

#00272



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

February 2016

Data Qualified?
Yes / No

STORET Station Name:

Little Creek @ US 441

Date:

04/25/2016

STORET Station ID:

21010033

Latitude:

30.4155083

(Decimal Degrees)

WSID:

3368

RQ:

2016-04-25-07

ORG ID:

21FLA

Longitude:

-82.6368139

(Decimal Degrees)

Receiving Body of Water:

Field ID:

County:

Hamilton

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment			
Pat O'Conner									☒ Sample Container	☐ Van Dorn	☐ Pole	
Nicole Frederick				X	X	X	X		☐ Carboy	☐ Syringe		
									☐ Dipper	☐ Other		
									Equipment ID			
									Collect: Method			
									☒ Wading	☐ Via Boat		
									☐ From Shore	☐ Canoe/Kayak		
									☐ Other (note below)	☐ Electric Motor		
										☐ Gasoline Motor		
Water Level: Dry / Low / Normal / High / Flooded										Matrix: Fresh / Marine / DI		
Meter ID# DEP # 118154 (#4) Photos: Yes / No										Tide Falling: Yes / No / NA		
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°)		
EST	1015	0.25	0.4	7.46	81.2	3.94	0.03	0.35	60	19.47		
CEN												
Biological Samples Collected: None HA SCI LVS RPS 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					☒ <2	
Metals		☐ W-ICPMS ☒ W-ICP				☒ Ice ☒ HNO2					☒ <2	
Filtered Nutrients		☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter				☒ Ice						
Chlorophyll		☒ CHLSUITE-W				☒ Ice						
BOD		☐ BOD UNIN				☐ Ice						
Physical/Aggregate (Kit A)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice						
Physical/Aggregate (Kit B)		☐ 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				☐ Ice						
		☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH				☐ Other						

Contains
1:1
Sulfuric Acid
SA-5259020
EXP: 09/16/16
Warning!
See MSDS

Preservative Sticker(s) Here
(If Available)

Notes:

Place Label Here
(If Available)

Signature:

Nicole Frederick

Date:

4/25/16

Field Parameters Entered into LIMS:

(Initials/Date)

Field Parameters QC in LIMS:

(Initials/Date)

Date Migrated to STORET:

(Initials/Date)

Field Sheets Scanned/Saved:

(Initials/Date)

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

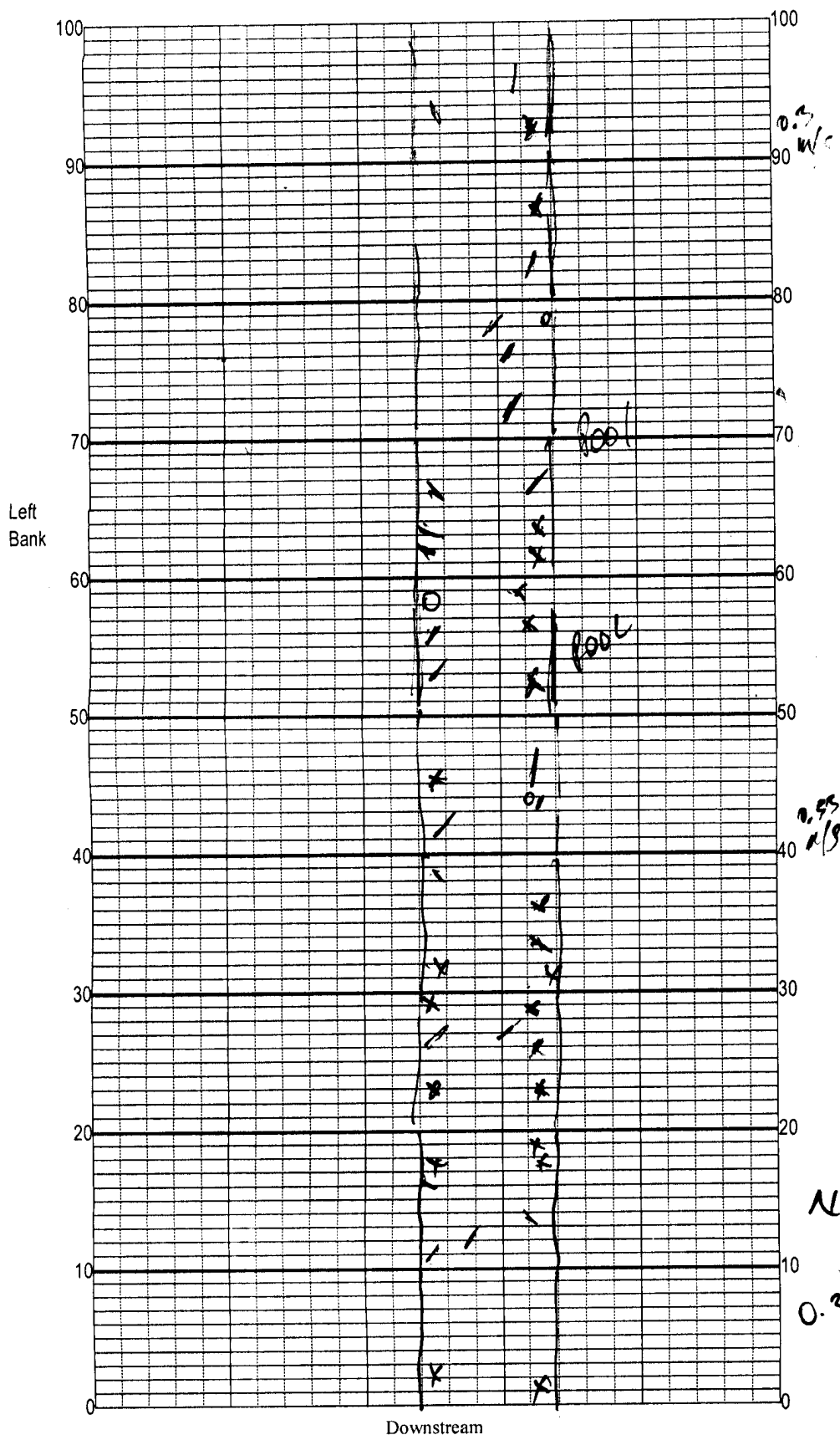
SAMPLING AGENCY: DEAR NEA ROC		STORET STATION NUMBER: 21010033	DATE (MM/DD/YY): 04/25/16	RECEIVING BODY OF WATER: SUCKANNE R
REMARKS:	COUNTY: Hammill	LOCATION: Little Creek 1.241	FIELD ID/NAME:	

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 10	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 7	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 11 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 20	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	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.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.
Right Bank 5 Left Bank 5	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank 10 Left Bank 10	10 9	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank 10 Left Bank 10 Secondary Score 10	10 9	8 7 6	5 4	3 2 1

118 TOTAL SCORE

Date: 04/25/16	Analyst: P O Conn	Signature: Patrick O Conn
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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: Little Creek @ US441
Date: 04/25/16
Sampler: P O'Connor

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance. %	
☒ Snags	_____ %
☒ Roots/undercut banks	_____ %
☒ Leaf Packs (or mats)	_____ %
☒ Aquatic Macrophytes	_____ %
☐ _____	_____ %
☐ _____	_____ %
☐ Pools	total # observed = _____ # range expected = _____

Average width 5 m
Average depth 0.4 m

Velocity measured at _____ meter mark.

WQ & chemistry taken at _____ 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:
NO Aquatic Vegetation / 22m²

0.33 m/s
4% Root
5% Snags
1% Pools

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

SAMPLE ID _____ ORG ID _____ LATITUDE _____
COUNTY HAMILTON STORET # 21010033 LONGITUDE _____
DATE 04/25/16 TIME 1015 SAMPLING AGENCY DEAR NE D ROC
SITE NAME Little Creek @ US447
FIELD ID/NAME _____ RECEIVING BODY OF WATER SUWANNEE R

RIPARIAN ZONE / STREAM FEATURES

Meter ID: 4SI

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>70</u> Silviculture <u>25</u> Field/Pasture _____ Agricultural _____ Residential <u>5</u> Commercial _____ Industry _____ Other (Specify) _____						Landscape Development Intensity Index (LDI) _____
Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>5</u> m wide ____ m/s <u>0.33</u> m/s _____ m/s ____ m deep <u>0.4</u> m deep _____ m deep
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy						
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18</u> Right Bank: <u>>18</u>						
Hydrologic Modification Score (per FT 3101) _____						Artificially Impounded ☐ Yes ☒ No
High Water Mark: <u>2.0</u> + <u>0.4</u> = <u>2.4</u> (m) (above present water level) (present depth) (above bed)						
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 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)	<u>5</u>	<u>7</u>	
Undercut Banks / Roots	<u>4</u>	<u>7</u>	
Leaf Packs or Mat	<u>4%</u>	<u>3</u>	
Aquatic Vegetation	<u>—</u>		
Rock or Shell Rubble	<u>—</u>		
Sand	<u>90+</u>	<u>3</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>0.35</u>
Mid:	<u>0.2</u>	<u>19.4</u>	<u>3.94</u>	<u>7.4</u>	<u>81.2</u>	<u>6.0</u>	<u>0.03</u>	
Bottom:								<u>0.4</u>

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) _____

Water Odors Normal ☐ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: See Smv Exp: Sheet

Algae Sample Taken? ☐ Yes ☒ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: _____ Exp: _____

Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐

Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) _____

Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☒	☐	☐
Fish:	☐	☐	☒	☐
Aquatic Plants:	☒	☐	☐	☐
Iron/Sulfur Bacteria:	☒	☐	☐	☐

AMBIENT FIELD CONDITIONS / NOTES:

RQ-2016-04-25-07

Hydrologic Disturbance Scoring ☐ 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ 9-10

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

SAMPLING TEAM

P. O'Connor, N. Fredricks

SIGNATURE: P. O'Connor

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little Creek @ US 441

County: Amilton

Date: 04/25/16

Investigators: PO'Connor N. Fredricks

STORET Station Number:

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
0	1	N		96	60	1	N		96
	2					2	X		
	3					3			
	4					4			
	5					5			
	6					6			
	7					7	N		
	8					8			
	9					9			
10	1	N		96	70	1	N		96
	2					2	X		
	3					3			
	4					4			
	5					5	N		
	6					6			
	7					7			
	8					8			
	9					9			
20	1	N		88	80	1	N		96
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
30	1	N		90	90	1	N		96
	2					2	X		
	3					3			
	4					4			
	5					5			
	6					6			
	7					7	N		
	8					8			
	9					9			
40	1	N		86	100	1	N		96
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			
50	1	N		96		1	N		
	2					2			
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8					8			
	9					9			

Secchi depth
Estimated?

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

Check accompanying data
collected at same site/date.

Algal mat sample
Linear Veg Survey
Habitat Assessment
SCI/Biorecon
Water sample

RQ-

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

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 densiometer 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%.