



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

St Marks River down stream from Rise

WIN Station Name:

Date: 7/19/2018

WIN ID/ Field ID G1TLHR0044

WBID: 793D

Latitude: 30.2708427

County: Wakulla

ORG ID: 21FLTLHR

Longitude: 84.1484038

Receiving Body of Water: Gulf of Mexico

RQ - 2018 - 06-18-5 U

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
Chris Green								
Jade Burtchett								

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with: Secchi		
Equipment ID: 2		

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

Water Level: Dry/ Pooled/ Low/ Normal/ High/ Flooded

Meter ID# Exo 3

Matrix: Fresh/ Marine / DI

Photos: Yes ☒ No

Flow: No Flow / Intertidal / Flowing / NA

Tide: Rising/ Falling/ Slack/ NA

Tide Times: High Low

Field Sample

(Bracket Sample Time)

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Sp COND (umhos/cm)	Temp. (C°)
EST	1300	1.3	0.3	1.2	276	31.4	7.40	0.12	257	21.61
CEN				1.3						

Biological Samples Collected:

None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers:

SBIO-ID: 78627 HA-ID: 15293 RPS-ID: 9064 Macrophyte-ID: 10999 LIMS#: 2009370

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	SA8085170	3/24/19	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity W-F / W-TSS / TURBIDITY / W-Cl-IC / 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-AHERB-AA ☐ W-PYR-AA-R ☐ W-CARB-AA ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

QA/QC Sample Information Duplicate

Time Zone: EST CEN		Time: 1305		Field ID: G1TLHR0044DUP	
Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Chec
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H2SO4	518085170	3/26/19	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <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			
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-AHERB-AA ☐ W-PYR-AA-R ☐ W-CARB-AA ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Blank

Time Zone: EST CEN		Time: 1315		Field ID: BLANK_07192018	
DI Source: Carboy 2				(BLANK_DMMYYYY)	
Location: St Marks River Down Stream From Rise					
☒ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank		Equipment ID:			
Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Chec
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H2SO4	518085170	3/26/19	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <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			
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-AHERB-AA ☐ W-PYR-AA-R ☐ W-CARB-AA ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

Notes:

Field/WIN ID →

Location ↓

St Marks River Down Stream From Rise



G1TLHR0044

Field ID →

Location →

WIN ID →



G1TLHR0044_DUP

St Marks River Down Stream From Rise



G1TLHR0044

Signature: *[Signature]*

Date:

7/19/18

Enter Field Parameters, Verify Station ID In LIMS DMT: *Cb* 7-23-2018

QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets *Cb* 7-23-2018

Migrate Data to WIN:

Verify Data in WIN:

(Initials/Date)

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

SAMPLING AGENCY: <u>8034</u>		STORET STATION NUMBER:	DATE (MM/DD/YYYY): <u>7-19-2018</u>	RECEIVING BODY OF WATER: <u>Gulf of Mexico</u>
REMARKS:	COUNTY: <u>Wakulla</u>	LOCATION: <u>St Marks River</u> <u>Down Stream from Rise</u>		FIELD ID/NAME: <u>GITLHR0044</u>

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>18</u> <u>20</u>	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>20</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 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>11</u> ----- Primary Score <u>69</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 Artificial Channelization <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 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>9</u> Left Bank <u>9</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 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>8</u>	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 <u>9</u> Left Bank <u>9</u> ----- Secondary Score <u>74</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 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

143 **TOTAL SCORE**

Date: <u>7-19-2018</u>	Analyst: <u>Chris Green</u>	Signature: <u>Chris Green</u>
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DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID G1TLHR0044 ORG ID 21FLTLHR LATITUDE 30.2708
 COUNTY Nakulla STORET # _____ LONGITUDE 84.1484
 DATE 7-19-2018 TIME 13:45 SAMPLING AGENCY 8034
 SITE NAME St Marks River down stream from Rise
 FIELD ID/NAME G1TLHR0044 RECEIVING BODY OF WATER Gulf of Mexico

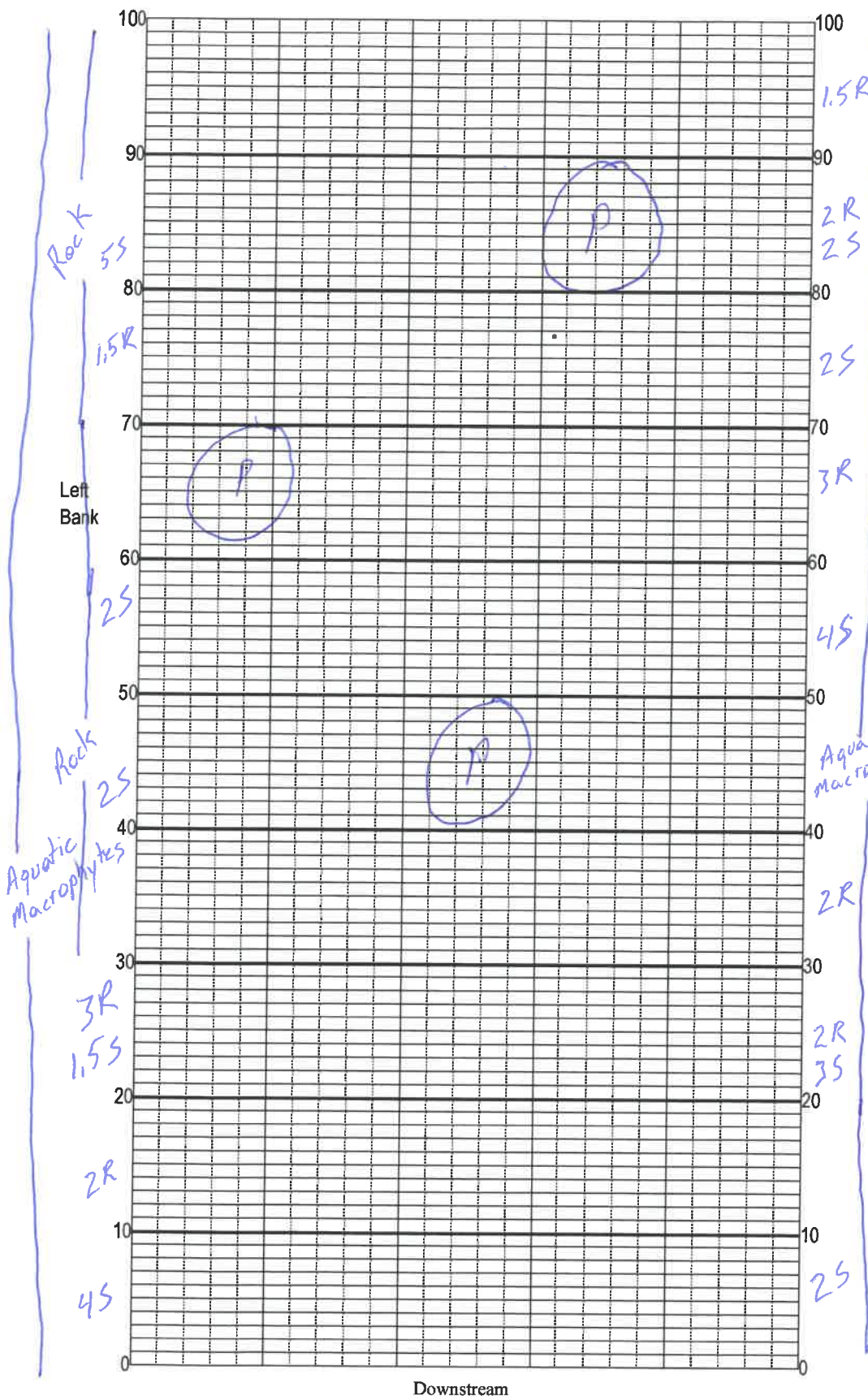
RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>40</u> Silviculture <u>50</u> Field/Pasture _____ Agricultural _____ Residential <u>10</u> 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>100</u> m wide <u>0.5</u> m/s <u>0.5</u> m/s <u>0.5</u> m/s <u>0.5</u> m deep <u>1.3</u> m deep <u>0.5</u> m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>218</u> Right Bank: <u>218</u>		Hydrologic Modification Score (per FT 3101) _____					
High Water Mark: <u>0.2</u> + <u>1.3</u> = <u>1.5</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 <table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td><u>2.75</u></td> <td></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td><u>1.7</u></td> <td></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td><u>0</u></td> <td></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td><u>90</u></td> <td></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td><u>3.5</u></td> <td></td> <td></td> </tr> <tr> <td>Sand.....</td> <td><u>2.05</u></td> <td></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	<u>2.75</u>			Undercut Banks / Roots	<u>1.7</u>			Leaf Packs or Mat	<u>0</u>			Aquatic Vegetation	<u>90</u>			Rock or Shell Rubble..	<u>3.5</u>			Sand.....	<u>2.05</u>			Mud / Muck / Silt				Other				Other				WATER QUALITY <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td><u>0.3</u></td> <td><u>21.61</u></td> <td><u>7.40</u></td> <td><u>276</u></td> <td><u>31.4</u></td> <td><u>257</u></td> <td><u>0.12</u></td> <td><u>1.3</u></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☒ VOB</td> </tr> <tr> <td>Bottom</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Meter ID: <u>Exo 3</u>				Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	<u>0.3</u>	<u>21.61</u>	<u>7.40</u>	<u>276</u>	<u>31.4</u>	<u>257</u>	<u>0.12</u>	<u>1.3</u>	Mid:								☒ VOB	Bottom								
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Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____			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 <table border="1"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> </tr> <tr> <td>Fish:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☐	☐	☒	Fish:	☐	☐	☐	☒	Aquatic Plants:	☐	☐	☐	☒	Iron/Sulfur Bacteria:	☒	☐	☐	☐	System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>River</u>																																																					
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AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																	
SAMPLING TEAM <u>Chris Green / Jade Burtchett</u>			SIGNATURE: <u>CKS</u>		DATE: <u>7-19-2018</u>																																																																												

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: St. Marks River
 Date: Down stream from Rise
7-19-2018
 Sampler: Chris Green

100 m: Latitude _____
 Longitude _____
 0 m: Latitude _____
 Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

<u>S</u>	Snags	<u>2.75</u>
<u>R</u>	Roots/undercut banks	<u>1.7</u>
<u>L</u>	Leaf Packs (or mats)	<u>0</u>
<u>A</u>	Aquatic Macrophytes	<u>90</u>
<u>O</u>	<u>Rock</u>	<u>3.5</u>
<u>P</u>	Pools	total # observed = <u>3</u> # range expected = <u>0/1</u>

Average width 100 m
 Average depth 1.3 m

Velocity measured at 50 meter mark. 2 sec.

WQ & chemistry taken at 70 meter mark.

Habitat Smothering: Silt
 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: L > 18 R > 18
 Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed / other notes:

90% of river
Hydrilla Verticillata
Sagittaria kurziana
Vallisneria Americana

S - 27.5
R - 17
L - 0
A - 35
O - 35

Revision Date: March 1, 2014

Waterbody: <u>5T Marks River</u>	Date: <u>7-19-18</u>	County: <u>Wakulla</u>	Storet Number:
Analyst: <u>Chris Green / Jade Burtchett</u>		Signature: <u>CK 3-</u>	

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: GITLIHROO44 County: Wakulla Date: 7-19-2018 Investigators: Chris Green/Jade Burtchett

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

STORET Station Number:

Secchi depth 1.3
Estimated? No

points ranked 4-6 49
total points assessed 99
% points ranked 4-6 49.49

Check accompanying data collected at same site/date.
Algal mat sample ☒
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☐
Water sample ☒
RQ- 2018-06-18-50

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%.

**Florida Department of Environmental Protection
Central Laboratory Submittal Form**

Customer: TLH-ROC
Project ID: SMP

Requester: Michael Eckles
Collected By: C. G. S. eqn

Field Report Prepared By: J. B. Mcheta C. Green
Sampling Agency: SC34

[illegible]

Relinquished By: JB, CG	Date/Time 7/19/18:1404	Shipping Method HD	Number of Coolers Shipped: 1	Received By: 	Date/Time 7-19-18 11:40
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A: Age-ID

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there is qualified data on this name.

Meter ID: E103

RQ-

Project: SMP 2018

Notes: (1) Always wait for meter to stabilize before recording any readings.

(2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).

(3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 6/18

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	J. Burkett	7/19/18	753	22.8	8.61	8.61	100	-	1.06	P/F	L/F
ICV	✓	✓	803	20.4	9.02	9.00	100	-	-	P/F	L/F
CCV	✓	✓	1420	26.0	8.11	8.10	100	-	-	P/F	L/F
CCV										P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	J. Burkett	7/19/18	755	180403A	04/19	1000	1000	P/F	L/F
ICV	✓	✓	805	2802833	01/20	100	100	P/F	L/F
CCV	✓	✓	1422	180621B	07/19	50000	50923	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	J. Burkett	7/19/18	757	171121A	06/19	7.0	7.0	-38.7	P/F	L/F
Calibr.	✓	✓	759	180116D	01/19	4.0	4.0	137.1	P/F	L/F
Calibr.	✓	✓	801	1802216	09/19	10.0	10.0	211.2	P/F	L/F
ICV	✓	✓	807	1802216	09/19	10.0	10.0	212.5	P/F	L/F
CCV	✓	✓	1424	180116D	01/19	4.0	4.0	135.9	P/F	L/F
CCV									P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 1, slope from 4 to 7 1 (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes / No If yes, list date of last quarterly depth verification 7/18

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail	Lab / Field
Pressure mode in air	J. Burkett	7/19/18	809	0.0	0.0	P/F	L/F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS: