HA/RPS/LVS

Site Name Wekiva River Sample Date 4/24/19

WBID 2956 WIN ID G2CE0205 RQ 2019-04-22-39

	Initial/Date	QC Initial/Date
Water chemistry data to LIMS	KWM MAY 07 2019	LB 05/31/19
Create SBIO station visit	KWM MAY 07 2019	n/a
Phys/Chem entry	KWM MAY 07 2019	LB 05/31/19
Habitat Assesment entry	KWM MAY 07 2019	LB 05/31/19
Vascular entry (add LIMS ID to entry)	KWM MAY 07 2019	LB 05/31/19
RPS entry	KWM MAY 07 2019	LB 05/31/19
Authorize SBIO data	LB 05/31/19	n/a
Scan all sheets to 21FLCEN folder	LB 05/31/19	n/a
LIMS/WIN migration	(MJ) 07262019	n/a
File in cabinet		n/a

Comments/notes:

850

13597

3 1 7

1 3

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET
January 2019

Data Qualified? Yes / (No)

WIN Station Name: Wekiva River Upstream of Little Wekiva Confluence **Date:** 04/24/19 (mm/dd/yyyy)

WIN ID/ Field ID G2CE0205 **WBID:** 2956 **Latitude:** 28.73743 (Decimal Degrees)

County: Seminole/~~Orange~~ **ORG ID:** 21FLCEN **Longitude:** -81.42263 (Decimal Degrees)

Receiving Body of Water: St. John's River **RQ 2019 -** 04-22-39

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
Leif Boman		✓		✓	✓	✓	
Katie March	✓		✓				

Sampling Equipment
- [x] Sample Container [ ] Van Dorn [ ] Pole
- [ ] Carboy [x] Syringe
- [ ] Dipper [ ] Other
- Depth Measured with: Secchi Disk Line / Meter
- Equipment ID: Leadfoot, Knothead, Scud/Bucket, Shrimp/Trap

Collection Method
- [ ] Wading [ ] Canoe/Kayak
- [ ] From Shore [ ] Electric Motor
- [ ] Other [x] Gasoline Motor

Water Level: Dry/ Pooled/ Low/ (Normal)/ High/ Flooded **Meter ID#** Betty 67 **Matrix:** (Fresh) / Marine / DI

Photos: Yes / No **Flow:** No Flow / Intestital / (Flowing)/ NA **Tide:** Rising/ Falling/ (Slack)/ NA **Tide Times:** High Low (Bracket Sample Time)

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)	1125	1.0	0.3	1.0(S)	6.75	78.5	7.58	0.16	334	22.85
~~CEN~~										

Biological Samples Collected: None (HA) SCI (RPS) Algae ID (LVS) LVI Other:

SBIO ID Numbers: SBIO-ID: 79435 HA-ID: 15757 RPS-ID: 9319 Macrophyte-ID: 11269 LIMS#: 2061020

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	[x] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	[x] Ice [x] H_2SO_4			[ ] <2
Metals	[ ] W-ICPMS [ ] W-ICP	[ ] Ice [ ] HNO_3			[ ] <2
Filtered Nutrients	[x] W-PO4-F [x] Field Filtered 0.45 µm Filter	[x] Ice	13615055		
Chlorophyll	[x] CHLSUITE-W	[x] Ice			
Physical/Aggregate (Fresh)	[x] Alkalinity W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	[x] Ice			
Physical/Aggregate (Marine)	[ ] Alkalinity / W-BR-IC / 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-BacR [ ] PCR-GULL2 [ ] PCR-HF183 [ ] PCR-DG3 [ ] PCR-GFD	[ ] Ice			
Tracers	[ ] W-E3821-MS [ ] W-E32821-DI	[ ] Ice			
Pesticides	[ ] W-PSNP-TQ [ ] W-E3821-MS [ ] W-CT-CL-R [ ] W-PCL-SQ-R [ ] W-E3821-DI [ ] W-CARB-AA	[ ] Ice			
Phytoplankton	[ ] DTY-QN-C [ ] PKD-QN-C	[ ] Ice			

QA/QC Sample Information

Duplicate

Time Zone: (EST) ~~CEN~~ **Time:** 1130 **Field ID:** G2CE0205_DUP (WIN ID_DUP)

WIN DMT Activity ID:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H_2SO_4			☐ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO_3			☐ < 2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	13615055		
Chlorophyll	☒ ~~CHLSUITE-W~~ KM	☒ Ice	H2SO4 LOT# SA8344070 EXP: 12/10/2019		
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice	Place Preservative Label Here		
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci				
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD				
Tracers	☐ W-E3821-MS ☐ W-E3821-DI				
Pesticides	☐ W-PSNP-TQ ☐ W-E3821-DI ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-E-3821-MS ☐ W-CARB-AA				

Field ID → G2CE0205_DUP
WIN → G2CE0205
Location → Wekiva River Upstream of Little Wekiva Confluence

Blank

Time Zone: (EST) ~~CEN~~ **Time:** 1245 **Field ID:** FB_04242019 (Blank Type_DDMMYYYY)

DI Source: lab **Location:** Wekiva Island boat ramp

☒ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank **Equipment ID:** DI #4

WIN DMT Blank Batch ID:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H_2SO_4			☐ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO_3			☐ < 2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	13615055		
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice	H2SO4 LOT# SA8344070 EXP: 12/10/2019		
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY				
Tracers	☐ W-E3821-MS ☐ W-E3821-DI				
Pesticides	☐ W-PSNP-TQ ☐ W-E3821-DI ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-E3821-MS ☐ W-CARB-AA				

Field ID: FB_04242019

Notes:

Place or Type Label Here

WIN ID / Field ID →

Wekiva River Upstream of Little Wekiva Confluence

G2CE0205

Signature: KMarch **Date:** 4/24/19

LIMS EVENT ID: CENT-DIST-2019- 04-25-03 **WIN Import ID:**

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM MAY 07 2019 (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** LB 5/31/19 (Initials/Date)

Scan/Save Field Sheets LB 5/31/19 (Initials/Date) **Migrate Data to WIN:** LMO 7/26/19 (Initials/Date) **Verify Data In WIN:** (Initials/Date)

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

SAMPLING AGENCY:		STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
		G2CE0205	4/24/19	SJR
REMARKS:	COUNTY: Seminole	LOCATION: Wekiva River		FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 10	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 18	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	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 13 Primary Score ~~42~~ 55	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 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 10 Left Bank 10	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful 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 Right Bank 10 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 10 Left Bank 10 Secondary Score 90	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

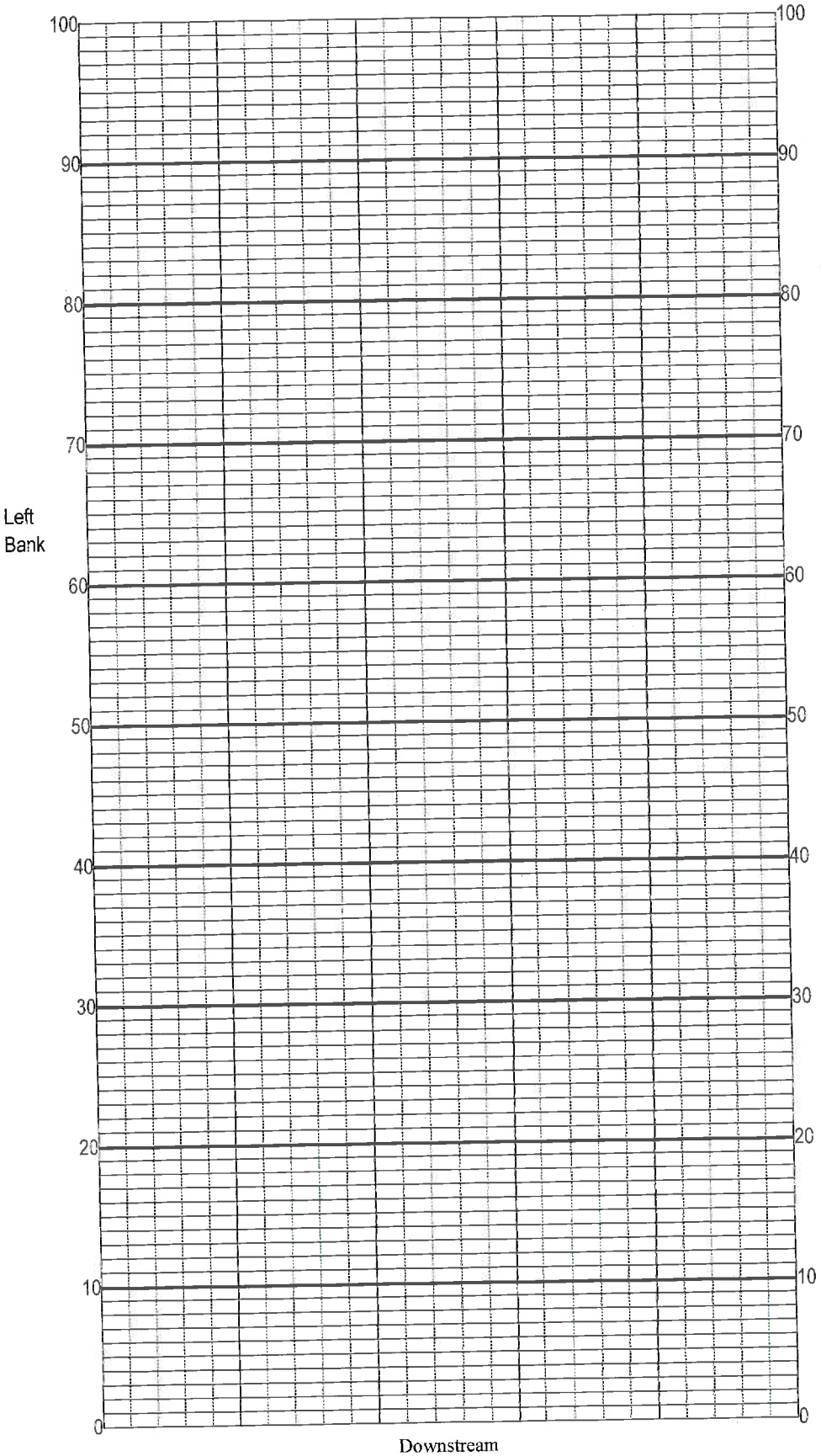
~~122~~ 135 **TOTAL SCORE**

Date: 4/24/19	Analyst: Katie March, LiD Boman	Signature: KMarch

62-160.800, F.A.C.

Revision Date: March 1, 2014

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: _____

Date: _____

Sampler: _____

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

- ☐ Snags _____
- ☐ Roots/undercut banks _____
- ☐ Leaf Packs (or mats) _____
- ☐ Aquatic Macrophytes _____
- ☐ _____ _____
- ☐ _____ _____
- ☐ Pools total # observed = _____ # range expected = _____

Average width _____ m
Average depth _____ m

Velocity measured at _____ 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:

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

SAMPLE ID _____ ORG ID 21FLCEN LATITUDE _____

COUNTY ~~Or~~ Seminole STORET # 62CE0205 LONGITUDE _____

DATE _____ TIME _____ SAMPLING AGENCY _____

SITE NAME Wekiva River Upstream of Little Wekiva River

FIELD ID/NAME _____ RECEIVING BODY OF WATER St. Johns River

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)
80				20			

Landscape Development Intensity Index (LDI): _____

Local Watershed Erosion (select one) : ☐ None ☑ Slight ☐ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☑ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side Left Bank : >18 Right Bank : >18

Hydrologic Modification Score (per FT 3101): _____

High Water Mark: 0.5 (m) + 1.0 (above present water level) = 1.5 (present depth) (above bed)

Artificially Impounded ☐ Yes ☑ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

95 m wide

0.15 m/s	0.20 m/s	0.15 m/s
0.6 m deep	1.0 m deep	0.7 m deep

Artificially Channelized : ☑ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☐ Recent, severe

Canopy Cover % ☑ Open ☐ Heavily Shaded ☐ Lightly Shaded (11-45%) ☐ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

Sediment Odors ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify) :

Smothering of Substrates

	None	Slight	Moderate	Severe
Sand Smothering:	☑	☐	☐	☐
Silt Smothering:	☐	☑	☐	☐
Algae Smothering:	☐	☑	☐	☐

SUBSTRATE TYPE

Assessment Tool: ☐ SCI ☑ RPS ☑ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)			
Undercut Banks / Roots			
Leaf Packs or Mat			
Aquatic Vegetation			
Rock or Shell Rubble..			
Sand.....			
Mud / Muck / Silt			
Other			
Other			

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	22.85	7.58	6.75	78.5	334	0.16	☑ VOB
Mid:								
Bottom								TOTAL DEPTH

Meter ID: Betty 67 ≈1.0

Water Odors Normal ☑ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils Normal ☑ Sheen ☐ Globs ☐ 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: _____

Clarity Clear ☑ Slightly Turbid ☐ Turbid ☐ Opaque ☐

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:

☑ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM Katie March, Leif Bowman

SIGNATURE : K March

DATE : 4/24/19

62-160.800, F.A.C.

Revision Date: January 2017

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Wekiva River | County: Seminole | Date: 4/24/19 | Investigators: Katie March, Leif Bowman

STORET Station Number: G2UE0205

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	X		
	2	X		
	3	X		
	4	3	✓	
	5	3	✓	0
	6	N	✓	
	7	X		
	8	X		
	9	X		
10	1	X		
	2	X		
	3	X		
	4	N	✓	
	5	N	✓	0
	6	3	✓	
	7	X		
	8	X		
	9	X		
20	1	X		
	2	X		
	3	X		
	4	3	✓	
	5	4	✓	0
	6	3	✓	
	7	X		
	8	X		
	9	X		
30	1	X		
	2	X		
	3	X		
	4	N	✓	
	5	N	✓	0
	6	3	✓	
	7	X		
	8	X		
	9	X		
40	1	X		
	2	X		
	3	X		
	4	3	✓	
	5	N	✓	0
	6	3	✓	
	7	X		
	8	X		
	9	X		
50	1	X		
	2	X		
	3	X		
	4	4	✓	
	5	N	✓	0
	6	N	✓	
	7	X		
	8	X		
	9	X		
60	1	X		
	2	X		
	3	X		
	4	N	✓	
	5	3	✓	0
	6	3	✓	
	7	X		
	8	X		
	9	X		
70	1	X		
	2	X		
	3	X		
	4	3	✓	
	5	N	✓	0
	6	4	✓	
	7	X		
	8	X		
	9	X		
80	1	X		
	2	X		
	3	X		
	4	N	✓	
	5	N	✓	0
	6	N	✓	
	7	X		
	8	X		
	9	X		
90	1	X		
	2	X		
	3	X		
	4	3	✓	
	5	3	✓	0
	6	N	✓	
	7	X		
	8	X		
	9	X		
100	1	X		
	2	X		
	3	X		
	4	N	✓	
	5	3	✓	0
	6	3	✓	
	7	X		
	8	X		
	9	X		

Secchi depth	
Estimated?	

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

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

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

Cannot access much of run due to thick macrophyte coverage, but all < secchi so denoting with X's. Middle of run we can see but not reach. Looks to be mostly silt.

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%.

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Hatiya | Date: 4/24/19 | County: Orange/Seminole | Storet Number: G2UE0205

Analyst: Katie Marsh, Leif Boman | Signature: KMarsh

Comments: cannot access much due to thick veg. buffer

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m^2 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.

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides	/	/	/	/	/	/	/	/	/	/	
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata	C	C	C	C	C	C	C	C	C	C	
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata											
Hydrocotle	/	/	/	/	/	/	/	/	/		
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage											
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage											
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage	/	/	/	/	/	/	/	/	/	/	

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum	C	C	C	C	C	C	C	C	C	C	
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides	/	/						/	/	/	
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontederia cordata								/	/	/	
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata	/	/	/	/	/	/	/	/	/		
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima	/	/	/	/	/	/	/	/	/		
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha			/	/	/	/	/	/	/	/	
Vallisneria americana	/	/	/	/	/	/	/	/	/	/	
Zizania aquatica											