21FLGV

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

April 2018

Data Qualified? Yes / No

WIN Station Name: Wakulla At CR 365 Bridge **Date:** 10/30/2018 (mm/dd/yyyy)

WIN/ Field ID: 34879 **WBID:** 1006 **Latitude:** 30.21373 (Decimal Degrees)

County: Wakulla **ORG ID:** 21FLWQA **Longitude:** -84.26163 (Decimal Degrees)

Receiving Body of Water: St. Marks River **RQ-2018-** 10-15-18

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
John Woods	✓		✓		
Jade Burtchett		✓		✓	✓

Sampling Equipment
- [x] Sample Container [ ] Van Dorn [ ] Pole
- [ ] Carboy [x] Syringe
- [ ] Dipper [ ] Other
- Depth Measured with
- Equipment ID

Collection Method
- [ ] Wading [ ] Canoe/Kayak
- [ ] From Shore [ ] Electric Motor
- [ ] Other [x] Gasoline Motor

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

Meter ID# Biology ~~#2~~ 134177 **Matrix:** (Fresh) / Marine / DI

Photos: Yes / (No) **Flow:** No Flow / Intestital / (Flowing) / NA

Tide: Rising/ Falling/ Slack/ (NA) **Tide Times:** High NA Low NA

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPTh)	Sp COND (µmhos/cm)	Temp. (C°)
(EST)	1435	2.1	0.3	2.1 (3)	7.98	91.3	8.13	0.15	316	22.0
CEN	1438		1.6		7.88	90.3	8.12	0.15	316	22.0

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

SBIO ID Numbers: SBIO-ID: 79016 HA-ID: 15479 RPS-ID: 9134 Macrophyte-ID: 11/2/ LIMS#: 2037567

Parameter Suite	Parameter Methods	Preservation	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	SA8197080	7/16/19	[x] <2
Metals	[ ] W-ICPMS [x] W-ICP	[x] Ice [x] HNO_3	NA8197080	7/16/19	[x] <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	[ ] MI-FW-QLDC	[ ] Formalin			
Periphyton	[ ] ALGAE-ID	[ ] Ice			
Microbiology	[ ] E Coli [ ] F Coli [ ] Enterococci	[ ] Ice			
Molecular	[ ] PCR-FILTER [ ] PCR-HF183 [ ] PCR-BacR [ ] PCR-GULL2 [ ] PCR-GFD	[ ] Ice			
Tracers	[x] W-E8321-DI [x] W-E8321-MS	[x] Ice			
Pesticides	[ ] W-PSNP-TQ [ ] W-CT-CL-R [ ] W-E8321-DI [ ] W-PCL-SQ-R [ ] WE8321-MS [ ] W-CARB-AA	[ ] Ice [ ] Other			

Place Preservative Sticker(s) Here (If Available)

Notes:

Kit-C
Tracers
SCI, Algal ID

Location ↓

Wakulla River at CR 365

34879 ← WIN ID/Field ID

Signature: Jade B **Date:** 10/30/18

Enter Field Parameters, Verify Station ID In LIMS DMT: JB 11/9/18 (Initials/Date) QC Station ID, Field Parameters In LIMS DMT: JB 11/9/18 (Initials/Date)

Scan/Save Field Sheets CA 11-26-18 (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

QCd by: [redacted] 11/13/19

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

SBIO: 79016 HA: 15479

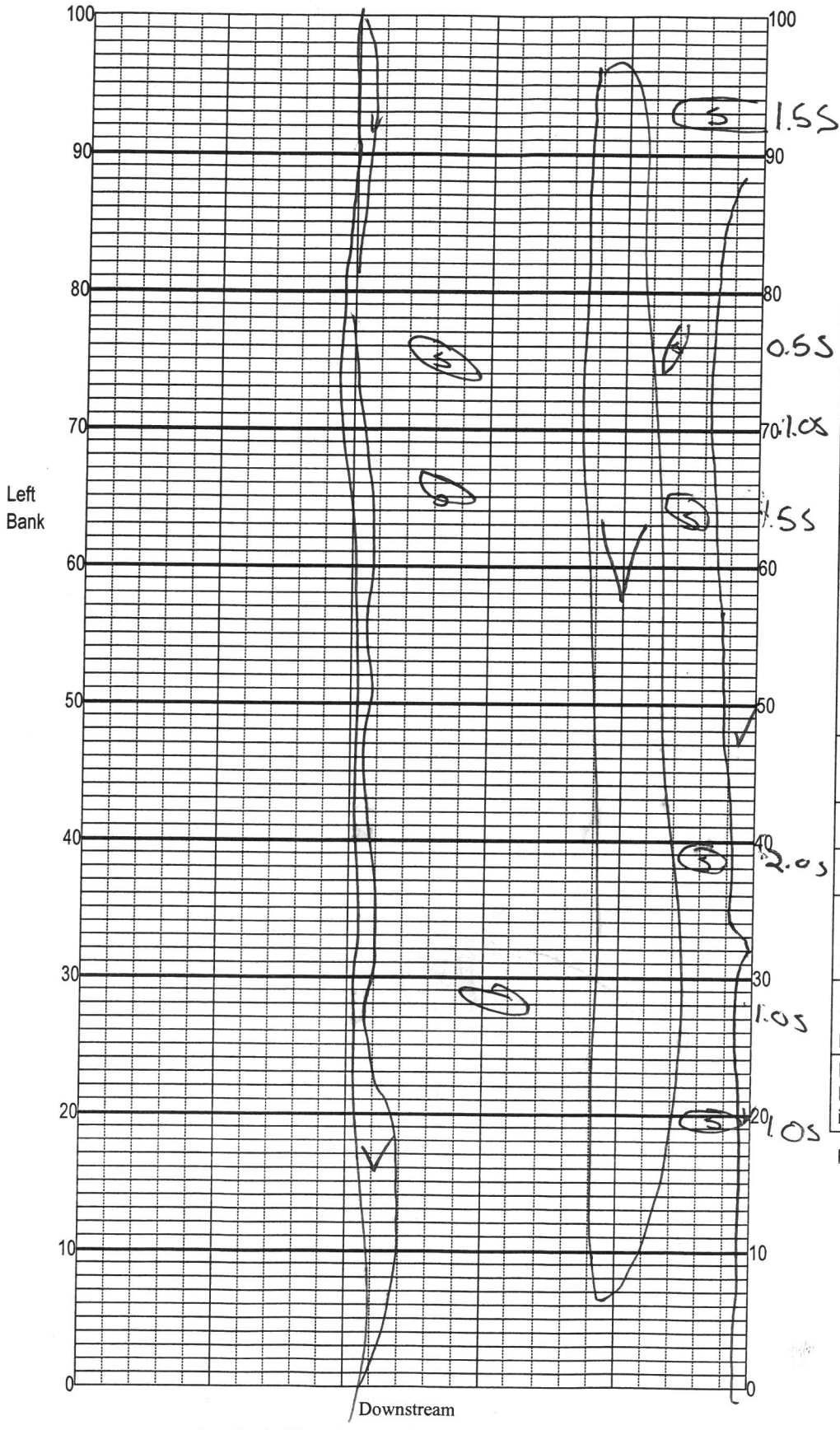
SAMPLING AGENCY:		STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
FDEP		34879	10/30/14	St. Marks
REMARKS:	COUNTY: Wakulla	LOCATION: Wakulla @ 365 bridge		FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 8	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	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 20	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 15 Primary Score 63	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** 19	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 or straightening 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 9	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody 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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 8	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 10 Left Bank 10 Secondary Score 76	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

139 **TOTAL SCORE**

Date: 10/30/14	Analyst: J. Burtchett, J. Woods	Signature: [signature]

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: WCK ulla @ 265 bridge

Date: 10/30/18

Sampler: J. Burkett, J. Woods

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance.		%
S	Snags	0.11
R	Roots/undercut banks	0
L	Leaf Packs (or mats)	0
✓	Aquatic Macrophytes	80
D	Sand	19.89
	Pools	total # observed = ____ # range expected = ____

Average width 75 m

Average depth 2.1 m

Velocity measured at 50 meter mark.

WQ & chemistry taken at 50 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:

Y.S - S

QC'd by: [illegible] 11/13/18

SBIO: 79016 RBS: 9134

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Wakulla @ 365 bridge | County: Wakulla | Date: 10/30/18 | Investigators: J. Burtlett, J. Woods

STORET Station Number: 34879

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

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

Secchi depth	2.1
Estimated?	N

# points ranked 4-6	93
total points assessed	99
% points ranked 4-6	93.99

Check accompanying data collected at same site/date.	
Algal mat sample	✓
Linear Veg Survey	✓
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	✓

RQ-2018-10-15-18

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%.

QC'd by: [illegible] 11/13/18

SBIO: 79016 Macrophyte: 11121 LIMS: 2037567

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

Waterbody: Wakulla | Date: 10/30/18 | County: Wakulla | Storet Number: 34879

Analyst: J. Woods, J. Burkett | Signature:

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if $1m^2$ 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											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

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)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Polygonum hydropiperoides											
Polygonum punctatum		✓									
Pontederia cordata	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha		✓									
Vallisneria americana	D	D	D	D	D	D	D	D	D	D	
Zizania aquatica											
Rhynchospora tracyi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Schoenoplectus californicus										✓	

Macrophyte QC Report

STORET: 34879
Visit ID: 79016
Macrophyte ID: 11121
LIMS ID:

Sample Date: 10/30/2018
Collector Name: Burtchett, Jade
Identifier Name:

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
Polygonum glabrum	P	P	P	P	P	P	P	P	P	P
Pontederia cordata	P	P	P	P	P	P	P	P	P	P
Rhynchospora	P	P	P	P	P	P	P	P	P	P
Sagittaria kurziana	P	P	P	P	P	P	P	P	P	P
Schoenoplectus californicus										P
Vallisneria americana	D	D	D	D	D	D	D	D	D	D

This data has not been fully approved at this time.

Qc'd by: [illegible] 11/13/18

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

SAMPLE ID _____ ORG ID 21FLWQA _____ LATITUDE _____

COUNTY _____ STORET # _____ LONGITUDE _____

DATE 10/30/18 TIME 1445 SAMPLING AGENCY _____

SITE NAME Wakulla @ 365 bridge

FIELD ID/NAME 34879 RECEIVING BODY OF WATER St. marks

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)
60				40			

Landscape Development Intensity Index (LDI): _____

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 : 12 Right Bank : >K

Hydrologic Modification Score (per FT 3101): _____

Typical Width (m) Depth (m)/Velocity (m/sec) Transect: 7.5 m wide

0.4 m/s	1.0 m/s	0.5 m/s
1.5 m deep	2.1 m deep	1.9 m deep

High Water Mark: 1.0 (m) + 2.1 (above present water level) = 3.1 (present depth) (above bed)

Artificially Impounded ☐ Yes ☑ No

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)	0.11	7	
Undercut Banks / Roots			
Leaf Packs or Mat			
Aquatic Vegetation	80	7	
Rock or Shell Rubble..			
Sand.....	19.89	6	
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 :	0.3	22.0	8.13	7.98	91.3	316	0.15	2.1
Mid:								☑ VOB
Bottom	1.6	22.0	8.12	7.46	90.3	316	0.15	TOTAL DEPTH

Meter ID: 154177 — 2.1

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:_____ 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:

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

SAMPLING TEAM J. Woods, J. Burtchett

SIGNATURE : [signature]

DATE : 10/30/18

62-160.800, F.A.C.

Revision Date: January 2017

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 ID: 154177 RQ- 2018-10-15-18 Project: SMP 2018

Notes: (1) Always wait for meter to stabilize before recording any readings.
(2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
(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 9/18

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	baro
Calibr.	J.Burtchett	10/30/18	755	20.0	9.09	9.11	100.1	-	0.99	(P) / F	(L) / F	760.8
ICV	↓	↓	805	18.8	9.33	9.26	99.2	-	-	(P) F	(L) F	761.0
CCV			1841	23.6		8.42	99.2	-	-	(P) F	(L) F	759.9
CCV			1510							P / F	L / F	

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.	J.Burtchett	10/30/18	757	1806210	07/19	1000	1000	(P) / F	(L) F	
ICV	↓	↓	807	1805F61	05/20	100	101	(P) F	(L) F	
CCV			1512	1806213	07/19	50000	51287	(P) F	(L) F	
CCV								P / F	L / F	

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	temp
Calibr.	J.Burtchett	10/30/18	759	1806216	01/20	7.01	7.02	-29.0	(P) / F	(L) F	19.5
Calibr.	↓	↓	801	1805103	5/19	4.00	4.00	149.9	(P) F	(L) F	19.0
Calibr.			803	1804031	10/19	10.0	10.0X	-184.8	(P) / F	(L) F	18.7
ICV			809	1804031	10/19	10.04	10.05	-188.0	(P) F	(L) F	19.1
CCV			1514	1805108	05/19	4.01	3.94	156.1	P / F	L / F	19.7
CCV									P / F	L / F	

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50; mV pH 4 Range +180 ± 50; mV pH 10 Range -180 ± 50;
If mV are recorded: slope from 7 to 10 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? (Yes) **No** If yes, list date of last quarterly depth verification 9/18

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail	Lab / Field
Pressure mode in air	J.Burtchett	10/30/18	753	0.00	0.00	(P) F	(L) F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria ± 5 % or ± 0.05m, whichever is greater.

COMMENTS:

Request Number: RQ-2018-10-15-18

Wakulla BMAP

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: WAS-SECT

Project ID: BMAP

Requester: Curtis Musson

Collected By: J. Woods, J. Burtchett

Field Report Prepared By: J. Burtchett

Sampling Agency: FDEP

Field	Value
Location	Location ↓ Wakulla River at CR 365
Field ID / WIN/STORET #	34879 ← WIN ID/Field ID
Latitude	30.21373 ☒ dd ☐ dms
Longitude	-84.26163 ☒ dd ☐ dms
Comp / Grab	☐ Comp ☒ Grab
Collection (comp begin or grab)	Date 10/30/18 Time 1435 (Eastern) Central
Composite end	Date — Time —
Matrix (type, e.g., Salt, Fresh, etc)	Fresh
Diss. Oxygen	7.94 ☑ mg/L ~~☒ % sat~~
Total Res. Chlorine (mg/L)	—
Temp (C)	22.0
pH	8.13
Sample Depth	0.3 ☐ ft ☒ m
Sp. Conductance (umho/cm)	316
Salinity (ppt)	0.15
Comments	SCI @ 1445
Bottle Group(s) (See pg 2)	A, B

Field	Value
Location	
Field ID	
WIN/STORET #	
Latitude	☐ dd ☐ dms
Longitude	☐ dd ☐ dms
Comp / Grab	☐ Comp ☐ Grab
Collection (comp begin or grab)	Date Time Eastern Central
Composite end	Date Time
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	
Bottle Group(s)	

Field	Value
Location	
Field ID	
WIN/STORET #	
Latitude	☐ dd ☐ dms
Longitude	☐ dd ☐ dms
Comp / Grab	☐ Comp ☐ Grab
Collection (comp begin or grab)	Date Time Eastern Central
Composite end	Date Time
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	
Bottle Group(s)	

Field	Value
Location	
Field ID	
WIN/STORET #	
Latitude	☐ dd ☐ dms
Longitude	☐ dd ☐ dms
Comp / Grab	☐ Comp ☐ Grab
Collection (comp begin or grab)	Date Time Eastern Central
Composite end	Date Time
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	
Bottle Group(s)	

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
JB, JW	10/30/18 1540	HD	1	[signature]	10/30/18 1543

Group	Bottle Type		# of Bottles	Preservative		Enter Number of Bottles Sent to Lab
A	P-1L	ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS	2	ICE		1
A	BP-1L	CHLSUITE-W	2	ICE		1
A	BG-500ML	W-E8321-DI W-E8321-MS	2	ICE		1
A	P-500ML	W-ICP W-ICPMS	2	HNO3		1
A	P-500ML	W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	2	ICE And H2SO4		1
A	P-125ML	W-PO4-F	2	FILTER-ICE		1
B	PT-50ML	ALGAL_ID	2	ICE		1
B	PJ-2L	MI-FW-QLDC	4	Formalin		1

Cooler Packing Worksheet for Request: RQ-2018-10-15-18
Wakulla BMAP
Ship Cooler On: 10/11/2018
Customer/Project: WAS-SECT/BMAP

Assigned To: SHAIK_A
Requester: Curtis Musson
Priority: 3

850-245-8453
2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:
No preservatives needed.

Group A: Nutrients, Metals, Tracers
Group B: SCI, Algae_ID

Packing Notes
No FedEx labes needed
No Trash Bags

Adding QC bottle to Group A

Requested Analyses:

Bottle Group: A # of Sites: 2

Container ID: P-1L **Qty: 2** **Preservation: ICE** **Lot #** 0507 1233

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 using a maximum of 250 mL of sample

Container ID: BP-1L **Qty: 2** **Preservation: ICE** **Lot #** 122 7219

Description: Brown Plastic Bottle 1L

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

Container ID: BG-500ML **Qty: 2** **Preservation: ICE** **Lot #** 0071185

Description: Brown Glass Bottle 500ML Affix BLUE dot to container.

Analysis	Description
W-E8321-DI	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
W-E8321-MS	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Container ID: P-500ML **Qty: 2** **Preservation: HNO3** **Lot #** 0071864

Description: Plastic Bottle 500 mL Affix RED nitric acid dot to container.

Analysis	Description
W-ICP	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects
W-ICPMS	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

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Container ID: P-500ML **Qty: 2** **Preservation: ICE And H2SO4** **Lot #** 0071864

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: FILTER-ICE** **Lot #** 0068347

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: PT-50ML **Qty: 2** **Preservation: ICE** **Lot #** 0377503

Description: Plastic Tube 50 mL

Analysis	Description
ALGAL_ID	Qualitative assessment of algal taxa present without counts

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

Description: Plastic Jar 2 L

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

Cooler Packed By: [signature] Number of Coolers: 2 Date: 10-15-18

Kit must also include:
- ✓ Field Sheets
- ✓ Temperature Control Bottle
- X FedEx Bills, if applicable
- ✓ Plastic Bags/Zip Ties
- X Acid Labels (sets of 24)

If Preservation Included:

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

PLEASE RETURN ALL COOLERS FOR RQ-2018-10-15-18