



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

Yes / No

WIN Station Name: Eightmile Slough @ 700m W Of Kissimmee River

Date: 9/3/2020

WIN/Field ID: G4CE0189

WBID: 3186D

ENR:

Latitude: 27.74304

County: POLK

Org ID: 21FLCEN

Longitude: -81.17689

Receiving Body of Water: Kissimmee River

RQ: 2020-08-17-60

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Terry Riordan		☒		☒	☒
☒	Elizabeth Bates	☒		☒		
☐						
☐						

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

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# CRAW DADDY					
Photos: YES		Flow: FLOW		Tide:		Tide Times: High: Low:					
Biological Samples Collected: ☐ None ☒ HA ☐ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:											
SBIO ID Numbers: SBIO 81499 MACROPHYTE 11718 RPS 9595						LIMS 2194455					
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_DDDMMYYY)
DI Source: N/A		Location: N/A	
DI Type: N/A		Equipment ID: N/A	

LIMS EVENT ID: CEN-DIST-09-04-02

WIN Import ID: 22174

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 9/11/20

(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT: TR 9/15/20

(Initials/Date)

Scan/Save Field Sheets Migrate Data to WIN: KWM 10/2/20

(Initials/Date)

(Initials/Date)

Verify Data In WIN:

(Initials/Date)



RQ-2020-08-17-60

Customer: WQAP

Project ID: SMP

Collected By: Terry Riordan, Elizabeth Bates

Field Report Prepared By: Terry Riordan

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G4CE0189

Location: Eightmile Slough @ 700m W Of Kissimmee River

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 (PPTH)
9/3/2020	11:47 EST	4.55	60.7	30.5	6.07	0.3	0.45 ☐ VOB (S)	1.6	62.9	0.03

Central Lab please use top row for login purposes

	11:50 EST	4.5	59.7	30.1	6.02	1.128			63.1	0.03
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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 # SA9354050 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			
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:
Terry Riordan
Elizabeth Bates

Signature:

Date:

09/03/2020

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

Waterbody: Eightmile Slough Date: 09/10/20 County: Polk Storet Number: G4CE0189

Analyst: Terry Riordan / Elizabeth Pates 03 TR Signature: [Signature]

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² 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	D	/	/	D	/	DD	/	/	/	/	/	/	/	/	/
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												Zizania aquatica															
Ludwigia peruviana	/	/		/	/	/	/	/	/	/		Salix KWM	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Ludwigia repens												Woodwardia virginica	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Luziola fluitans												Vigna	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Cephaelis occidentalis KWM										/		Morilla (Myrica carolin) KWM	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
												Myrica Leersia	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
												Myrica ?	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
												Polygonum densiflora	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
												Hymenocallis															
												Sagittaria															
If no Dominant or Co-Dominant were selected, indicate with "X"	D	X	X	D	X	D	D	X	X	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																											

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



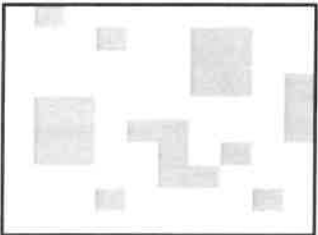
10% Macrophyte Coverage



10% Macrophyte Coverage



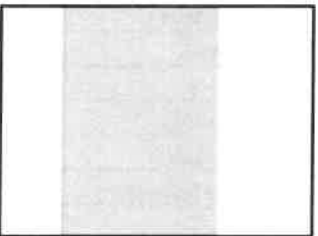
25% Macrophyte Coverage



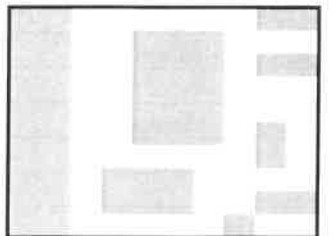
25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage



DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Eight mile Slough</u>					County: <u>Polk</u>		Date: <u>03 TR</u> <u>09/02/2020</u>		Investigators: <u>Elizabeth Bates / Terry Pivordan</u>		
STORET Station Number: <u>G4CE0189</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	22	0	60	1	3	22	0		
	2	N	22								
	3										
	4										
	5										
	6										
	7										
	8	N	22								
	9	N	22								
10	1	43 7N	22	0	70	1	22	22	0		
	2	43 7N	22								
	3	N	22								
	4										
	5										
	6										
	7										
	8	N	22								
	9	N	22								
20	1	2N 43	22	0	80	1	22	22	0		
	2	43	22								
	3	2	22								
	4										
	5										
	6										
	7										
	8	N	22								
	9	N	22								
30	1	33	22	0	90	1	22	22	0		
	2	33	22								
	3	2	22								
	4										
	5										
	6										
	7										
	8	N	22								
	9	N	22								
40	1	42	22	0	100	1	22	22	0		
	2	2	22								
	3										
	4										
	5										
	6										
	7										
	8	N	22								
	9	N	22								
50	1	N	22	0		1	N	22			
	2	N	22								
	3										
	4										
	5										
	6										
	7	N	22								
	8	5	22								
	9	3	22								

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%.

Secchi depth 0.45
Estimated? N

points ranked 4-6 5 ^{7%}
total points assessed 100 ⁹⁹
% points ranked 4-6 5%

Check accompanying data collected at same site/date.

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

RQ-2020-08-10-60
11/17

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

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

SAMPLE ID _____ ORG ID 21 FL CEN LATITUDE 27.74304
 COUNTY Polk STORET# G4CE0189 LONGITUDE -81.17689
 DATE 9/3/20 TIME 11:47 SAMPLING AGENCY FDEP CEROC
 SITE NAME Eightmile Slough @ 700m W of Kissimmee River
 FIELD ID/NAME G4CE0189 RECEIVING BODY OF WATER Kissimmee River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):								Landscape Development Intensity Index (LDI)	
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)		
		100	100						
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy								Typical Width (m) Depth (m)/Velocity (m/sec) Transect	
Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy								11.5 m wide	
Width of Riparian Vegetation (m) on Each Buffer Side				Hydrologic Modification Score (per FT 3101)					
Left Bank: 6-8		Right Bank: 6-10							
High Water Mark: 0.4 + 1.6 = 2.0				Artificially Impounded					
(m) (above present water level) (present depth) (above bed)				☐ Yes ☒ No					
Artificially ☐ No ☐ Mostly recovered, more sinuous				Canopy Cover %				☒ Open ☐ Lightly Shaded (11-45%)	
Channelized: ☐ Some recovery ☒ Recent, severe				☐ Heavily Shaded ☐ Moderate Shaded (46-80%)					

SEDIMENT / SUBSTRATE

Sand/Silt

Sediment Oils		Sediment Odors		Smothering of Substrates	
☒ Absent ☐ Slight	☐ Moderate ☐ Profuse	☒ Normal ☐ Sewage ☐ Petroleum	☐ Chemical ☐ Anaerobic	Sand Smothering: None ☒ Slight ☐ Moderate ☐ Severe	☐ Silt Smothering: None ☐ Slight ☐ Moderate ☒ Severe
		☐ Other (Specify):		Algae Smothering: None ☐ Slight ☒ Moderate ☒ Severe	

SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☒ RPS ☒ LVS

☐ LCI ☐ BioRecon

INVERT PERI
Times # Times
Coverage Sampled Sampled

Woody Debris (Snags) ☐ ☐ ☐

Undercut Banks / Roots 0.04 ☐ ☐

Leaf Packs or Mat ☐ ☐ ☐

Aquatic Vegetation 8.7 ☐ ☐

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	30.5	6.07	4.55	60.7	62.9	0.03	0.45
Mid:								☐ VOB
Bottom	1.128	30.1	6.02	4.5	59.7	63.1	0.03	TOTAL DEPTH

Meter ID: CRAW DADDY

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: 5A9354050 Exp: 12/20/20

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: ☐ ☐ ☒ ☒ TR

Fish: ☐ ☐ ☒ ☒ TR

Aquatic Plants: ☐ ☐ ☐ ☒

Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐

AMBIENT FIELD CONDITIONS / NOTES:

80' + cloudy

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

SAMPLING TEAM

Terry Riordan / Elizabeth Bates

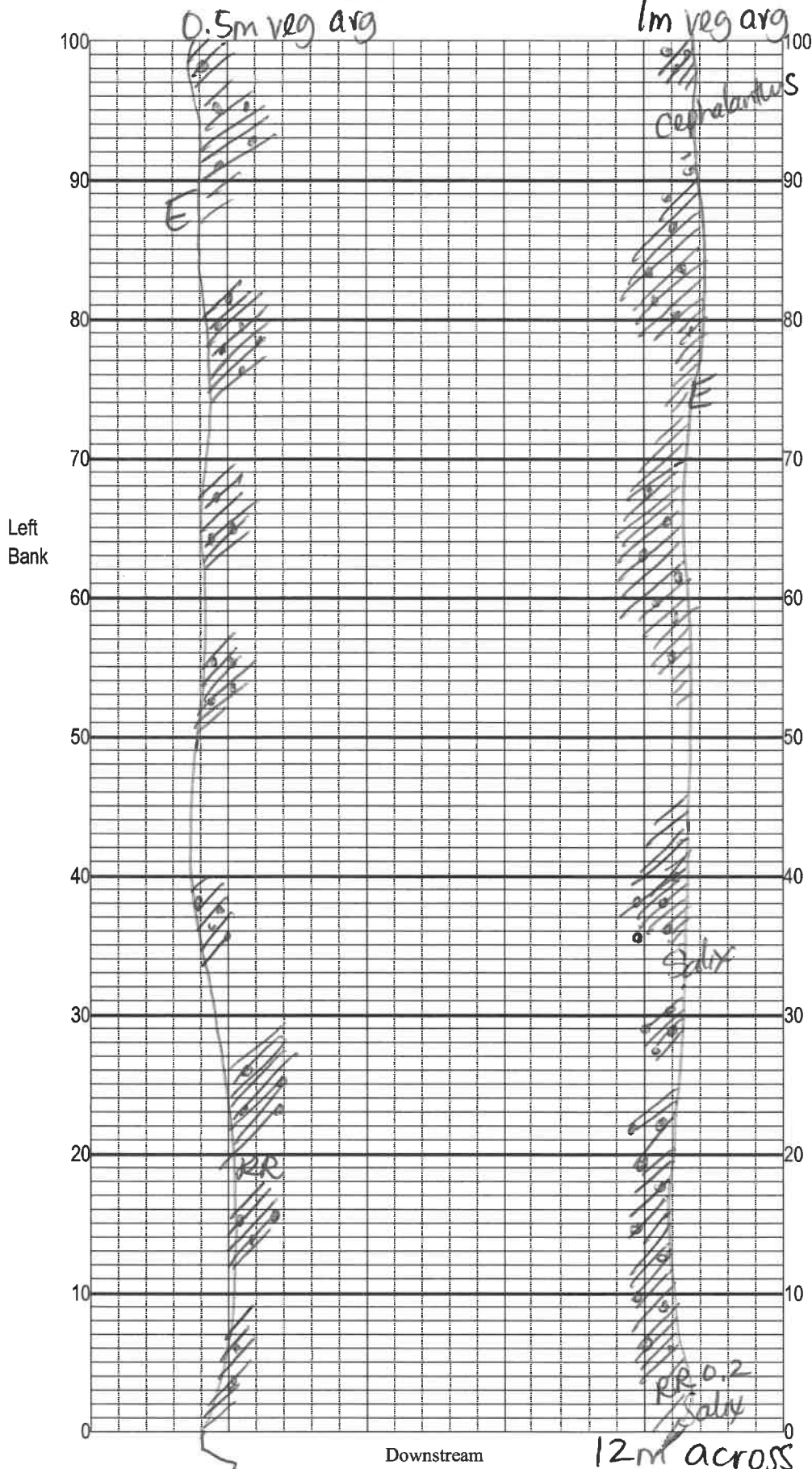
SIGNATURE :

72

DATE :

9/3/20

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



Location: Eightmile Slough
 Date: 09/03/2020
 Sampler: Terry Riordan
Elizabeth Bates

100 m: Latitude 27.74291
 Longitude -81.17737
 0 m: Latitude 27.74314
 Longitude -81.17639

Substrates: Code key, draw proportionate habitat abundance. %

☐ Snags
☒ RR Roots/undercut banks 0.04%
☐ Leaf Packs (or mats)
☒ Aquatic Macrophytes 100m²=8.7%
☒ Smothering
☒ E erosion on bank
☐ Pools total # observed = 0
 # range expected = 1-2

Average width 12 m
 Average depth 1.6 m

Velocity measured at 50 meter mark.

WQ & chemistry taken at 50 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:

16m/sec
11.5m in flow

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

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

SAMPLING AGENCY: 21FLCEN		STORET STATION NUMBER: G4CE0189	DATE (MM/DD/YY): 09/03/2020	RECEIVING BODY OF WATER: Kissimmee River
REMARKS:	COUNTY: Polk	LOCATION: Eightmile Slough	FIELD ID/NAME:	

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 3	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 8	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 7	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 5 ----- Primary Score 23	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 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 5	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 ≤ 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 8 Left Bank 8	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 5 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 5 Left Bank 5 ----- Secondary Score 45 68	10 9	8 7 6	5 4	3 2 1

TOTAL SCORE

Date: 09/03/2020	Analyst: Terry Riordan / Elizabeth Bates	Signature: T Riordan / E Bates
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