



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2017

PAGE ____ OF ____

Data Qualified?
Yes / No

STORET Station Name: 10 Mile creek @ Gordy Rd

Date: 11/13/2017
(mm/dd/yyyy)

STORET Station ID: 28010045 62SE0009 Am WBID: 3194A

Latitude: 27.402997°
(Decimal Degrees)

County: St. Lucie RQ - 2017-11-13-31 ORG ID: 21FLWPB

Longitude: -80.399186°
(Decimal Degrees)

Receiving Body of Water: St. Lucie North Fork Field ID: 28010045

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection
SKAGGS			✓		✓			
SEWELL		✓				✓		
LIDDICK				✓				

Sampling Equipment		
☐ Sample Container	☐ Van Dorn	☒ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Equipment ID: L.L.G.45		

Collection Method		
☐ Wading	Via Boat	
☒ From Shore	☐ Canoe/Kayak	
☐ Other (note below)	☐ Electric Motor	
	☐ Gasoline Motor	

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

Matrix: Fresh / Marine / DI

Meter ID# Lil Gus Photos: Yes / No

Tide Falling: Yes / No / NA

Field Sample

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	1500	0.3	3.6	5.6	65	7.4	0.70	5.6	1406	22.8
CEN		3.1		5.6	65	7.4	0.70		1406	22.7

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

SBIO ID Numbers: SBIO-ID: _____ RPS-ID: _____ Macrophyte-ID: _____ LIMS#: _____

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	78249	8/18	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☒ E Coli ☐ F Coli ☐ Enteroc ☐ PCR-FILTER	☒ Ice			
Tracers	☒ W-SUC-AA-R ☐ W-UHERB-AA	☒ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

78249 11/13/2017

SBIO# 78249

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: 10 m.e. creek above Gandy Rd County: St. Louis Date: 11/13/17 Investigators: Skene Sewell

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: 28010045

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

Secchi depth 26
Estimated?

points ranked 4-6 0
total points assessed 49
% 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-2017-11-13-31

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 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID 28010045 ORG ID 21FLWPP LATITUDE 27.402997
 COUNTY St. Lucie STORET # 28010045 LONGITUDE -80.349186
 DATE 11/13/17 TIME _____ SAMPLING AGENCY 21FLWPP
 SITE NAME 28010045
 FIELD ID/NAME 28010045 RECEIVING BODY OF WATER St. Lucie n fur
78249

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)		
<u>30</u>		<u>20</u>	<u>20</u>	<u>30</u>					
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								<u>20</u> m wide	
Width of Riparian Vegetation (m) on Each Buffer Side				Hydrologic Modification Score (per FT 3101)					
Left Bank: <u>10</u>		Right Bank: <u>10</u>							
High Water Mark: <u>0.3</u> + <u>3.6</u> = <u>3.9</u>				Artificially Impounded					
(m) (above present water level) (present depth) (above bed)				☒ Yes ☐ No					
Artificially ☐ No ☐ Mostly recovered, more sinuous				Canopy Cover %					
Channelized: ☐ Some recovery ☒ Recent, severe				☒ Open ☐ Lightly Shaded (11-45%)					
				☐ Heavily Shaded ☐ Moderate Shaded (46-80%)					

SEDIMENT / SUBSTRATE

Sediment Oils			Sediment Odors			Smothering of Substrates					
☒ Absent ☐ Slight			☒ Normal ☐ Sewage ☐ Petroleum			Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐					
☐ Moderate ☐ Profuse			☐ Chemical ☐ Anaerobic			Silt Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐					
			☐ Other (Specify):			Algae Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐					
SUBSTRATE TYPE						WATER QUALITY					
Assessment Tool: ☐ SCI ☒ RPS ☒ LVS						Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M)					
☐ LCI ☐ BioRecon						Top: <u>0.3</u> <u>22.8</u> <u>7.4</u> <u>5.6</u> <u>65</u> <u>1400</u> <u>6.7</u> <u>0.6</u>					
% Coverage						Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐					
# Times Sampled						Bottom: <u>3.1</u> <u>22.7</u> <u>7.4</u> <u>5.6</u> <u>65</u> <u>1404</u> <u>0.7</u> <u>3.6</u>					
# Times Sampled						Meter ID: <u>155390</u>					
Woody Debris (Snags)						Water Odors Normal ☐ Petroleum ☐					
Undercut Banks / Roots						Sewage ☐ Chemical ☐ Other ☐					
Leaf Packs or Mat						Water Sample Taken? ☒ Yes ☐ No					
Aquatic Vegetation <u>5</u>						Sample Preserved? ☒ Yes ☐ No					
Rock or Shell Rubble						Lot Number: <u>155390</u> Exp: _____					
Sand						Algae Sample Taken? ☐ Yes ☒ No					
Mud / Muck / Silt						Sample Preserved? ☐ Yes ☐ No					
Other						Lot Number: _____ Exp: _____					
Other						Water Surface Oils Normal ☒ Sheen ☐					
						Globs ☐ Slick ☐ Other ☐					
						Color Tannic ☒ Green (Algae) ☐					
						Clear ☐ Other (Specify) ☐					
						Clarity Clear ☐ Slightly Turbid ☐					
						Turbid ☒ Opaque ☐					
ABUNDANCE						System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>canal</u>					
Not Obs. Rare Common Abundant						AMBIENT FIELD CONDITIONS / NOTES:					
Periphyton: ☐ ☒ ☐ ☐						<u>char canal section above w.e.r. and H&S</u>					
Fish: ☐ ☐ ☒ ☐						<u>veg management</u>					
Aquatic Plants: ☐ ☐ ☒ ☐						☒ The antecedent hydrologic conditions have been met to my best knowledge.					
Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐											
SAMPLING TEAM						SIGNATURE					
<u>Sealed stars</u>						<u>Wanted</u>					
						DATE <u>11/13/17</u>					

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

Waterbody: 10 mile creek	Date: 1/13/00	County: St. Louis	Storet Number: 2800005
Analyst: Sewell	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 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.

HERBACEOUS SPECIES	Meter Mark										Specime n collected (check)	HERBACEOUS SPECIES	Meter Mark										Specime n 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	P	P	P	P	P	P	P	P	P	P		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												Pontederia 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												Zizania aquatica											
Ludwigia peruviana																							
Ludwigia repens																							
Luziola fluitans																							

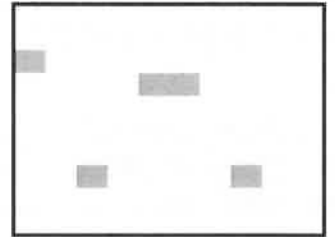
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

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

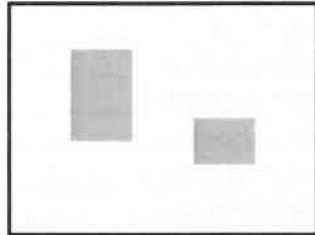
5% Macrophyte Coverage



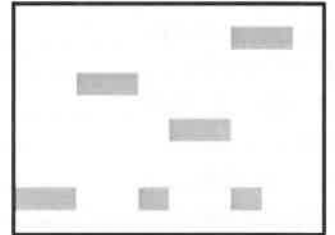
5% Macrophyte Coverage



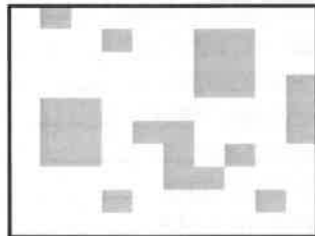
10% Macrophyte Coverage



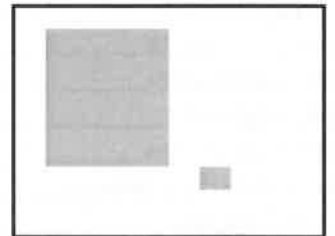
10% Macrophyte Coverage



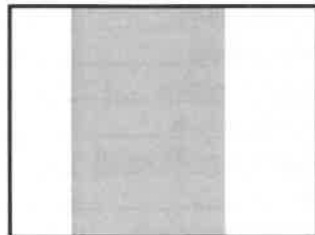
25% Macrophyte Coverage



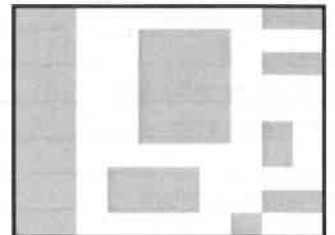
25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage



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

SAMPLING AGENCY: <u>21FWPB</u>		STORET STATION NUMBER: <u>28010045</u>	DATE (MM/DD/YY): <u>1/13/17</u>	RECEIVING BODY OF WATER: <u>St Lucie N fort</u>
REMARKS:	COUNTY: <u>St Lucie</u>	LOCATION: <u>10 mile creek @ Gody Rd</u>	FIELD ID/NAME: <u>SB01# 78249</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>2</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 <u>2</u> 1
Substrate Availability <u>5</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 7 6	Less than 5% major productive habitat <u>5</u> 4 3 2 1
Water Velocity <u>3</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 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 <u>3</u> 2 1
Habitat Smothering <u>11</u> ----- Primary Score <u>21</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 <u>11</u>	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 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>1</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 <u>1</u>
Bank Stability	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the 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 root zone with raw, eroded areas.
Right Bank <u>3</u> Left Bank <u>3</u>	10 9	8 7 6	5 <u>4</u>	<u>3</u> 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>3</u> Left Bank <u>3</u>	10 9	8 7 6	5 4	<u>3</u> 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>4</u> Left Bank <u>4</u> ----- Secondary Score <u>21</u>	10 9	8 7 6	5 <u>4</u>	3 2 1

42

TOTAL SCORE

Date: <u>1/13/17</u>	Analyst: <u>Sewell</u>	Signature: <u>math scd</u>
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