



WBID 1787A, Horse Creek
27.1999, -81.9875
STA: HORSEREF

72-72

1787A

1986

Sunset Dr

Tropical Dr

Orange Dr

Nassau Ave

125th Ave

Hidden Oak St

Albritton St

Rodgers Ave

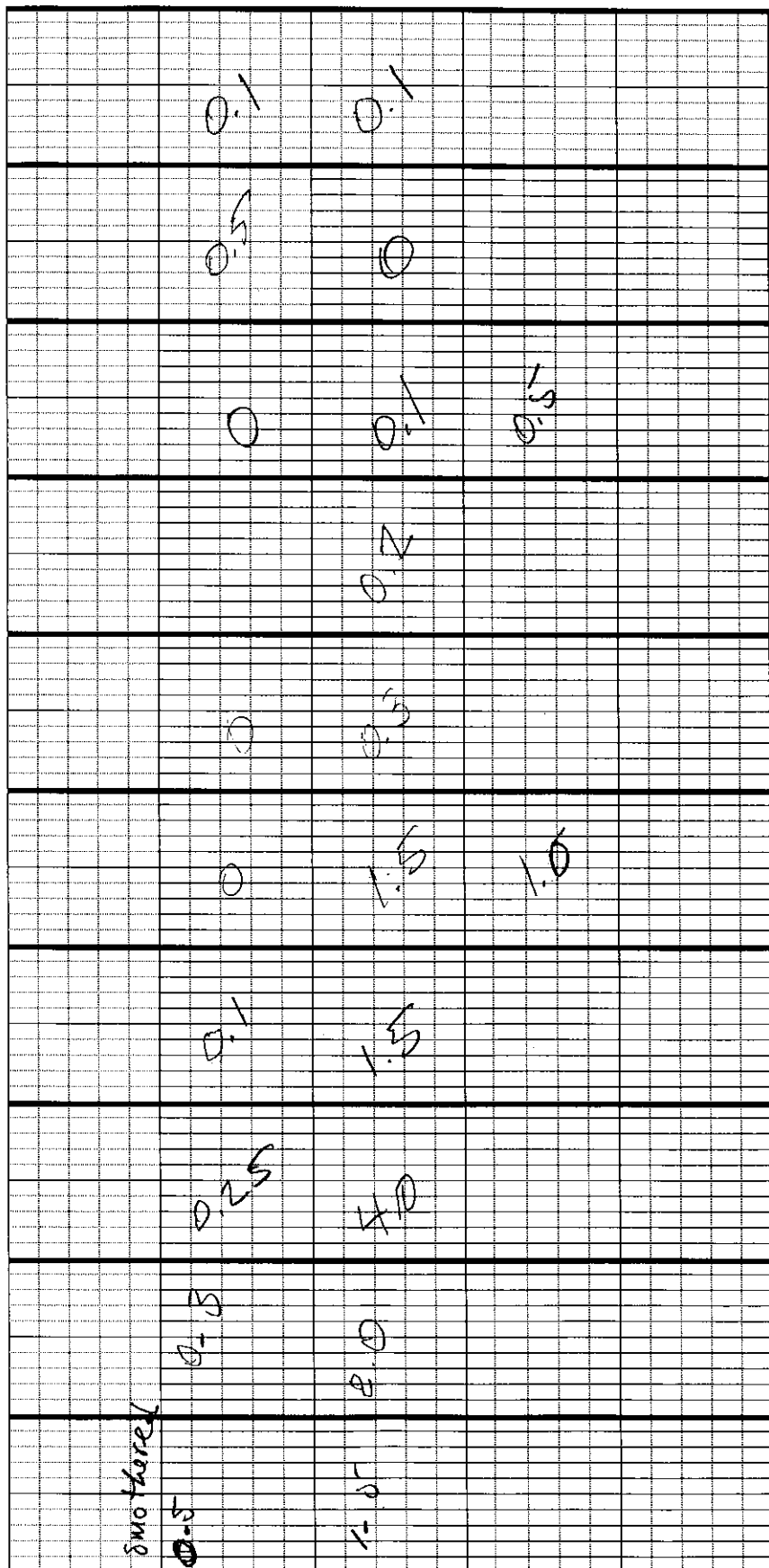
Galor Ln

(Horizontal scale is double vertical scale, draw proportionately).

L

R

0



Downstream

R

1.5

Prod. hab	1	2	3	4	5
Sweeps (Maj)	10	7	5	4	3
Sweeps (Min)	10	6	5	4	5

Form FD 9000-25 FDEP Rapid Periphyton Survey (DEP SOP FS 7230) Revised 6/12/12

Site: Horseshoe

County: Desoto

Date: 04/07/15

Investigators: Ashley / Schmitt

# points ranked 4-6	7
total points assessed	99
% points ranked 4-6	7

Secchi depth: _____

Check accompanying data collected at same site/date.

Algal mat sample	
Habitat Assessment	<u>Y</u>
Linear Veg. Survey	<u>Y</u>
SCI/Biorecon (circle 1)	<u>1</u>
Water sample	<u>✓</u>
RQ: 2015-04-06-59	

Algal Thickness Rank

N	rough, no algae; slimy, algae to 1 mm
3	>1mm - 6 mm
4	>6 - 20 mm
5	>20 mm - 10 cm
6	>10 cm

Record "N" for points deeper than the Secchi depth; algae are presumed absent.
Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. Note if thickness estimated for deep points which can be seen but not reached.

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 an 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%.

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N - 6)	Canopy Cover
0	1	6		40	1	N		80	1	6	92		1	6	
	2	N			2				2	N			2		
	3				3				3				3		
	4				4				4				4		
	5				5				5				5		
	6				6				6				6		
	7				7				7				7		
	8				8				8				8		
	9				9				9				9		
10	1	N		50	1	N	83	90	1	N	64		1	N	
	2				2				2				2		
	3				3				3				3		
	4				4				4				4		
	5				5				5				5		
	6				6				6				6		
	7				7				7				7		
	8				8				8				8		
	9				9				9				9		
20	1	N	81	60	1	N		100	1	N	66		1	N	
	2				2				2				2		
	3				3				3				3		
	4				4				4				4		
	5				5				5				5		
	6				6				6				6		
	7				7				7				7		
	8				8				8				8		
	9				9				9				9		
30	1	N	0	70	1	N	93		1	N			1	N	
	2				2				2				2		
	3				3				3				3		
	4				4				4				4		
	5				5				5				5		
	6				6				6				6		
	7				7				7				7		
	8				8				8				8		
	9				9				9				9		

Guidelines for Hydrological Disturbance Scoring

This gradient rating is for human disturbances, not natural events (e.g., hurricanes, extreme droughts).

Best 1-2 points	Flow regime as naturally occurs (slow and fairly continual release of water after rains), few impervious surfaces in watershed; high connectivity with ground water and surface features delivering water (e.g., sandhills, wetlands; no ditches, berms, etc.)
Slight disturbance 3-4 points	Flow regime minimally changed; some water withdrawals; some wetland drainage, some impervious surfaces in watershed, some ditching
Moderately altered 5-6 points	Flow regime moderately altered; hydrograph moderately flashy (scouring after rain events with subsequent reductions in flow), groundwater pumping evident; much wetland drainage, topographic alterations reduce natural water input; more impervious surfaces throughout watershed, dams/control structures change normal water delivery schedule
Poor 7-8 points	Flow regime highly altered; hydrograph very flashy (scouring after rain events with subsequent reductions in flow, leading to stagnant or dry conditions, related to large amounts of impervious surfaces and/or ditching throughout watershed); water withdrawals & impoundments/control structures severely alter flows, large amounts of impervious surfaces
Very poor 9-10 points	Flow regime entirely human controlled; hydrograph very flashy (scouring after rain events with subsequent reductions in flow, leading to stagnant or dry conditions, related to impervious surfaces and ditching throughout watershed); water withdrawals & impoundments fundamentally alter the nature of the ecosystem

DEP-SOP-001/01: Form FD 9000-3 (9/19/12)
PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SAMPLE ID _____ ORG ID 21FLTPA LATITUDE _____
 COUNTY Desoto STORET # 25020111 LONGITUDE _____
 DATE 04/07/15 TIME 1240 SAMPLING AGENCY FDEP
 SITE NAME HORSE REF -
 FIELD ID/NAME G3SW0017 RECEIVING BODY OF WATER Peace

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) ☐							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 m wide
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: Right Bank:				Hydrologic Modification Score (per FT 3101) 6			
High Water Mark: 1.75 + 0.3 = 2.05 (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 ☐
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SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon			WATER QUALITY							
	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)		
Top:										
Mid:	0.1	25.39	7.14	8.65	105.6	717	0.35	☒ VOB		
Bottom:										
Meter ID:										
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>501530</u> Exp: <u>01/16</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 Absent Rare Common Abundant Periphyton: ☐ ☐ ☐ ☒ Fish: ☐ ☐ ☐ ☒ Aquatic Plants: ☐ ☐ ☐ ☒ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐	System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify)
WEATHER CONDITIONS / NOTES: <u>Severe Weather</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.	

SAMPLING TEAM Ashton/Schweitz **SIGNATURE:** [Signature] **DATE:** 04/07/15

Contains
 1:1
 Sulfuric Acid
 SA-5015030
 EXP: 01/15/16
 Warning!
 See MSDS

DEP-SOP-001/01: Form FD 9000-5
STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

SUBMITTING AGENCY CODE: _____		STORET STATION NUMBER: <u>25020348</u>	DATE (MM/DD/YY): <u>04/07/15</u>	RECEIVING BODY OF WATER: <u>Peace</u>
SUBMITTING AGENCY NAME: _____				
REMARKS: _____	COUNTY: <u>DeSoto</u>	LOCATION: <u>George CK - Horseshoe</u>	FIELD ID/NAME: <u>G3500017</u>	

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>10</u>	20 19 18 17 16	15 14 13 12 11	<u>10</u> 9 8 7 6	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>15</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 <u>15</u> 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>12</u> Primary Score <u>40</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 <u>12</u> 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>15</u>	20 19 18 17 16	<u>15</u> 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>7</u> Left Bank <u>7</u>	10 9	8 <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>5</u> Left Bank <u>6</u>	10 9	8 7 <u>6</u>	<u>5</u> 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>5</u> Left Bank <u>6</u> Secondary Score <u>51</u>	10 9	8 7 <u>6</u>	<u>5</u> 4	3 2 1

91

TOTAL SCORE

Date: <u>04/07/15</u>	Analyst: <u>Ashton / Schmitt</u>	Signature: <u>[Signature]</u>
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FedEx Package
Express US Airbill

FedEx
Tracking
Number

8029 9110 0945

From Please print and press hard

Sender's FedEx
Account Number

SENDER'S FEDEX ACCOUNT NUMBER ONLY

Date 04/07/15

Sender's Name Gifta Schmitt Phone ()

Company F&P-S&C

Address 13051 Telecom Pkwy Dept./Room/Box

City Tampa State FL ZIP 33637

Your Internal Billing Reference

OPTIONAL
First 24 characters will appear on invoice

To Recipients Phone (850) 245-8085

Company FLORIDA DEP/CHEMISTRY SECTION

Address 2600 BLAIRSTONE RD

Dept./Room/Box/Room

☐ HOLD Weekday
FedEx First Overnight
☐ REQUIRED NOT available for
FedEx Priority Overnight

Address Use this line for the HOLD location address or for continuation of your shipping address.
☐ HOLD Saturday
FedEx location address
☐ REQUIRED NOT available for
FedEx Priority Overnight and
FedEx Day to select locations

City TALLAHASSEE State FL ZIP 32399-6542

0107766371

Get transit times. Schedule pickups.
Create labels. Go to fedex.com.

Form
ID No.

0215

SPH1
Sender's Copy

4 Express Package Service

*To most locations.
NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.
For packages over 150 lbs., use the new
FedEx Express Freight 60 label.

Next Business Day

☐ FedEx First Overnight
Earliest next business morning delivery to select
locations. Friday shipments will be delivered on
Monday unless SATURDAY Delivery is selected.
☒ FedEx Priority Overnight
Next business morning. Friday shipments will be
delivered on Monday unless SATURDAY Delivery
is selected.
☐ FedEx Standard Overnight
Next business afternoon.
Saturday Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day AM
Second business morning.
Saturday Delivery NOT available.
☐ FedEx 2Day
Second business afternoon. Thursday shipments
will be delivered on Monday unless SATURDAY
Delivery is selected.
☐ FedEx Express Saver
Third business day.
Saturday Delivery NOT available.

5 Packaging

*Declared value limit \$500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day, A.M., or FedEx Express Saver.

☐ No Signature Required
Package may be left without
signature if recipient's address
is verified by delivery.

☐ Direct Signature
Signature of recipient or business
may appear on delivery. Not applicable.

Does this shipment contain dangerous goods?

☐ No ☐ Yes

☐ Yes
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging
or placed in a FedEx Express Drop Box.

7 Payment Bill to:

Sender ☐ Acct. No. in Section ☒ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
FedEx Acct. No. 4490-2262-9
Credit Card No. ☐ Dry Ice ☐ Cargo Aircraft Only

Total Packages 2 Total Weight 60 lbs. \$ 00

Your liability is limited to USD100 unless you declare a higher value. See back for details. By using this label you agree to the service conditions on the back of this label and in the current FedEx Service Guide, including terms that limit our liability.

611

AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE. NO POUCH NEEDED.

P: A	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	1
	DTM-QL-C						
	PRN-QL-C						
P: A	Bottle Type:	PJ-2L	# of Bottles: 2	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	2
	MI-FW-QLDC						
P: B	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	BOD-UNIN						
P: B	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	CHL-CORR-W						
P: B	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	TURBIDITY						
	W-ALK						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
P: B	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						
P: B	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	1
	W-PO4-F						

A1gal IB Rack #6

2