



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes ☒ No ☐

WIN Station Name: Hillsborough River in State Park

Date: 4-9-18
(mm/dd/yyyy)

WIN/ Field ID: G2SW0062

WBID: 1443D

Latitude: 28.15052

(Decimal Degrees)

County: Hillsborough

ORG ID: 21FLTPA

Longitude: -82.22448

(Decimal Degrees)

Receiving Body of Water: Old Tampa Bay

RQ-2018-04-09-28

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Judy Ashton						X		X		
Ben Paswater							X	X	X	X

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

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

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

Meter ID# Y31-PM Matrix: Fresh Marine/ DI

Photos: Yes / No Flow: No Flow / Interstitial / 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°)
<u>EST</u>	<u>1045</u>	<u>0.3</u>	<u>0.3</u>	<u>0.3</u>	<u>7.34</u>	<u>86.2</u>	<u>8.33</u>	<u>/</u>	<u>448.3</u>	<u>23.3</u>
				<u>"S"</u>						

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

SBIO ID Numbers: SBIO-ID: 78361 HA-ID: 15122 RPS-ID: 8990 Macrophyte-ID: 10897 LIMS#: 1983202

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>SA707500</u>	<u>10/18</u>	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3			☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	<u>9841668</u>		
Chlorophyll	☒ W-HLSUITE-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	☒ 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-PCL-SQ-R ☒ W-PYR-AA-R ☒ W-GLYPH ☒ W-SUC-AA-R	☐ Ice ☐ Other			

Place Preservative Sticker(s) Here (If Available)

Notes:
NO PESTICIDES
CONDUCTED BIO W/ Phosphate FYI EVENT
FOR MOSAIC - ROBERT CITY
SMPO4112018-EB

Field ID/WIN: **G2SW0062**

Site Name: Hillsborough River in State Park

Signature: Judy Ashton Date: 4-9-18

Enter Field Parameters, Verify Station ID in LIMS DMT: SM 05/09/2018 QC Station-ID, Field Parameters in LIMS DMT: SM 06/18/2018
Scan/Save Field Sheets VB 7/17/18 Migrate Data to WIN: VB 7/17/18 Verify Data in WIN: VB 7/17/18
(Initials/Date) (Initials/Date) (Initials/Date)

G2SW0062



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

Site Name: Hillsborough River in State Park

STORET STATION
NUMBER:DATE
(MM/DD/YY):

SAMPLING AGENCY:

4-9-18

FDEP SW ROC

FIELD ID/NAME:

COUNTY:

LOCATION:

RECEIVING BODY OF WATER:

Hillsborough

Tampa Bay

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>20</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	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>18</u> ----- Primary Score <u>78</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	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>20</u>	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 <u>9</u> Left Bank <u>10</u>	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 <u>10</u> Left Bank <u>10</u>	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 <u>9</u> Left Bank <u>10</u> ----- Secondary Score <u>78</u>	10 9	8 7 6	5 4	3 2 1

156

TOTAL SCORE

Date: 4-9-18

Analyst:

Judy Ashton, Ben Aswater

Signature:

 78
 78
 150



DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD

Site Name: Hillsborough River in State Park

Date: 4-9-18 County: Hillsborough Waterbody: HILLS R.

Signature: [Signature]

Comments: Hills. River Ref. Site in State Park

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

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

County: HILLSBOROUGH Investigators: BP + JA

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

0 1 2 3 4 5 6 7 8 9 60 1 2 3 4 5 6 7 8 9

10 1 2 3 4 5 6 7 8 9 70 1 2 3 4 5 6 7 8 9

20 1 2 3 4 5 6 7 8 9 80 1 2 3 4 5 6 7 8 9

30 1 2 3 4 5 6 7 8 9 90 1 2 3 4 5 6 7 8 9

40 1 2 3 4 5 6 7 8 9 100 1 2 3 4 5 6 7 8 9

50 1 2 3 4 5 6 7 8 9

STORET Station Number: GASW0062

Secchi depth 1.0
Estimated? NO

points ranked 4-6 1
total points assessed 47
% points ranked 4-6 1

Check accompanying data collected at same site/date.
Algal mat sample ☐
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ-2018-04-09-28

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

Field ID/WIN

G2SW0062

Form FD 9000-3 Physical/Chemical Characterization Field Sheet



Site Name:

Hillsborough River in State Park

LATITUDE

LONGITUDE

SAMPLING AGENCY FDEP South 400

SWROC

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ 95 ☐ Silviculture ☐ Field/Pasture ☒ 34 ☐ Agricultural ☐ Residential ☒ 1 ☐ 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 40 m wide 0.33 m/s 0.33 m/s 0.33 m/s 0.3 m deep 0.6 m deep 0.3 m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: >10m Right Bank: >10m				Hydrologic Modification Score (per FT 3101) 1					
High Water Mark: 0.6 + 1.5 = 2.1 (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># Times Sampled</th> <th>INVERT</th> <th>PERI</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td>2.7</td> <td>5</td> <td></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td>1.0</td> <td>4</td> <td></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td>6.7</td> <td>5</td> <td></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td>83</td> <td>5</td> <td></td> <td></td> </tr> <tr> <td>Sand.....</td> <td></td> <td>1.0</td> <td></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				% Coverage	# Times Sampled	INVERT	PERI	Woody Debris (Snags)	2.7	5			Undercut Banks / Roots	1.0	4			Leaf Packs or Mat					Aquatic Vegetation	6.7	5			Rock or Shell Rubble..	83	5			Sand.....		1.0			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></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.5</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>0.3</td> <td>23.3</td> <td>7.34</td> <td>7.34</td> <td>86.2</td> <td>448.3</td> <td></td> <td>TOTAL DEPTH 1.5</td> </tr> </tbody> </table> Meter ID: 8.33 YSI-PM							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:								1.5	Mid:								☒ VOB	Bottom	0.3	23.3	7.34	7.34	86.2	448.3		TOTAL DEPTH 1.5
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Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globes ☐ Slick ☐ Other ☐																																																																																											
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 Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☐ ☐ ☐ ☒ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ RIVER																																																																																											
AMBIENT FIELD CONDITIONS / NOTES: ☐ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																														
SAMPLING TEAM Sunny Ashford, Ben Paswater					SIGNATURE: Sunny Ashford		DATE: 4-9-18																																																																																							

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

Location: Hillsborough River in SP

Date: 4/9/18

Sampler: _____

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

S Snags 2.7

R Roots/undercut banks 1.0

□ Leaf Packs (or mats) _____

V Aquatic Macrophytes 6.7

□ ROCKS 83

□ _____

4 Pools total # observed = 43
range expected = 81

Average width 40 m

Average depth 6 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 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:

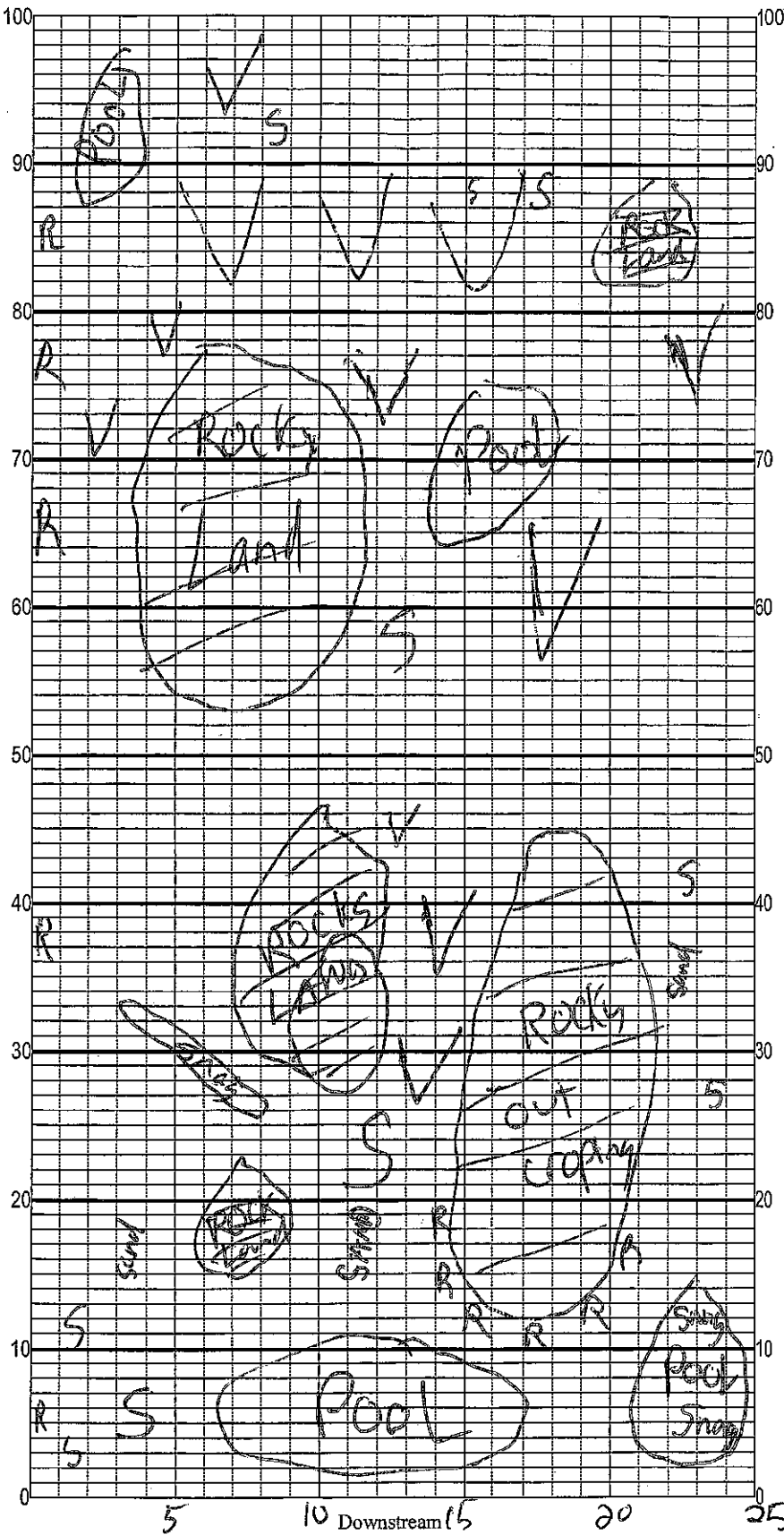
Rocks everywhere
Unless noted includes
where time is Veg + stuff

snags = 67 = 2.7%
Veg = 168 = 6.7%

Revision Date: March 1, 2014

8% = ISLANDS + ROCK EXPOSURES

Left Bank



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

Roots = 29 = 1.1%

ROCKS = 83%

Request Number: RQ-2018-04-09-28
Reference SCI

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: SW-DIST
Project ID: SCIREF

Requester: Matthew Bearden
Collected By: J. Astrom, B. Astrom

Field Report Prepared By: Jany Astrom
Sampling Agency: FDEP

Field ID/WIN
G2SW0062
Site Name: Hillsborough River in State Park

Location	☒ Comp ☒ Grab	Collection (comp begin or grab) Date 4-9-2018 Time 10:45	Eastern ☒ Central	Composite end Date 4-9-2018 Time 4:48.3	Bottle Group(s) (See pg 2)
	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen 7.34	☒ mg/L ☒ % sat	Total Res. Chlorine 448.3	41/13
	Temp (C) 23.3	pH 8.33	Sample Depth 0.3	Sp. Conductance (umho/cm)	
	Salinity (ppt)	Comments Elev above sea level			
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms		
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Eastern ☐ Central	Composite end Date	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine	
WIN/STORET #	Temp (C)	pH	Sample Depth	Sp. Conductance (umho/cm)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms		
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Eastern ☐ Central	Composite end Date	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine	
WIN/STORET #	Temp (C)	pH	Sample Depth	Sp. Conductance (umho/cm)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms		
Location	☐ Comp ☐ Grab	Collection (comp begin or grab) Date	Eastern ☐ Central	Composite end Date	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine	
WIN/STORET #	Temp (C)	pH	Sample Depth	Sp. Conductance (umho/cm)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms		

Relinquished By: J. Astrom	Date/Time: 4-9-18 12:00	Shipping Method: FedEx	Number of Coolers Shipped: 1	Received By:	Date/Time:
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Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	ALKALINITY					
	TURBIDITY					
	W-BR-IC					
	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
	CHLSUITE-W					
Group: A	Bottle Type:	QPCR-P-250ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	PCR-BACR					
	PCR-GFD					
	PCR-HF183					
Group: A	Bottle Type:	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	W-E8321-DI					
	W-E8321-MS					
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab
	W-ICP					
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab
	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
	W-PO4-F					
Group: B	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab
	ALGAL_ID					
Group: B	Bottle Type:	PJ-2L	# of Bottles: 2	Preservative:	Formalin	Enter Number of Bottles Sent to Lab
	MI-FW-QLDC					

Group C SULA-ALL-EC - 11/20/2018 SENT TO LAB



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