

HA/RPS/LVS

Site Name Little Wekiwa River 0.75m NW of Palm Spring Sample Date 6/4/18
 WBID 2987 WIN ID 62CE0140 RQ 2018-06-04-56

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	LMD 6/8/18	7R 6/14/18
Create SBIO station visit	LMD 6/8/18	n/a
Phys/Chem entry	LMD 6/8/18	7R 6/14/18
Habitat Assessment entry	LMD 6/8/18	7R 6/14/18
Vascular entry (add LIMS ID to entry)		NA
RPS entry	LMD 6/8/18	7R 6/14/18
Authorize SBIO data	7R 6/14/18	n/a
Scan all sheets to 21FLCEN folder		n/a
LIMS/WIN migration		n/a
File in cabinet		n/a

Comments/notes:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

WIN Station Name: Little Wekiva River @ 75m NW of Palm Spring Date: 6/4/18

WIN ID/ Field ID 62CE0140 WBID: 2987 Latitude: 28.69182

County: Seminole ORG ID: 21FLCEN Longitude: -81.39322

Receiving Body of Water: Wekiva RQ - 2018-06-04-56

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection	Sampling Equipment		
Terry Reardon			✓	✓			✓		☒ Sample Container	☐ Van Dorn	☐ Pole
Liz Bates				✓	✓	✓			☒ Carboy	☒ Syringe	
Mike Drennan		✓						✓	☐ Dipper	☐ Other	
Water Level: Dry/ Pooled/ Low/ <u>Normal</u> / High/ Flooded		Meter ID# <u>SCUD</u>		Matrix: <u>Fresh</u> / Marine / DI							
Photos: <u>Yes</u> / No		Flow: No Flow / Intestinal / <u>Flowing</u> / NA		Tide: Rising/ Falling/ Slack/ <u>NA</u>		Tide Times: High		Low			

Field Sample											
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Sp COND (µmhos/cm)	Temp. (C°)	
EST	10:53	.7	.3	.7(s)	5.35	66.6	7.25	.12	250.6	26.8	
CEN											

Biological Samples Collected: None HA SCI RPS Algae ID LWS LVI Other: _____

SBIO ID Numbers: SBIO-ID: 78427 HA-ID: 15180 RPS-ID: 9029 Macrophyte-ID: _____ LIMS#: 1996956

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>SA7163030</u>	<u>6/12/18</u>	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	<u>13615055</u>		
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity W-F / W-TSS / TURBIDITY / W-Cl-IC / 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-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-CARB-AA ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

H2SO4
LOT# SA7163030
EXP: 06/12/2018

Place Preservative Sticker(s) Here
(If Available)

QA/QC Sample Information Duplicate

Time Zone: <u>EST</u> CEN		Time: <u>1055</u>		Field ID: <u>G2CE0140-Dup</u> (WIN ID + DUP)		
Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Chec	
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H2SO4	<u>5A7163030</u>	<u>6/12/18</u>	☒ < 2	
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ < 2	
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	<u>13615055</u>			
Chlorophyll	☐ CHLSUITE-W	☐ Ice				
Physical/Aggregate (Fresh)	☒ Alkalinity / ☒ W-F / ☒ W-TSS / ☒ TURBIDITY / ☒ W-CH-IC / ☒ W-COLOR / ☒ W-SO4-IC / ☒ W-TDS	☒ Ice				
Physical/Aggregate (Marine)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY	☐ Ice				
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice				
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR					
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA					
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W					

H2SO4
 LOT# SA7163030
 EXP: 06/12/2018
 Place Preservative Sticker(s) Here
 (If Available)

Field ID: G2CE0140_DUP
 WIN: G2CE0140
 Location: Little Wekiwa River @ 75m NW of Palm Spring (2987)

Blank

Time Zone: <u>EST</u> CEN		Time: <u>1105</u>		Field ID: <u>BLANK</u> 2018- <u>Blank</u> <u>06042018</u> (BLANK_DDMMYYYY)		
DI Source: <u>WASH ROOM</u>		Location: <u>Little Wekiwa River @ Truck</u>				
☒ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank		Equipment ID: _____				
Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Chec	
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H2SO4	<u>5A7163030</u>	<u>6/12/18</u>	☒ < 2	
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ < 2	
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	<u>13615055</u>			
Chlorophyll	☐ CHLSUITE-W	☐ Ice				
Physical/Aggregate (Fresh)	☒ Alkalinity / ☒ W-F / ☒ W-TSS / ☒ TURBIDITY / ☒ W-CH-IC / ☒ W-COLOR / ☒ W-SO4-IC / ☒ W-TDS	☒ Ice				
Physical/Aggregate (Marine)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY	☐ Ice				
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice				
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR					
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA					
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-CARE ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC					

H2SO4
 LOT# SA7163030
 EXP: 06/12/2018
 Place Preservative Sticker(s) Here
 (If Available)

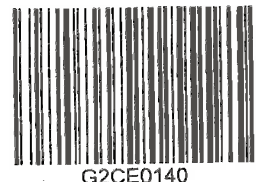
Field ID: BLANK_06042018
 Location/DI Source: Washroom

Notes:

- Water higher due to recent rain but still within normal range.
 Pic: N = US
 2 m² aquatic plants, NO LVS

WIN ID / Field ID →

Little Wekiwa River @
 75m NW of Palm Spring
 (2987)



G2CE0140

Signature: [Signature]

Date: 6/4/18

Enter Field Parameters, Verify Station ID In LIMS DMT: LMD 6/8/18 QC Station ID, Field Parameters In LIMS DMT: _____
 (Initials/Date) (Initials/Date)

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data In WIN: _____

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

SAMPLE ID 78427 ORG ID 21FLCEN LATITUDE 28.69182
 COUNTY Seminole STORET # 62CE0140 LONGITUDE -81.39322
 DATE 6/4/18 TIME 1053 SAMPLING AGENCY FDEP-CEROC
 SITE NAME Little Wekiwa River @ 75m NW of Palm Spring
 FIELD ID/NAME 62CE0140 RECEIVING BODY OF WATER Wekiwa

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ 97 ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☒ 3 ☐ 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 ☒ 7 m wide ☐ m/s ☒ .19 m/s ☐ m/s ☐ m deep ☒ .75 m deep ☐ m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: ☒ >18 Right Bank: ☒ 10				Hydrologic Modification Score (per FT 3101) ☐					
High Water Mark: ☒ 0.5 + ☒ 0.75 = ☒ 1.05 (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 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 ☐																																						
SUBSTRATE TYPE Assessment Tool: ☐ SCI ☒ RPS ☐ LVS ☐ LCI ☐ BioRecon			WATER QUALITY <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td>☒ 0.3</td> <td>☒ 26.8</td> <td>☒ 7.25</td> <td>☒ 5.35</td> <td>☒ 66.6</td> <td>☒ 250.6</td> <td>☒ .12</td> <td>☒ 0.7</td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Bottom:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	☒ 0.3	☒ 26.8	☒ 7.25	☒ 5.35	☒ 66.6	☒ 250.6	☒ .12	☒ 0.7	Mid:									Bottom:								
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Mid:																																												
Bottom:																																												
Woody Debris (Snags) ☒ 0.26 ☐ ☐ Undercut Banks / Roots ☒ 2.0 ☐ ☐ Leaf Packs or Mat ☐ ☐ ☐ Aquatic Vegetation ☐ ☐ ☐ Rock or Shell Rubble.. ☐ ☐ ☐ Sand..... ☐ ☐ ☐ Mud / Muck / Silt ☐ ☐ ☐ Other ☐ ☐ ☐ Other ☐ ☐ ☐			Meter ID: ☒ SCUD			TOTAL DEPTH ☒ 0.7																																						
ABUNDANCE <table border="1"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Fish:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☒</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☒	☐	☐	Fish:	☐	☐	☐	☒	Aquatic Plants:	☐	☒	☐	☐	Iron/Sulfur Bacteria:	☒	☐	☒	☐	Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>SA7163030</u> Exp: <u>06/12/2018</u>			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐													
	Not Obs.	Rare	Common	Abundant																																								
Periphyton:	☐	☒	☐	☐																																								
Fish:	☐	☐	☐	☒																																								
Aquatic Plants:	☐	☒	☐	☐																																								
Iron/Sulfur Bacteria:	☒	☐	☒	☐																																								
			Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐																																						
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐			AMBIENT FIELD CONDITIONS / NOTES: - 90's, humid - Recent rain increased H ₂ O level but still normal range. ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																									

SAMPLING TEAM Terry Riordan, Liz Pates, Mike Drennon **SIGNATURE:** [Signature] **DATE:** 6/4/18

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

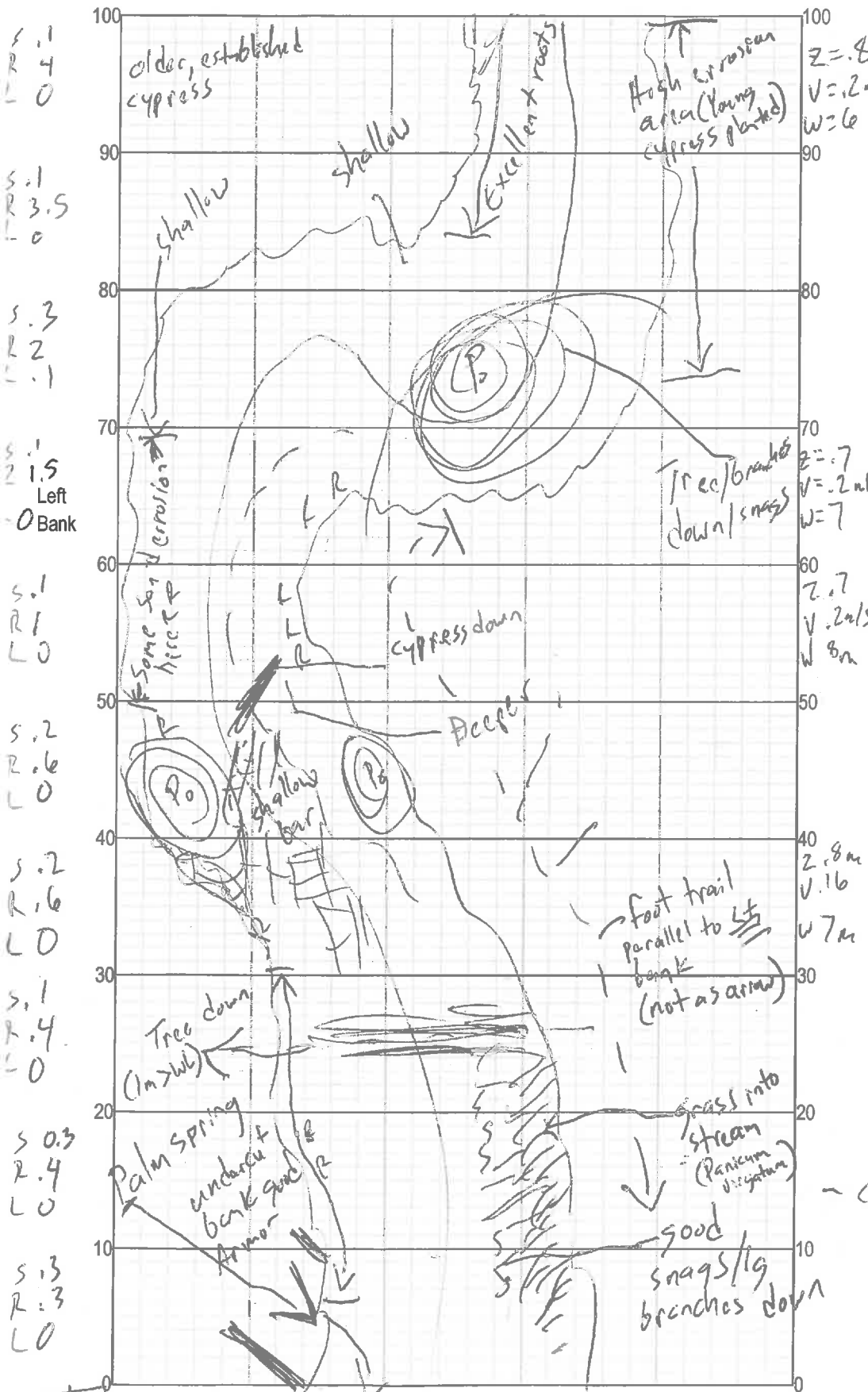
SAMPLING AGENCY: <u>FDEP-CEROC</u>	STORET STATION NUMBER: <u>62CC0140</u>	DATE (MM/DD/YY): <u>6/4/18</u>	RECEIVING BODY OF WATER: <u>Wekiva</u>
REMARKS: 	COUNTY: <u>Seminole</u>	LOCATION: <u>Little Wekiva 0.75m NW of Palm Spring</u>	FIELD ID/NAME: <u>62CC0140</u>

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>6</u> 20 19 18 17 16	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 <u>3</u> 20 19 18 17 16	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 <u>14</u> 20 19 18 17 16	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 <u>20</u> ----- Primary Score <u>43</u> 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. 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 <u>19</u> 20 19 18 17 16	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 <u>8</u> Left Bank <u>8</u> <u>16</u> 10 9	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. 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 <u>8</u> Left Bank <u>9</u> <u>17</u> 10 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 Right Bank <u>4</u> Left Bank <u>7</u> <u>16</u> ----- Secondary Score <u>48</u> 10 9	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

111 **TOTAL SCORE**

Date: <u>6/4/18</u>	Analyst: <u>T. Riordan, L. Bates, M. Drennan</u>	Signature:
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Little Wekiwa River
 Date: 6/4/18
 Sampler: T. Riordan, L. Bates, M. Drennon

100 m: Latitude 28.691672
 Longitude -81.393598
 0 m: Latitude 28.691730
 Longitude -81.392628

Substrates: Code key, draw proportionate habitat abundance. %

☐ S	Snags	<u>0.26</u>
☐ R	Roots/undercut banks	<u>2.0</u>
☐ L	Leaf Packs (or mats)	<u>—</u>
☐	Aquatic Macrophytes	<u>—</u>
☒ Po	Pools	total # observed = <u>3</u> # range expected = <u>1-3</u>

Average width _____ m
 Average depth _____ m

Velocity measured at _____ meter mark.

WQ & chemistry taken at 75 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:

- Canopy/buffer plants:
 - Magnolia virginiana, Panicum virgatum, Cephalaria, Compositae, Alternanthera, Sabul, Acer, Hydrilla (one strand on H₂O), ulmus
 - Wetland floodplain
 - Flashy system - rain vs. impermeable watershed (urban)
 Revision Date: March 1, 2014

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

62-160.800, F.A.C

S 1.8 R 14.3 L 1
 $16.4/700m = 2.3\%$

BF = WL + 0.9m

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little Wekiwa River County: Seminole Date: 6/4/18 Investigators: Terry Riordan/Liz Bates

STORET Station Number: G2CE0140

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		60	1	N	N		
	2	X				2	X			
	3	X				3	X			
	4	X				4	X			
	5	X		20		5	X		60	
	6	X				6	X			
	7	X				7	X			
	8	X				8	X			
	9	X				9	X			
10	1	X			70	1	X			
	2	X				2	X			
	3	X				3	X			
	4	X				4	X			
	5	X		24		5	X		32	
	6	X				6	X			
	7	X				7	X			
	8	X				8	X			
	9	X				9	X			
20	1	X			80	1	X			
	2	X				2	X			
	3	X				3	X			
	4	X				4	X			
	5	X		96		5	X		80	
	6	X				6	X			
	7	X				7	X			
	8	X				8	X			
	9	X				9	X			
30	1	X			90	1	X			
	2	X				2	X			
	3	X				3	X			
	4	X				4	X			
	5	X		60		5	X		88	
	6	X				6	X			
	7	X				7	X			
	8	X				8	X			
	9	X				9	X			
40	1	X			100	1	X			
	2	X				2	X			
	3	X				3	X			
	4	X				4	X			
	5	X		84		5	X		88	
	6	X				6	X			
	7	X				7	X			
	8	X				8	X			
	9	X				9	X			
50	1	X				1	X			
	2	X				2	X			
	3	X				3	X			
	4	X				4	X			
	5	X				5	X			
	6	X		96		6	X			
	7	X				7	X			
	8	X				8	X			
	9	X				9	X			

(N to 1 mm)

Secchi depth 0.7
Estimated? N

(3) 6mm

points ranked 4-6 0
total points assessed 99
% points ranked 4-6 0

(4) 20mm

(Exclude X's)

Check accompanying data collected at same site/date.

Algal mat sample ☐
Linear Veg Survey ☐
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒

RQ-2018-06-04-56

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

(5) 10cm

(6)

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%.

Sampling Agency: 21 FZ CEN

Relinquished By: Tonia R. Rocha	Date/Time 6/4/18 1230	Shipping Method Fed Ex	Number of Coolers Shipped: 1	Received By: JR	Date/Time 6.5.18 10:00
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Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	CHLSUITE-W						
Group: A	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						
							H2SO4 LOT# SA7163030 EXP: 06/12/2018
Group: A	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
	W-PO4-F						
Group: B	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: B	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	2
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						

H2SO4
LOT# SA7163030
EXP: 06/12/2018

H2SO4
LOT# SA7163030
EXP: 06/12/2018

Group: B

Bottle Type:

P-125ML

of Bottles: 2

Preservative:

FILTER-ICE

Enter Number of Bottles Sent to Lab

2

W-PO4-F

Date of Request: 17-MAY-2018
 Created By: LINGER_M On: 17-MAY-2018
 Modified By: SWANSON_C On: 18-MAY-2018
 Customer: CEN-DIST
 Project: SMP
 Division:
 District: Central District
 Sampling Event: Little Wekiva River + HA + D&B

Send Coolers To:

Phone: 407-897-4180
 FL Dept. of Environmental Protection
 3319 Maguire Blvd., Suite 232
 Orlando, FL 32803-3767
 Attn: Mike Linger

Program Module Number: 1306
 Priority: 3
 Event Status: S
 Criminal Investigation: NO
 Chemistry Request Reviewed By: WATTS_J On: 18-MAY-2018
 Biology Request Reviewed By: SWANSON_C On: 18-MAY-2018
 Sampling Kit Required: YES Ship on: 25-MAY-2018
 Sampling Kit Shipped: YES On: 21-MAY-2018
 Sampling Kit Packed By: SHAIK_A
 Preservatives Needed: NO
 Date to Receive Samples: 04-JUN-2018
 Received By:

Send Final Report To:

FL Dept. of Environmental Protection
 3319 Maguire Blvd., Suite 232
 Orlando, FL 32803-3767
 Attn: Mike Linger

Report Type: Final Only
 FTP Data: NO
 QC Report: YES
 Date Log: NO
 Authorization Log: NO

Comments: A: Site
 B: Dup & Blank

Bottle Group A (Water) With 1 Samples:

Bottle Type: P-1L	Number of Bottles: 1	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO ₃ /L
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
W-COLOR	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO ₄ -IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices
W-TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
W-TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Bottle Type: BP-1L	Number of Bottles: 1	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Bottle Type: P-500ML	Number of Bottles: 1	Preserved With: ICE And H ₂ SO ₄
W-NH ₃	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
W-NO ₂ NO ₃	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
W-TOC	Template: DEFAULT	(SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices

Bottle Type: P-125ML	Number of Bottles: 1	Preserved With: FILTER-ICE
W-PO ₄ -F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group B (Water) With 2 Samples:

Bottle Type: P-1L	Number of Bottles: 2	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO ₃ /L
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices