



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

☒ Yes / ☐ No

WIN Station Name: Upper Cypress Creek @ Jacaranda

Date: 12/7/2020

WIN/Field ID: G4CE0157

WBID: 3170J

ENR:

Latitude: 28.3895

County: ORANGE

Org ID: 21FLCEN

Longitude: -81.5243

Receiving Body of Water: Kissimmee River

RQ- 2020-11-30-22

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Natalie Ayala	x		x		
☒	Victoria Schwartz	x	x	x	x	x
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Secchi	
Secchi Equipment ID: Light	
Collection Method	
☒ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded		Meter ID# SHRIMP TRAP	
Photos: NO	Flow: FLOW	Tide:	Tide Times: High: Low:
Biological Samples Collected: ☐ None ☒ HA ☐ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:			
SBIO ID Numbers: SBIO 81800 VASCULAR 11762 RPS 9646			LIMS 2211409
Notes:			

Duplicate Sample

Time Zone: EST	Time: N/A	Field ID: N/A	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone:	Time: N/A	Field ID: N/A	(Blank Type_DDMYYYY)
DI Source: N/A		Location: N/A	
DI Type: N/A		Equipment ID: N/A	

LIMS EVENT ID: CEN-DIST-2020-12-08-02	WIN Import ID: 23913
Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 12/11/20	QC Station ID, Field Parameters In LIMS DMT: EB 1/25/21
(Initials/Date)	(Initials/Date)
Scan/Save Field Sheets KWM 2/5/21	Migrate Data to WIN: KWM 2/5/21
(Initials/Date)	(Initials/Date)
Verify Data In WIN:	(Initials/Date)



RQ-2020-11-30-22

Customer: WQAP

Project ID: SMP

Collected By: Natalie Ayala, Victoria Schwartz

Field Report Prepared By: Natalie Ayala

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G4CE0157

Location: Upper Cypress Creek @ Jacaranda

Comments:

Matrix: Fresh

(Check one)

☒ GRAB☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT _h)
12/7/2020	1025 EST	6.76	68.8	16.2	6.52	0.25	0.5 ☒ VOB (S)	0.5	210.8	0.1

Central Lab please use top row for login purposes

	EST									

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP Lot # 112544 Exp: 12/20/20	☒ Ice ☒ H2SO4*	☒ <2	1	B
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP ☐ W-HARD Lot # Exp:	☐ Ice ☐ HNO3*	☐ <2		
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter Filter Lot # 16930280 Syringe Lot # 9149785	☒ Ice		1	B
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	B
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice		1	B
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC	☐ Formalin			
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☒ Ice		1	B
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)	☐ Ice			
		☐ Ice			

Name:
Natalie Ayala
Victoria Schwartz

Signature:

Victoria Schwartz

Date:

12/07/20

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID _____ ORG ID 21FLUGN LATITUDE _____
 COUNTY Orange STORET # 64CE0157 LONGITUDE _____
 DATE 12/07/2020 TIME 1025 SAMPLING AGENCY EDGP
 SITE NAME Upper Cypress Creek @ Jacaranda
 FIELD ID/NAME 64CE0157 RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category) : Forest/Natural <u>70</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>2.5</u> Commercial <u>2.5</u> Industry _____ Golf Courses <u>25</u> 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 <u>2.5</u> m wide _____ m/s <u>0.11</u> m/s _____ m/s _____ m deep <u>0.25</u> m deep _____ 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) _____			
High Water Mark: <u>0.5</u> + <u>0.25</u> = <u>1.0</u> (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 % Coverage INVERT PERI # Times # Times Sampled Sampled				WATER QUALITY							
Woody Debris (Snags)	<u>5.4</u>			Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Undercut Banks / Roots	<u>0.9</u>			Top :	<u>0.25</u>	<u>16.2</u>	<u>6.52</u>	<u>6.76</u>	<u>68.8</u>	<u>210.8</u>	<u>0.1</u>
Leaf Packs or Mat	<u>0.3</u>			Mid:							☒ VOB
Aquatic Vegetation	<u>0.7</u>			Bottom							TOTAL DEPTH
Rock or Shell Rubble..				Meter ID:	<u>SHRIMP TRAP</u>						<u>0.5</u>
Sand.....				Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐				Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐			
Mud / Muck / Silt				Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____				Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐			
Other				Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____				Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐			
Other				System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐							
ABUNDANCE Not Obs. Rare Common Abundant				AMBIENT FIELD CONDITIONS / NOTES:							
Periphyton:	☒	☐	☐	☒ The antecedent hydrologic conditions have been met to my best knowledge.							
Fish:	☒	☐	☐								
Aquatic Plants:	☐	☐	☒								
Iron/Sulfur Bacteria:	☒	☐	☐								

SAMPLING TEAM Natalie Ayala/Victoria Schwartz SIGNATURE : [Signature] DATE : 12/07/2020

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

SAMPLING AGENCY: <u>FDEP</u>		STORET STATION NUMBER: <u>G4CE0157</u>	DATE (MM/DD/YY): <u>12/07/2020</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Orange</u>	LOCATION: <u>Upper Cypress Creek</u> <u>Reedy Creek</u>	FIELD ID/NAME: <u>G4CE0157</u>	

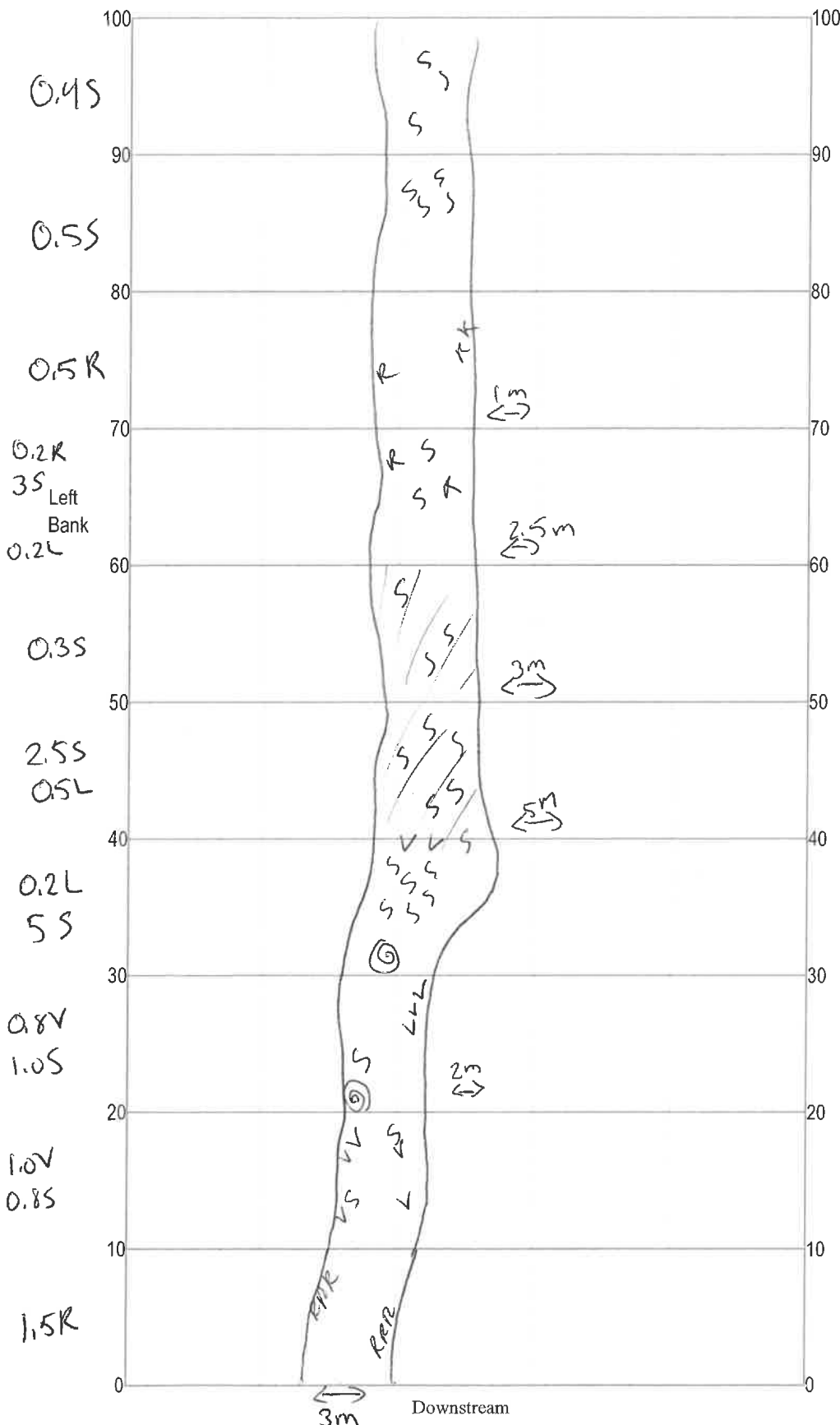
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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>7</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 <u>7</u> 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>11</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 15 14 13 12 <u>11</u>	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>10</u> Primary Score <u>38</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 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). <u>10</u> 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 or straightening 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>18</u>	20 19 <u>18</u> 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 ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody 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 woody root zone with raw, eroded areas.
Right Bank <u>10</u> Left Bank <u>10</u>	<u>10</u> 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 <u>8</u> Left Bank <u>10</u>	<u>10</u> 9	<u>8</u> 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 <u>10</u> Left Bank <u>10</u> Secondary Score <u>75</u>	10 9	8 7 6	5 4	3 2 1

113

TOTAL SCORE

Date: <u>12/07/2020</u>	Analyst: <u>Natalie Ayala / Victoria Schwartz</u>	Signature: <u>[Signature]</u>
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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: Upper Cypress Creek

Date: 12/07/2020

Sampler: Natalie Ayola

100 m: Latitude 28.39034249
Longitude -81.52426363

0 m: Latitude 28.38949509
Longitude -81.52426531

Substrates: Code key, draw proportionate habitat abundance. %

S Snags 5.4

R Roots/undercut banks 0.9

L Leaf Packs (or mats) 0.3

V Aquatic Macrophytes 0.7

Plants observed / other notes:

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Upper Cypress Creek</u>					County: <u>Orange</u>		Date: <u>12/07/2020</u>		Investigators: <u>Natalie Ayala/Victoria Schurtz</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	STORET Station Number: <u>G4CE0157</u>	
0	1	N			60	1	N			Secchi depth <u>0.5</u> Estimated? <u></u>	
	2					2	N				# points ranked 4-6 <u>1</u> total points assessed <u>99</u> % points ranked 4-6 <u>1</u>
	3					3	N				
	4					4	N				
	5					5	N				
	6					6	N				
	7					7	N				
	8					8	N				
	9	N				9	N				
10	1	N			70	1	N			Check accompanying data collected at same site/date. Algal mat sample <u></u> Linear Veg Survey <u>✓</u> Habitat Assessment <u>✓</u> SCI/Biorecon <u></u> Water sample <u>✓</u> RQ-2020-11-30-22	
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8	N				8	N				
	9	N				9	N				
20	1	N			80	1	N			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	
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8	N				8	N				
	9	N				9	N				
30	1	N			90	1	N				
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8	N				8	N				
	9	N				9	N				
40	1	N			100	1	N				
	2					2					
	3					3					
	4					4					
	5					5					
	6					6					
	7					7					
	8	N				8	N				
	9	N				9	N				
50	1	N			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%.						
	2										
	3										
	4										
	5										
	6										
	7										
	8	N									
	9	N									

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET																									
Waterbody: <u>Upper Cypress Creek</u>										Date: <u>12/07/20</u>					County: <u>Orange</u>					Storet Number: <u>64(50)57</u>					
Analyst: <u>Natalie Ayala, Victoria Schwartz</u>										Signature: <u>[Signature]</u>															
Comments:																									
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m 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										Specimen collected (check)	HERBACEOUS SPECIES		Meter Mark										Specimen collected (check)
		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100				0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
Alternanthera philoxeroides													Micranthemum glomeratum												
Bacopa caroliniana													Micranthemum umbrosum		☒	☒	☒	☒							
Bacopa monnieri													Myriophyllum aquaticum												
Bidens mitis													Najas guadelupensis												
Boehmeria cylindrica													Nuphar luteum												
Centella asiatica													Orontium aquaticum												
Ceratophyllum demersum													Panicum hemitomon												
Chara													Panicum repens												
Cicuta maculata													Panicum rigidulum												
Cladium jamaicense													Pistia stratioides												
Colocasia esculenta													Polygonum glabra												
Commelina diffusa													Polygonum hydropiperoides												
Commelina virginica													Polygonum punctatum												
Crinum americanum													Pontedaria cordata												
Diodia virginiana													Potamogeton illinoensis												
Eichhornia crassipes													Ruellia simplex												
Eleocharis (wispy viviparous)													Sacciolepis striata												
Hydrilla verticillata													Sagittaria kurziana												
Hydrocotyle													Sagittaria lancifolia												
Hygrophila polysperma		☒	☒										Sagittaria latifolia												
Hymenocallis													Salvinia minima												
Lachnanthes caroliniana													Samolus parviflora												
Landoltia punctata													Saururus cernuus												
Lemna													Sparganium americanum												
Limnophila sessiflora													Typha												
Ludwigia leptocarpa													Vallisneria americana												
Ludwigia palustris																									

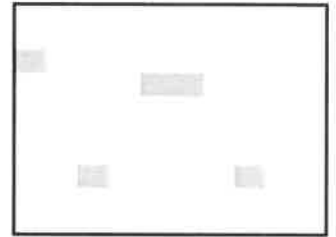
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

Percent Cover Categories for macrophytes in a 10 m segment of a stream 5 m wide

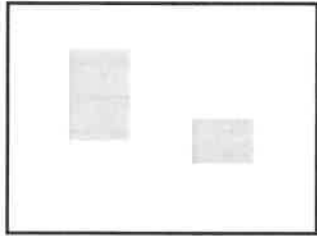
5% Macrophyte Coverage



5% Macrophyte Coverage



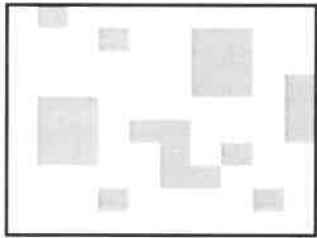
10% Macrophyte Coverage



10% Macrophyte Coverage



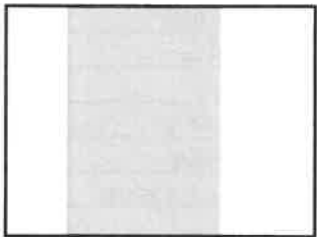
25% Macrophyte Coverage



25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage

