

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

SAMPLE ID 77364 ORG ID 21FLWQSP LATITUDE N 30.55536
 COUNTY BAY STORET # 32030023 LONGITUDE W -85.43519
 DATE 2/9/2017 TIME 13:40 SAMPLING AGENCY FDEP/AEQA
 SITE NAME Econfinae@ Scott Bridge
 FIELD ID/NAME ECONSCIREF RECEIVING BODY OF WATER Deer Point Lake

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) <u>1.62</u>
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 <u>6</u> m wide <u>0.75</u> m/s <u>0.5</u> m/s <u>1</u> m/s <u>1.0</u> m deep <u>1.2</u> m deep <u>1.0</u> m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718m</u> Right Bank: <u>718m</u>		Hydrologic Modification Score (per FT 3101) <u>1-2</u>					
High Water Mark: ☐ + <u>1.2</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 Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.2</u> <u>16.9</u> <u>4.46</u> <u>8.83</u> <u>91.2</u> <u>19.7</u> ☐ Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ Bottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ Meter ID: <u>YSI 1483</u>			
Woody Debris (Snags) <u>3</u> <u>5</u> ☐ Undercut Banks / Roots <u>1</u> <u>5</u> ☐ Leaf Packs or Mat <u>1</u> <u>5</u> ☐ Aquatic Vegetation ☐ ☐ ☐ Rock or Shell Rubble ☐ ☐ ☐ Sand <u>95</u> <u>5</u> ☐ Mud / Muck / Silt ☐ ☐ ☐ Other ☐ ☐ ☐ Other ☐ ☐ ☐		Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐		Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐	
		Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>NA-6253078</u> Exp: <u>9/9/17</u>		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: <u>Sun, 70s. we did not map HA because site was swift and a little high, dark; could feel/see habitat by hugging the banks, but difficult to map. Major erosion at bridge.</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.			
SAMPLING TEAM <u>J Jackson A O Neal S. Panek</u>		SIGNATURE: <u>A O Neal</u>		DATE: <u>2/9/2017</u>	

SITE NAME: Econfin@ Scott Bridge DATE: 2/9/2017 TIME 1340 (military) EST CST DEPTH: 1.2 ft (m) FIELD ID: ECONSCI REF

SAMPLING TEAM MEMBERS	WQ MEASUREMENTS	DOCUMENTATION	SAMPLE COLLECTION	PRESERVATION	PRESERVATION CHECK
Joy Jackson	X				
Ashley O'Neal			X	X	X
Sarah Panek		X			

SAMPLING EQUIPMENT	
☒ Sample Container	☐ Tubing type: _____
☐ Pole	☐ Other: _____
☐ Pump ID#: _____	☐ Other: _____
WATER QUALITY MEASUREMENTS	
Instrument ID: <u>YSI 1483</u>	
COLLECTION MODE	
☒ Wading	☐ Via Boat
☐ Diving	☐ Canoe
☐ From Shore	☐ 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 ☐ Other: _____	S W	☒ Ice ☒ H ₂ SO ₄	8/29/17 SA-6242060	☒ <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 ☐ Other: _____	S W	☒ Ice			1
Chlorophyll	☒ CHL-PPTN-W	S W	☒ Ice			1
BOD-QPCR	☐ BOD-INHB ☐ BOD-UNIN PCR	S W	☒ Ice			1
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	S W	☒ HNO ₃	9/9/17 NH625070	☒ <2	1
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-FL-PRO ☐ W ☐ Other: _____	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: _____ ☐ 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>W-SUC-AA-R</u>	S W	☒ Ice			1
OTHER	<u>IONS</u> <u>W-BR-IC, W-CL-IC, W-F,</u> <u>W-SO4-IC - goes w/physical/aggregate (same bottle)</u>	S W	☒ Other: <u>ICE</u>			

 Notes: _____

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)

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

SAMPLING AGENCY: <u>FDEP</u>		STORET STATION NUMBER:	DATE (MM/DD/YY): <u>2/9/17</u>	RECEIVING BODY OF WATER:
REMARKS: <u>ECO REF SAMPLING</u>	COUNTY: <u>Bay</u>	LOCATION: <u>Econfina@Scott</u>		FIELD ID/NAME:

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>14</u>	20 19 18 17 16	15 <u>14</u> 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>5</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 4 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 <u>20</u> 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>18</u> ----- Primary Score <u>57</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 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 <u>20</u>	<u>20</u> 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <u>6</u> Left Bank <u>6</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. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 <u>6</u>	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>10</u> Left Bank <u>10</u> ----- Secondary Score <u>72</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. <u>10</u> 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

129 TOTAL SCORE

Date: <u>2/9/2017</u>	Analyst: <u>J. Jackson, A. O'Neal, S. Panek</u>	Signature: <u>Stanley O'Neal</u>
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2017-02-06-68

Request Number: RQ-2017-04-09-29

Florida Department of Environmental Protection

Reference Stream Sampling

Central Laboratory Submittal Form

Page 1 of 2

last revised Apr 7, 2016

Customer: BSSP

Requester: Sarah Panek

Field Report Prepared By:

Ashley O'Neal

Project ID: SCIREF

Collected By:

Spanek, J Jackson AO'Neal FDEP A-EQA

Sampling Agency:

FDEP A-EQA

Location		Mayo Mill Branch		Collection (comp begin or grab)		Time		Composite end		Bottle Group(s)	
Field ID	MayoMill	Matrix (type, e.g., Salt, Fresh, etc)	fresh stream	Diss. Oxygen	8.81	Total Res. Chlorine					A, B
STORET #	CAL14 MAY 1	Temp (C)	17.7	pH	3.89	Sample Depth	0.2	Sp. Conductance (umho/cm)	26.7		
Latitude	30 29 30.5"	dd	30.5"	Longitude	85° 12 39.5"	dd	39.5"				
Location	Econfin creek @ Scott Bridge Rd.										
Field ID	LEONSCIREF	Matrix (type, e.g., Salt, Fresh, etc)	fresh stream	Diss. Oxygen	8.83	Total Res. Chlorine					A, B
STORET #	32030023	Temp (C)	16.9	pH	4.46	Sample Depth	0.2	Sp. Conductance (umho/cm)			
Latitude	30.55536	dd	30.55536	Longitude	-85.43519	dd	43.519				
Location											
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine					
STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude		dd		Longitude		dd					
Location											
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine					
STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude		dd		Longitude		dd					
Location											
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		Total Res. Chlorine					
STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude		dd		Longitude		dd					
Location											

Relinquished By:	Ashley O'Neal	Date/Time	2/10/2017 10:22
Shipping Method	hand delivery	Number of Coolers Shipped:	
Received By:	AFB	Date/Time	2-10-17 10:22