



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

PAGE ____ OF ____

Data Qualified?
Yes / No

STORET Station Name: Main Canal @ US1

Date: 10/31/16
(mm/dd/yyyy)

STORET Station ID: G5SE0045

Latitude: 27.649309°

(Decimal Degrees)

WBID: 3153A

RQ - 2016-10-24-73

ORG ID: 21FLWPB

Longitude: -80.400267°

(Decimal Degrees)

Receiving Body of Water:

Field ID: G5SE0045

County: Indian River

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
James Pitts						X		X		
Tom Wippich							X	X	X	

Sampling Equipment		
☐ Sample Container	☐ Van Dorn	☒ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Equipment ID		
Collection Method		
☐ Wading	Via Boat	
☒ From Shore	☐ Canoe/Kayak	
☐ Other (note below)	☐ Electric Motor	
	☐ Gasoline Motor	

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

Matrix: Fresh / Marine / DI

Meter ID# L1 GVS

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	1400	0.3	1.2	7.4	89	7.4	0.63	0.8	1275	24.2
CEN										

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 ☒ H2SO4	6209120	7/17	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
BOD	☐ BOD-UNIN	☐ 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			
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			

Place Preservative Sticker(s) Here
(If Available)

Notes:	Place Label Here (If Available)
Signature: [Signature]	Date: 10/31/16

Field Parameters Entered into LIMS: [Signature] 12/1/16

(Initials/Date)

Field Parameters QC in LIMS: 4/13/17

(Initials/Date)

Date Migrated to STORET: [Signature]

(Initials/Date)

Field Sheets Scanned/Saved: 4/13/17

(Initials/Date)

USDT ID: 77446

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: man cem County: Polk Co Date: 10/31/16 Investigators: Seward/Warlick

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

0	1	X	N		60	1	X	N	
	2	X	N			2	X	N	
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8	X	N			8	X	N	
	9	X	N			9	X	N	
10	1	X	N		70	1	X	N	
	2	X	N			2	X	N	
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8	X	N			8	X	N	
	9	X	N			9	X	N	
20	1	X	N		80	1	X	N	
	2	X	N			2	X	N	
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8	X	N			8	X	N	
	9	X	N			9	X	N	
30	1	X	N		90	1	X	N	
	2	X	N			2	X	N	
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8	X	N			8	X	N	
	9	X	N			9	X	N	
40	1	X	N		100	1	X	N	
	2	X	N			2	X	N	
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8	X	N			8	X	N	
	9	X	N			9	X	N	
50	1	X	N			1	X	N	
	2	X	N			2	X	N	
	3					3			
	4					4			
	5					5			
	6					6			
	7					7			
	8	X	N			8	X	N	
	9	X	N			9	X	N	

STORET Station Number: G-SSE 0045

Secchi depth 28
Estimated? n

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-2016-10-24-73

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%.

VISIT ID: 77446

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site:				County:		Date:		Investigator:		
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				60	1			
		2					2			
		3					3			
		4					4			
		5					5			
		6					6			
		7					7			
		8					8			
		9					9			
10		1				70	1			
		2					2			
		3					3			
		4					4			
		5					5			
		6					6			
		7					7			
		8					8			
		9					9			
20		1				80	1			
		2					2			
		3					3			
		4					4			
		5					5			
		6					6			
		7					7			
		8					8			
		9					9			
30		1				90	1			
		2					2			
		3					3			
		4					4			
		5					5			
		6					6			
		7					7			
		8					8			
		9					9			
40		1				100	1			
		2					2			
		3					3			
		4					4			
		5					5			
		6					6			
		7					7			
		8					8			
		9					9			
50		1				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.	1			
		2					2			
		3					3			
		4					4			
		5					5			
		6					6			
		7					7			
		8					8			
		9					9			

STORET Station Number:

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
SCUBA/Boat
Water sample
RC-

Algal Thickness Rank
N
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 655045 ORG ID 21F1WPP3 LATITUDE _____
 COUNTY Indian River STORET # 655045 LONGITUDE _____
 DATE 10/3/16 TIME 1400 SAMPLING AGENCY DEP SE
 SITE NAME Man. canal
 FIELD ID/NAME _____ RECEIVING BODY OF WATER JBL

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)	
☐	☐	☐	☐	☒ 70	☒ 30	☐	☐	☐
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								
Width of Riparian Vegetation (m) on Each Buffer Side				Hydrologic Modification Score (per FT 3101)				
Left Bank: ☐ 1		Right Bank: ☐ 3		☐				☐ m/s ☒ 0.0 m/s ☐ m/s
High Water Mark: ☐ 0.3 + ☐ 1.8 = ☐ 1.5				Artificially Impounded				☐ m deep ☒ 1.2 m deep ☐ m deep
(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

Sediment Oils	Sediment Odors	Smothering of Substrates
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse	☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):	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
INVERT	Depth (M)
% Coverage	Temp. (°C)
# Times Sampled	pH (SU)
# Times Sampled	D.O. (MG/L)
	D.O. Sat (%)
	Cond. (UMHO/CM)
	Salinity (PPT)
	SECCHI (M)
Woody Debris (Snags)	Top: ☐ 0.3 ☐ 24.2 ☐ 7.4 ☐ 7.4 ☐ 89 ☐ 1075 ☐ 0.63 ☐ 0.8
Undercut Banks / Roots	Mid: ☐
Leaf Packs or Mat	Bottom: ☐
Aquatic Vegetation	Meter ID: ☐ 1.1 bus
Rock or Shell Rubble	
Sand	
Mud / Muck / Silt	
Other	
Other	

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: <u>609120</u> Exp: <u>7/17</u>	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	System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ c.c. m
Not Obs. Rare Common Abundant	

PERIPHYTON:	AMBIENT FIELD CONDITIONS / NOTES:
Fish:	☒ The antecedent hydrologic conditions have been met to my best knowledge.
Aquatic Plants:	
Iron/Sulfur Bacteria:	

SAMPLING TEAM	SIGNATURE:	DATE:
<u>Sewell / W. P. C.</u>	<u>mark sm</u>	<u>10/3/16</u>

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

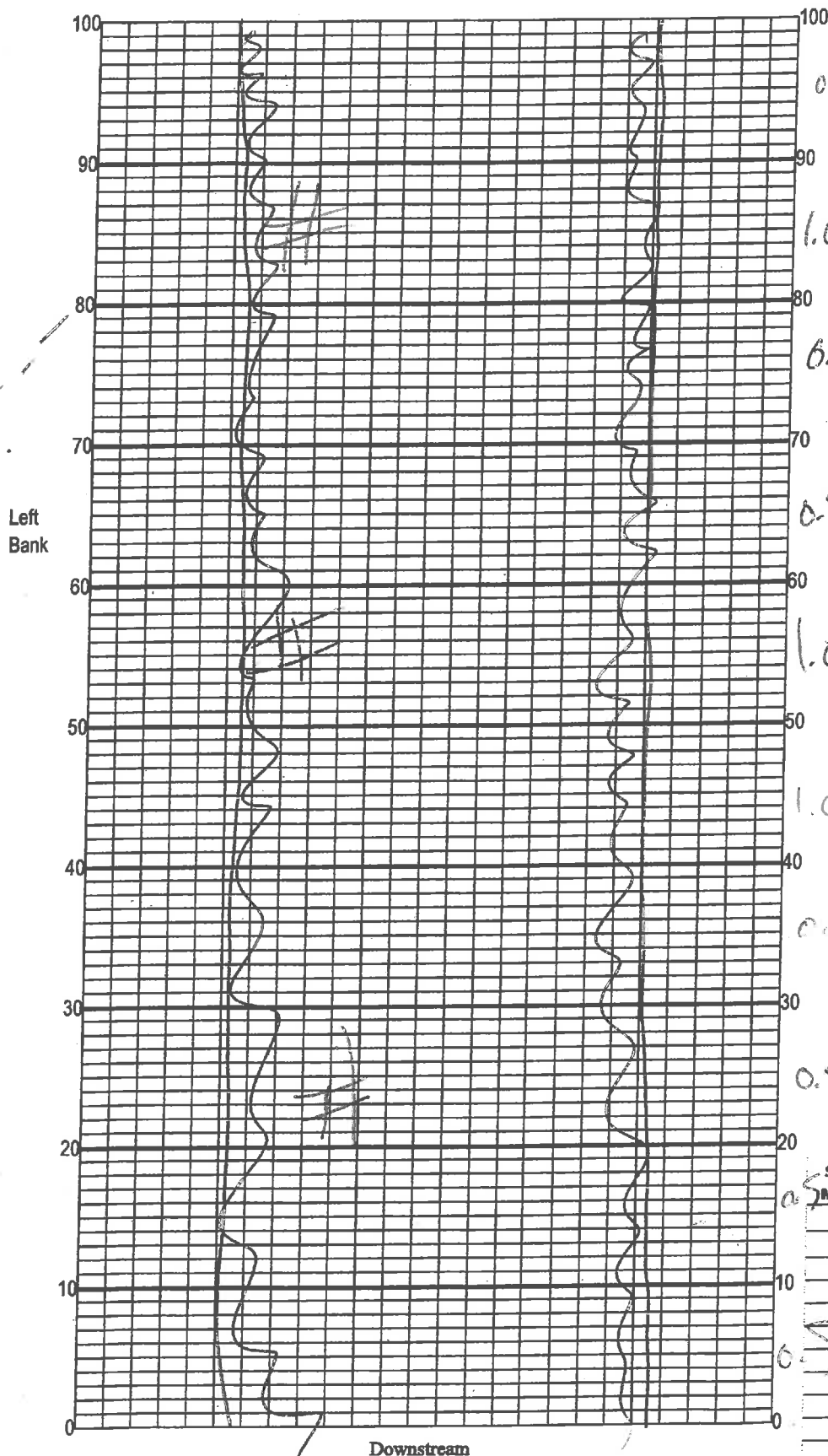
Waterbody: <u>near creek</u>	Date: <u>11/1/14</u>	County: <u>Madison</u>	Storet Number: <u>65520045</u>
Analyst: <u>Sewell mprc</u>	Signature: <u>[Signature]</u>		

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² 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.

Species for identification (taxa names)		Meter Mark										Specimen collected (check)	Species for identification (taxa names)		Meter Mark										Specimen collected (check)
HERBACEOUS SPECIES		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100		HERBACEOUS SPECIES		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					✓																				

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



Location: Mamapo
 Date: 10/24/16
 Sampler: Math 361

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 = 0
range expected = 4

Average width 15 m
 Average depth _____ 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.

Secs/ Meter	Flow m/s	Secs/ Meter	Flow m/s
1	1	12	0.08
2	0.5	13	0.076
3	0.33	14	0.071
4	0.25	15	0.066
5	0.2	16	0.062
6	0.16	17	0.058
7	0.14	18	0.055
8	0.12	19	0.052
9	0.11	20	0.052
10	0.1	21	0.047
11	0.09	22	No Flow

Plants observed /
 other notes:

Prod. Habitat	1	2	3	4	5
Sweeps Major	10	7	5	4	3
Sweeps Minor	10	6	5	4	5

Overlaid
 VISIT ID: 47446