



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

June 2016

PAGE ____ OF ____

Data Qualified?

Yes / No

STORET Station Name: Double Run @ 800m Downstream of Double Run Road Date: 07/27/2016

STORET Station ID: 20020601 (G1CE0032) WBID: 2852 Latitude: 28.6901444

County: Lake RQ - 2016-07-25-34 ORG ID: 21FLCEN Longitude: -81.7494138

Receiving Body of Water: Little Lake Harris Field ID: G1CE0032

Sampling Team Members		WC Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
Mike Linger							☒ Sample Container	☐ Van Dorn	☐ Pole		
Mike Brennan							☐ 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 / <u>Normal</u> / High / Flooded							Matrix: <u>Fresh</u> Marine / DI				
Meter ID# <u>11C / AB</u>							Photos: <u>Yes</u> / No				
							Tide Falling: Yes / No / <u>NA</u>				
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	10:59	0.3	3.4	11.4	149	8.2	6.09	0.17	200	29.6	
CEN		2.9		2.1	26	6.6	0.09		183	25.6	
Biological Samples Collected: None <u>HA</u> SCI <u>LVS</u> <u>RPS</u> 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		6168040	6/16/17	☒ <2	
Metals		☐ W-ICPMS ☐ W-ICP				☐ Ice ☐ HNO3				☐ <2	
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice		Place Preservative Sticker(s) Here (If Available)			
Chlorophyll		☒ CHL-SUITE-W				☒ Ice					
BOD		☐ BOD-UNIN				☐ Ice					
Physical/Aggregate (Fresh)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-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 ☐ Enterococcus ☐ 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: Flow for rivers/streams: 0 m/s

Ramp 28.746048
-81.766140

Double Run @ 800m Downstream
of Double Run Road

Date: 07/27/2016
RQ-2016-07-25-34

G1CE0032
Field ID
STORET
20020601

Signature: [Signature]

Date: 7/27/16

Field Parameters Entered into LIMS: 20020601 8/2/16 T.Sheet Updated: ☐ Field Parameters QC in LIMS: T.Sheet Updated: ☐
Date Migrated to STORET: (Initials/Date) T.Sheet Updated: ☐ Field Sheets Scanned/Saved: 8/2/16 (Initials/Date) T.Sheet Updated: ☐

	DO	DO _%	pH	sal	SC	Temp
0.3	9.3 10.2	136	8.8		200	30.0
2.9	7.3 2.2	27	7.0		184	25.6

FDEP FORM FD 9000-3: PHYSICAL/CHEMICAL CHARACTERIZATION FIELD SHEET

SAMPLE ID 76571 ORG ID 21FLCEN LATITUDE 28.6901444
 COUNTY Lake STORET # 20020601 LONGITUDE -81.7494138
 DATE 7/27/16 TIME 1100 SAMPLING AGENCY FDEP CE-Roc
 SITE NAME Double Run @ 500m Downstream of Double Run Road
 FIELD ID/NAME 61CE0032 RECEIVING BODY OF WATER Little Lake Harris

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) ☐ <u>100</u> ☐ ☐ ☐ ☐ ☐ ☐ ☐								Landscape Development Intensity Index (LDI) ☐
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>20</u> m wide ☐ m/s ☐ m/s ☐ m/s				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) ☐				
High Water Mark: <u>0.3</u> + <u>3.4</u> = <u>3.7</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):		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 % Coverage ☐ INVERT # Times Sampled ☐ PERI # Times Sampled ☐			WATER QUALITY 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>29.6</u> <u>8.2</u> <u>11.4</u> <u>149</u> <u>200</u> <u>0.09</u> <u>0.7</u> Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Bottom: <u>2.9</u> <u>25.6</u> <u>6.6</u> <u>2.1</u> <u>26</u> <u>183</u> <u>0.09</u> ☐ Meter ID: <u>11C / AB</u> TOTAL DEPTH <u>3.4</u>		
Woody Debris (Snags) ☐ ☐ ☐ Undercut Banks / Roots ☐ ☐ ☐ Leaf Packs or Mat ☐ ☐ ☐ Aquatic Vegetation ☐ ☐ ☐ Rock or Shell Rubble... ☐ ☐ ☐ Sand..... ☐ ☐ ☐ Mud / Muck / Silt ☐ ☐ ☐ Other ☐ ☐ ☐ Other ☐ ☐ ☐			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>6168040</u> Exp: <u>6/16/17</u> Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____		
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☒ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☐ ☐ ☐ ☒ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			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) ☐			AMBIENT FIELD CONDITIONS / NOTES: <u>100% of water surface covered in plants (salvinia, lemna, & landoltia)</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.		

SAMPLING TEAM

Mike Linger, Mike Drennan

SIGNATURE:

[Signature]

DATE:

7/27/16

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

SAMPLING AGENCY: FDEP CE ROC		STORET STATION NUMBER: 20020601	DATE (MM/DD/YYYY): 7/27/16	RECEIVING BODY OF WATER: Lake Harris
REMARKS:	COUNTY: Lake	LOCATION: Double Run @ 500m		FIELD ID/NAME: GI-CE 0032

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 12	20 19 18 17 16	15 14 13 (12) 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 8	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 14 Primary Score 36	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	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 20	(20) 19 18 17 16	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.	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 10 Left Bank 10	(10) 9	8 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 10 Left Bank 10	(10) 9	8 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.	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 9 Left Bank 9	10 (9)	8 7 6	5 4	3 2 1
Secondary Score 78				

TOTAL SCORE

Date: 7/27/16	Analyst: Mike Linger Mike Drennan	Signature: <i>[Signature]</i>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



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

Location: Double Run

Date: 7/27/16

Sampler: Mike Lingor, Mike Drennan

100 m: Latitude 28.689369

Longitude -81.748893

0 m: Latitude 28.6901444

Longitude -81.7494138

Substrates: Code key, draw proportionate habitat abundance.	%
1	10
2	20
3	30
4	40
5	50
6	60
7	70
8	80
9	90
10	100

☐ Snags _____

☐ Roots/undercut banks _____

☐ Leaf Packs (or mats)

☒ Aquatic Macrophytes 100

□

total # observed = 1

Average width 20 m

Average depth 2 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 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:

100% Lenna/Wolffia/pistia

BF = .4m above water level

Bank height is wetland

$A_T = 2000 \text{ m}^2$ in channel

$A_H = 2000 \text{ m}^2$ but not productive.
Due to small root area

Assume $\leq$ per: Revision Date: March 1, 2014
 Why for below

Waterbody: Double Run @ 800m Downstream

Date: 7/27/16

County: Lucas

Storet Number: 20010601

Analyst: Mike Linger 1 of Double Run Road

Signature: Don K. L.

Comments: 100% coverage of Lemna, salvinia

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

Site: Double Run @ 800m Downstream of Double Run Reservoir County: Lake Date: 7/27/16 Investigators: Mike Linger

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

STORET Station Number: 20020601

Secchi depth 0.7
Estimated?

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

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon
Water sample ☒
RQ-2016-07-25-34

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%.