FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

Data Qualified? Yes / No

Location/STORET Station Name: Moriah Creek 100 meters upstream of Newport Rd. **Date:** 4/12/2017 (mm/dd/yyyy)

STORET # G1WA0057 **WBID:** 1121 **Latitude:** 30.1857 (Decimal Degrees)

County: Wakulla **RQ -** 2017-04-10-20 **ORG ID:** 21FLWQA **Longitude:** -84.1929 (Decimal Degrees)

Receiving Body of Water: St. Marks River **Field ID:** G1WA0057_04122017

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Curtis Musson		X	X		
Ben Ralys	X		X	X	X

Sampling Equipment

- [X] Sample Container
- [ ] Carboy
- [ ] Dipper
- [ ] Van Dorn
- [X] Syringe
- [ ] Other
- [ ] Pole

Equipment ID

Collection Method

- [X] Wading
- [ ] From Shore
- [ ] Other (note below)

Via Boat
- [ ] Canoe/Kayak
- [ ] Electric Motor
- [ ] Gasoline Motor

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

Matrix: (Fresh) / Marine / DI

Meter ID# Biology #2 **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)	8:49	0.15	0.3	6.65	70.0	7.50	0.15	VOB	306	17.78
CEN										

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

SBIO ID Numbers: SBIO-ID: 77517 RPS-ID: 8653 Macrophyte-ID: 10439 LIMS#: 1888364

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	[X] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	[X] Ice [X] H_2SO_4	6302030	10/28/17	[X] <2
Metals	[ ] W-ICPMS [ ] W-ICP	[ ] Ice [ ] HNO_3			[ ] <2
Filtered Nutrients	[X] W-PO4-F [X] Field Filtered 0.45 µm Filter	[X] Ice			
Chlorophyll	[X] CHLSUITE-W	[X] Ice			
Physical/Aggregate (Fresh)	[X] Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	[X] Ice			
Physical/Aggregate (Marine)	[ ] Alkalinity / W-F / W-TSS / TURBIDITY	[ ] Ice			
Macroinvertebrates	[X] MI-FW-QLDC	[X] Formalin			
Periphyton	[X] ALGAE-ID NOT Collected	[ ] Ice			
Microbiology	[ ] E Coli [ ] F Coli [ ] Enterococci [ ] qPCR	[ ] Ice			
Tracers	[ ] W-SUC-AA-R [ ] W-UHERB-AA [ ] W-AHERB-AA	[ ] Ice			
Pesticides	[ ] W-PSNP-TQ [ ] W-AHERB-AA [ ] W-PYR-AA-R [ ] W-PCL-SQ-R [ ] W-UHERB-AA [ ] W-GLYPH [ ] W-SUC-AA-R	[ ] Ice [ ] Other			

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

rvative Sticker(s) Here (If Available)

Notes:

Moriah Creek 100 meters upstream of Newport Rd.

STORET ↓

G1WA0057

Field ID →

oriah Creek 100
eters upstream
Newport Rd.
April 12, 2017

G1WA0057_04122017

Signature: Curtis Musson Date: 4-12-2017

Field Parameters Entered into LIMS: (Initials/Date) Field Parameters QC in LIMS: (Initials/Date)

Date Migrated to STORET: (Initials/Date) Field Sheets Scanned/Saved: (Initials/Date)

Width = 2.9m

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

SAMPLING AGENCY: Florida Department of Environmental Protection		STORET STATION NUMBER: G1WA0057	DATE (MM/DD/YY): 4/12/17	RECEIVING BODY OF WATER: St. Marks River
REMARKS: SMP	COUNTY: Wakulla	LOCATION: Moriah Creek		FIELD ID/NAME: G1WA0057_04122017

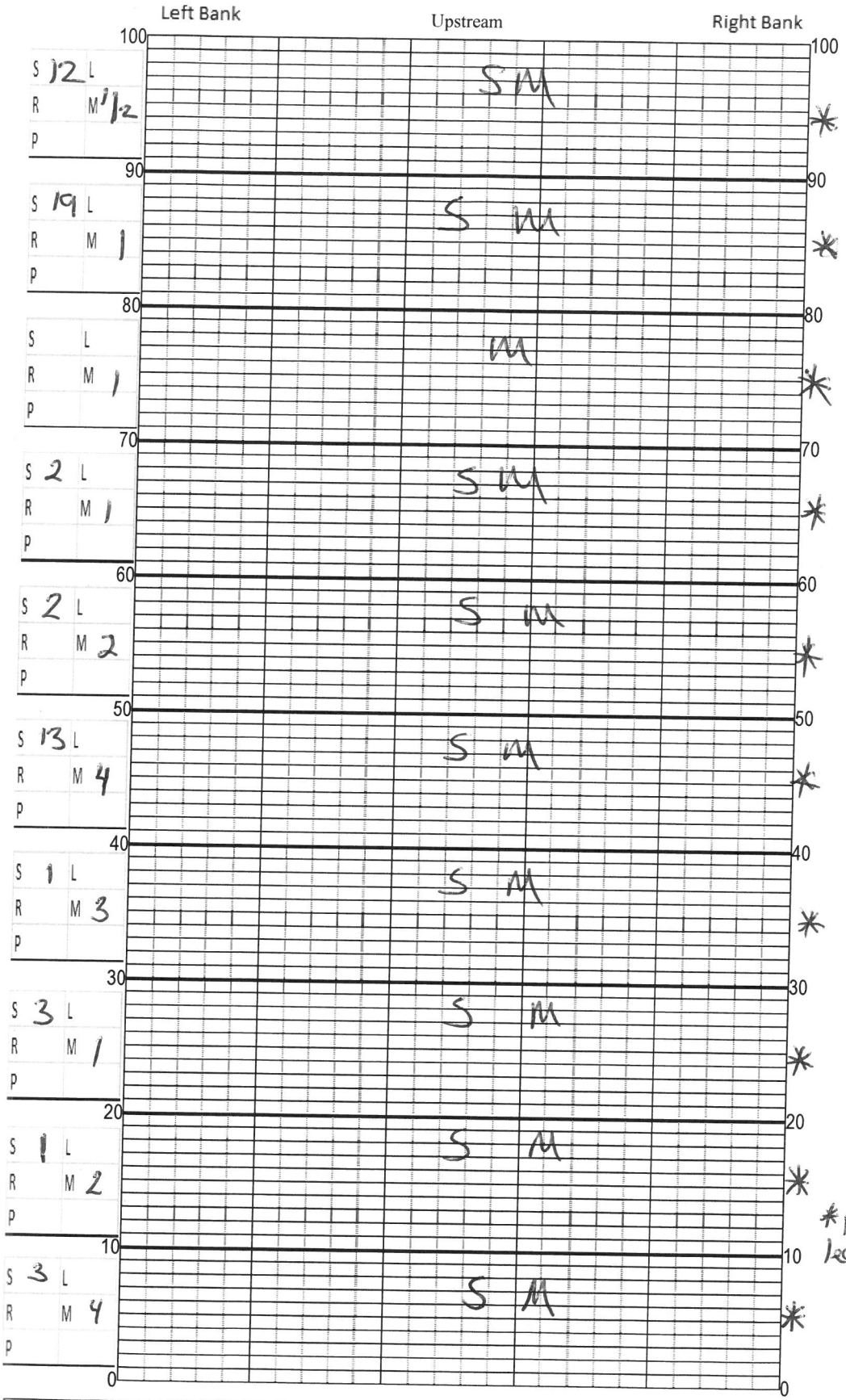
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components (Snag, Roots, Leaf, Rock, Aquatic Vegtation) **Substrate Diversity** 14	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 (14) 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability 20 ____%	Major productive habitat present at site (>30% 27.2% 25.8% 24.4% 26.6%) (20) 19 18 17 16	Major productive habitat, by aerial extent (21.6% 20.2% 18.8% 17.4% 16%) 15 14 13 12 11	6% to 15% major productive habitat (15% 13% 11% 9% 6%) 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity 16 .25 ____m/s	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 10 ---------- Primary Score 60	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 **Artificial Channelization** 20	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. (20) 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank 10 Left Bank 10 If Banks are PipeClay, BedRock or Concrete at Bank full: Optimal	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the root zone with few raw, eroded areas. (+,+,+) (10) 9	Only meets 2 of the 3 requirements for optimal bank stability. (+,+,-) 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. (+,-,-) 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. (-,-,-) 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 10	Width of vegetation greater than 18 m (10) 9	Width of vegetation >12 to 18m 8 7 6 (18m 15m 12m)	Width of vegetation 6 to 12 m. human activities close to system 5 4 (9m)	Less than 6 m of buffer zone due to intensive human activities 3 2 1 (6-5m) (4-3m) (<2m)
Riparian Zone Vegetation Quality Right Bank 10 Left Bank 10 ---------- Secondary Score 80	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. (10) 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

140 **TOTAL SCORE**

Date: 4/12/17	Analyst: Ben Raleys	Signature:

Curtis Musson

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



Location: Moriah Creek

Date: 4/12/17

Sampler: Ben Rains / Curtis Musson

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance.		%
S	Snags	3.0
R	Roots/undercut banks	—
L	Leaf Packs (or mats)	730
M	Aquatic Macrophytes	1.0
Rc	Rock	0
	Total	730
P	Pools — total # observed = 0; # range expected = 3-6	

Average width 2.9 m
Average depth 0.3 m

Velocity measured at _____ meter mark.
Velocity 0.25 m/s

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.

Notes/Plants Observed:
$2m^2$ = 16 Sweeps
* Bottom is 95% covered with leaf mats and woody debris

# of Sweeps	Conversion	m^2	%
Snag 55	÷ 366	9.25 m^2	2.8
Root	÷ 8	m^2	
Leaf	÷ 8	m^2	>30!
Macrophyte 19.5	÷ 8	3 m^2	1.0
Rock	÷ 8	0 m^2	
Total Available Habitat		m^2	
Total Area		290 m^2	
Total Unavailable Habitat		m^2	

Meter Mark	Depth (m)	Width (m)	Velocity Measurement (Sec)
10	0.3	2.9	
Avg.			

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

Expected Number of Pools

348 $\left(\frac{100}{12 * \_\_\_\_W}\right) * 1 =$ 2.9

$\left(\frac{100}{12 * \_\_\_\_W}\right) * 2 =$ 5.7

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

SAMPLE ID 77517 | ORG ID 21FLWQA | LATITUDE 30.1857
COUNTY Wakulla | STORET # GIWA0057 | LONGITUDE -84.1929
DATE 4/12/17 | TIME | SAMPLING AGENCY FDEP
SITE NAME Moriah Creek 100 meters upstream of Newport Rd.
FIELD ID/NAME GIWA0057_04122017 | RECEIVING BODY OF WATER St. Marks 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) Water
93.2	0.3	—	—	4.3	0.2	1.8	0.2

Landscape Development Intensity Index (LDI): 1.7

Local Watershed Erosion (select one) : ☐ None ☒ Slight ☒ Moderate ☐ Heavy

Local Watershed NPS Pollution : ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side: Left Bank : 718 | Right Bank : 718

Hydrologic Modification Score (per FT 3101): 3

High Water Mark: 0.2 (m) + 0.3 (above present water level) = 0.5 (present depth) (above bed)

Artificially Impounded ☐ Yes ☐ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

m wide

— m/s	0.25 m/s	— m/s
— m deep	0.3 m deep	— m deep

Artificially Channelized : ☒ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☐ 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

	None	Slight	Moderate	Severe
Sand Smothering:	☒	☐	☐	☐
Silt Smothering:	☐	☒	☐	☐
Algae Smothering:	☒	☐	☐	☐

SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	3.0	5	
Undercut Banks / Roots	—	—	
Leaf Packs or Mat	730	5	
Aquatic Vegetation	1.0	5	
Rock or Shell Rubble..	—	—	
Sand.....	—	—	
Mud / Muck / Silt	—	—	
Other CPOM.....	730	5	
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:	0.15	17.78	7.50	6.65	70.0	306	0.15	☒ VOB
Bottom	0.3							TOTAL DEPTH

Meter ID: | TOTAL DEPTH: 0.3

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: SEE Field Sheet Exp:

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

	Not Obs.	Rare	Common	Abundant
Periphyton:	☒	☐	☐	☐
Fish:	☐	☒	☐	☐
Aquatic Plants:	☐	☐	☒	☐
Iron/Sulfur Bacteria:	☒	☐	☐	☐

System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

SCI 10:08 EST

New logging upstream @ Hwy 98

☐ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM Curtis Musson, Ben Ralls | SIGNATURE : | DATE : 4-12-17

62-160.800, F.A.C.

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Moriah Creek | County: Wakulla | Date: 4/12/17 | Investigators: Ben Rabs, Curtis Musser

STORET Station Number: 21FLA00057

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1		N	
	2			
	3			
	4	N		
	5			96
	6			
	7			
	8			
	9			
10	1			
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9			
20	1			
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9			
30	1			
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9			
40	1			
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9			
50	1			
	2			
	3			
	4			
	5	N		96
	6			
	7		V	
	8			
	9		N	
60	1		N	
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9			
70	1			
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9			
80	1			
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9			
90	1			
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9			
100	1			
	2			
	3			
	4			
	5	N		96
	6			
	7			
	8			
	9		N	

Secchi depth	VOB
Estimated?	

# points ranked 4-6	0
total points assessed	97
% points ranked 4-6	0%

Check accompanying data collected at same site/date.	
Algal mat sample	NO
Linear Veg Survey	Yes
Habitat Assessment	Yes
SCI/Biorecon 50%	Yes
Water sample	Yes
RQ-	2017-04-10-20

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

SBIo_ID: 77517

RPS_ID: 8653

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 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Moriah Creek | Date: 4/12/17 | County: Wakulla | Storet Number: GIWA0057

Analyst: Curtis Musser | Signature: Curtis Musser

Comments: SMP Sampling

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m^2 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 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata											
Hydrocotle											
Hygrophila polysperma											
Hymenocallis	X	X	X	X	X	X	X	X	X	X	
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens							X	X			
Luziola fluitans											
Micranthemum glomeratum											
Micranthemum umbrosum											
Mikania scandens											
Myriophyllum aquaticum											
If no Dominant or Co-Dominant were selected, indicate with "X"											

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Myriophyllum heterophyllum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum	X	X	X	X	X	X	X				
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Peltandra virginica											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontedaria cordata											
Potamogeton illinoensis											
Rhynchospora inundata											
Rosa palustris											
Ruellia simplex											
Rumex verticillatus											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia	X			X	X	X	X				
Salvinia minima											
Samolus parviflora											
Saururus cernuus				X	X	X	X				
Scirpus (schenoplectus) californicus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											

Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage			X			X	X	X	X		
>5 and ≤10% Macrophyte Coverage		X			X						
>10 and ≤25% Macrophyte Coverage	X			X	X						
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage											

Notes:

SBIO_ID: 77517

MacropID: 1043q

2m2 Cm

Macrophyte QC Report

STORET: G1WA0057
Visit ID: 77517
Macrophyte ID: 10439
LIMS ID: 1888364

Sample Date: 4/12/2017
Collector Name: Musson, Curtis
Identifier Name: Musson, Curtis

Macrophyte Sample Comments:

Taxa Name:		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Hymenocallis	✓	P	P	P	P	P	P	P	P	P	P
Ludwigia repens	✓								P	P	
Orontium aquaticum	✓	P	P	P	P	P	P	P			
Sagittaria latifolia	✓	P			P	P	P	P			
Saururus cernuus	✓				P	P	P	P			

CN
4/13/17

This data has not been fully approved at this time.

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there is qualified data on this page.

Meter: Biology #2 RQ- 2017-04-10-20 Project: SMP

Notes: (1) Numbers ≤4, are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
(2) Always wait for meter to stabilize before recording any readings.
(3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site _____

Temperature (Quarterly) FT 1400 Date of Last Temperature Verification 03/06/2017

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	4-12-17	725	21.96	8.744	8.75	100.0	44	—	P	LAB
ICV	Curtis Musson	4-12-17	726	21.96	8.744	8.75	100.0	44	—	P	LAB
CCV	Curtis Musson	4-12-17	14:32	22.3	8.69	8.60	101.0	44	—	P	LAB
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.
DO Acceptance criteria from Table ±0.3 mg/L. **Rapid-Pulse Sensors:** DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.
Optical: DO gain range 0.85 to 1.15; DO charge N/A. **Steady-state & Galvanic Sensors:** DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	4-12-17	729	161111D	11/2017	1000	1000	P	LAB
ICV	Curtis Musson	4-12-17	730	161111D	11/2017	1000	1000	P	LAB
CCV	Curtis Musson	4-12-17	14:33	16cm					
CCV				170310E	03/28	100	104.2	P	LAB

Report specific conductance as a whole number with no decimal figure. Conductivity Acceptance criteria ± 5%

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	4-12-17	7:31	161111B	5/2018	7.0	7.00	-14	P	LAB
Calibr.	Curtis Musson	4-12-17	733	161111A	11-17	4.01	4.01	164	P	LAB
Calibr.	Curtis Musson	4-12-17	735	161111C	5-18	10.01	9.96	-176	P	LAB
ICV	Curtis Musson	4-12-17	736	161111C	5-18	10.01	9.94	-175	P	LAB
CCV	Curtis Musson	4-12-17	14:35	161111B	5-18	7.0	7.11	-15	P	LAB
CCV										

Report pH with one decimal place; pH Acceptance criteria ±0.2 SU; mV pH7 Range 0±50; mV pH 4 Range +180±50;
mV pH 10 Range -180±50; Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly) Date of Last Depth Verification _____

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria ±5 % or ±0.05m, whichever is greater

Request Number: 2017-04-10-20
Lake Lafayette Drain, Moriah Creek
Customer: WQ-ASSESS
Project ID: SMP

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

Requester: Curtis Musson
Collected By: Curtis Musson, Ben Raines
Field Report Prepared By: Curtis Musson
Sampling Agency: FDEP

Location

Moriah Creek 100 meters upstream of Newport Rd.
STORET
G1WA0057
Field ID
Moriah Creek 100 meters upstream of Newport Rd.
April 12, 2017
G1WA0057_04122017

☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/12/17 Time 8:49 Eastern / Central	Collection (comp begin or grab) Date — Time —		Bottle Group(s)
Matrix (Salt, Fresh): Fresh	Diss. Oxygen (mg/L): 6.65			A, C
Temp (C): 17.78	pH: 7.50	Sample Depts (m): 0.3	Sp. Conductance (umho/cm): 306	
Salinity (ppt): 0.15	Comments			
Latitude (Decimal Degrees): 30.1857		Longitude (Decimal Degrees): -84.1929		

Location

Lake Lafayette Drain 250 meters downstream of Weems Rd
STORET
G1WA0007
Field ID
Lake Lafayette Drain 250 meters downstream of Weems Rd
April 12, 2017
G1WA0007_04122017

☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/12/17 Time 13:31 Eastern / Central	Collection (comp begin or grab) Date — Time —		Bottle Group(s)
Matrix (Salt, Fresh): Fresh	Diss. Oxygen (mg/L): 8.29			A B, C, D E
Temp (C): 22.19	pH: 7.36	Sample Depts (m): 0.2	Sp. Conductance (umho/cm): 161	
Salinity (ppt): 0.08	Comments			
Latitude (Decimal Degrees): 30.4544		Longitude (Decimal Degrees): -84.2204		

Location

Field ID

STORET

☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time Eastern / Central	Collection (comp begin or grab) Date Time		Bottle Group(s)
Matrix (Salt, Fresh)	Diss. Oxygen (mg/L)			
Temp (C)	pH	Sample Depts (m)	Sp. Conductance (umho/cm)	
Salinity (ppt)	Comments			
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		

Relinquished By: Curtis Musson	Date/Time 4/12/17 / 14:04	Number of Coolers 2 coolers / 7 cat jug	Received By: [illegible]	Date/Time 4-12-17 / 14:04	

Group: A | Bottle Type: P-1L | # of Bottles: 2 | Preservative: ICE | Enter Number of Bottles Sent to Lab 2

ALKALINITY
TURBIDITY
W-CL-IC
W-COLOR
W-F
W-SO4-IC
W-TDS
W-TSS

Group: A | Bottle Type: BP-1L | # of Bottles: 2 | Preservative: ICE | Enter Number of Bottles Sent to Lab 2

CHLSUITE-W

Group: A | Bottle Type: P-500ML | # of Bottles: 2 | Preservative: ICE And H2SO4 | Enter Number of Bottles Sent to Lab 2

W-NH3
W-NO2NO3
W-S-A-TP
W-TKN
W-TOC

Group: A | Bottle Type: P-125ML | # of Bottles: 2 | Preservative: ICE-FLTR | Enter Number of Bottles Sent to Lab 2

W-PO4-F

Group: B | Bottle Type: P-250ML-WO-THI | # of Bottles: 1 | Preservative: ICE | Enter Number of Bottles Sent to Lab 1

ECOLI-18QT

Group: C | Bottle Type: PJ-2L | # of Bottles: 4 | Preservative: Formalin | Enter Number of Bottles Sent to Lab 7

MI-FW-QLDC

Group D W-ICPMS / W-ICP | # Bottles ∅ | ~~H2SO4~~ HNO3 | 1

Group E Algal_ID | ∅ | ICE | 1

Cooler Packing Worksheet for Request: RQ-2017-04-10-20
Killearn Outlet, Moriah Creek
Ship Cooler On: 4/5/2017
Customer/Project: WQ-ASSESS/SMP

Assigned To: SHAIK_A
Requester: Curtis Musson
Priority: 3

850-245-8453
Division Of Water Facilities, FL DEP
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

Attn: Curtis Musson

Comments:
No preservatives needed.

Group A: Freshwater Nutrient Kit
Group B: E. coil
Group C: SCI
Group D: Freshwater Nutrient Kit and metals
Packing Notes:
No FedEx lables needed, sample swill be dropped off.

Requested Analyses:

Bottle Group: A **# of Sites: 2**

Container ID: P-1L **Qty: 2** **Preservation: ICE** **Lot #** 0006523

Description: Plastic Bottle 1L

Analysis	Description
ALKALINITY	Alkalinity in aqueous matrices as mg CaCO3/L
TURBIDITY	Turbidity in aqueous matrices
W-CL-IC	Chloride in aqueous matrices
W-COLOR	True Color measured at 450 nm
W-F	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO4-IC	Sulfate in aqueous matrices
W-TDS	Total Dissolved Solids in aqueous matrices
W-TSS	Total Suspended Solids in aqueous matrices

Container ID: BP-1L **Qty: 2** **Preservation: ICE** **Lot #** 1191091

Description: Brown Plastic Bottle 1L

Analysis	Description
CHLSUITE-W	Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry

Container ID: P-500ML **Qty: 2** **Preservation: ICE And H2SO4** **Lot #** 00066885

Description: Plastic Bottle 500 mL Affix YELLOW sulfuric acid dot to container.

Analysis	Description
W-NH3	Ammonia in aqueous matrices as mg N/L
W-NO2NO3	Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Total Kjeldahl Nitrogen in aqueous matrices
W-TOC	Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML **Qty: 2** **Preservation: ICE-FLTR** **Lot #** 00066943

Description: Plastic Bottle 125 mL

Analysis	Description
W-PO4-F	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group: B **# of Sites: 1**

Container ID: P-250ML-WO-THI **Qty: 1** **Preservation: ICE** **Lot #** 17013 ~~L462~~ AB

Description:

Analysis	Description
ECOLI-18QT	Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems

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Bottle Group: C **# of Sites: 2**

Container ID: PJ-2L **Qty: 4** **Preservation: Formalin** **Lot #** Brownbag

Description: Plastic Jar 2 L

Analysis	Description
MI-FW-QLDC	No. Taxa of FW macroinverts, qual samp, 20 dipnets.

Cooler Packed By: AB Date: 4-4-17

DEP Cooler ID #(s): 1

Kit must also include:

- ✓ Field Sheets
- ✓ Temperature Control Bottle (1 per cooler)
- ___ FedEx Bills, if applicable (1 per cooler)
- ✓ Plastic Bags
- ✓ Zip Ties

If Preservation Included:

ID _____ Lot # _____
ID _____ Lot # _____
ID _____ Lot # _____
ID _____ Lot # _____
ID _____ Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2017-04-10-20