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

SAMPLE ID _____ ORG ID _____ LATITUDE _____

COUNTY Liberty STORET # _____ LONGITUDE _____

DATE 6/25/2020 TIME 0915 EST SAMPLING AGENCY DEP ACOAS

SITE NAME Sweetwater Creek @ 270

FIELD ID/NAME _____ RECEIVING BODY OF WATER Apalachicola River

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

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

Hydrologic Modification Score (per FT 3101) :

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

Artificially Impounded ☐ Yes ☑ No

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

6 m wide

0.25 m/s	0.33 m/s	0.25 m/s
0.15 m deep	0.3 m deep	0.15 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) :

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)		4+3 (7)	
Undercut Banks / Roots		III+4 (7)	
Leaf Packs or Mat		II (2)	
Aquatic Vegetation			
Rock or Shell Rubble..			
Sand.....		IIII (4)	
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 :	0.1	24.0	/	7.92	94.0	297		0.25
Mid:								☑ VOB
Bottom								TOTAL DEPTH
								0.25

Meter ID: YSI 154185

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

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:

Overcast ~85°F

Nia took water measurements & collected direct grab by wading

Jay collected SCI sample

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

SAMPLING TEAM Nia Wellendorf, Jay Jackson SIGNATURE _____ DATE : 6/25/2020

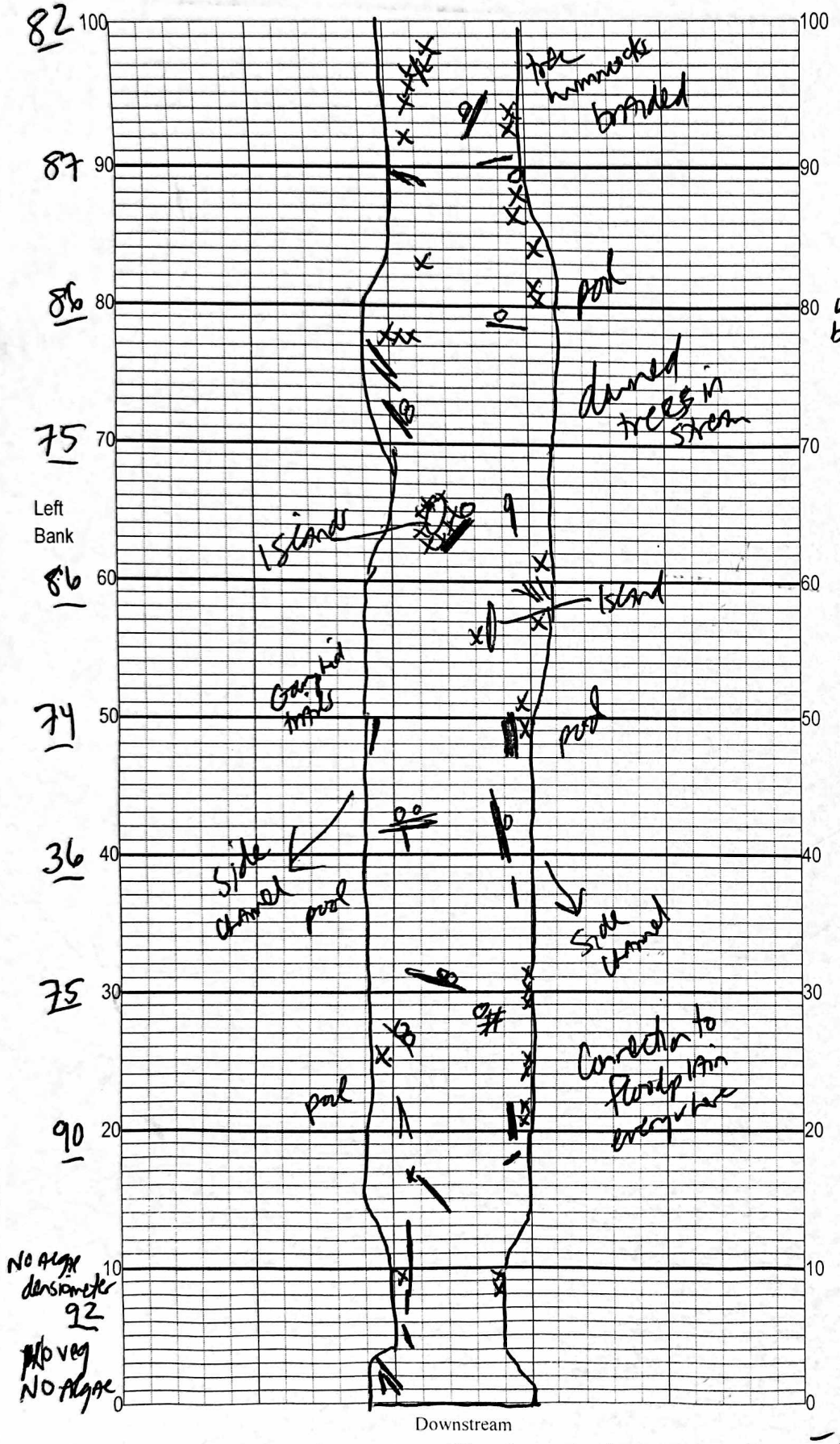
Observed crayfish, Hydropsyche prob. & riffle beetle

stonefly, gomphid in sand in sample

HNO_3 Lot# NA9189080 exp. 07/8/2020

H_2SO_4 lot SA9354050 exp. 12/20/20

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: 6/25/2020

Sampler: NIA Wellendorf

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

~40 m upstream from bridge

Substrates: Code key, draw proportionate habitat abundance.	%
12 m² Snags	2%
8 m² Roots/undercut banks	12
1.5 m² Leaf Packs (or mats)	<1
Aquatic Macrophytes	
>5 Pools ✓ total # observed =	
# range expected =	

Average width 6 m range 4-9

Average depth 0.2 m

Velocity measured at 50 meter mark.

WQ & chemistry taken at 0 meter mark.

Habitat Smothering: Sand smothering throughout
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability: none
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:

Alnus
Itea
Ulmus
Leucothoe
Taxodium
Myrica
Acer
Carpinus

- Small scattered leaf packs
Sampled trails
turtle

Velocity - 0.25, 0.33, 0.25

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

SAMPLING AGENCY:	STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
DEP AEQAS		6/25/20	
REMARKS:	**COUNTY:**	**LOCATION:**	**FIELD ID/NAME:**
	Liberty Co.	Sweetwater Creek @ 270	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 10	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 good roots, snags some leaf 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 habitat is good, just lot of sand area 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 13 Primary Score 46	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 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 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

126 **TOTAL SCORE**

Date: 6/25/2020	Analyst: Nia Wellendorf	Signature: Nia Wellendorf

2020-06-29-39

Request Number: RQ-~~2019-08-26-23~~

Reference Lake Sampling

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: BSSP

Project ID: LAKESREF

Requester: ~~Sarah Panek~~ Joy Jackson

Collected By: Joy Jackson, NIA Wellendorf

Field Report Prepared By: NIA Wellendorf

Sampling Agency: DEP AEQAS

Location: Sweetwater Creek @ 270	☐ Comp ☑ Grab	Collection (comp begin or grab) Date 6/25/2020 Time 0915	(Eastern) Central	Composite end Date Time	Bottle Group(s) (See pg 2): A
Field ID	Matrix (type, e.g., Salt, Fresh, etc): fresh		Diss. Oxygen 94.0 ☐ mg/L ☑ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #	Temp (C) 24.0	pH	Sample Depth 0.1 ☐ ft ☑ m	Sp. Conductance (umho/cm) 30	
Latitude 30.524078 ☑ dd ☐ dms	Longitude -84.973653 ☑ dd ☐ dms	Salinity (ppt)	Comments 7.9 mg/L DO.		
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments		
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments		
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen ☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #	Temp (C)	pH	Sample Depth ☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments		

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
[signature]	6/25/20 1340	hand delivered		KK	6.25.20/14:42