



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2017

PAGE 1 OF 1

Data Qualified?
Yes / No

STORET Station Name: _____

RQ-2017-03-27-19
3/28/2017

G1SD032817-3

STORET Station ID: _____

WBID 3258EA

County: Lee RQ - _____

Imperial River at Orr
Rd in Bonita

STORET
28020264FTM

Date: _____

(mm/dd/yyyy)

atitude: _____

(Decimal Degrees)

ongitude: _____

(Decimal Degrees)

Receiving Body of Water: Gulf of Mexico Field ID: _____

Sampling Team Members

Corey Anderson
Veronica Runge

WQ Measurements
Sample Collection
Documentation
Preservation
Preservation Check

X
X
X
X
X

Sampling Equipment

☒ Sample Container ☐ Van Dorn ☐ Pole
☐ Carboy ☒ Syringe
☐ Dipper ☐ Other

Equipment ID _____

Collection Method

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

Via Boat

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

Matrix: Fresh Marine / DI

Tide Falling: Yes / No / NA

Meter ID#	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°)
<u>B10</u>	<u>EST</u>	<u>1000</u>	<u>0.3</u>	<u>0.3</u>	<u>2.5</u>	<u>27</u>	<u>8.4</u>	-	<u>0.3</u>	<u>7132</u>	<u>19.4</u>
	<u>CEN</u>	<u>1030</u>	<u>0.3</u>	<u>1.0</u>	<u>2.0</u>	<u>23</u>	<u>8.1</u>	-	<u>1.0</u>	<u>646</u>	<u>23.0</u>

Biological Samples Collected: None HA SCI RPS Algae ID LVS 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			☒ <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	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☒ E Coli ☐ F Coli ☐ Enterococcus ☐ 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			

Contains
1:1
Sulfuric Acid
SA-6302030
EXP: 10/28/17
Warning!
See SDS

Notes: _____

Place Label Here
(If Available)

Signature: _____

Date: 3/28/17

Field Parameters Entered into LIMS: _____ (Initials/Date)

Field Parameters QC in LIMS: _____ (Initials/Date)

Field Sheets Scanned/Saved: _____ (Initials/Date)

Date Migrated to STORET: _____ (Initials/Date)

28020264FTM

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD

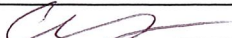
Storet Number: ^ put sticker here

Date: 3/28/17

County: Lee

Waterbody: Imperial River

Analyst: Corey Anderson, Veronica Runga

Signature: 

Comments: Imperial River at Orr Rd Q Flag: N26. 335911, W 81. 7496 23

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. **bold is exotic invasive**

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	P	P		P	P			P	P	P		Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monnieri			P					P				Myriophyllum aquaticum											
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nuphar luteum											
Centella asiatica												Orontium aquaticum											
Ceratophyllum demersum												Panicum hemitomon											
Chara sp.												Panicum repens											
Cicuta maculata												Panicum rigidulum											
Cladium jamaicense												Pistia stratioides											
Colocasia esculenta												Polygonum glabra											
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum											
Crinum americanum		P	P									Pontedaria cordata											
Cyperus												Potamogeton illinoensis											
Diodia virginiana												Ruellia simplex											
Eichhornia crassipes												Sacciolepis striata											
Eleocharis (wispy viviparous)	P											Sagittaria kurziana											
Hydrilla verticillata												Sagittaria lancifolia											
Hydrocotyle sp.												Sagittaria latifolia											
Hygrophila polysperma												Salvinia minima	P	P	P	P	P	P	P	P			
Hymenachne amplexicaulis												Samolus parviflora											
Hymenocallis												Saururus cernuus											
Lachnanthes caroliniana												Sparganium americanum											
Landoltia punctata		P	P	P	P	P	P	P	P			Sphagneticola trilobata (Wedelia)											
Lemna sp.												Typha sp.											
Limnophila sessiflora												Urochloa mutica (Brachiaria)	P	P	P	P	P						
Ludwigia leptocarpa												Vallisneria americana											
Ludwigia palustris												Zizania aquatica											
Ludwigia peruviana												<i>Phragmites australis</i>	P	P	P								
Ludwigia repens	P																						
Luziola fluitans																							
If no Dominant or Co-Dominant were selected, indicate with "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																							

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

SAMPLE ID see sticker ^ ORG ID 21FLFTM LATITUDE 26.335911 → 26.335790
 STORET # see sticker 28020264FTM COUNTY Lee LONGITUDE 81.749623 → 81.748613
 DATE see sticker 3/28/17 TIME 1030 SAMPLING AGENCY FDEP South ROC
 SITE NAME see sticker RECEIVING BODY OF WATER Estero Bay
Imperial River at Orr Rd

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>70</u> Silviculture <u> </u> Field/Pasture <u> </u> Agricultural <u> </u> Residential <u>30</u> Commercial <u> </u> Industry <u> </u> Other (Specify) <u> </u>								Landscape Development Intensity Index (LDI) <u> </u>
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 <u>0.17</u> m/s <u>0.2</u> m/s <u>0.17</u> m/s				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>18+</u> Right Bank: <u>12</u>				Hydrologic Modification Score (per FT 3101) <u> </u>				
High Water Mark: <u>1.8</u> + <u>1.0</u> = <u>2.8</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): <u> </u>			Smothering of Substrates 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 <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td><u>0.3</u></td> <td><u>23.0</u></td> <td><u> </u></td> <td><u>2.0</u></td> <td><u>23</u></td> <td><u>646</u></td> <td><u>-</u></td> <td><u>1.0</u></td> </tr> <tr> <td>Mid:</td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td>☒ VOB</td> </tr> <tr> <td>Bottom:</td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> <td><u> </u></td> </tr> </tbody> </table>							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	<u>0.3</u>	<u>23.0</u>	<u> </u>	<u>2.0</u>	<u>23</u>	<u>646</u>	<u>-</u>	<u>1.0</u>	Mid:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	☒ VOB	Bottom:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
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Woody Debris (Snags) <u> </u> <u> </u> <u> </u> Undercut Banks / Roots <u> </u> <u> </u> <u> </u> Leaf Packs or Mat <u> </u> <u> </u> <u> </u> Aquatic Vegetation <u> </u> <u> </u> <u> </u> Rock or Shell Rubble.. <u> </u> <u> </u> <u> </u> Sand..... <u> </u> <u> </u> <u> </u> Mud / Muck / Silt <u> </u> <u> </u> <u> </u> Other <u> </u> <u> </u> <u> </u> Other <u> </u> <u> </u> <u> </u>			Meter ID: <u>ysi 7</u>			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐																																						
ABUNDANCE <table border="1"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Fish:</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☒</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☒	☐	☐	Fish:	☐	☐	☐	☒	Aquatic Plants:	☐	☐	☒	☐	Iron/Sulfur Bacteria:	☒	☐	☐	☐	Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u> </u> Exp: <u> </u>			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐													
	Not Obs.	Rare	Common	Abundant																																								
Periphyton:	☐	☒	☐	☐																																								
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Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: <u> </u> Exp: <u> </u>			Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																						
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) <u> </u>			AMBIENT FIELD CONDITIONS / NOTES: <u>Transect started downstream of USGS gage</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																									
SAMPLING TEAM <u>Corey Anderson, Veronica Runge</u>			SIGNATURE: <u>[Signature]</u>			DATE: <u>3/28/17</u>																																						

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Imperial River at Orr Rd</u>					County: <u>Lee</u>		Date: <u>3-28-17</u>		Investigators: <u>C. Anderson, V. Punge</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>28020264 FTM</u>														
0	1	<u>↑</u>	<u>↑</u>		60	1	<u>↑</u>	<u>↑</u>		<table border="1"> <tr> <td>Secchi depth</td> <td><u>1.0</u></td> </tr> <tr> <td>Estimated?</td> <td><u>No</u></td> </tr> </table>	Secchi depth	<u>1.0</u>	Estimated?	<u>No</u>										
	Secchi depth	<u>1.0</u>																						
	Estimated?	<u>No</u>																						
	2					2																		
	3					3																		
	4					4																		
	5	<u>N</u>	<u>N</u>	<u>76</u>		5			<u>73</u>															
	6					6																		
	7					7																		
8				8																				
9				9																				
10	1				70	1	<u>↑</u>			<table border="1"> <tr> <td># points ranked 4-6</td> <td><u>3</u></td> </tr> <tr> <td>total points assessed</td> <td><u>105</u></td> </tr> <tr> <td>% points ranked 4-6</td> <td><u>3%</u></td> </tr> </table>	# points ranked 4-6	<u>3</u>	total points assessed	<u>105</u>	% points ranked 4-6	<u>3%</u>								
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	3					3																		
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	5			<u>81</u>		5	<u>N</u>		<u>66</u>															
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3				3																				
4				4																				
5			<u>77</u>	5	<u>N</u>	<u>N</u>	<u>84</u>																	
6				6																				
7				7																				
8				8																				
9				9																				
30	1				90	1	<u>5</u>			<table border="1"> <tr> <th colspan="2">Algal Thickness Rank</th> </tr> <tr> <td>N</td> <td>rough, no algae, slimy, algae up to 1mm</td> </tr> <tr> <td>3</td> <td>>1mm - 6mm</td> </tr> <tr> <td>4</td> <td>>6mm - 20mm</td> </tr> <tr> <td>5</td> <td>>20mm - 10 cm</td> </tr> <tr> <td>6</td> <td>>10 cm</td> </tr> </table>	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		
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	2					2	<u>N</u>	<u>↓</u>																
	3					3	<u>N</u>	<u>Y</u>																
4				4	<u>N</u>	<u>Y</u>	<u>79</u>																	
5			<u>61</u>	5	<u>N</u>	<u>Y</u>																		
6				6	<u>N</u>	<u>Y</u>																		
7				7	<u>N</u>	<u>Y</u>																		
8				8	<u>N</u>	<u>N</u>																		
9				9	<u>N</u>	<u>N</u>																		
40	1				100	1	<u>↑</u>	<u>↑</u>		Q Flag Lat <u>N 26.335911°</u> Long <u>W 81.749623°</u> 100 Flag Lat <u>N 26.335790°</u> Long <u>W 81.748613</u>														
	2					2																		
	3					3																		
	4					4																		
	5			<u>90</u>		5	<u>N</u>	<u>N</u>	<u>88</u>															
	6					6																		
	7					7																		
	8					8																		
	9	<u>↓</u>				9	<u>↓</u>	<u>↓</u>																
50	1	<u>↑</u>			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	<u>N</u>		<u>88</u>																				
	5																							
	6																							
	7	<u>↓</u>																						
	8	<u>5</u>	<u>↓</u>																					
	9	<u>5</u>																						

CHAIN OF CUSTODY RECORD

Project #
(Lab Use Only)

Project Name: Strategic Monitoring Program

WBIDS: 3258BA, 3258EB, 3254EA, 3258F,

325802

Project Name:

Project Location:

Customer Type:

並

Requested Due Date:

Preservative: $\text{HCl} = \text{H} \cdot \text{HNO}_3 = \text{N} \cdot \text{Na}_2\text{S}_2\text{O}_3 = \text{ST}$

$$\text{H}_2\text{SO}_4 = \text{S}, \text{NaOH} = \text{SH}, \text{NH}_4\text{Cl} = \text{NH}$$

Phone 850-245-8085

LET
XEN

Sampled By (PRINT) Corey Anderson

Sampler Signature

Wet	Sample Description	Date	Time	Type	F-d	S
GWD032817-1	Hendry Creek @ Old gladiolus Dr.	3/28/17	905		X	
GWD032817-2	Imperial River near US 41	3/28/17	925		X	
GWD032817-3	Imperial River at Orr RD in Bonita	3/28/17	1030		X	
GWD032817-4	Oak Creek @ Oak Creek Preserve	3/29/17	1000		X	
GWD032817-5	Mullock Creek upstream of US 41	3/29/17	940		X	

Bottle Lot #		Reinforced By/Affiliation	Date	Time	Accepted By/Affiliation	Date	Time
	OKay to Run As Is.	Cory Anderson/FDCP	3/28/17	1143	[Signature]	3/28/17	1143
Samples are ambient water	Client Initial:						
	CA						
RQ-2017-03-27-19	Samples On Ice						
	(Yes) No						
	4.7						