

FDEP FORM FD 9000-3: PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SAMPLE ID _____ ORG ID _____ LATITUDE 0m N 30° 21' 52.0" W 83° 54' 6.8"
COUNTY Jefferson STORET # 22040022 LONGITUDE _____
DATE 7/23/14 TIME 7:50 AM SAMPLING AGENCY FDEP
SITE NAME Welannee Creek
FIELD ID/NAME WEL REF RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):								Landscape Development Intensity Index (LDI)
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)	
☐	☐	☐	☐	☐	☐	☐	☐	
Local Watershed Erosion (select one): ☐ None ☐ Slight ☐ Moderate ☐ Heavy								Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>4, 3, 2, 1</u> <u>25</u> m wide
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☐ Heavy								
Width of Riparian Vegetation (m) on Each Buffer Side				Hydrologic Modification Score (per FT 3101)				
Left Bank: <u>718</u> Right Bank: <u>718</u>								
High Water Mark: <u>.3</u> + <u>.2</u> = <u>.5</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				
Artificially ☐ No ☒ Mostly recovered, more sinuous				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%)				
Channelized: ☐ Some recovery ☐ Recent, severe				☐ 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 INVERT PERI % # Times # Times Coverage Sampled Sampled Woody Debris (Snags) <u>3%</u> <u>7</u> <u>X</u> Undercut Banks / Roots <u>1%</u> <u>7</u> <u>X</u> Leaf Packs or Mat <u>2</u> <u>X</u> Aquatic Vegetation <u>X</u> Rock or Shell Rubble.. <u>X</u> Sand <u>4</u> 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: <u>23.2</u> <u>4.02</u> <u>7.83</u> <u>91.7</u> <u>63</u> <u>1</u> Mid: <u>6.23</u> <u>1</u> <u>VOB</u> Bottom: <u>1</u> Meter ID: <u>451 #7</u> 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: <u>126185</u> Exp: <u>9/3/14</u> Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) <u>silty, turbid</u> Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐					
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: <u>banks only</u> ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) _____ AMBIENT FIELD CONDITIONS / NOTES: <u>hot humid 90°</u> <u>Acid LOT # 126185</u> <u>EXP - 9/3/14</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.					

SAMPLING TEAM

Swanson, O'Neal, Niesen, Olney

SIGNATURE:

A. O'Neal

DATE:

7/23/14

DEP-SOP-001/01: Form FD 9000-5
STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

SUBMITTING AGENCY CODE: _____ SUBMITTING AGENCY NAME: _____		STORET STATION NUMBER: <u>22040022</u>	DATE (MM/DD/YY): <u>07/23/14</u>	RECEIVING BODY OF WATER: _____
REMARKS: _____	COUNTY: <u>Jefferson</u>	LOCATION: <u>Welaunee</u>	FIELD ID/NAME: <u>WELREF</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	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	<u>10</u> <u>9</u> 8 7 6	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 <u>4</u> 3 2 1
Water Velocity <u>20</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>9</u> ----- Primary Score <u>42</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 <u>9</u> 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. <u>NO</u> 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. <u>spoil banks</u> 15 14 <u>13</u> 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>10</u> Left Bank <u>10</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. <u>10</u> 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>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 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>8</u> Left Bank <u>8</u> ----- Secondary Score <u>71</u> <u>113</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 <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

TOTAL SCORE

Date: <u>7/23/14</u>	Analyst: <u>O'Neal, Olney, Swanson, Niesen</u>	Signature: <u>Ashley O'Neal</u>
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SITE NAME: Welaunee Creek DATE: 7/23/14 TIME: 1225 (military) EST CST DEPTH^A: ft m FIELD ID:

SAMPLING TEAM MEMBERS	WQ MEASUREMENTS	DOCUMENTATION	SAMPLE COLLECTION	PRESERVATION	PRESERVATION CHECK
Swanson	X				
O'Neal		XX			
Niesen				XX	
Olney					

SAMPLING EQUIPMENT	
☒ Sample Container	☐ Tubing type: <u> </u>
☐ Pole	☐ Other: <u> </u>
☐ Pump ID#: <u> </u>	☐ Other: <u> </u>
WATER QUALITY MEASUREMENTS	
Instrument ID: <u>YSI #7</u>	
COLLECTION MODE	
☒ Wading	☐ Via Boat
☐ Diving	☐ Canoe
☐ From Shore	☐ Electric Motor
☐ Other: <u> </u>	☐ Gasoline Motor

Parameter Suite	Parameter(s)/Method	Matrix Code*	Preservation**	Preservative Lot #	pH Check	# Bottles ***
Preserved Nutrients	☒ TKN ☒ TP ☒ NOx ☒ NH3 ☒ TOC ☐ Total N ☐ Other: <u> </u>	S W	☒ Ice ☒ H ₂ SO ₄	126185	☒ <2	1
Filtered Nutrients	☐ oP ☐ Other: <u> </u>	W	☐ Ice ☐ .45 um Filter			
Unpreserved Nutrients	☐ NO ₂ ☐ NO ₃ ☐ SO ₄ ☐ Other: <u> </u>	W	☐ Ice			
Physical/Aggregate Properties	☒ TDS ☐ TSS ☐ TS ☒ Turbidity ☒ Alk ☒ Color ☐ Other: <u> </u>	S W	☒ Ice			1
Chlorophyll	☒ CHL-PPTN-W	S W	☒ Ice			1
BOD	☐ BOD-INHB ☐ BOD-UNIN	W	☐ Ice			
Microbiology	MF: ☐ E coli ☐ T Coli ☐ F Coli ☐ Enteroc ☐ F Strep	W	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC ☐ MI-FW-QLBR ☐ MI-FW-QNNC ☐ MI-MN-QNNC	S W	☒ Formalin			3
Phytoplankton	☐ PKD-QN-C ☐ DTY-QN-C	W	☐ Lugol's			
Periphyton	☐ PRN-QL-C ☐ DTM-QL-C ☐ PRN-QN-C ☐ DTM-QN-C	W	☐ Formalin			
AGP	☐ AA-AGP ☐ AA-LIM-NUT	W	☐ Ice			
Metals	☐ W-ICP ☐ W-FIAS ☐ W-ICPMS ☐ W-ICP-Tr	W	☐ HNO ₃		☐ <2	
Filtered Metals	☐ W-ICP-F ☐ W-FIAS-F ☐ W-ICPMS-F ☐ W-ICP-Tr-F	W	☐ HNO ₃ ☐ .45 um Filter		☐ <2	
Mercury	☐ W-HG-AF	W				
BaseNeutral / Acid Extractable	☐ W-BNA ☐ W-AE ☐ W-BN ☐ W-PAH ☐ W-FL-PRO ☐ W ☐ Other: <u> </u>	W	☐ Ice ☐ H ₂ SO ₄		☐ <2	
Pesticides	☐ W-PEST-CL ☐ W-PCB ☐ W-PEST-NP ☐ W-PSCL-PCB ☐ W-NP-AA-SF ☐ W-PC-AA-SF ☐ W-PSHRB-NP ☐ W-SLFN-UREA ☐ W-SULFN-LC ☐ Other: <u> </u> ☐ W-ACIDHERB ☐ W-CARB	W	☐ Ice ☐ H ₂ SO ₄ ☐ Ice ☐ MCAA			
Purgeables	☐ W-VOC-MS ☐ W-VOC-MS-A	W	☐ Ice ☐ HCl			
Bioassay	Specify Test: <u> </u>	W	☐ Ice			
OTHER		W	☐ Other: <u> </u>			

 Notes: hot humid 90°

Use one line for each set of sample (as supplied by the laboratory) containers. Use separate sheet for field or laboratory duplicate or blank or different water depth

^AEnter "S" for surface if collected at a depth less than or equal to 1 foot

^{*}Matrix Codes (Insert prefix): SW = Surface Water GW = Groundwater DW = Drinking Water WW = Wastewater O = Other:
^{**}PRESERVATIVES: 1 ml added unless otherwise noted

^{***}Enter number of containers supplied by the laboratory for the test (e.g., 3 for volatile organics, etc.)

DEP Bureau of Laboratories Water Sample Collection Record

(Use with FDEP SOP-001/01 Form FD 9000-3 Physical/Chemical Characterization Field Sheet)

Comments: No PLANTS IN WATER

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	

[illegible]

Florida Department of Environmental Protection
Central Laboratory Sample Submittal Form

Event ID #

Requester: Joy Jackson
Collected By: FDEP Swanson, O'Neal,
Sampling Agency: E Olney, Niesch

Field Report Prepared By:

Send Final Report To: Joy Jackson

[illegible]

last revised October 1, 2003

4:40 pm
Page 1 of 2

Group: A	Bottle Type:	PJ-2L	# of Bottles: 4	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	5
	MI-FW-QALDC						
Group: B	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	CHL-CORR-W						
Group: B	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	TURBIDITY						
	W-ALK						
	W-COLOR						
	W-TDS						
	W-TSS						
Group: B	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	2
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						

Cooler Packing Worksheet for Request: RQ-2014-07-07-13

SCI Reference Sites

Ship Cooler On: 6/23/2014

Customer/Project: BSSP/SCIREF

Requester: Joy Jackson

Priority: 3

80-245-8074

2600 Blair Stone Road, MS 6511

Tallahassee, FL 32399

Attn: Joy Jackson

Comments:

Econfina and Little Crooked Creek

WLOY & WELAUNEE CREEK

Requested Analyses:

Group: A

of Sites: 2

Container ID: PJ-2L

Qty: 4

Preservation: Formalin

Lot #

B10 WASH

Description: Plastic Jar 2 L

Analysis

MI-FW-QLDC

Description

No. Taxa of FW macroinverts, qual samp, 20 dipnets.

Group: B

of Sites: 2

Container ID: BP-1L

Qty: 2

Preservation: ICE

Lot #

1117801

Description: Brown Plastic Bottle 1L

Analysis

CHL-CORR-W

Description

Phytoplankton chlorophyll-a (corrected for phaeophytin) and phaeophytin by spectrophotometry

Container ID: P-1L

Qty: 2

Preservation: ICE

Lot #

00058886

Description: Plastic Bottle 1L

Analysis

TURBIDITY

W-ALK

W-COLOR

W-TDS

Description

Turbidity in aqueous matrices

Alkalinity in aqueous matrices as mg CaCO₃/L

True Color measured at 450 nm

Total Dissolved Solids in aqueous matrices

Container ID: P-500ML

Qty: 2 Preservation: ICE And H2SO4

Lot # 00057747

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Nonpurgeable Organic Carbon in aqueous matrices

Cooler Packed By: SK Date: 6-24-14

DEP Cooler ID #(s): 1 cooler

Kit must also include:

- ☒ Field Sheets
☒ Temperature Control Bottle (1 per cooler)
☐ FedEx Bills, if applicable (1 per cooler)
☒ Plastic Bags

If Preservation Included:

ID _____	Lot # _____
ID _____	Lot # _____
ID _____	Lot # _____
ID _____	Lot # _____

Cooler received intact? (Circle one) Yes No Received By/Date: _____

PLEASE RETURN ALL COOLERS FOR RQ-2014-07-07-13