



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

February 2016

Data Qualified?
Yes / No

STORET Station Name: Tiger Creek & Walking Waters Rd

Date: 04/25/2016
(mm/dd/yyyy)

STORET Station ID: 26011020

Latitude: _____
(Decimal Degrees)

WBID: 1619 RQ - 2016-03-28-39 ORG ID: 21FLCEN

Longitude: _____
(Decimal Degrees)

Receiving Body of Water: _____ Field ID: G4CE0113

County: _____

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Mike Liner										
Terry Ribdan										

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 / <u>Normal</u> / High / Flooded						Matrix: <u>Fresh</u> / Marine / DI					
Meter ID#			Photos: Yes / <u>No</u>			Tide Falling: Yes / No / <u>NA</u>					
Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (umhos/cm)	Temp. (C°)	
<u>EST</u>	<u>11:30</u>	<u>0.3</u>	<u>0.4</u>	<u>6.1</u>	<u>70</u>	<u>6.4</u>	<u>0.07</u>	<u>0.4(s)</u>	<u>145</u>	<u>23.9</u>	
CEN											

Biological Samples Collected:		None		<u>HA</u>	<u>SCI</u>	<u>LVS</u>	<u>RPS</u>	LVI	Other
Parameter Suite	Parameter Methods		Preservation		Acid Lot#		Expiration		pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP		☒ Ice ☐ H2SO4		<u>5251020</u>		<u>7/14/16</u>		☒ <2
Metals	☒ W-ICPMS ☒ W-ICP		☒ Ice ☐ HNO2		<u>5259030</u>		<u>9/16/16</u>		☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter		☒ Ice		Place Preservative Sticker(s) Here (if Available)				
Chlorophyll	☒ CHLSUITE-W		☒ Ice						
BOD	☐ BOD-UNIN		☐ Ice						
Physical/Aggregate (Kit A/C)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS		☒ Ice						
Physical/Aggregate (Kit B/D)	☐ Alkalinity / W-F / W-TSS / TURBIDITY		☐ Ice						
Macroinvertebrates	☒ ME-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		☐ Ice						
	☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH		☐ Other						

Notes: 27.8121
-81.4443
Bugs: 1300
Ref SCI
wa - 14:15
Algal - 1300
veg mgmt evident
Not SMP

Date: 4-25-2016
Time: _____
RQ-2016-03-28-39

Signature: [Signature] Date: 4/25/16

Field Parameters Entered into LIMS: LMD 4/29/16 (Initials/Date)
Date Migrated to STORET: 7R 6-1-16 (Initials/Date)

Field Parameters QC in LIMS: VWW 4/29/16 (Initials/Date)
Field Sheets Scanned/Saved: 7R 6-1-16 (Initials/Date)

G4CE0113
Field ID
STORET
26011020

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

SAMPLE ID 76052 ORG ID 21 FL CEN LATITUDE 27° 48' 42.4"
 COUNTY Polk STORET # 26011020 LONGITUDE -81° 26' 37.5"
 DATE 4/25/16 TIME 11:00 SAMPLING AGENCY FDAP CE Rec
 SITE NAME Tiger Creek 50 yd upstream of Lake Walk at Walking Waters Rd
 FIELD ID/NAME 64 CE 0113 RECEIVING BODY OF WATER Lake Weehyskapka

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ 100 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 m/s 0.2 m/s m/s m deep 0.4 m deep m deep		
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: 18 Right Bank: 8				Hydrologic Modification Score (per FT 3101) 3				
High Water Mark: 1.0 + 0.4 = 1.4 (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 Type: Sand

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. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:				0.3	23.9	6.4	6.1	70	145	0.07	0.4
Mid:											☒ VOB
Bottom:											
Meter ID: 11C / AB				TOTAL DEPTH 0.4							
Woody Debris (Snags) 0.5 7				Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐				Water Surface Oils Normal ☒ Sheen ☐ Glob ☐ Slick ☐ Other ☐			
Undercut Banks / Roots 2				Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: Exp:				Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐			
Leaf Packs or Mat 2				Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: Exp:				Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐			
Aquatic Vegetation 1 7											
Rock or Shell Rubble											
Sand 2											
Mud / Muck / Silt											
Other											
Other											

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:

70's Clear Vegetation management evident
 Ref SCI
☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

Mike Linger, Terry Riordan, Matt Sewell

SIGNATURE:



DATE:

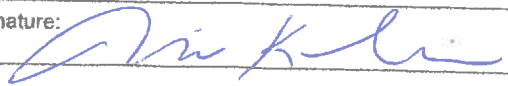
4/25/16

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

SAMPLING AGENCY: FDEP CEROC		STORET STATION NUMBER: 26011020	DATE (MM/DD/YY): 4/25/16	RECEIVING BODY OF WATER: Lk Weohyakapks
REMARKS: REF SCI	COUNTY: Polk	LOCATION: 50yd upstream of Tiger Creek Lake Wally at Walking Winters Rd		FIELD ID/NAME: 64CE0113

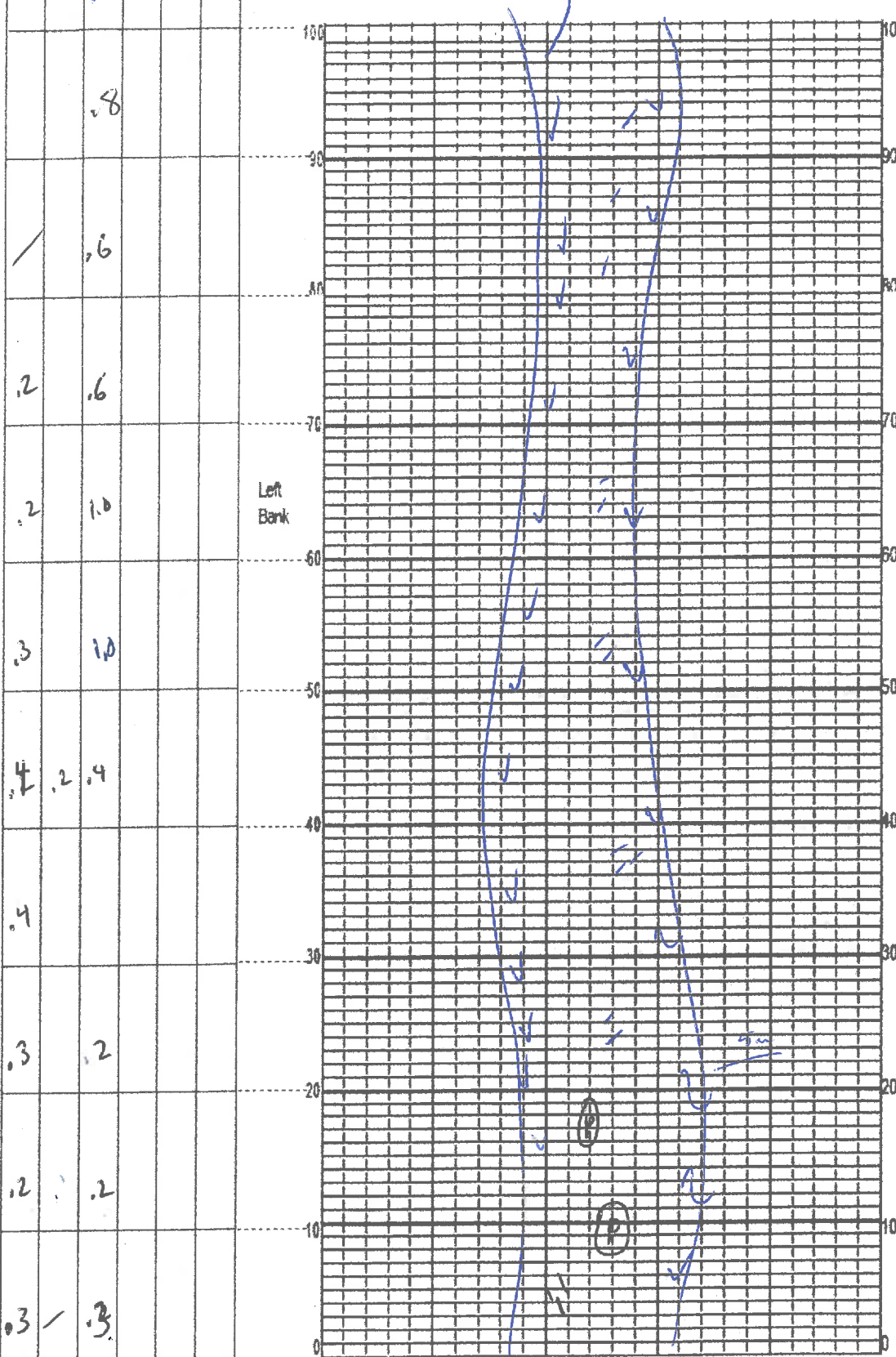
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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	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 14 13	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 16 11 Primary Score 34 34	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 15	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability 8 Right Bank 8 Left Bank 8	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. 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 root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width 7 Right Bank 7 Left Bank 9	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 7 Right Bank 7 Left Bank 9 Secondary Score 67 63 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

TOTAL SCORE

Date: 4/25/16	Analyst: Mike Linger	Signature: 
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S R ✓ A

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



Location Tiger Creek

Date 4/25/16

Sampler Mike Linger

100 m: Latitude 27.811702
Longitude -81.443260

0 m: Latitude 27.811747
Longitude -81.443830

Substrates: Code key, draw proportionate habitat abundance %

- Snags 0.5
- Roots/undercut banks
- Leaf Packs (or mats)
- ✓ Aquatic Macrophytes 1
-
-
- Points total # observed = 2
range expected = 2-3

Average width 6 m

Average depth 0.4 m

Velocity measured at 10 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:

2.3
5.0
600

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

2.3 5.0

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Tiger Creek walk at Walking Waters Rd County: Polk Date: 4/25/16 Investigators: Mike Linger

STORET Station Number: 26011020

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	MKL 82220	60	1	3	N	50
	2	3				2	N	N	
	3	N				3	N	N	
	4	N				4	N	N	
	5	N				5	N	N	
	6	4				6	N	N	
	7	5				7	N	N	
	8	5				8	4	N	
	9	5				9	4	N	
10	1	2		82	70	1	3	N	76
	2	3				2	4	N	
	3	3				3	N	N	
	4	2				4	N	N	
	5	2				5	N	N	
	6	2				6	N	N	
	7	5				7	N	N	
	8	5				8	N	N	
	9	5				9	N	N	
20	1	3		9	80	1	4	N	88
	2	3				2	4		
	3	2				3	N		
	4	2				4	N		
	5	2				5	N		
	6	2				6	N		
	7	5				7	5		
	8	3				8	6		
	9	3				9	6		
30	1	2		18	90	1	2		26
	2	2				2	2		
	3	2				3	2		
	4	2				4	2		
	5	2				5	2		
	6	2				6	2		
	7	2				7	2		
	8	2				8	3		
	9	2				9	3		
40	1	3		13	100	1	2		44
	2	2				2	2		
	3	2				3	2		
	4	2				4	2		
	5	2				5	2		
	6	2				6	2		
	7	2				7	2		
	8	3				8	2		
	9	3				9	3	N	
50	1	4		86	Record "N" and check "Estimated" for points deeper than presumed absent. Check "Estimated" if thickness estimated seen but not reached.				
	2	4			Record "X" for points shallower than Secchi depth for which reached with the hand. No estimated rank.				
	3	3			Record canopy cover as the number of small densiometer HAVE canopy cover. Measure facing upstream at point 4,				
	4	2			Collect algal mat sample following DEP SOP FS 7240 if the points with a thickness rank of 4, 5, or 6 is 20%.				
	5	2							
	6	2							
	7	2							
	8	2							
	9	2	N						

Secchi depth 0.4 (5)
Estimated?

points ranked 4-6 20
total points assessed 99
% points ranked 4-6 20

Check accompanying data collected at same site/date.

Algal mat sample ☒

Linear Veg Survey ☒

Habitat Assessment ☒

SC/Biorecon ☒

Water sample ☒

RQ- 2016-03-28-39

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

Storet Number: 2601020

Signature: *[Signature]*

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.

[illegible]