FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

PAGE ____ OF ____

Data Qualified? Yes / No

STORET Station Name: Kissimmee Above

Date: ____ (mm/dd/yyyy)

STORET Station ID: G4SE 0091

Latitude: ____ (Decimal Degrees)

WBID: 3202 RQ - 2016-05-30-S1 ORG ID: 21FLWPB

Longitude: ____ (Decimal Degrees)

Receiving Body of Water: Okeechobee Field ID: G4SE0091 County: Okeechobee

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Tarder		✓			✓
Sewell	✓		✓		
Hurley		✓			

Sampling Equipment

☐ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☐ Syringe
☐ Dipper ☐ Other ____
Equipment ID ____

Collection Method

☐ Wading ☐ From Shore ☐ Other (note below)

Via Boat: ☐ Canoe/Kayak ☐ Electric Motor ☐ Gasoline Motor

Water Level: Dry / Low / (Normal) / High / Flooded

Matrix: (Fresh) / Marine / DI

Meter ID#: AE3

Photos: (Yes) / No

Tide Falling: Yes / No / (NA)

Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	12:00	0.3	9.2	2.3	30	6.7	0.06	0.6 ~~.8~~	123	30.0
CEN	12:01	8.7		1.3	17	6.4	0.06		123	28.9

Biological Samples Collected: None HA SCI LVS RPS 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 ☑ H_2SO_4	SJS9080	9/16	☑ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO_2			☐ <2
Filtered Nutrients	☑ W-PO4-F ☑ Field Filtered 0.45 µm 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-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Kit B/D)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Notes:
NO Flow near banks > habitats smothered
Failing HA Score
Site in original Kiss - No Flow
NO SCI, SB100-St 76768

Place Label Here (If Available)

Signature: Mark Sewell

Date: 6/2/16

Field Parameters Entered into LIMS: WS 8/4 (Initials/Date)

Field Parameters QC in LIMS: JP 8/29 (Initials/Date)

Date Migrated to STORET: # 11488 / WS 8/31 (Initials/Date)

Field Sheets Scanned/Saved: ____ (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:
21FLWPB		G4SED091	6/2/16	lake - O
REMARKS: No Flow near Banks	COUNTY: Okeechobee	LOCATION: Kissimmee		FIELD ID/NAME: G4 SED091

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 6	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 2	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 2	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 2 Primary Score 12	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** 2	Expected sinuosity given the stream width. No evidence of dredging or artificial straight-ening. No spoil banks. 20 19 18 17 16	Good sinuosity within old chan-nelized 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 9 Left Bank 9	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 3 Left Bank 3 Secondary Score 46	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). 0 (3) 2 1

58 **TOTAL SCORE**

Date: 6/2/16	Analyst: J. SKAGGS	Signature: Jordan Skaggs

SBIO visit # 76768

SBIO# 76768 lp

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site:	County:	Date:	Investigators:
KissimmeeAbove		6/2/16	SKAGGS Hurley Sewell

STORET/Station Number: G1SE0511

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

Secchi depth	5.0
Estimated?	

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

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	/
Habitat Assessment	/
SCI/Biorecon	
Water sample	/
RQ- 2016-05-30 JJ	

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

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 9000-4 Stream/River Habitat Assessment Sketch Sheet

Location: 64SE0241

Date: 8/23/16

Sampler: Sewell / Herder

100 m:	Latitude	
	Longitude	
0 m:	Latitude	
	Longitude	

Substrates: Code key, draw proportionate habitat abundance. %

Code	Substrate	%
S	Snags	
	Roots/undercut banks	
	Leaf Packs (or mats)	
√	Aquatic Macrophytes	
	Pools total # observed = ___ # range expected = 8	

Average width ______ m

Average depth 9.0 m

Velocity measured at 100 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:

V=13

S=13.25

Left Bank

Downstream

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

V-7

S-11.75

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

Waterbody: Kissimmee River	Date: 6/2/16	County:	Storet Number: 64SEOO91
Analyst: Semly		Signature: [signature]	
Comments: SBEO# 76768			

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	X	X	X	X	X	X	X	X	X	X	
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta		X	X	X					X		
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata											
Hydrocotle	X	X	X	X	X	X	X	X	X	X	
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana	X	X	X	X				X	X	X	
Ludwigia repens											
Luziola fluitans											
myrica cerifera	X	X	X	X	X	X	X	X	X	X	
Eupatorium capillifolium	X	X				X		X	X	X	
acer rubrum				X	X					X	
Sambucus canadensis		X			X					X	
nymphoides aqua.		X	X					X	X	X	
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage	X	X	X	X	X	X	X	X	X	X	
>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	X			X					X	X	
Najas guadelupensis											
Nuphar luteum	X	X	X	X	X	X	X	X	X	X	
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum	X										
Pontedaria cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha								X	X	X	
Vallisneria americana											
Zizania aquatica											
Ipomoea aquatica		X	X								
~~Shin~~ Schinus terebinthifolius	X	X									
urena lobata	X		X								
Sabal palmetto				X	X	X					
phragmites australis				X	X	X			X	X	
mikania scandens	X	X	X	X	X			X	X	X	
Vitas rotundi~~flo~~folia	X	X	X	X	X	X	X	X	X	X	
annona glabra	X	X	X	X	X	X	X	X	X	X	
Cicuta sp. (maculata?)			X		X		X				
Canna Flaccida											

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

SAMPLE ID G4SE0019 ORG ID SIPIWPB LATITUDE
COUNTY Okee STORET # G4SE0019 LONGITUDE
DATE 6/8/16 TIME 12:00 SAMPLING AGENCY
SITE NAME Kissimmee Aband
FIELD ID/NAME G4SE00 RECEIVING BODY OF WATER

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)
		50	50				

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 : 75 Right Bank : 15

Hydrologic Modification Score (per FT 3101)

High Water Mark: 0.5 (m) + 9.2 (above present water level) = 9.7 (above bed) ; (present depth)

Artificially Impounded ☑ Yes ☐ No

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

	m/s	0.01	m/s	
m deep		9.2	m deep	m deep

100 m wide

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

	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)	0.3		
Undercut Banks / Roots			
Leaf Packs or Mat			
Aquatic Vegetation	0.3		
Rock or Shell Rubble..			
Sand.....			
Mud / Muck / Silt			
Other			
Other			

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☑	☐	☐
Fish:	☐	☐	☑	☐
Aquatic Plants:	☐	☐	☑	☐
Iron/Sulfur Bacteria:	☑	☐	☐	☐

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top :	0.5	30.0	6.7	2.3	30	123	006	0.6
Mid:								☐ VOB
Bottom	8.7	28.1	6.4	1.3	17	123	006	TOTAL DEPTH
								9.2

Meter ID: AE3

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: 525000 Exp: 9/16

Color Tannic ☑ Green (Algae) ☐ Clear ☐ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☑ No
Sample Preserved? ☐ Yes ☑ No
Lot Number: 525000 Exp:

Clarity Clear ☐ Slightly Turbid ☑ Turbid ☐ Opaque ☐

System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☑ canal

AMBIENT FIELD CONDITIONS / NOTES:

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

SAMPLING TEAM Sewell / Hurley / Skaggs SIGNATURE : DATE : 6/7/16