FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

June 2016

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Data Qualified? (Yes) / No — DO

STORET Station Name: Wakulla River Below US 98 **Date:** 07/14/2016 (mm/dd/yyyy)

STORET Station ID: G1WA0028 **WBID:** 1006VA **Latitude:** 30.17607 (Decimal Degrees)

County: Wakulla **RQ -** RQ-2016-07-11-28 **ORG ID:** 21FLWQA **Longitude:** -84.2429 (Decimal Degrees)

Receiving Body of Water: St. Marks River **Field ID:** G1WA0028-07142016

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

Sampling Equipment

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

Collection Method

☐ Wading
☐ From Shore
☐ Other (note below)

Via Boat
☐ Canoe/Kayak
☐ Electric Motor
☒ Gasoline Motor

Water Level: Dry / 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)	13:00	0.3	4.9	7.13	82.4	7.8	0.20	3.9	411	22.6
CEN	13.05	4.4		7.00	80.6	7.81	0.19		402	22.30

Biological Samples Collected: None (HA) (SCI) (LVS) (RPS) 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 ☑ H_2SO_4	SA 6133010	05/12/2017	☑ <2
Metals	☐ W-ICPMS ☐ W-ICP	☑ Ice ☐ HNO_3			☐ <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			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ 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			

Contains 1:1 Sulfuric Acid SA – 6133010 EXP: 05/12/17 Warning! See SDS

tive Sticker(s) Here Available)

Notes:
SBIo ID: 76529
RPS ID: 8211
MacroPhyte ID: 9923

G1WA0028 14 July 2016
Wakulla River Below US 98

Signature: [signature] **Date:** 7-14-2016

Field Parameters Entered into LIMS: CM 7-22-16 (Initials/Date) **Field Parameters QC in LIMS:** (Initials/Date)

Date Migrated to STORET: (Initials/Date) **Field Sheets Scanned/Saved:** CM 7-22-2016 (Initials/Date)

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

St Marks River

SAMPLING AGENCY: Florida Department of Environmental Protection		STORET STATION NUMBER: G1WA0028	DATE (MM/DD/YY): 7-14-16	RECEIVING BODY OF WATER: Gulf of Mexico
REMARKS: SMP	COUNTY: Wakulla	LOCATION: Wakulla below US 98		FIELD ID/NAME: G1WA0028-07142016

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components (Snags, Leaf, Roots, Rock, Aquatic Vegtation) **Substrate Diversity** 9	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 7 _____%	Greater than 30% major productive habitat present at site (100% 83% 66% 48% 30.5%) 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent (30.4% 27% 23% 20% 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 9 _____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 11 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 **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 9	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 79	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

115 **TOTAL SCORE**

Date: 7/14/2016	Analyst: Curtis Musson	Signature: Curtis M

SBIO_ID: 76529

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

SAMPLE ID: G1WA0028 | ORG ID: 21FLWQA | LATITUDE: 30.17607
COUNTY: Wakulla | STORET #: G1WA0028 | LONGITUDE: -84.2429
DATE: 7-14-2016 | TIME: 13:00 | SAMPLING AGENCY: FDEP
SITE NAME: Wakulla River below US 98
FIELD ID/NAME: G1WA0028-07142016 | RECEIVING BODY OF WATER: St. Marks River / Gulf of Mexico

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)
48.0	25.5	1.2	0.3	18.8	1.9	3.9	0.4 (Residuals)

Landscape Development Intensity Index (LDI): 2.8

Local Watershed Erosion (select one): [X] None [ ] Slight [ ] Moderate [ ] Heavy

Local Watershed NPS Pollution: [ ] No evidence [X] Slight [ ] Moderate [ ] Heavy

Width of Riparian Vegetation (m) on Each Buffer Side: Left Bank: >18 | Right Bank: >18

Hydrologic Modification Score (per FT 3101): 5-6

High Water Mark: 0.4 (m) + 4.9 (above present water level) = 5.3 (present depth) (above bed)

Artificially Impounded: [ ] Yes [X] No

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

52 m wide		
— m/s	0.09 m/s	— m/s
— m deep	4.9 m deep	— m deep

Artificially Channelized: [X] No [ ] Some recovery [ ] Mostly recovered, more sinuous [ ] Recent, severe

Canopy Cover %: [X] Open [ ] Lightly Shaded (11-45%) [ ] Heavily Shaded [ ] Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils: [X] Absent [ ] Slight [ ] Moderate [ ] Profuse

Sediment Odors: [ ] Normal [ ] Sewage [ ] Petroleum [ ] Chemical [X] Anaerobic [ ] Other (Specify):

Smothering of Substrates:
Sand Smothering: None [X] Slight [ ] Moderate [ ] Severe [ ]
Silt Smothering: None [ ] Slight [ ] Moderate [X] Severe [ ]
Algae Smothering: None [ ] Slight [ ] Moderate [ ] Severe [X]

SUBSTRATE TYPE

Assessment Tool: [X] SCI [X] RPS [X] LVS [ ] LCI [ ] BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	1	7	
Undercut Banks / Roots	0	0	
Leaf Packs or Mat	0	0	
Aquatic Vegetation	8	7	
Rock or Shell Rubble..	0	0	
Sand.....	0	0	
Mud / Muck / Silt	91	6	
Other			
Other			

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	[ ]	[ ]	[ ]	[X]
Fish:	[ ]	[ ]	[X]	[ ]
Aquatic Plants:	[ ]	[ ]	[X]	[ ]
Iron/Sulfur Bacteria:	[X]	[ ]	[ ]	[ ]

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:	0.3	22.6	7.8	7.13	82.4	411	0.20	3.9
Mid:								[ ] VOB
Bottom	4.4	22.3	7.81	7.00	80.6	402	0.19	TOTAL DEPTH 4.9

Meter ID:

Water Odors: Normal [X] Petroleum [ ] Sewage [ ] Chemical [ ] Other [ ]

Water Surface Oils: Normal [X] Sheen [ ] Globs [ ] Slick [ ] Other [ ]

Water Sample Taken? [X] Yes [ ] No
Sample Preserved? [X] Yes [ ] No
Lot Number: 613010 Exp: 5-12-17

Color: Tannic [ ] Green (Algae) [ ] Clear [X] Other (Specify) [ ]

Algae Sample Taken? [X] Yes [ ] No
Sample Preserved? [X] Yes [ ] No
Lot Number: Ice Exp: —

Clarity: Clear [ ] Slightly Turbid [ ] Turbid [ ] Opaque [X]

System Type: Stream [X] Lake [ ] Wetland [ ] Estuary [ ] Other(Specify) [ ] River

AMBIENT FIELD CONDITIONS / NOTES:

SBFO_ID: 76529

[X] The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM: Curtis Musson / Ben Rawls / Justin Wallhesp

SIGNATURE: [signature]

DATE: 7-14-2016

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site:	County:	Date:	Investigators:
Wakulla River at 98 bridge	Wakulla	7/14/16	Curtis Musson

STORET Station Number: 21WA0028

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

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

Secchi depth	3.9
Estimated?	No

# points ranked 4-6	55
total points assessed	91
% points ranked 4-6	60%

Check accompanying data collected at same site/date.	
Algal mat sample	Yes
Linear Veg Survey	Yes
Habitat Assessment	Yes
SCI/Biorecon	Yes
Water sample	Yes
RQ-2016-07-11-28	

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: 76529
RBS_ID: 824

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: Wakulla River Below US98 | Date: 7/14/16 | County: Wakulla | Storet Number: 61WAC028

Analyst: Curtis Musson | Signature: Curtis Musson

Comments: SMP Sampling Cladium J. Dominant all Sections

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 Dom	/	/	/	/	/	/	/	/	/	/	
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum					/	/	/				
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata	/					/					
Hydrocotle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
Micranthemum glomeratum											
Micranthemum umbrosum											
Mikania scandens											
Myriophyllum aquaticum											
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	X	X	X	X	X	X	X	X	X	X	
>10 and ≤25% Macrophyte Coverage											
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage											

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											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
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	/	/	/	/	/	/	/	/	/		
Salvinia minima											
Samolus parviflora											
Saururus cernuus	/		/		/	/	/				
Scirpus (schenoplectus) californicus											
Sparganium americanum											
Typha											
Vallisneria americana	/	/	/	/	/	/	/	/	/		
Zizania aquatica											
Luziola fluitans		/			/	/	/		/	/	X
Micranthemum glomeratum					/						
Micranthemum umbrosum					/	/				/	X
Mikania scandens											
Myriophyllum aquaticum											

Sagittaria subulata
Lycopus virginicus
Eleocharis viviparous

SBIO_ID: 76529
Macrophyte ID: 9923

Macrophyte QC Report

STORET: G1WA0028
Visit ID: 76529
Macrophyte ID: 9923
LIMS ID:

Sample Date: 7/14/2016
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	
Cicuta maculata					P						CM
Cladium jamaicense	D	D	D	D	D	D	D	D	D	D	CM
Crinum americanum					P	P	P				CM
Eleocharis vivipara					P	P				P	CM
Hydrilla verticillata	P					P					CM
Lycopus virginicus					P						CM
Myriophyllum heterophyllum	P				P	P				P	CM
Najas guadalupensis	P	P	P	P	P	P	P	P	P	P	CM
Pontederia cordata	P	P	P	P	P	P	P	P	P	P	CM
Sagittaria lancifolia						P					CM
Sagittaria latifolia	P	P	P	P		P	P	P	P	P	CM
Sagittaria subulata		P			P	P	P		P	P	CM
Saururus cernuus	P		P			P	P	P			CM
Vallisneria americana	P	P	P	P	P	P	P	P	P	P	CM

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 questioned data on this page. DO

Meter Biology 2 RQ- RQ-2016-07-11-28 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 06/03/2016

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	7/14/16	0711	23.04	8.578	8.57	100.0	46.1	—	P	L
ICV	Curtis Musson	7/14/16	0712	23.05	8.582	8.57	100.0	46.1	—	P	L
CCV	Curtis Musson	7/14/16	1445	28.0	7.81	8.24	100.1	42.1	—	P	L/B
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	7/14/16	0714	160330D	04/2017	1000	1000	P	L
ICV	Curtis Musson	7/14/16	0716	160330D	04/2017	1000	1000	P	L
CCV	Curtis Musson	7/14/16	1447	2601533	12/2017	100	100	P	L
CCV									

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	7/14/16	0718	160330D	10/2017	7.000	7.00	-18.5	P	L
Calibr.	Curtis Musson	7/14/16	0721	160330A	04/2017	4.01	4.01	158.6	P	L
Calibr.	Curtis Musson	7/14/16	0723	160330C	10/2017	10.01	9.99	-189.3	P	L
ICV	Curtis Musson	7/14/16	0725	160330C	10/2017	10.01	9.99	-189.4	P	L
CCV	Curtis Musson	7/14/16	1449	160330B	10/2017	7.000	7.07	-29.0	P	L
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: RQ-2016-07-11-28

Wakulla River and Chicken Branch

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Apr 7, 2016

Customer: WQAP

Project ID: SMP

Requester: Benjamin Ralys

Collected By: Ben Ralys, Curtis Musson

Field Report Prepared By: Curtis Musson

Sampling Agency: FDEP

Location: Chicken Branch at old Plank Rd
Field ID: G1WA0031-07142016
STORET #: G1WA0031
Latitude: ☐ dd ☐ dms **Longitude:** ☐ dd ☐ dms

☐ Comp ☑ Grab | Collection (comp begin or grab) Date 7-14-16 Time 0930 (Eastern / Central) | Composite end Date — Time — | Bottle Group(s) (See pg 2): A, B

Matrix (type, e.g., Salt, Fresh, etc): Fresh | Diss. Oxygen 5.90 ☑ mg/L ☐ % sat | Total Res. Chlorine (mg/L) —

Temp (C) 21.65 | pH 7.47 | Sample Depth 0.3 ☐ ft ☒ m | Sp. Conductance (umho/cm) 293

Salinity (ppt) 0.14 | Comments: SMP

Location: Wakulla River Below US 98
Field ID: G1WA0028-07142016
STORET #: G1WA0028
Latitude: 30.17607 ☒ dd ☐ dms **Longitude:** -84.2429 ☒ dd ☐ dms

☐ Comp ☑ Grab | Collection (comp begin or grab) Date 7-14-2016 Time 13:00 (Eastern / Central) | Composite end Date — Time — | Bottle Group(s): A, B, C

Matrix (type, e.g., Salt, Fresh, etc): Fresh | Diss. Oxygen 7.13 ☑ mg/L ☐ % sat | Total Res. Chlorine (mg/L) —

Temp (C) 22.60 | pH 7.80 | Sample Depth 0.3 ☐ ft ☒ m | Sp. Conductance (umho/cm) 411

Salinity (ppt) 0.20 | Comments: SMP

Location:
Field ID:
STORET #:
Latitude: ☐ dd ☐ dms **Longitude:** ☐ dd ☐ dms

☐ Comp ☐ Grab | Collection (comp begin or grab) Date Time (Eastern / Central) | Composite end Date Time | Bottle Group(s)

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments

Location:
Field ID:
STORET #:
Latitude: ☐ dd ☐ dms **Longitude:** ☐ dd ☐ dms

☐ Comp ☐ Grab | Collection (comp begin or grab) Date Time (Eastern / Central) | Composite end Date Time | Bottle Group(s)

Matrix (type, e.g., Salt, Fresh, etc) | Diss. Oxygen ☐ mg/L ☐ % sat | Total Res. Chlorine (mg/L)

Temp (C) | pH | Sample Depth ☐ ft ☐ m | Sp. Conductance (umho/cm)

Salinity (ppt) | Comments

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Curtis Musson	7/14/16 / 14:26			SK	7-14-16 / 2:25

Container ID: P-500ML **Qty: 2** **Preservation: ICE And H2SO4** **Lot #** 00064521

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 #** 00065090

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: 2**

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

Description: Plastic Jar 2 L

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

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

Container ID: PT-50ML **Qty: 2** **Preservation: ICE** **Lot #** 03715003

Description: Plastic Tube 50 mL

Analysis	Description
ALGAL_ID	Qualitative assessment of algal taxa present without counts

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Cooler Packed By: Tyler Reynolds Date: 06/24/16

DEP Cooler ID #(s): 1 Cooler

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-2016-07-11-28

Cooler Packing Worksheet for Request: RQ-2016-07-11-28
Wakulla River and Chicken Branch
Ship Cooler On: 6/27/2016
Customer/Project: WQAP/SMP

Requester: Benjamin Ralys
Priority: 3

850-245-8443
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400

Attn: Benjamin Ralys

Comments:
No preservatives needed.

Bottle Group A: freshwater kits no metals
Bottle Group B: SCI
Bottle Group C: Algal

Requested Analyses:

Bottle Group: A

# of Sites: 2

Container ID: P-1L **Qty: 2** **Preservation: ICE** Lot # 00064935

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-TDS	Total Dissolved Solids in aqueous matrices
W-TSS	Total Suspended Solids in aqueous matrices

Container ID: BP-1L **Qty: 2** **Preservation: ICE** Lot # 1172350

Description: Brown Plastic Bottle 1L

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