



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

June 2016

PAGE 1 OF 6

Data Qualified?
Yes / No

STORET Station Name: SWANNEE River North Ellaville Date: 12-13-2016
(mm/dd/yyyy)
STORET Station ID: 61TLHR0035 WBID: 3422Q Latitude: _____
(Decimal Degrees)
County: SWANNEE RQ - 2016-11-14-51 ORG ID: 21FLTLHR Longitude: _____
(Decimal Degrees)
Receiving Body of Water: Gulf of Mexico Field ID: 61TLHR0035

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment		
<u>Chris Green</u> <u>Jon Woods</u>					☒	☒	☒	☒	☒	☒ Sample Container	☐ Van Dorn	☐ Pole
										☐ Carboy	☐ Syringe	
										☐ Dipper	☐ Other	
										Equipment ID _____		
										Collection Method		
										☒ Wading	☐ Via Boat	
										☐ From Shore	☐ Canoe/Kayak	
										☐ Other (note below)	☐ Electric Motor	
											☐ Gasoline Motor	

Water Level: Dry / <u>Low</u> / Normal / High / Flooded										Matrix: <u>Fresh</u> / Marine / DI	
Meter ID# <u>99 YSI 600XLm</u> Photos: Yes / <u>No</u>										Tide Falling: Yes / No / <u>NA</u>	
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°)	
<u>EST</u>	<u>13:35</u>	<u>0.3</u>	<u>1.3</u>	<u>5.4</u>	<u>59</u>	<u>7.4</u>	<u>0.18</u>	<u>1.35</u>	<u>375</u>	<u>19.8</u>	
CEN											

Biological Samples Collected: None <u>HA</u> SCI <u>LVS</u> <u>RPS</u> LVI Other _____									
Parameter Suite	Parameter Methods					Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP					☒ Ice ☐ H2SO4	<u>6209120</u>		☒ <2
Metals	☐ W-ICPMS ☐ W-ICP					☐ Ice ☐ HNO2			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter					☐ Ice	Place Preservative Sticker(s) Here (If Available)		
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			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR					☐ Ice			
Periphyton	☐ ALGAE-ID					☐ Ice			
Pesticides	☒ W-PSNP-TQ ☒ W-AHERB-AA ☐ W-PYR-AA-R ☒ W-PC-AA-SF ☒ W-UHERB-AA ☐ W-GLYPH					☐ Ice ☐ Other			

Notes:	Place Label Here (If Available)
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Signature: Jon Woods Date: 12-13-2016

Field Parameters Entered into LIMS: 3/27/17 Field Parameters QC in LIMS: 3-27-17
(Initials/Date) (Initials/Date)
Date Migrated to STORET: 3/27/17 Field Sheets Scanned/Saved: _____
(Initials/Date) (Initials/Date)

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

SAMPLING AGENCY: <i>DEP 8034 (TLHR)</i>		STORET STATION NUMBER: <i>G1TLHR0035</i>	DATE (MM/DD/YY): <i>12-13-16</i>	RECEIVING BODY OF WATER: <i>Gulf of Mexico</i>
REMARKS:	COUNTY: <i>Sumner</i>	LOCATION: <i>Sumner River @ Ellaville</i>	FIELD ID/NAME: <i>G1TLHR0035</i>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <i>6</i> <i>8/16</i>	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 <i>1</i>	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 <i>14</i>	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 <i>13</i> ----- Primary Score <i>34</i>	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 <i>20</i>	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 <i>8</i> Left Bank <i>8</i>	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 <i>10</i> Left Bank <i>10</i>	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 <i>10</i> Left Bank <i>10</i> ----- Secondary Score <i>76</i>	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

110 TOTAL SCORE

Date: <i>12-13-2016</i>	Analyst: <i>Chris Green</i>	Signature: <i>Chris Green</i>
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

ite: <u>61TLHRO035</u>					County: <u>Suwannee</u>		Date: <u>12-13-2016</u>		Investigators: <u>Chris Green</u>	
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: <u>61TLHRO035</u>
0	1	3	✓	96	60	1	2	✓	96	
	2	2	✓							
	3	1	✓							
	4	1	✓							
	5	1	✓							
	6	1	✓							
	7	1	✓							
	8	2	✓							
	9	2	✓							
10	1	4	✓	96	70	1	3	✓	96	
	2	2	✓							
	3	1	✓							
	4	1	✓							
	5	1	✓							
	6	1	✓							
	7	1	✓							
	8	2	✓							
	9	3	✓							
20	1	3	✓	96	80	1	4	✓	96	
	2	2	✓							
	3	1	✓							
	4	1	✓							
	5	1	✓							
	6	1	✓							
	7	1	✓							
	8	2	✓							
	9	3	✓							
30	1	3	✓	96	90	1	2	✓	96	
	2	2	✓							
	3	1	✓							
	4	1	✓							
	5	1	✓							
	6	1	✓							
	7	1	✓							
	8	2	✓							
	9	2	✓							
40	1	2	✓	96	100	1	2	✓	96	
	2	2	✓							
	3	1	✓							
	4	1	✓							
	5	1	✓							
	6	1	✓							
	7	1	✓							
	8	2	✓							
	9	2	✓							
50	1	2	✓	96		1	2	✓		
	2	2	✓							
	3	1	✓							
	4	1	✓							
	5	1	✓							
	6	1	✓							
	7	1	✓							
	8	2	✓							
	9	2	✓							

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 densimeter 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%.

Secchi depth 1.3
Estimated? NO

points ranked 4-6 4
total points assessed 22
% points ranked 4-6 9.1

Check accompanying data collected at same site/date.

Algal mat sample ☐

Linear Veg Survey ☒

Habitat Assessment ☒

SCI/Biorecon ☐

Water sample ☒

RQ- 2016-11-14-51

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

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

SAMPLE ID GITLHR0035 ORG ID 8034^{CU} 21FLTLHR LATITUDE _____
 COUNTY Suwannee STORET # GITLHR0035 LONGITUDE _____
 DATE 12-13-2016 TIME 13:30 SAMPLING AGENCY DEP 8034
 SITE NAME Suwannee River @ Ellaville
 FIELD ID/NAME GITLHR0035 RECEIVING BODY OF WATER Gulf of Mexico

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>60</u> Silviculture <u>20</u> Field/Pasture <u>10</u> Agricultural _____ Residential <u>10</u> 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			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718m</u> Right Bank: <u>218m</u>				Hydrologic Modification Score (per FT 3101) _____			
High Water Mark: <u>1.5</u> + <u>1.3</u> = <u>2.8</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

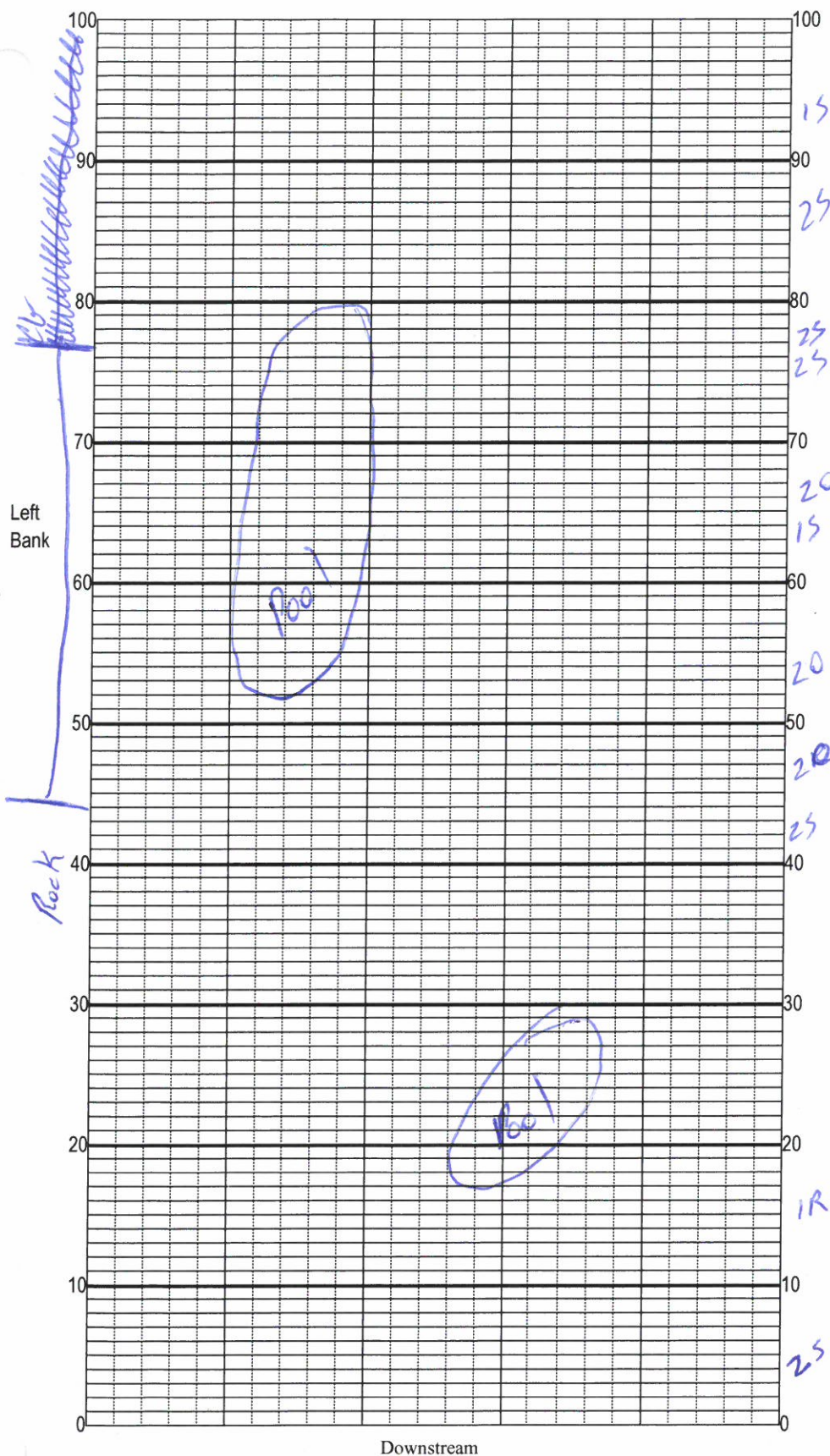
Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse		Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify): _____		Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐ Algae Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐	
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon		WATER QUALITY			
Woody Debris (Snags) <u>0.02</u> <u>5</u> Undercut Banks / Roots <u>0.001</u> <u>5</u> Leaf Packs or Mat <u>0</u> Aquatic Vegetation <u>0</u> Rock or Shell Rubble.. <u>0.009</u> <u>5</u> Sand..... <u>99.97</u> <u>5</u> Mud / Muck / Silt Other Other		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>19.8</u> <u>7.4</u> <u>5.4</u> <u>59</u> <u>375</u> <u>0.18</u> <u>1.3</u> Mid: _____ Bottom: _____ Meter ID: <u>#99 YSI 600 XLM</u> TOTAL DEPTH <u>1.3</u>			
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☒ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐		Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>6209120</u> Exp: _____ Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			
		Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☒ Other (Specify) ☐ Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐			
		System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☒ <u>River</u>			
AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.					

SAMPLING TEAM

SIGNATURE:

DATE:

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: CITLH R0035
Swanee River @ Ellaville
Date: 12-13-2016
Sampler: Chris Green

100 m: Latitude _____
Longitude _____
0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☐ S	Snags	0.017
☐ R	Roots/undercut banks	0.0014
☐ L	Leaf Packs (or mats)	
☐ A	Aquatic Macrophytes	
☐ O	Rock	0.0085
☐		
☐ 2	Pools	total # observed = 2 # range expected = 0-1

Average width 50 m
Average depth 1.3 m

Velocity measured at 50 meter mark.

WQ & chemistry taken at 50 meter mark.

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

Bank Stability: suboptimal
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated. 618m 218m

Plants observed / other notes: NO

S-12
R-1
O-6

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

Waterbody: <i>Savannah River @ Ellaville</i>	Date: <i>12-13-16</i>	County: <i>Savannah</i>	Storet Number: <i>61TLHRO035</i>
Analyst: <i>Chris Green</i>	Signature: <i>Chi Z</i>		
Comments: <i>LVS < 2m²</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.

[illegible]