



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATIGIC MONITORING PROGRAM FIELD SHEET

January 2016

PAGE 1 OF 1

Check box if data
qualified

RQ-2016-01-25-76

1/26/2016
WBID 3258F

Oak Creek @ Oak
Creek Preserve

G3SD012516-02

Field ID

NEW STORET

G3SD0056

WBID: 3258F

Date: 01/26/16
(mm/dd/yyyy)

ORG ID: 21FLFTM

Latitude: _____
(Decimal Degrees)

Longitude: _____
(Decimal Degrees)

Receiving Body of Water: Imperial River

County: Lee

Sampling Agency: 21FLFTM South Rec

Sampling Team Members				WQ Measurements	Documentation	Sample Collection	Preservation	Preservation Check	Sampling Equipment			
Corey Andersen				✓	✓	✓	✓	✓	Sample Container	Van Dorn		
Ben Paswater									Dipper	Other _____		
Danny Berger									Equipment ID:	_____		
Christopher Link									Collection Method			
									Wading	Via Boat		
									From Shore	Canoe/Kayak		
									Other	Electric Motor		
										Gasoline Motor		
Water Level: Dry / Low / Normal / High / Flooded				Matrix: Fresh / Marine / DI								
Meter ID# A				Photos: Yes / No				Tide Falling: Yes / No				
Time Zone	Time	Sample Depth (m)	Total Depth (m)	Temp (°C)	DO (mg/L)	DO (%SAT)	COND (µmhos/cm)	Salinity (ppt)	pH	Secchi Disk (m)		
EST	Top	1215	0.3	0.4	19.1	5.1	55	722	-	7.0	0.4	
	Bottom											
CST	Blank or Duplicate											
Biological Samples Collected: None ☒ HA ☒ SCI ☒ LVS ☒ RPS ☐ LVI Other _____												
Parameter Suite		Parameter Methods						Preservation				
Preserved Nutrients		☒ TKN ☒ TP ☒ NOx ☒ NH3 ☒ TOC ☐ Other _____						☒ H2SO4				
Metals		☐ W-ICPMS ☐ W-ICP						☐ HNO3				
Filtered Nutrients		☒ oP ☐ Field Filtered 0.45 µm Filter						Sulfuric Acid Lot# Expiration				
Macroinvertebrates		☒ MI-FW-QLDC						☒ Formalin				
Microbiology		☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR						Nitric Acid Lot# Expiration				
Periphyton		ALGAE-ID										
Pesticides		☐ W-PSNP-TQ ☐ W-PC-AA-SF ☐ W-AHERB-AA ☐ W-UHERB-AA						Other _____				
Other		☐ All Other Samples Unless Otherwise Noted										
All Samples Placed in Wet Ice ≤ 6° C? ☒ Yes ☐ No												

Notes: Photos: up/down @ 0, up/down @ 100, NESW

Place Blank or Duplicate Label Here

Sampler Signatures:

Field Parameters Entered into LIMS: _____ Date _____ Field Parameters QC in LIMS: _____ Date _____

1/26/2016
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G3SD012516-02

NEW STORET

DEP-SOP-001/01: Form FD
STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT

Oak Creek

SUBMITTING AGENCY CODE: <u>21 FLETHM</u>	STORET STATION NUMBER: <u>G3SD0056</u>	DATE (MM/DD/YY): <u>01/26/16</u>	RECEIVING BODY OF WATER: <u>Imperial River</u>
SUBMITTING AGENCY NAME: <u>DEP South REC</u>			
REMARKS:	COUNTY: <u>Lee</u>	LOCATION: <u>Oak Creek @ Oak Creek Preserve</u>	FIELD ID/NAME: <u>G3SD012616-02</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>8</u>	20 19 18 17 16	15 14 13 12 11	10 9 <u>8</u> 7 6	5 4 3 2 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 <u>8</u> 7 6	Less than 5% major productive habitat <u>5</u> 4 3 2 1
Water Velocity <u>13</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 <u>13</u> 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 <u>2</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae.	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae.	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth).	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation.
Primary Score <u>28</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 <u>2</u> 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>16</u>	20 19 18 17 <u>16</u>	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 root zone with few raw, eroded areas.	Only meets 2 of the 3 requirements for optimal bank stability. <u>LR</u>	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>8</u> Left Bank <u>8</u>	10 9	<u>8</u> 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 <u>8</u> Left Bank <u>8</u>	10 9	<u>8</u> 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. <u>L</u>	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. <u>R</u>	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>6</u> Left Bank <u>5</u>	10 9	8 7 <u>6</u>	<u>5</u> 4	3 2 1
Secondary Score <u>59</u>				

87 TOTAL SCORE

Date: <u>1/26/16</u>	Analyst: <u>Corey Anderson, Ben Paswater</u>	Signature: <u>[Signature]</u>
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CL, DB

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

Waterbody: <i>Oak Creek @ Oak Creek Preserve</i>	Date: <i>1/26/16</i>	County: <i>Lee</i>	Storet Number: sticker here
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Analyst: Corey Anderson	Signature:
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Comments: $< 2m^2$ vegetation

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.

[illegible]

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

County: Lee Investigators: Anderson, Boswater, Link, Berger County: Lee Date: 1/26/16 Oak Creek @ Oak Creek Preserve

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	↑		96	60	1	↑		96
	2	↑				2	↑		
	3	↑				3	↑		
	4	N				4	N		
	5	N				5	N		
	6	↓				6	↓		
	7	↓				7	↓		
	8	↓				8	↓		
	9	↓				9	↓		
10	1	↑		96	70	1	↑		95
	2	↑				2	↑		
	3	↑				3	↑		
	4	N				4	N		
	5	N				5	N		
	6	↓				6	↓		
	7	↓				7	↓		
	8	↓				8	↓		
	9	↓				9	↓		
20	1	↑		94	80	1	↑		96
	2	↑				2	↑		
	3	↑				3	↑		
	4	N				4	N		
	5	N				5	N		
	6	↓				6	↓		
	7	↓				7	↓		
	8	↓				8	↓		
	9	↓				9	↓		
30	1	↑		90	90	1	↑		95
	2	↑				2	↑		
	3	↑				3	↑		
	4	N				4	N		
	5	N				5	N		
	6	↓				6	↓		
	7	↓				7	↓		
	8	↓				8	↓		
	9	↓				9	↓		
40	1	↑		95	100	1	↑		96
	2	↑				2	↑		
	3	↑				3	↑		
	4	N				4	N		
	5	N				5	N		
	6	↓				6	↓		
	7	↓				7	↓		
	8	↓				8	↓		
	9	↓				9	↓		
50	1	↑		96		1	↑		
	2	↑				2	↑		
	3	↑				3	↑		
	4	N				4	N		
	5	N				5	N		
	6	↓				6	↓		
	7	↓				7	↓		
	8	↓				8	↓		
	9	↓				9	↓		

STORET Station Number:

G3SD 0056

Secchi depth 0.4
Estimated? No

points ranked 4-6 0
total points assessed 90
% 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 ☒

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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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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

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Field ID

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SAMPLE ID see sticker upper right ORG ID 21FLFTM LA WBID 3258F
STORET # see sticker upper right COUNTY Lee LO Oak Creek
DATE see sticker upper right TIME 1215 SA
SITE NAME Oak Creek @ Oak Creek Preserve
FIELD ID/NAME see sticker upper right RECEIVING BODY OF WATER Imperial River

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) ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐							Landscape Development Intensity Index (LDI) ☐
Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy							Typical Width (m) Depth (m)/Velocity (m/sec) Transect ☐ m wide
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy							
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: ☐ Right Bank: ☐				Hydrologic Modification Score (per FT 3101) ☐			
High Water Mark: ☐ + ☐ = ☐ (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ 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 ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse	Sediment Odors ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☒ Anaerobic ☐ Other (Specify):	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 Woody Debris (Snags) ☐ ☐ ☐ Undercut Banks / Roots ☐ ☐ ☐ Leaf Packs or Mat ☐ ☐ ☐ Aquatic Vegetation ☐ ☐ ☐ 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: ☐ ☐ ☐ ☐ ☐ ☐ ☐ Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ Bottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ Meter ID: ☐ ☐ Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: ☐ Exp: ☐ Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: ☐ Exp: ☐ Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐ Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐ System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☐ ☒ ☐ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐ AMBIENT FIELD CONDITIONS / NOTES: <u>preserve upland & riparian undergrowth recently</u> <u>cleared of exotic species manually.</u> ☐ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

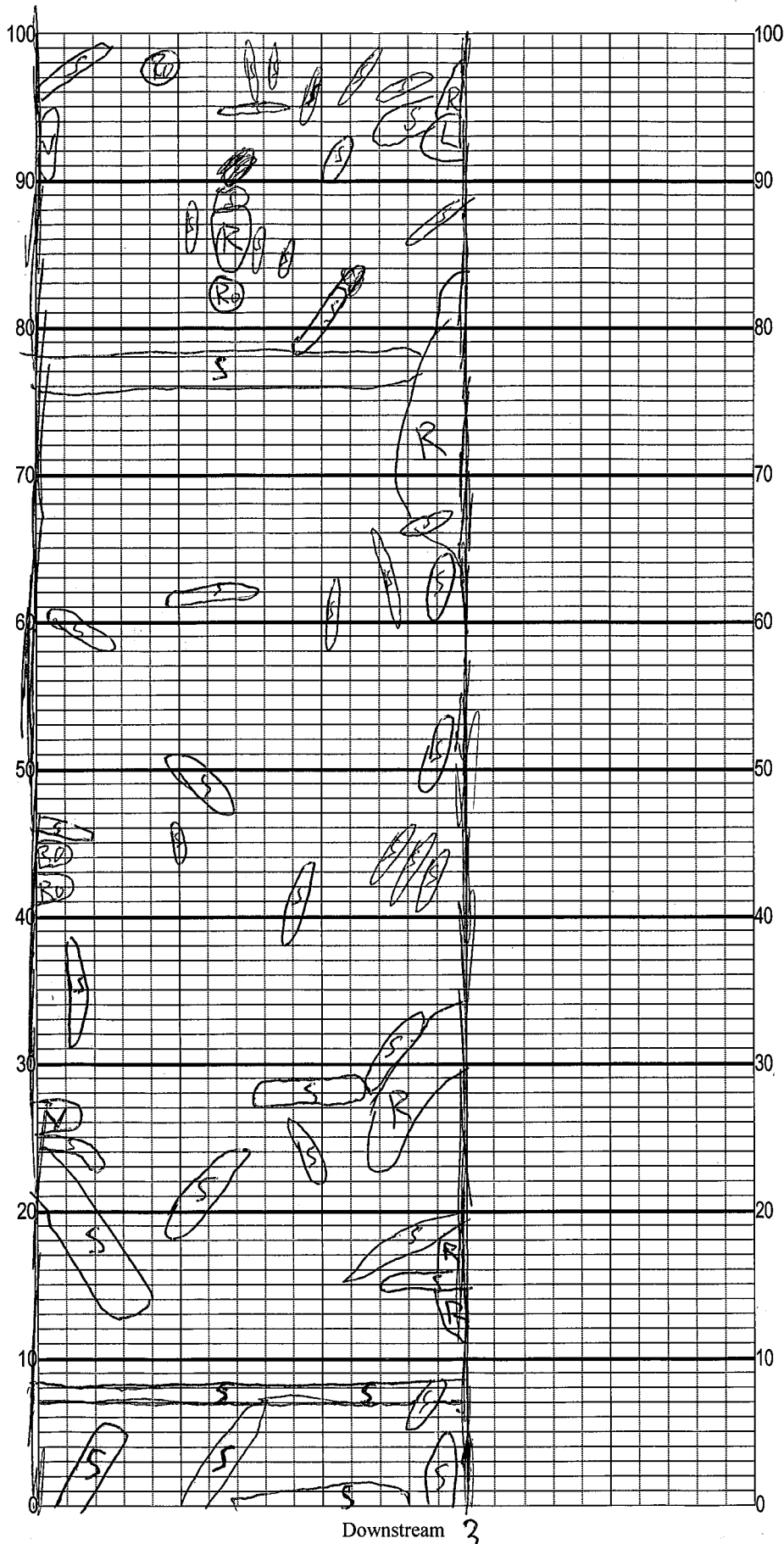
Corey Anderson + BP, CL, DB

SIGNATURE:

[Signature]

DATE:

1/26/16



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

Location: Oak Creek 3258 F
Date: 1/20/2016
Samplers: DB, BP, CL, CA

100 m: Latitude 26.33229
Longitude -81.77101

0 m: Latitude 26.33279
Longitude -81.77183

Substrates: Code key, draw proportionate habitat abundance. %

S Snags 4

R Roots/undercut banks <1

L Leaf Packs (or mats) <1

V Aquatic Macrophytes <1

R₀ Rocks <1

P Pools total # observed = 0
range expected =

Average width 3 m

Average depth 0.3 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:

Heavily
Silted
throughout

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