FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

REFERENCE STREAMS Field Sheet

July 2022

Meter Passed End of Day CCV

Yes / No

WIN Station Name:	Horse Creek					**Sample Date:**	3/20/2023
WIN / Field ID:	G3SD0157	**ORG ID:**	21FLFTM	**ENR:**	-	**Latitude:**	27.1998
County:	Desoto	**WBID:**	1787A1	STREAM	3F	**Longitude:**	-81.98777
Receiving Body of Water:	-					**RQ-**	2023-03-20-35

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Thomas Baker		x		x	
John Barrington					x
William Mullen	x		x		

Sampling Equipment					
x	Sample Container			Carboy	
	Dipper			Van Dorn	
	Syringe			Pole	
Syringe Lot#	*2278571*		**Filter Lot#**	*17589311*	
Secchi Equipment ID:	*Slippery Disk*				

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:	*The One*
Depth Gauge ID:	**depth_gauge**

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 (PPTh)
EST	900	0.1	0.05	8.45	87.3	16.8	6.62	0.1	668	0.33
								VOB (s)		

Biological Samples Collected: HA LVS RPS SCI

SBIO Visit ID: **HA ID:** **RPS ID:** **Macrophyte ID:** **LIMS Sample ID Entered Into The Macrophyte Module:**

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation Type		Lot#	Expiration Date	pH Check
Microbiology	**E. coli**			**ICE**				
	Contract Lab	**Benchmark**						
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**		Syring Lot#:2278571; Filter Lot#:17589311		
Acid Preserved Nutrients	**W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP**			**ICE**	**H2SO4***	*SA3013020*	*1/25/24*	*H2SO4 pH<2*
Metals	**W-ICPMS**	**W-ICP**	**W-HARD**	**ICE**	**HNO3****	NA2126030	06/02/23	HNO3 pH<2
Organics (LC)	**W-E8321-DI**	**W-E8321-MS**						
Macroinvertebrates	**MI-FW-QLDC**			**Formalin**		9.990517CS		
Organics (GC)				**Ice**				
	W-PSNP-TQ	**W-TR-SQ-R**						
Molecular	**PCR-HF183**	**PCR-BacR**	**PCR-DG3**	**Ice**				
Periphyton								
Phytoplankton								
BOD								
DOC								
Other(s)								

*2.0 ml of H2SO4 Used Unless Noted Otherwise
**2.0 ml of HNO3 Used Unless Noted Otherwise

SyringLot# **FilterLot#**

Field Comments:	/ SCI Collection Time: 930
Comments on COC:	Microbiology sample(s) submitted to contract laboratory.
Relinquish Date:	03/20/2023 **Signature:**

LIMS EVENT ID: _____ **WIN Import ID:** _____

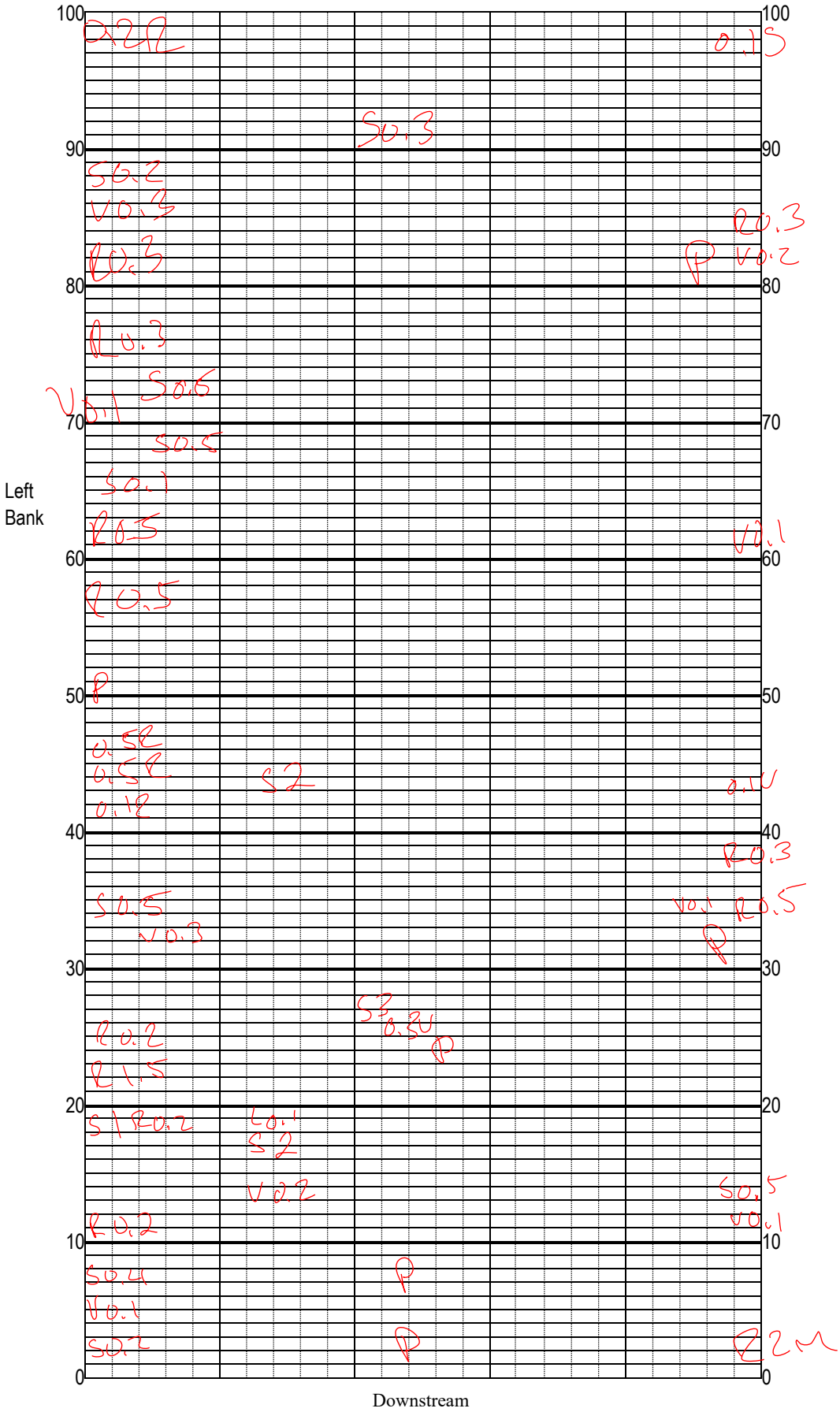
Enter Field Parameters, Verify Station ID In LIMS DMT: _____ (Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: _____ (Initials/Date)

Save Field Sheets on Network: _____ (Initials/Date)

Migrate Data to WIN: _____ (Initials/Date)

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



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

Location: HORSE CREEK

Date: 03/20/23

Sampler: WILLIAM NELSON

100 m:	Latitude	27.19952118
	Longitude	-81.98789066
0 m:	Latitude	27.1986210
	Longitude	-81.9877367

Substrates: Code key, draw proportionate habitat abundance.

		%
S	Snags	28
R	Roots/undercut banks	2.37
L	Leaf Packs (or mats)	0
U	Aquatic Macrophytes	0.4
	Rock	0
P	Pools	total # observed = 6
		# range expected = 3

Average width 3.5 m

Average depth 0.7 m

Velocity measured at 2 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:

8 sec / M

S = 9.8 M

R = 8.3 M

V = 1.9 m

62-160.800, F.A.C

Revision Date: January 2017

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

SAMPLING AGENCY: FDEP BEAR SOTOL	STORET STATION NUMBER: G355D0157	DATE (MM/DD/YY): 03/20/23	RECEIVING BODY OF WATER: Peace River
REMARKS:	COUNTY: DESOTO	LOCATION: Horse Creek @ SR 72 Bridge	FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 7	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 6	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 11	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 15 Primary Score 39	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** 20	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 or straightening 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 4 Left Bank 4	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody 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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 6 Left Bank 10	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 8 Left Bank 8 Secondary Score 60	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

99 **TOTAL SCORE**

Date: 03/20/23	Analyst: William Miller	Signature:

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Horse Creek	County: DeSoto	Date:03/20/2023	Investigators: Thomas Baker, John Barrington, Will Mullen

STORET Station Number: G3SD0157

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N	N	
	2			
	3			
	4			
	5			6
	6			
	7			
	8			
	9	N	N	
10	1	N	N	
	2			
	3			
	4			
	5			0
	6			
	7			
	8			
	9	N	N	
20	1	N	N	
	2			
	3			
	4			
	5			18
	6			
	7			
	8			
	9	N	N	
30	1	N	N	
	2			
	3			
	4			
	5			15
	6			
	7			
	8			
	9	N	N	
40	1	N	N	
	2			
	3			
	4			
	5			66
	6			
	7			
	8			
	9	N	N	
50	1	N	N	
	2			
	3			
	4			
	5			16
	6			
	7			
	8			
	9	N	N	

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N	N	
	2			
	3			
	4			
	5			0
	6			
	7			
	8			
	9	N	N	
70	1	6	N	
	2	N	N	
	3	N	N	
	4	N	N	
	5	N	N	2
	6	N	N	
	7	N	N	
	8	N	N	
	9	N	N	
80	1	N	N	
	2	N	N	
	3	N	N	
	4	N	N	
	5	6	N	1
	6	N	N	
	7	N	N	
	8	N	N	
	9	N	N	
90	1	N	N	
	2			
	3			
	4			
	5			4
	6			
	7			
	8			
	9	N	N	
100	1	N	N	
	2			
	3			
	4			
	5			5
	6			
	7			
	8			
	9	N	N	

Secchi depth	0.1
Estimated?	N

# points ranked 4-6	2
total points assessed	99
% points ranked 4-6	2.02

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓

RQ- 2023-03-20-35

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%.