



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

February 2016

Data Qualified?
Yes / No

STORET Station Name: Pony Creek ^{ML} 36m north of Rockridge Rd Date: 04/04/2016 ML
(mm/dd/yyyy)

STORET Station ID: G4CE0079 Latitude: _____
(Decimal Degrees)

WBID: 1426 RQ - 2016-04-04-62 ORG ID: 21 FL CEN Longitude: _____
(Decimal Degrees)

Receiving Body of Water: Green Swamp Field ID: G4CE0079 County: _____

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Mike Linger									
Terry Brist Riverdawn Mike Drennan									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Equipment ID		

Collection Method	
☒ Wading	☐ Via Boat
☐ From Shore	☐ Canoe/Kayak
☐ Other (note below)	☐ Electric Motor
	☐ Gasoline Motor

Water Level: Dry / Low / Normal / High / Flooded Matrix: Fresh Marine / DI

Meter ID# 11C / 11E Photos: Yes / No Tide Falling: Yes / No / NA

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	11:45	0.3	0.3 ^{ML} 0.3	6.7	76	5.0	0.05	0.4	112	21.7
CEN			0.6							

Biological Samples Collected: None HA SCI LVS RPS LVI Other

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-5-A-TP	☒ Ice ☒ H ₂ SO ₄			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
BOD	☒ BOD-UNIN	☒ Ice			
Physical/Aggregate (Kit A/C)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Kit B/D)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Contains
1:1
Sulfuric Acid
SA-5259020
EXP: 09/16/16
Warning!
See MSDS

Sticker(s) Here
(available)

Notes: <u>Road 28.3107</u> <u>-81.8897</u> <u>No LVS performed</u> <u>< 2m² veg</u>	Date: <u>4-4-2016</u> <u>4-7-16</u> Time: _____ RQ-2016-04-04-62	G4CE0079 Field ID ↑ STORET ↓ G4CE0079
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Signature: _____ Date: 4/7/16

Field Parameters Entered into LIMS: _____ (Initials/Date) Field Parameters QC in LIMS: _____ (Initials/Date)

Date Migrated to STORET: 2016-10-16 (Initials/Date) Field Sheets Scanned/Saved: _____ (Initials/Date)

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

SAMPLE ID _____ ORG ID 21 FL CEN LATITUDE _____
 COUNTY Polk STORET # 64CE0079 LONGITUDE _____
 DATE 4/7/16 TIME 1100 SAMPLING AGENCY FOEP CE ROC
 SITE NAME Pony Creek 36 m north of Rockridge Rd
 FIELD ID/NAME Pony Creek # 64CE0079 RECEIVING BODY OF WATER _____

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 6 m wide 0.25 m/s 0.8 m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) <u>1.6</u>		Artificially Impounded ☐ Yes ☒ No	
High Water Mark: <u>0.8</u> + <u>0.8</u> = <u>1.6</u> (m) (above present water level) (present depth) (above bed)				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 % Coverage ☐ # Times Sampled ☐ PERI ☐ # Times Sampled			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.3</u> <u>21.7</u> <u>5.0</u> <u>6.7</u> <u>76</u> <u>112</u> <u>0.05</u> <u>0.3</u> Mid: _____ Bottom: _____ Meter ID: <u>11C / 11E</u>					
Woody Debris (Snags) _____ Undercut Banks / Roots _____ Leaf Packs or Mat _____ Aquatic Vegetation _____ Rock or Shell Rubble _____ Sand _____ Mud / Muck / Silt _____ Other _____ Other _____			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: _____ Exp: _____			Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) _____			Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____		
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: <u>80's clear</u> <u>no LVS, <2m² veg</u> <u>Light rain over night</u> ☐ The antecedent hydrologic conditions have been met to my best knowledge.								
SAMPLING TEAM <u>Mike Linger, Mike Drennon, L.B.</u>				SIGNATURE: 		DATE: <u>4/7/16</u>		

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

SAMPLING AGENCY: FDEP CE ROC		STORET STATION NUMBER: G4CE0079	DATE (MM/DD/YY): 4/7/16	RECEIVING BODY OF WATER: Green Swamp
REMARKS:	COUNTY: Polk	LOCATION: Pony Creek	FIELD ID/NAME: G4CE0079	

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 7	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6 >2.0 m²	5 4 3 2 1
Substrate Availability 3	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 16 $\frac{1}{4}$	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 7	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. $6 \times 12 = 72$	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 33	20 19 18 17 16	15 14 13 12 11	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 6	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 $\leq 60^\circ$ 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 8 Left Bank 9	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 8 Left Bank 9	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 8 Left Bank 9	10 9	8 7 6	5 4	3 2 1
Secondary Score 57				

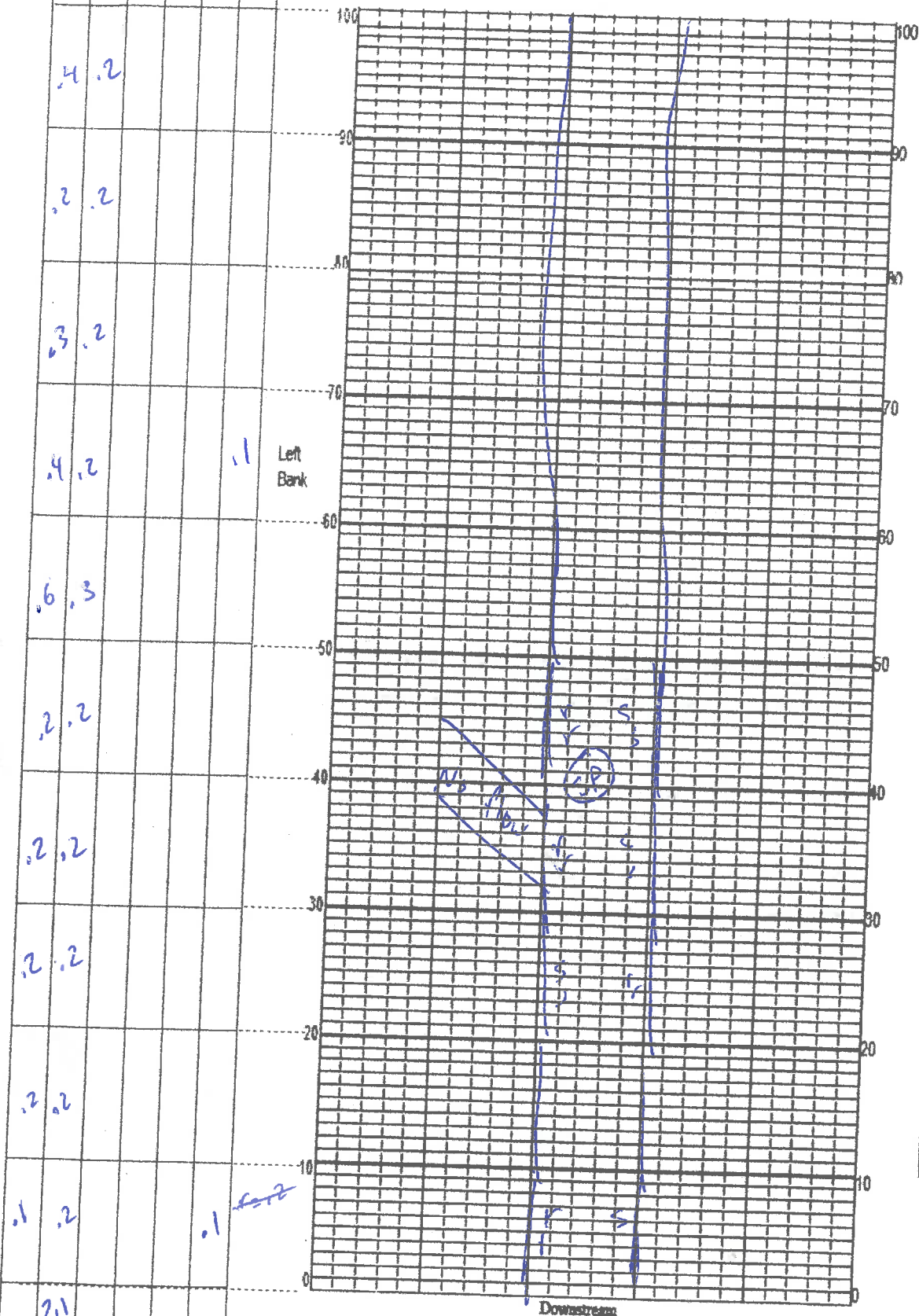
90

TOTAL SCORE

Date: 4/7/16	Analyst: Mike Linger Leif Boman	Signature: 
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

S R L A



Location Pony Creek

Date 4/7/16

Sampler Mike Linger

100 m: Latitude _____
Longitude _____
0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance %

 Snags 0.5

 Roots/undercut banks 0.4

 Leaf Packs (or mats) _____

 Aquatic Macrophytes _____

 Pools total # observed = _____
range expected = _____

Average width 6 m

Average depth 0.2 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at _____ 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:

Palm netto lemna
Salix Salvinia
Smilax
Alligator weed
eleocharis

Revision Date: March 1, 2014

62-160.800, F.A.C

5.0 m²

5
600m

Comments: No LVS performed, $< 2\text{m}^2$ vegetation

[illegible]

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Pony Creek</u>					County: <u>Polk</u>		Date: <u>4/7/16</u>		Investigators: <u>Mike Linger</u>	
									STORET Station Number: <u>64CE0079</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	N	80	60	1	N	N	76	
	2		N				2			N
	3		Y				3			Y
	4		Y				4			Y
	5		Y				5			
	6		Y				6			
	7		Y				7			
	8		N				8			
	9	N	N				9	N		
10	1	N		84	70	1	N		88	
	2						2			
	3						3			
	4						4			
	5						5			
	6						6			
	7						7			
	8						8			
	9	N					9	N		
20	1	N		88	80	1	N		84	
	2						2			
	3						3			
	4						4			
	5						5			
	6						6			
	7						7			
	8						8			
	9	N					9	N		
30	1	N		80	90	1	N		80	
	2						2			
	3						3			
	4						4			
	5						5			
	6						6			
	7						7			
	8						8			
	9	N					9	N		
40	1	N		80	100	1	N		80	
	2						2			
	3						3			
	4						4			
	5						5			
	6						6			
	7						7			
	8						8			
	9	N					9	N		
50	1	N		84	Record "N" and check "Estimated" for points deeper than Secchi depth. If presumed absent. Check "Estimated" if thickness estimated but not reached. Record "X" for points shallower than Secchi depth for which Secchi was not reached with the hand. No estimated rank. Record canopy cover as the number of small dense patches per square meter. HAVE canopy cover. Measure facing upstream at point of collection. Collect algal mat sample following DEP SOP FS 7240 for points with a thickness rank of 4, 5, or 6 is >20%.					
	2									
	3									
	4									
	5									
	6									
	7									
	8									
	9	N								

Secchi depth	<u>0.3</u>
Estimated?	

# points ranked 4-6	<u>0</u>
total points assessed	<u>99</u>
% points ranked 4-6	<u>0</u>

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	
Habitat Assessment	<u>/</u>
SCI/Biorecon	
Water sample	<u>/</u>
RQ- <u>2016-04-04-62</u>	

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%.