



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

April 2018

Data Qualified?

Yes / No

WIN Station Name: Hawthorne Creek @ Reynolds St

Date: 12/03/2018

WIN/ Field ID: G3SD0011

WBID: 1997

Latitude: 27.15788

(mm/dd/yyyy)

County: DeSoto

ORG ID:

Longitude: -81.8620

(Decimal Degrees)

Receiving Body of Water: Peace River

RQ-2018-11-28-60 11-12-60

(Decimal Degrees)

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
Nicole Reistad		☒	☒	☒	☒	☒	☒ Sample Container	☐ Van Dorn	☐ Pole		
Kirby Wolfe		☒	☒	☒	☒	☒	☐ Carboy	☒ Syringe			
							☐ Dipper	☐ Other			
							Depth Measured with <u>Secchi disk</u>				
							Equipment ID <u>3312A</u>				
							Collection Method				
							☐ Wading	☐ Canoe/Kayak			
							☒ From Shore	☐ Electric Motor			
							☐ Other	☐ Gasoline Motor			
Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded							Meter ID# <u>PRO MOVE</u>		Matrix: <u>Fresh</u> Marine / DI		
Photos: Yes / <u>No</u>		Flow: No Flow / Intestinal / <u>Flowing</u> / NA		Tide: Rising/ Falling/ Slack/ <u>NA</u>		Tide Times: High		Low			
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPTH)	Sp COND (umhos/cm)	Temp. (C°)	
<u>EST</u>	<u>1105</u>	<u>0.25</u>	<u>0.125</u>	<u>0.25</u>	<u>7.80</u>	<u>89.6</u>	<u>7.82</u>	<u>0.44</u>	<u>898</u>	<u>22.1</u>	
CEN											
Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>RPS</u> <u>Algae ID</u> <u>LVS</u> 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>SA8274050</u>	<u>10/01/19</u>	<u>2</u>		
Metals		☒ W-ICPMS ☐ W-ICP				☒ Ice ☐ HNO3	<u>NA8080070</u>	<u>03/21/19</u>	<u>2</u>		
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-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-E8321-DI ☐ W-E8321-MS				☐ Ice					
Pesticides		☒ W-PSNP-TQ ☐ W-CT-CL-R ☒ W-E8321-DI ☐ W-PCL-SQ-R ☒ W-E8321-MS ☐ W-CARB-AA				☐ Ice ☐ Other					

Notes:	Field ID/WIN ID	
	Location	G3SD0011
	HawthorneCrk@ReynoldsSt	
Signature:	Date:	12/03/18

Enter Field Parameters, Verify Station ID In LIMS DMT:

QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets

12/04/18

Migrate Data to WIN:

Verify Data In WIN:

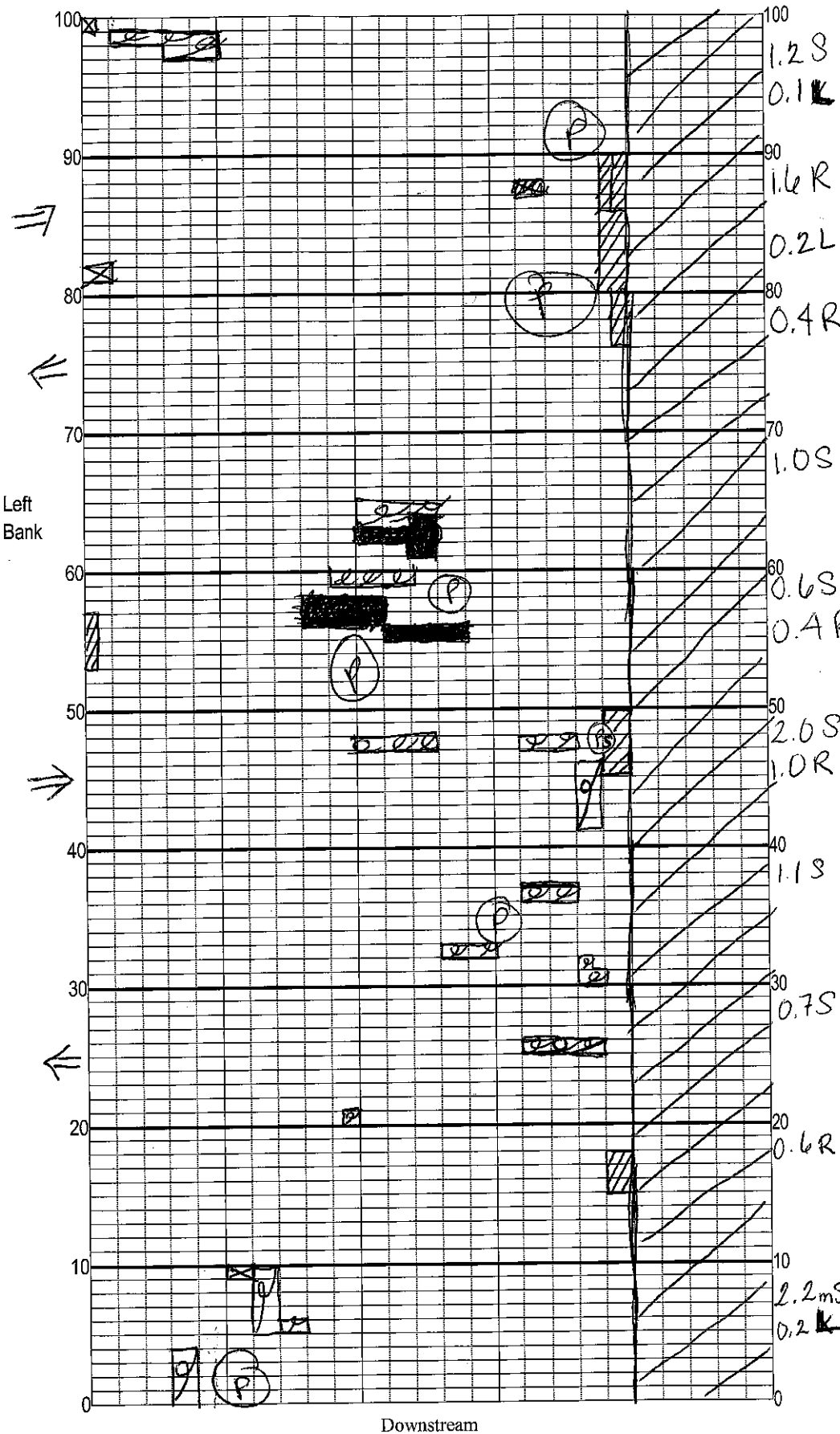
(Initials/Date)

(Initials/Date)

(Initials/Date)

(Initials/Date)

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



Location: Hawthorne Creek
 Date: 12/03/2018
 Sampler: N. Reistad, K. Wolfe

100 m: Latitude 27.15820
 Longitude -81.86220
 0 m: Latitude 27.15887
 Longitude -81.86283

Substrates: Code key, draw proportionate habitat abundance.	%
Snags	<u>2.2</u>
Roots/undercut banks	<u>1.0</u>
Leaf Packs (or mats)	<u>0.12</u> NR
Aquatic Macrophytes	<u>0.075</u> NR
Rocks	<u>0</u>
Pools	total # observed = <u>6</u> # range expected = <u>2-4</u>

Average width 4 m
 Average depth 0.3 m

Velocity measured at 100 meter mark. 65/m

WQ & chemistry taken at 100 meter mark.

Habitat Smothering: 90%
 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: >18m
 Note areas (on map) where natural vegetation is altered or eliminated.

Plants observed / other notes:

TOTAL
0.5m² L
8.8m² S
~~4.0m² R~~
4.4m² R

sand substrate throughout the entire 100m stretch

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

SAMPLING AGENCY: <u>7DEP- SOROC</u>		STORET STATION NUMBER: <u>G3SD0011</u>	DATE (MM/DD/YY): <u>12/03/18</u>	RECEIVING BODY OF WATER: <u>Peace River</u>
REMARKS:	COUNTY: <u>De Soto</u>	LOCATION: <u>Hawthorne Creek</u>	FIELD ID/NAME:	

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>6/7</u> <u>NR</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 <u>7</u> <u>6</u> <u>NR</u>	5 4 3 2 1
Substrate Availability <u>3</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 <u>3</u> 2 1
Water Velocity <u>13</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 <u>13</u> 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>13</u> ----- Primary Score <u>35</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 <u>13</u> 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 or straightening 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>15/17</u> <u>NR</u>	20 19 18 <u>17</u> 16	<u>NR</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 woody 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 woody root zone with raw, eroded areas.
Right Bank <u>8</u> Left Bank <u>7</u>	10 9	<u>R</u> <u>L</u> <u>8</u> <u>7</u> 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>	<u>L</u> <u>R</u> <u>10</u> 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>7</u> Left Bank <u>7</u> ----- Secondary Score <u>66</u>	10 9	<u>L</u> <u>R</u> 8 <u>7</u> 6	5 4	3 2 1

NR 99/102 TOTAL SCORE

Date: <u>12/03/2018</u>	Analyst: <u>N. Reistad</u>	Signature: <u>[Signature]</u>
-------------------------	----------------------------	-------------------------------

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Hawthorne Creek</u>					County: <u>DeSoto</u>		Date: <u>12/03/18</u>		Investigators: <u>K. Wolfe, N. Reistad</u>	
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			14		5				77
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			14		5				78
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5			48		5				83
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			95		5				20
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			91		5				24
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N			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%.					
	2									
	3									
	4									
	5			85						
	6									
	7									
	8									
	9									

STORET Station Number: G3SD0011

Secchi depth
Estimated?

points ranked 4-6 0
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-

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

100-27.15820
-81.86220

[illegible]

no vegetation in water

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

SAMPLE ID _____ ORG ID _____ LATITUDE 27.15788
 COUNTY De Soto STORET # 43 LONGITUDE -81.8620
 DATE 12/03/2018 TIME 1105 SAMPLING AGENCY DEP-SOROC
 SITE NAME Hawthorne Creek
 FIELD ID/NAME G3SD0011 RECEIVING BODY OF WATER Peace River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☒ 45 Agricultural ☒ 50 Residential ☒ 5 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							
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: ☒ 55 Right Bank: ☒ 55		Hydrologic Modification Score (per FT 3101) ☒		Typical Width (m) ☒ 4 m wide Depth (m)/Velocity (m/sec) Transect _____ m/s ☒ 0.17 m/s _____ m/s _____ m deep ☒ 0.1 m deep ☒ 0.3 m deep ☒ 0.2 m deep			
High Water Mark: _____ + ☒ 0.3 = _____ (m) (above present water level) (present depth) (above bed)		Artificially Impounded ☐ Yes ☒ No		Artificially ☐ No ☒ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe			
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			
Invert ☐ Peri ☐ % Coverage # Times Sampled # Times Sampled		Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)			
Woody Debris (Snags) ☐ ☐ ☐ Undercut Banks / Roots ☐ ☐ ☐ Leaf Packs or Mat ☐ ☐ ☐ Aquatic Vegetation ☐ ☐ ☐ Rock or Shell Rubble.. ☐ ☐ ☐ Sand..... ☐ ☐ ☐ Mud / Muck / Silt ☐ ☐ ☐ Other ☐ ☐ ☐ Other ☐ ☐ ☐		Top: ☒ 0.125 ☒ 22.1 ☒ 7.82 ☒ 7.80 ☒ 89.6 ☒ 898 ☒ 0.44 ☒ 0.25 Mid: _____ Bottom: _____ Meter ID: <u>PRO MOVE</u>			
		Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐		Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐	
		Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>SA8274050</u> Exp: <u>10/01/19</u> <u>NA8080010</u> <u>08/21/19</u>		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) ☐			
AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.					
SAMPLING TEAM <u>N. Reistad, K. Wolfe</u>			SIGNATURE: _____ DATE: <u>12/03/18</u>		