

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV☒ Yes / ☐ No

WIN Station Name:	Howard Prairie Branch @ Grange Hall				Sample Date:	10/12/2022		
WIN / Field ID:	G2SW0154	ORG ID:	21FLTPA	ENR:				
County:	Hillsborough	WBID:	1770	STREAM	3F		Latitude:	27.690020988
Receiving Body of Water:	Howard Prairie Branch				Longitude:	-82.19819		
					RQ-	2022-07-25-23		

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Devin Mathias	x		x		
Ben Paswater		x		x	x

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
	Syringe	Pole	
Syringe Lot# 1145497		Filter Lot# 17232873	
Secchi Equipment ID:		Secchi #3	
Collection Method			
x	Wading	Canoe/Kayak	
	From Shore	Electric Motor	
		Gasoline Motor	
Depth Measured With		Secchi	

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	Leia

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
EST	1030	0.4	0.2	5.57	67.5	25	6.98	0.4	171.2	0.08
								VOB (s)		

Biological Samples Collected: HA LVS RPS

SBIO Visit ID: 85763 HA ID: 18024 RPS ID: 9984 Macrophyte ID: 12315 LIMS Sample ID Entered Into The Macrophyte Module: 2362323

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
				Type	Lot#	Expiration Date	pH Check
Microbiology	E. coli	Contract Lab	Benchmark	ICE			
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:1145497; Filter Lot#:17232873		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA1308030	12/1/22 H2SO4 pH<2
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA1105100	6/7/23 HNO3 pH<2
Organics (LC)	W-E8321-DI	W-E8321-MS	W-CARB-AA**	ICE	MCAA***	128343	2/4/23
Macroinvertebrates							
Organics (GC)	W-CT-CI-R	W-PCL-TQ-R	W-PCB-TQ-R	Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise ***5 ml MCAA (Monochloroacetic Acid Buffer Solution)		
Molecular	W-PSNP-TQ	W-TR-SQ-R					
Periphyton							
Phytoplankton							
BOD							
DOC					SyringeLot#		FilterLot#
Other(s)							
Field Comments:	Cloudy, sunny						
Comments on COC:	Microbiology sample(s) submitted to contract laboratory.						
Relinquish Date:	10/12/2022	Signature:					

LIMS EVENT ID: SW-DIST-2022-10-13-02

WIN Import ID: 37045

Enter Field Parameters, Verify Station ID In LIMS DMT: DM 10/18/2022
(Initials/Date)QC Station ID, Field Parameters In LIMS DMT: MM 12/07/2022
(Initials/Date)Save Field Sheets on Network: MM 12/07/2022
(Initials/Date)Migrate Data to WIN: MM 12/07/2022
(Initials/Date)

Site Name:

STORET STATION
NUMBER: see stickerDATE (MM/DD/YY):
see bottom of page

SAMPLING AGENCY:

FDEP SWROC

COUNTY:

Hillsborough

RECEIVING BODY OF WATER:

Little Manatee

ward Prairie Branch @ Grange Hall

R0-2022-07-25-23

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>8</u>	20 19 18 17 16	15 14 13 12 11	10 9 <u>8</u> 7 6	5 4 3 2 1
Substrate Availability <u>4</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 <u>4</u> 3 2 1
Water Velocity <u>16</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 <u>16</u>	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>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae.	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae.	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth).	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation.
Primary Score <u>39</u>	20 19 18 17 16	15 14 13 12 <u>11</u>	10 9 8 7 6	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>16</u>	20 19 18 17 <u>16</u>	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 <u>9</u> Left Bank <u>9</u>	10 <u>9</u> LR	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 <u>9</u> Left Bank <u>9</u>	10 <u>9</u> LR	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 <u>6</u> Left Bank <u>6</u>	10 9	8 7 <u>6</u> LR	5 4	3 2 1
Secondary Score <u>64</u>				

TOTAL SCORE

103

Date:

10/12/2022

Analyst:

Ben Paswater, Devin Mathis

Signature:

Ben Paswater

Visit ID: B5763

HA: 18024

Macro: 12315

RPS: 9984

Field ID/WIN

G2SW0154

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

Site Name:



Y

21FLTPA

LATITUDE

LONGITUDE

SAMPLING AGENCY **FDEP SW ROC****ward Prairie Branch @ Grange Hall**

RECEIVING BODY OF WATER

Lil Manatee**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) ☐**10** ☐ **80** ☐ ☐ ☐ ☐ ☐ **10** ☐

Landscape Development Intensity Index (LDI)

Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ HeavyLocal Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy**Width of Riparian Vegetation (m) on Each Buffer Side**Left Bank: **18** Right Bank: **18****Hydrologic Modification Score** (per FT 3101)**4**High Water Mark: **2** + **.2** = **2.2**
(m) (above present water level) (present depth) (above bed)**Artificially Impounded**☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

3 m wide**.25** m/s **.25** m/s **.25** m/s**.3** m deep **.7** m deep **.3** m deepArtificially ☐ No☐ Mostly recovered, more sinuous

Canopy Cover %

☐ Open☐ Lightly Shaded (11-45%)Channelized: ☒ Some recovery☐ Recent, severe☐ 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 ☐ BioReconINVERT PERI
% # Times # Times
Coverage Sampled SampledWoody Debris (Snags) ☐ ☐ ☐Undercut Banks / Roots ☐ ☐ ☐Leaf Packs or Mat ☐ ☐ ☐Aquatic Vegetation ☐ ☐ ☐Rock or Shell Rubble.. ☐ ☐ ☐Sand..... ☐ ☐ ☐Mud / Muck / Silt ☐ ☐ ☐Other ☐ ☐ ☐Other ☐ ☐ ☐**ABUNDANCE**

Not Obs. Rare Common Abundant

Periphyton: ☒ ☐ ☐ ☐Fish: ☐ ☐ ☒ ☐Aquatic Plants: ☐ ☐ ☒ ☐Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐**WATER QUALITY**

Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)

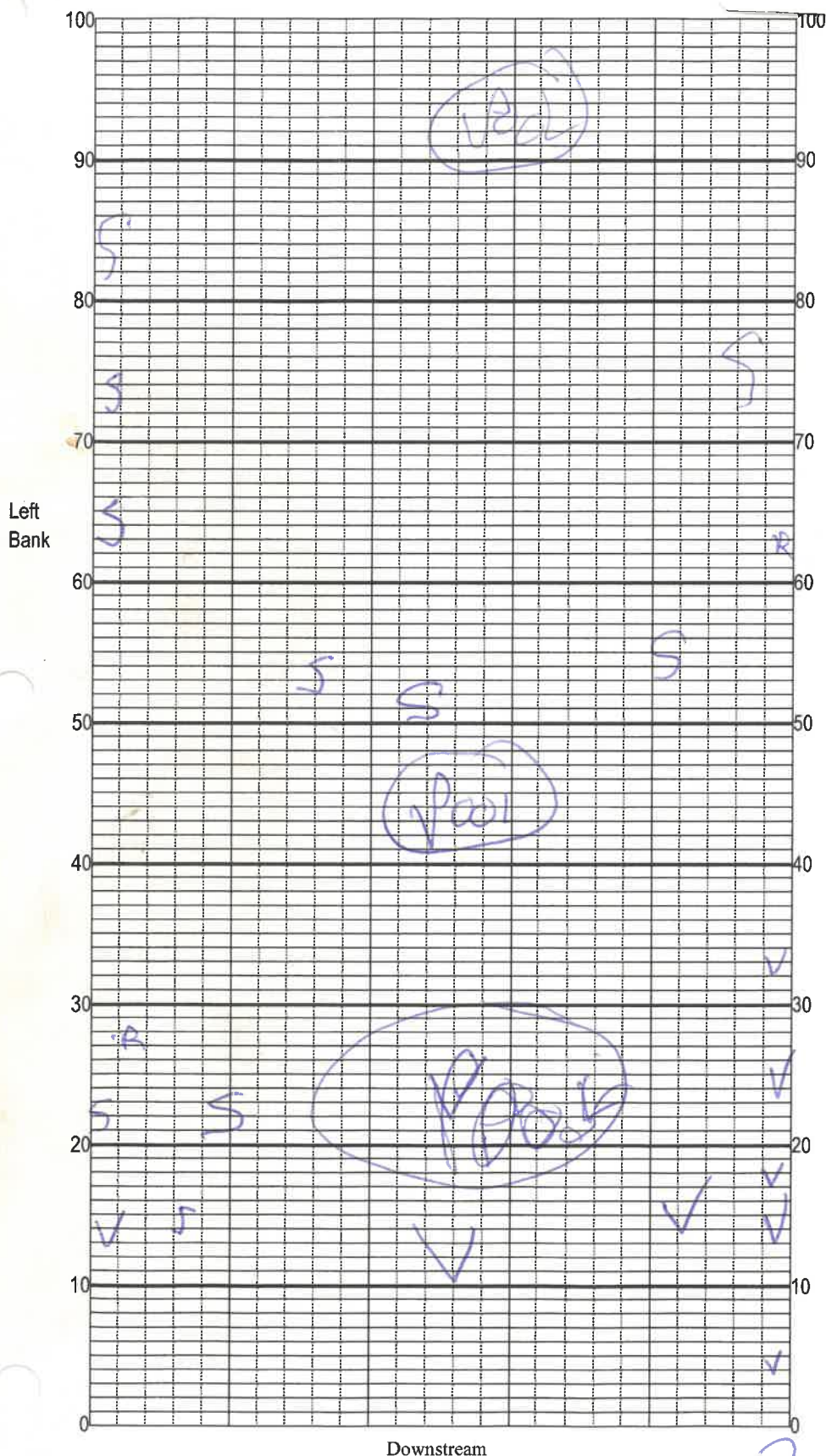
Top: **0.2** **25.0** **6.98** **5.37** **65.5** **171.2** **0.08** **0.4**Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒ VOBBottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐Meter ID: **Leia** **0.4**Water Odors Normal ☒ Petroleum ☐Sewage ☐ Chemical ☐ Other ☐Water Sample Taken? ☒ Yes ☐ NoSample Preserved? ☐ Yes ☐ No

Lot Number: see Water Datasheet

Algae Sample Taken? ☐ Yes ☒ NoSample Preserved? ☐ Yes ☐ No

Lot Number: Exp:

Water Surface Oils Normal ☐ Sheen ☐Globs ☐ Slick ☐ Other ☐Color Tannic ☐ Green (Algae) ☐Clear ☐ Other (Specify) ☐Clarity Clear ☐ Slightly Turbid ☐Turbid ☐ Opaque ☐System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐**AMBIENT FIELD CONDITIONS / NOTES:**☒ The antecedent hydrologic conditions have been met to my best knowledge.**SAMPLING TEAM****Ben Paswater, Devin Mathias****SIGNATURE****Ben Paswater****DATE:****10/12/2022**



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

Date: 10/12/2022 1030

Sampler:

100 m: Latitude

Longitude

0 m: Latitude

Longitude

Substrates: Code key, draw proportionate habitat abundance.

☒ S	Snags	1.5	%
---------------------------------------	-------	-----	---

☒ R	Roots/undercut banks	few	%
---------------------------------------	----------------------	-----	---

☒ V	Leaf Packs (or mats)	2.4	%
---------------------------------------	----------------------	-----	---

☐	Aquatic Macrophytes		%
--------------------------	---------------------	--	---

☐	ROCKS		%
--------------------------	-------	--	---

☐			%
--------------------------	--	--	---

☒ 3	Pools	total # observed = 3	%
		# range expected = 3-6	

Average width 3 m

Average depth 4 m

Velocity measured at 100 meter mark.

WQ & chemistry taken at 100 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:

V = 59
S = 38

Revision Date: March 1, 2014

Site Name:

Howard Prairie Branch @ Grange Hall

EP FORM FD 9000-25 Rapid Periphyton Survey Field Sh

Investigators:

BP, Dm

County:

Hillsborough

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		8	60	1	N		44
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
10	1			0	70	1			95
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
20	1			26	80	1			93
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
30	1			93	90	1			96
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
40	1			76	100	1			96
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
50	1			94		1			
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								

STORET Station Number: see label

Secchi depth

Estimated?

No

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- 2022-

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%.