

SITE NAME: Welaunee Creek DATE: 10/1/15 TIME 1015 EST CST DEPTH: 10 ft m FIELD ID: WEL Ref
 (military)

SAMPLING TEAM MEMBERS	WQ MEASUREMENTS	DOCUMENTATION	SAMPLE COLLECTION	PRESERVATION	PRESERVATION CHECK
O'Neal		XX			
Olney				XX	
Rankin	XX				

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

Parameter Suite	Parameter(s)/Method	Matrix Code*	Preservation**	Preservative Lot #	pH Check	# Bottles ***
Preserved Nutrients	☒ TKN ☒ TP ☒ NOx ☒ NH3 ☒ TOC ☐ Total N	SW	☒ Ice ☒ H ₂ SO ₄		☐ <2	1
Filtered Nutrients	☐ OP ☐ Other: _____	W	☐ Ice ☐ .45 um Filter			
Unpreserved Nutrients	☐ NO ₂ ☐ NO ₃ ☐ SO ₄ ☐ Other: _____	W	☐ Ice			
Physical/Aggregate Properties	☐ TDS ☒ TSS ☐ TS ☒ Turbidity ☐ Alk ☒ Color	SW	☒ Ice			1
Chlorophyll	☒ CHL-PPTN-W	SW	☒ Ice			1
BOD	☐ BOD-INHB ☐ BOD-UNIN	W	☐ Ice			
Microbiology	MF: ☒ E coli ☐ T Coli ☒ F Coli ☐ Enteroc ☐ F Strep	SW	☒ Ice			2
Macroinvertebrates	☒ MI-FW-QLDC ☐ MI-FW-QLBR ☐ MI-FW-QNNC	SW	☒ 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				
Base/Neutral / Acid Extractable	☐ W-BNA ☐ W-AE ☐ W-BN ☐ W-PAH	W	☐ Ice			
	☐ W-FL-PRO ☐ W ☐ Other: _____	W	☐ Ice ☐ H ₂ SO ₄		☐ <2	
Pesticides	☐ W-PEST-CL ☐ W-PCB ☐ W-PEST-NP ☐ W-PSCL-PCB	W	☐ Ice			
	☐ W-NP-AA-SF ☐ W-PC-AA-SF ☐ W-PSHRB-NP	W	☐ Ice			
	☐ W-SLFN-UREA ☐ W-SULFN-LC ☐ Other: _____	W	☐ Ice			
	☐ W-ACIDHERB	W	☐ Ice ☐ H ₂ SO ₄			
	☐ W-CARB	W	☐ Ice ☐ MCAA			
Purgeables	☐ W-VOC-MS	W	☐ Ice			
	☐ W-VOC-MS-A	W	☐ Ice ☐ HCl			
Bioassay <u>Sucralose</u>	Specify Test: _____	SW	☒ Ice			1
OTHER <u>QPCR</u>		SW	☒ Other: <u>Ice</u>			2

 Notes: warm, humid, clear 80s
silt smothering @ 0 and downstream of stretch
2nd reference sampling project visit to site
30° 21' 49.5" N
83° 54' 05.1" W

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

*Enter "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)

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

SAMPLE ID _____	ORG ID _____	LATITUDE <u>30° 21' 49.5" N</u>
COUNTY <u>Jefferson</u>	STORET # <u>22040022</u>	LONGITUDE <u>83° 54' 05.1" W</u>
DATE <u>10-1-2015</u>	TIME <u>1015</u>	SAMPLING AGENCY <u>FDEP</u>
SITE NAME <u>Wetlaunee Creek</u>		
FIELD ID/NAME <u>WeIRef</u>		RECEIVING BODY OF WATER <u>Bailey Mill Creek → Wacissa</u>

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 3.0 m wide			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: Right Bank:		Hydrologic Modification Score (per FT 3101)		.33 m/s m/s m/s			
High Water Mark: + = (m) (above present water level) (present depth) (above bed)		Artificially Impounded ☐ Yes ☒ No		m deep m deep m deep			
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 ☐
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SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☒ RPS ☒ LVS☐ LCI ☐ BioRecon

% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	3	7
Undercut Banks / Roots	2	7
Leaf Packs or Mat	41	3
Aquatic Vegetation		
Rock or Shell Rubble..		
Sand.....		3
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:	10 cm	23.1	6.5	39.7	463	67	0.03	10 cm
Mid:								☒ VOB
Bottom:								
Meter ID:	451 # 7							TOTAL DEPTH 10 cm

Water Odors Normal ☒ Petroleum ☐
 Sewage ☐ Chemical ☐ Other ☐
Water Surface Oils Normal ☒ Sheen ☐
 Globbs ☐ Slick ☐ Other ☐
Water Sample Taken? ☒ Yes ☐ NoSample Preserved? ☒ Yes ☐ No

Lot Number: _____ Exp: _____

Color Tannic ☐ Green (Algae) ☐
 Clear ☒ Other (Specify) ☐
Algae Sample Taken? ☐ Yes ☒ NoSample Preserved? ☐ Yes ☐ No

Lot Number: _____ Exp: _____

Clarity Clear ☒ Slightly Turbid ☐
 Turbid ☐ Opaque ☐
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

warm, 80s humid, some smothering @ 0 and downstream of site

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

SAMPLING TEAM

O'Neal, Olney, Rankin

SIGNATURE

A. J. O'Neal

DATE:

10/1/2015

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: 22040022	DATE (MM/DD/YY): 10/1/15	RECEIVING BODY OF WATER: → Bailey Mill Crk → Wacissa
REMARKS: _____	COUNTY: Jeff	LOCATION: Welaunee Creek	FIELD ID/NAME: WELREF	

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 10	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 6	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 12 ----- Primary Score 48	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	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization 15	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank 10 Left Bank 10	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 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 8 Left Bank 8 ----- Secondary Score 71	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 <i>colocasia expected canopy preserved</i>	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: 10/1/2015	Analyst: O'Neal	Signature: Stanley O'Neal
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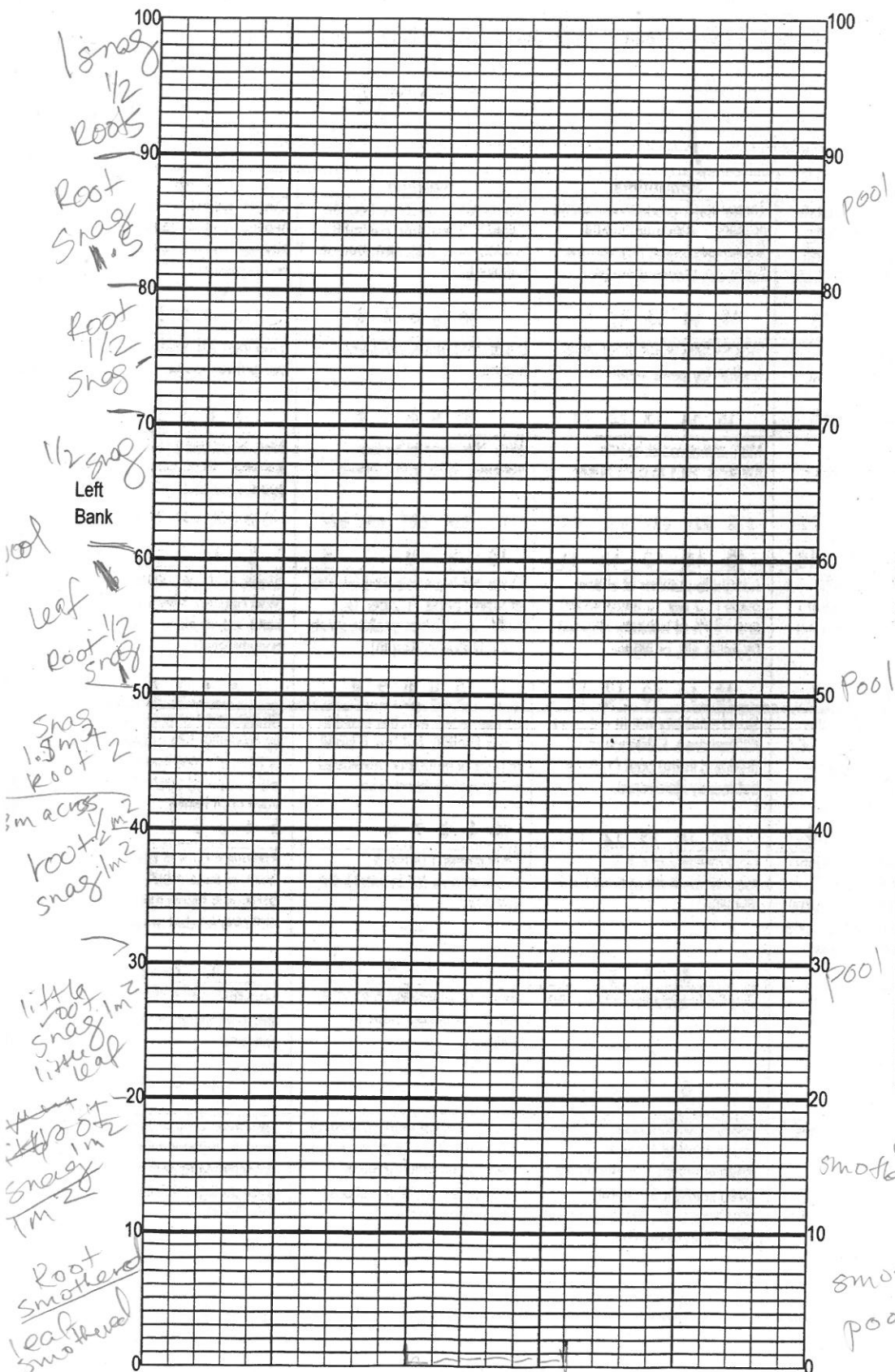
5 Root
5 Snag
Sand

DEP-SOP-001/01 Form FD 9000-4
Stream/River Habitat Sketch Sheet

2 Root
2 Snag
3 Sand

Location: Welaunee Creek
Date: 10/1/15
Sampler: O'Neal

100 m: Latitude _____		Longitude <u>WEL REF</u>	
0 m: Latitude _____		Station _____	
Longitude _____			
Substrates: Code key, draw proportionate habitat abundance. %			
☐ S	Snags	_____	
☐ R	Roots/undercut banks	_____	
☐ L	Leaf Packs (or mats)	_____	
☐	Aquatic Macrophytes	_____	
☐		5.6% total	
☐		_____	
☐ pool	Pools	total # observed = _____	# range expected = _____
Average width <u>3.5</u> m			
Average depth _____ m			
Velocity measured at <u>4</u> meter mark.			
WQ & chemistry taken at <u>30</u> 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: .25 x .5
0 6m
smothering 4.5
old dam sluggish at
1.5 0m and
3.0 downstream
10.5
3/10.5
9
1.5
5.6
17.6
1.5
20

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

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

Comments:

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																	

[illegible]

FDEP FORM 9000-25: RAPID PERIPHYTON SURVEY FIELD SHEET

# 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:	

$$\begin{array}{r} 50 \\ 13 \\ \hline 71 \end{array} \quad \begin{array}{r} 71 \\ 48 \\ \hline 119 \end{array}$$

05.1°W

30°21'49.5"N
83°54'05.1"W

Avalon Rd

Google

on Rd

June Dr



Explore

Green Ln