg. Survey	
SCI/Biorecon (circle 1)	
Water sample	
RQ:	

Algal Thickness Rank

N	rough, no algae; slimy; algae to 1 mm
3	>1mm - 6 mm
4	>6 - 20 mm
5	>20 mm - 10 cm
6	>10 cm

Record "N" for points deeper than the Secchi depth; algae are presumed absent. Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. Note if thickness estimated for deep points which can be seen but not reached.

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 an 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%.

Request Number: RQ-2018-02-05-74

Reference Stream Sampling

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: BSSP

Project ID: SCIREF

Requester: Sarah Panek

Collected By: FDEP - AERA

Field Report Prepared By: JJACKSON

Sampling Agency: FDEP

Location: YON CREEK
Field ID: YONCKREF
WIN/STORET #:
Latitude: ☐ dd ☐ dms
Longitude: ☐ dd ☐ dms

☐ Comp ☒ Grab | Collection (comp begin or grab) Date 2-7-18 Time 1010 | Eastern / Central | Composite end Date Time | Bottle Group(s) (See pg 2): A, B

Matrix (type, e.g., Salt, Fresh, etc): Fresh | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) 16.6 | pH 8.0 | Sample Depth 0.1 ☐ ft ☒ m | Sp. Conductance (umho/cm) 18.1

Salinity (ppt) | Comments: DO METER MALFUNCTIONED

Location: SWEETWATER CREEK
Field ID: SWTREF
WIN/STORET #:
Latitude: ☐ dd ☐ dms
Longitude: ☐ dd ☐ dms

☐ Comp ☒ Grab | Collection (comp begin or grab) Date 2-7-18 Time 1245 | Eastern / Central | Composite end Date Time | Bottle Group(s): A, B

Matrix (type, e.g., Salt, Fresh, etc): Fresh | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) 16.9 | pH 7.0 | Sample Depth 0.1 ☐ ft ☒ m | Sp. Conductance (umho/cm) 28.2

Salinity (ppt) | Comments: DO METER MALFUNCTIONED

Location:
Field ID:
WIN/STORET #:
Latitude: ☐ dd ☐ dms
Longitude: ☐ dd ☐ dms

☐ Comp ☐ Grab | Collection (comp begin or grab) Date Time | Eastern / Central | Composite end Date Time | Bottle Group(s)

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments

Location:
Field ID:
WIN/STORET #:
Latitude: ☐ dd ☐ dms
Longitude: ☐ dd ☐ dms

☐ Comp ☐ Grab | Collection (comp begin or grab) Date Time | Eastern / Central | Composite end Date Time | Bottle Group(s)

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
JJACKSON	2-7-18 4:00 PM	HAND			2/7/18 4:00