



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

Location/STORET Station Name: Fourmile Creek upstream of SR20 (also 32010016)

Date: 03/14/2018

(mm/dd/yyyy)

WIN ID G3NW0112

WBID: 567

Latitude: 30.502443

(Decimal Degrees)

County: Walton

RQ: 2017-02-26-24 ORG ID: 21FLPNS

Longitude: -86.145799

(Decimal Degrees)

Receiving Body of Water: LaGrange Bayou

Field ID: G3NW0112

Sampling Team Members

Jimmy Pitts
FRANK BURTON
Stephen Slade

WQ Measurements
Sample Collection
Documentation
Preservation
Preservation Check

Sampling Equipment

☒ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☐ Syringe
☐ Dipper ☐ Other

Equipment ID

Collection Method

☒ Wading ☐ Canoe/Kayak
☐ From Shore ☐ Electric Motor
☐ Other ☐ Gasoline Motor

Water Level: Dry / Low / Normal / Above Normal / Flooded

Meter ID# 1223 132237

Matrix: Fresh / Marine / DI

Photos: Yes / No

Flow: No Flow / Intestinal / Flowing / NA

Tide: Rising / Falling / Slack / NA

Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	<u>10:54</u>	<u>0.8</u>	<u>0.3</u>	<u>VOB</u>	<u>10.06</u>	<u>92.3</u>	<u>5.12</u>	<u>0.01</u>	<u>22</u>	<u>11.55</u>
<u>CEN</u>										

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H2SO4	<u>SA7-275010</u>	<u>10/02/18</u>	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	<u>NA7226058</u>	<u>03/14/18</u>	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / ☒ W-F / ☒ W-TSS / ☒ TURBIDITY / ☒ W-CHC / ☒ W-COLOR / ☒ W-SO4-IC / ☒ W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☒ E Coli ☐ F Coli ☐ Enterococci	☒ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☒ W-PSNP-TQ ☒ W-UHERB-AA ☒ W-AHERB-AA ☒ W-CARB-AA ☒ W-PCL-SQ-R ☒ W-PYR-AA-R ☒ W-GLYPH ☒ W-SUC-AA-R	☒ Ice ☐ Other			

Notes:

Place Label Here
(If Available)

Signature: JMP

Date: 3/14/18

Enter Field Parameters, Verify Station ID In LIMS DMT:

QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets

Migrate Data to WIN:

Verify Data In WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

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

SAMPLE ID 78285 ORG ID 21FLPNS LATITUDE 30.50242
 COUNTY Welford STORET # G3NWD12 LONGITUDE -86.14622
 DATE 03/14/2018 TIME 10:50 CST SAMPLING AGENCY NWROC
 SITE NAME LAFAYETTE (4) (P) Four Mile Ck upstream S.R. 20
 FIELD ID/NAME G3NWD12 RECEIVING BODY OF WATER LAGRANGE RAYON

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 <u>15m</u> <u>mk</u> <u>6</u> m wide <u>0.33</u> m/s <u>0.33</u> m/s <u>0.33</u> m/s
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>710</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>				High Water Mark: <u>1.2</u> + <u>0.8</u> = <u>2.0</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 <u>10-4 10:50</u> Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.33</u> <u>11.55</u> <u>5.12</u> <u>10.06</u> <u>91.3</u> <u>0.22</u> <u>0.91</u> <u>0.8</u> Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒ VOB Bottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ TOTAL DEPTH <u>0.8</u> Meter ID: <u>132237</u>			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: Exp:		
Woody Debris (Snags) <u>5.8</u> <u>4</u> Undercut Banks / Roots <u>1.1</u> <u>4</u> Leaf Packs or Mat <u>1.8</u> <u>4</u> Aquatic Vegetation <u>1.7</u> <u>4</u> Rock or Shell Rubble.. ☐ ☐ Sand..... <u>91.4</u> <u>4</u> Mud / Muck / Silt ☐ ☐ Other ☐ ☐ Other ☐ ☐			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: ☒ ☐ ☐ ☐			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ AMBIENT FIELD CONDITIONS / NOTES: old street 32010016 Ad to G3NWD12. ☒ The antecedent hydrologic conditions have been met to my best knowledge.			SAMPLING TEAM Jimmy Pitts, Frank Butera, Stopher Slade		

SIGNATURE: [Signature]

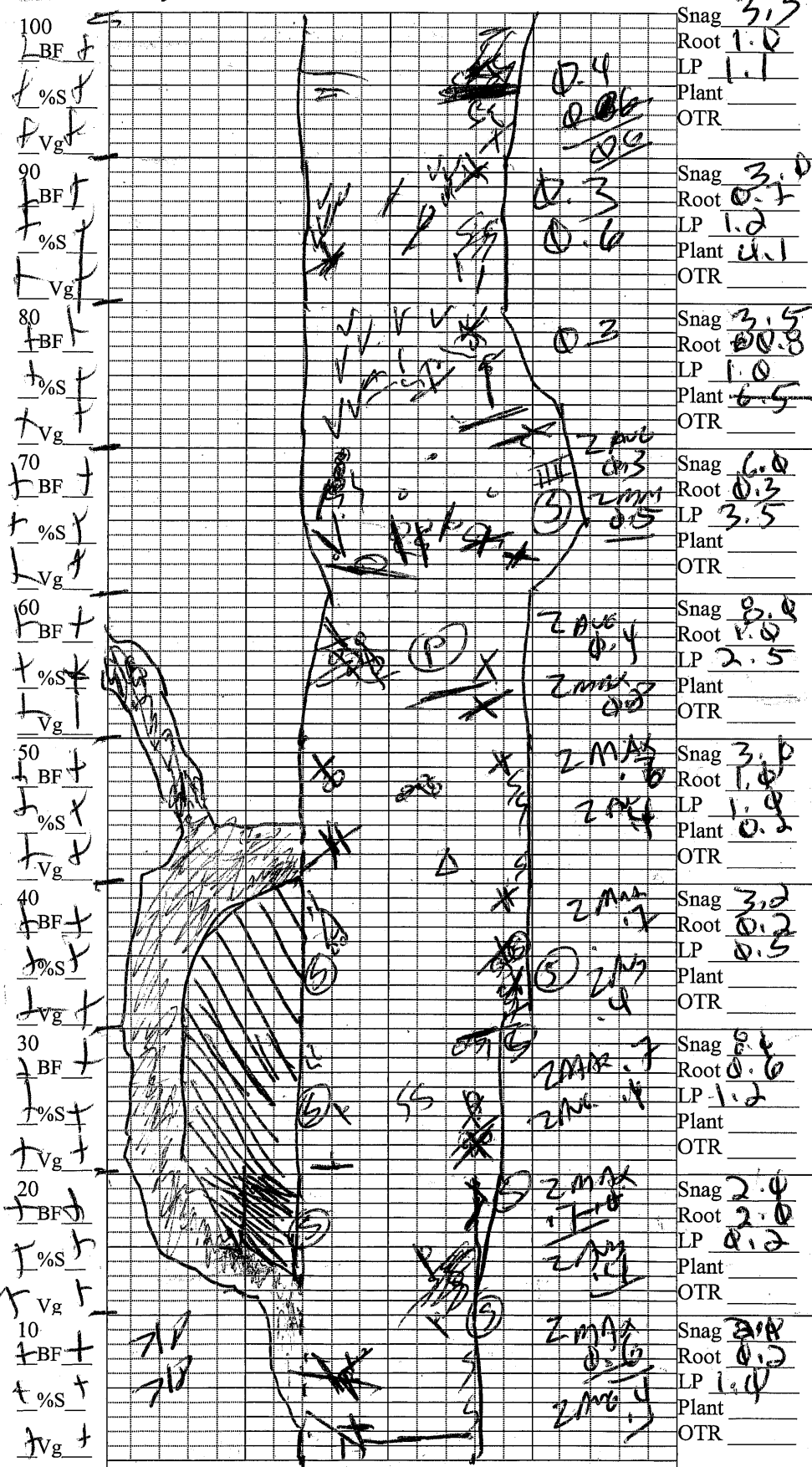
DATE: 03/14/2018

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (June 1, 2001)

Length of grid represents 100 m of stream (not linear meters).

(Horizontal scale is double vertical scale, draw proportionately).

S810. 78285



Left Bank

Downstream

(S) SAND BAR (P) = Pool (E) = Erosion (S) = Silt Smoother

WIN ID G3NW0112

Substrates: Code key, draw proportionate habitat abundance.



Snags



Roots/undercut banks



Leaf Packs (or mats)



Macrophytes

Velocity:

Note where velocity measures were taken. 15 m

Habitat Smothering:

Note areas (on map) where sand or silt is something 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.

Average width 0.9 m

Average depth 0.9 m

WQ & chemistry taken @ 0 m

Station Name: Four-mile Creek

Project. SMP / TMDL Studies

Sampled By/Date: FB/3-14-17

0 m Latt. 30.54242

0 m Long. 86.14622

100 m Latt. 30.54323

100 m Long. 86.14613
86.14613

Snag 3.3

Root 1.0

LP 1.1

Plant

OTR

Snag 3.0

Root 0.3

LP 1.2

Plant 2.1

OTR

Snag 3.5

Root 0.8

LP 1.0

Plant 6.5

OTR

Snag 6.0

Root 0.3

LP 3.5

Plant

OTR

Snag 8.0

Root 1.0

LP 2.5

Plant

OTR

Snag 3.0

Root 1.0

LP 1.0

Plant

OTR

Snag 3.0

Root 0.2

LP 0.5

Plant

OTR

Snag 8.0

Root 0.6

LP 1.2

Plant

OTR

Snag 2.0

Root 2.0

LP 0.2

Plant

OTR

Snag 2.0

Root 0.2

LP 1.0

Plant

OTR

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

SAMPLING AGENCY: 21FLPNS FDEP NWROC SB10 ZD: 78285		STORET STATION NUMBER: G3NW0112	DATE (MM/DD/YY): 03/14/18	RECEIVING BODY OF WATER: CAGraves Bayou
REMARKS: HA ZD: 15071	COUNTY: Walton	LOCATION: Four Mile Ck nr SL20	FIELD ID/NAME: G3NW0112	

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 17	20 19 18 (17) 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 8	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 10 ----- Primary Score 6055 (10)	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 10	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 10 Left Bank 10	(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 75 70 (10)	(10) 9	8 7 6	5 4	3 2 1

135

TOTAL SCORE

Date: 03/14/2018	Analyst: Frank Butera	Signature: 
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Four-Mile Ck upstream SR 26 County: Walton Date: 03/14/2018 Investigators: Frank Butera

Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	
0	1	N	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5			89		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N	N		70	1	N	N		
	2					2				
	3					3				
	4					4				
	5			96		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N	N		80	1	N	N		
	2					2				
	3					3				
	4					4				
	5			72		5			92	
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N	N		90	1	N	N		
	2					2				
	3					3				
	4					4				
	5			96		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N	N		100	1	N	N		
	2					2				
	3					3				
	4					4				
	5			96		5			93	
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N	N			1	N	N		
	2					2				
	3					3				
	4					4				
	5			96		5				
	6					6				
	7					7				
	8					8				
	9					9				

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%.

STORET Station Number:

03NWD112

Secchi depth 1.05
Estimated?

points ranked 4-6 4
total points assessed 99
% points ranked 4-6 4

Check accompanying data collected at same site/date.

Algal mat sample	☒
Linear Veg Survey	☒
Habitat Assessment	☒
Sci/Biorecon	☒
Water sample	☒

RQ-2018-02-26-20

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

SBIO ID 78285

RPS ID 8941

[illegible]

VPDB ID 10854