



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Gamble Creek @ Golf Course Rd

Date: 10-16-19
(mm/dd/yyyy)

WIN/ Field ID: G2SW0107

WBID: 1819

Latitude: 27.55315

(Decimal Degrees)

County: Manatee

ORG ID: 21FLTPA

Longitude: -82.38989

(Decimal Degrees)

Receiving Body of Water: Little Manatee River

RQ-2019- 10-14-03

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
JUAN ASHTON									
BEN PASWATKA									

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

Depth Measured with: Secchi
Equipment ID: Secchi #1

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

Water Level: Dry / Pooled / <u>Low</u> / Normal / High / Flooded					Meter ID# <u>CHENY</u>		Matrix: <u>Fresh</u> Marine / DI			
Photos: <u>Yes</u> / No		Flow: No Flow / Interstitial / <u>Flowing</u> / NA		Tide: Rising / Falling / <u>Slack</u> / NA		Tide Times: High <u> </u> Low <u> </u>				
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°)
<u>EST</u>	<u>1230</u>	<u>0.5</u>	<u>0.2</u>	<u>0.55</u>	<u>6.83</u>	<u>83.3</u>	<u>7.41</u>	<u>0.25</u>	<u>525</u>	<u>25.4</u>

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

SBIO ID Numbers: SBIO-ID: 80441 HA-ID: 16374 RPS-ID: 9478 Macrophyte-ID: < 2 m² 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 ☐ H ₂ SO ₄	<u>SA7163030</u>	<u>06/12/18</u>	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☐ HNO ₃	<u>NA8344050</u>	<u>12/10/19</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-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / 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-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☒ W-E8321-DI ☒ W-E8321-TMS	☐ Ice			
Pesticides	☒ W-PHNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ W-E8321-MS ☐ W-CARB-AA	☐ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Notes: E.coli, SCI KIT

Field ID/WIN: G2SW0107

Site Name: Gamble Creek @ Golf Course Rd

Signature: [Signature] Date: 10-16-19

LIMS EVENT ID: 2019-10-17-01 WIN Import ID: 17016

Enter Field Parameters, Verify Station ID In LIMS DMT: SM 11/13/2019 QC Station ID, Field Parameters In LIMS DMT: SM 01/06/2020 SM 02/13/2020

Scan/Save Field Sheets SM 03/11/2020 Migrate Data to WIN: SM 02/13/2020 Verify Data in WIN: SM 03/11/2020

(Initials/Date) (Initials/Date) (Initials/Date)

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

Customer: SW-DIST

Requester: Benjamin Paswater

Field Report Prepared By:

Project ID: SMP

Collected By:

Sampling Agency:

July Athens
FDEP

[illegible]

Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
ALKALINITY							
TURBIDITY							
W-CL-IC							
W-COLOR							
W-F							
W-SO4-IC							
W-TDS							
W-TSS							
Group: A	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
CHLSUITE-W							
Group: A	Bottle Type:	P-250ML-WI-THI	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
SW-AEL-ECQ SN-BEA-ECQ							
Group: A	Bottle Type:	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
W-E8321-DI							
W-E8321-MS							
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
W-ICP							
W-ICPMS							
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
W-NH3							
W-NO2NO3							
W-S-A-TP							
W-TKN							
W-TOC							
Group: A	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
W-PO4-F							
Group: A	Bottle Type:	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
W-PSNP-TQ							
Group: B	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
ALGAL_ID							
Group: B	Bottle Type:	PJ-2L	# of Bottles: 2	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	1

Benchmark EnviroAnalytical, Inc

1711 12th Street East

Palmetto, FL 34221

941-723-9986

941-723-6061 Fax

PO# B578C6

Client Information: **FDEP**

Address: 13051 N. Telecom Parkway

Tampa FL 33604

Phone # 815-470-5772

Report to: judy.ashton@dep.state.fl.us, DEP-Overflomicro@dep.state

Invoice to: FDEP Micro Overflow

Project Name: RQ-2019-10-14-03

Laboratory Submission #

19100770

Sample Name	Sample Type ¹ / Sample Matrix ²	Collection		Container		Preservative ⁴	Parameters for Analysis	Laboratory Sample #
		Date	Time	Qty	Capacity	Type ³		
<u>G25W0107</u>	SW	<u>10-16-19</u>	<u>1230</u>	<u>1</u>	<u>250mL</u> <u>120mL</u>	P	Plain (on Ice)	<u>1</u>
<u>EMBLE CREEK @ BOYD COUNTRY RD</u>	SW				120mL	P	Plain (on Ice)	
	SW				120mL	P	Plain (on Ice)	
	SW				120mL	P	Plain (on Ice)	
	SW				120mL	P	Plain (on Ice)	
	SW				120mL	P	Plain (on Ice)	
	SW				120mL	P	Plain (on Ice)	

¹ Sample Type¹ is used to indicate whether the sample was a grab (G) or whether it was a composite (C).

² Sample Matrix² is used to indicate the type of sample collected (e.g., surface water (SW), beach surface water (BSW), sediment (SDMNT), or other (OT)).

³ Container Type³ is used to indicate whether the sample was collected in a plastic (P) or glass (G) container.

⁴ Under "Preservative," the type of preservative that was added to the sample container.

1. Each bottle has a label identifying sample ID, preservative, preservative contained in the bottle, sample type, effluent ID, and parameters for analysis.
2. The following information should be added to each bottle label after collection with permanent black ink: date and time of collection, sampler's name or initials, and any field number or ID.
3. All bottles not containing preservative may be stored with appropriate sample prior to collection.
4. The client is responsible for preservation of the sampling event. Please note special sampling events on the sample custody form.

Laboratory Sample Acceptability:
Temperature: 4.3°C

1	Collected/Relinquished By:	Date	Time	Received By:	Date	Time
	<u>J. Ashton</u>	<u>10-16-19</u>	<u>1230</u>			
2	Relinquished By:	Date	Time	Received By:	Date	Time
	<u>J. Ashton</u>	<u>10-16-19</u>	<u>1335</u>	<u>[Signature]</u>	<u>10-16-19</u>	<u>1235</u>



Site Name: Gamble Creek @ Golf Course Rd

5 Rapid Periphyton Survey Field Sheet

Date: 10-16-19

Investigators: J. Ashton, B. Mawer

STORET Station Number:

MANATEE CO

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			60	1	N			
	2					2				
	3					3				
	4					4				
	5			0		5			30	
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			0		5			20	
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5			0		5			10	
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			9		5			10	
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			4		5			12	
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N				1	N			
	2					2				
	3					3				
	4					4				
	5			15		5				
	6					6				
	7					7				
	8					8				
	9					9				

 Secchi depth 0.5
 Estimated? NO

 # points ranked 4-6 0
 total points assessed 99
 % points ranked 4-6 0

Check accompanying data collected at same site/date.

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

RQ- 2019-101403

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

*If you can see the secchi on the bottom, but you cannot see or reach surrounding substrate use "X" and check estimated

3m width

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%.



Site Name:

Gamble Creek @ Golf Course Rd

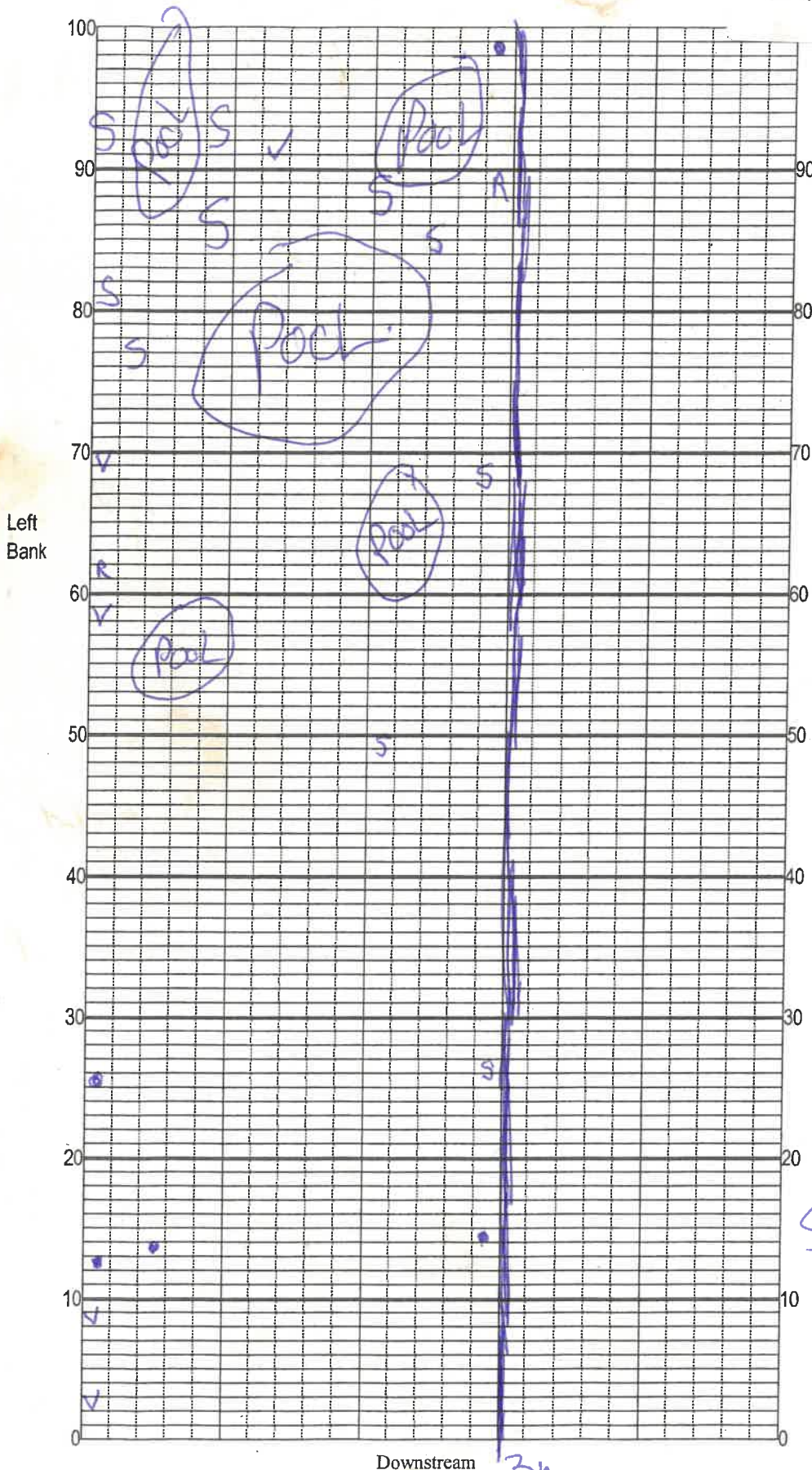
County: MANATEEWaterbody: See StickerDate: 10-16-15Signature: [Signature]Analyst: Judy AshtonL2m2 VEG

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. **BOLD is exotic invasive**

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	
Alternanthera philoxeroides		✓										Micranthemum glomeratum											
Bacopa caroliniana (Lemon)												Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum											
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nitella sp.											
Centella asiatica												Nuphar luteum											
Ceratophyllum demersum												Orontium aquaticum											
Chara sp.												Panicum hemitomon											
Cicuta maculata												Panicum repens		✓									
Cladium jamaicense												Panicum rigidulum											
Colocasia esculenta												Pistia stratioides											
Commelina diffusa												Polygonum glabra		✓									
Commelina virginica							✓	✓				Polygonum hydropiperoides											
Crinum americanum												Polygonum punctatum											
Cyperus												Pontedaria cordata											
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Sacciolepis striata											
Fontinalis sp. (Aquatic Moss)												Sagittaria kurziana											
Fraxinus caroliniana												Sagittaria lancifolia											
Hydrilla verticillata							✓	✓				Sagittaria latifolia											
Hydrocotyle sp.												Salvinia minima					✓	✓	✓				
Hygrophila polysperma												Samolus parviflora											
Hymenachne amplexicaulis												Saururus cernuus											
Hymenocallis												Sparganium americanum											
Lachnanthes caroliniana												Schoenoplectus americanus											
Landoltia punctata												Sphagneticola trilobata (Wedelia)											
Lemna sp.												Typha sp.											
Limnophila sessiflora												Urochloa mutica (Brachiaria)	✓	✓			✓	✓	✓				
Ludwigia leptocarpa												Vallisneria americana											
Ludwigia palustris												Zizania aquatica											
Ludwigia peruviana												SALIX					✓	✓	✓	✓			
Ludwigia repens																							
Luziola fluitans																							
If no Dominant or Co-Dominant were selected, Indicate with "X"																							
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage		✓	✓	✓	✓	✓	✓	✓	✓	✓													
>5 and ≤10% Macrophyte Coverage																							
>10 and ≤25% Macrophyte Coverage																							
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

Site Name:

Gamble Creek @ Golf Course Rd

Left
Bank

Downstream

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

Date:

Sampler: BW Patton

100 m: Latitude _____

Longitude _____

0 m: Latitude _____

Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

<u>S</u>	Snags	<u>1.8</u>
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<u>R</u>	Roots/undercut banks	_____
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<u> </u>	Leaf Packs (or mats)	_____
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<u>V</u>	Aquatic Macrophytes	<u>Few</u>
----------	---------------------	------------

<u>•</u>	ROCKS	<u>few</u>
----------	-------	------------

<u> </u>	_____	_____
----------	-------	-------

<u>5</u>	Pools	total # observed = <u>5</u> # range expected = <u>4-6</u>
----------	-------	--

Average width 3 mAverage depth 0.5 mVelocity measured at 30 meter mark.WQ & chemistry taken at 30 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:

S $28/1500 = 1.8\%$

Site Name: **Gamble Creek @ Golf Course Rd**

21FLTPA

LATITUDE

LONGITUDE

1230

SAMPLING AGENCY **FDEP SW ROC**DATE **10-16-19**

RECEIVING BODY OF WATER

RIPARIAN ZONE / STREAM FEATURES

RD-2019-10-14-03

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐ 20 30 20 30							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 .17 m/s 0.27 m/s .17 m/s .2 m deep .5 m deep .2 m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: 718m Right Bank: 718m				Hydrologic Modification Score (per FT 3101) 5			
High Water Mark: 0.5 + 2.0 = 2.5 (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%)			

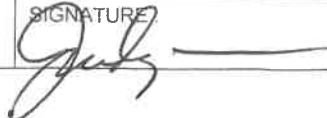
SEDIMENT / SUBSTRATE

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																																										
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ABUNDANCE			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐																																										
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	Not Obs.	Rare	Common	Abundant																																									
Periphyton:	☐	☐	☒	☐																																									
Fish:	☐	☐	☒	☐																																									
Aquatic Plants:	☐	☒	☐	☐																																									
Iron/Sulfur Bacteria:	☒	☐	☐	☐																																									

SAMPLING TEAM

J. Ashton, B. Pitzwiler

SIGNATURE



DATE:

10-16-19



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

Site Name: **Gamble Creek @ Golf Course Rd**STORET STATION
NUMBER: see sticker

DATE (MM/DD/YYYY):

10-16-19

SAMPLING AGENCY:

FDEP SWROC

FIELD ID/NAME: see sticker

LOCATION:

COUNTY:

MANATEE

RECEIVING BODY OF WATER:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components 4	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 Diversity 3	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 14	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 32	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 10	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within only 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 2 Left Bank 2	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 9 Left Bank 9	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 5 Left Bank 5 ----- Secondary Score 42	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

TOTAL SCORE

Date:

10/16/19

Analyst:

Ben Paswater

Signature:

Ben Paswater

Judy Ashton