



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Wakulla River At Boat Tram **Date:** 10/19/2020 ✓
WIN/Field ID: 44059 ✓ **WBID:** 1006 **ENR:** **Latitude:** 30.2346
County: WAKULLA **Org ID:** 21FLWQA **Longitude:** -84.2945
Receiving Body of Water: Ochlockonee - St. Marks **RQ:** 2020-10-19-16

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Avril Wood-McGrath	x		x		
☒	Blake Spencer		x		x	x
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Sonar	
Secchi Equipment ID:	
Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# EXO #1							
Photos: NO		Flow: FLOW		Tide:		Tide Times: High: Low:							
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☒ Algae ID ☒ LVS ☐ LVI Other:													
SBIO ID Numbers: SBIO: 81560 HA: 16689 RPS: 9614 LVS: 11744 LIMS: 2203272													
Notes: OVERCAST													

Duplicate Sample

Time Zone: EST	Time: N/A	Field ID: N/A	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone:	Time: N/A	Field ID: N/A	(Blank Type_DDDMMYYY)
DI Source: N/A		Location: N/A	
DI Type: N/A		Equipment ID: N/A	

LIMS EVENT ID: WAS-SECT-2020-10-19-01 **WIN Import ID:** 21FLWQA_WAS-SECT-2020-10-19-01_03-05-2021.TXT
Enter Field Parameters, Verify Station ID In LIMS DMT: SBS 12/16/20 **QC Station ID, Field Parameters In LIMS DMT:** AWM 12/29//2020 ✓
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets **Migrate Data to WIN:** DT 3/5/21 **Verify Data In WIN:**
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2020-10-19-16

Customer: WQAP

Project ID: SMP

Collected By: Avril Wood-McGrath, Blake Spencer

Field Report Prepared By: Avril Wood-McGrath

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



44059

Location: Wakulla River At Boat Tram

Comments:

Matrix: Fresh

(Check one)

☒ GRAB☐ COMPOSITE

Date ✓	Time ✓	DO (mg/L) ✓	DO (%SAT) ✓	Temp. (C°) ✓	pH ✓	Sample Depth (m) ✓	Secchi Disk (m)	Total Depth (m) ✓	Sp COND (µmhos/cm) ✓	Salinity (PPT) ✓
10/19/2020	11:58 EST	3.3	37.1	21.315	7.28	0.3	0.9 ☒ VOB (S)	0.9	319.1	0.15

Central Lab please use top row for login purposes

EST										
-----	--	--	--	--	--	--	--	--	--	--

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4*	☒ <2	1	A
	Lot # Sa-9354050 Exp: 12/20/2020				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO3*	☒ <2	1	A
	Lot # Na-9354060 Exp: 12/20/2020				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # 16968882				
	Syringe Lot # 0079900				
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☒ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☒ Ice		1	A
Macroinvertebrates (PJ-2L)	☒ MI-FW-QLDC	☒ Formalin		2	B
Periphyton (PT-50ML)	☒ ALGAE-ID	☒ Ice		1	B
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☒ Ice		1	A
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐	☐ Ice			
Tracers (BG-500ML)	☒ W-E8321-DI ☒ W-E8321-MS	☒ Ice		1	A
Pesticides (BG-500ML) (BG-1L)	☐ W-E8321-DI ☐ WE8321-MS ☒ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)	☒ Ice		4	A
		☐ Ice			

Name:
Avril Wood-McGrath
Blake Spencer

Signature:

Date:

10/19/20

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

Entered by: SS-11/17/20

SAMPLE ID 81560 ORG ID 31ELW004 LATITUDE 30.23458
 COUNTY Wakulla STORET # 44059 LONGITUDE -84.29447
 DATE 10/19/20 TIME _____ SAMPLING AGENCY FDAP
 SITE NAME Wakulla River @ Root Team
 FIELD ID/NAME 44059 RECEIVING BODY OF WATER St. Marks River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>29</u> Silviculture _____ Field/Pasture <u>2</u> Agricultural <u>0.9</u> Residential <u>7</u> Commercial <u>0.7</u> Industry <u>0.9</u> Other (Specify) <u>water</u>								Landscape Development Intensity Index (LDI) <u>1.17</u>
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>85</u> m wide _____ m/s <u>0.5</u> m/s _____ m/s _____ m deep <u>0.9</u> m deep _____ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) <u>3-4</u>				
High Water Mark: <u>0.8</u> + <u>0.9</u> = <u>1.6</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			WATER QUALITY																																																				
<table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th># Times Sampled</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td><u>1%</u></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td><u>>30%</u></td> <td><u>+++</u></td> <td></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sand.....</td> <td></td> <td><u>+++</u></td> <td></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				% Coverage	# Times Sampled	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	<u>1%</u>				Undercut Banks / Roots					Leaf Packs or Mat					Aquatic Vegetation	<u>>30%</u>	<u>+++</u>			Rock or Shell Rubble..					Sand.....		<u>+++</u>			Mud / Muck / Silt					Other					Other					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>21.62</u> <u>7.82</u> <u>3.30</u> <u>37.1</u> <u>319.1</u> <u>0.15</u> Mid: _____ Bottom: _____ Meter ID: <u>Exo #1</u> TOTAL DEPTH <u>0.9</u>		
	% Coverage	# Times Sampled	INVERT # Times Sampled	PERI # Times Sampled																																																			
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ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☐ ☒ Fish: ☐ ☐ ☐ ☒ Aquatic Plants: ☐ ☐ ☐ ☒ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>See Field</u> Exp: <u>Sheet</u> Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>Ice</u> Exp: _____																																																				
			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Stick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐ Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐																																																				
System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>Spring Run</u>			AMBIENT FIELD CONDITIONS / NOTES: ☐ The antecedent hydrologic conditions have been met to my best knowledge.																																																				
SAMPLING TEAM <u>Blake Spencer + Avril Wood-McGrath</u>			SIGNATURE: <u>Blake</u>																																																				
			DATE: <u>10/19/20</u>																																																				

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

SRTO: 91560 ✓

SAMPLING AGENCY: <u>FAEP</u>	STORET STATION NUMBER: <u>44059</u> ✓	DATE (MM/DD/YY): <u>10/19/20</u> ✓	RECEIVING BODY OF WATER: <u>Chickamauga St. River</u>
REMARKS: <u>HA: 16689</u> ✓	COUNTY: <u>Walton</u>	LOCATION: <u>Walton River @ Boat Trap</u>	FIELD ID/NAME: <u>44059</u>

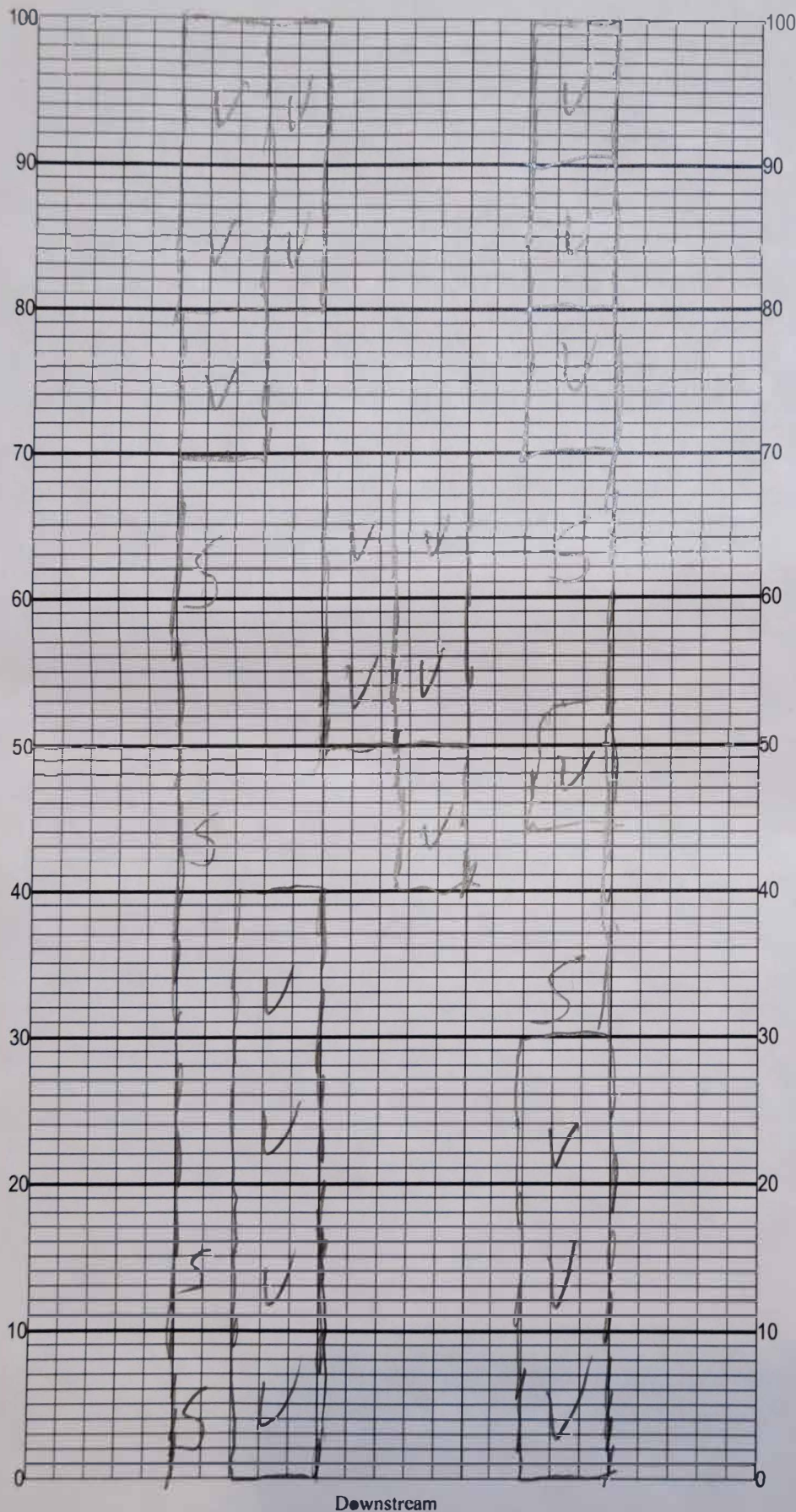
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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>9</u> ✓	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>20</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 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>20</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 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 <u>11</u> ✓ Primary Score <u>60</u> ✓	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 or straightening 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>20</u> ✓	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability ✓ Right Bank <u>10</u> Left Bank <u>10</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull 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 <u>10</u> Left Bank <u>10</u>	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 <u>10</u> Left Bank <u>10</u> Secondary Score <u>80</u> ✓	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: <u>10/19/20</u>	Analyst: <u>Blake Spencer</u>	Signature: <u>[Signature]</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

Left
Bank



Downstream

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

Location: Wakulla River @ Port Trom

Date: 10/19/20

Sampler: Blake Spencer

100 m: Latitude 30.234249

Longitude -84.294304

0 m: Latitude 30.23434

Longitude -84.29447

Substrates: Code key, draw proportionate habitat abundance. %

S Snags 10%

R Roots/undercut banks

L Leaf Packs (or mats)

M Aquatic Macrophytes >30%

 Pools total # observed =
range expected =

Average width 85 m

Average depth 1.5 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:

5810-81560 ✓ RPS-9614 ✓

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Wakulla River @ Boat Tram</u> County: <u>Wakulla</u> Date: <u>10/19/20</u> Investigators: <u>Blake Spencer + Avril Wood - McGeath</u>									
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
4	1	X			60	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	6		0		5	6		0
	6	6				6	6		
	7	6				7	6		
	8	N				8	N		
	9	N				9	N		
10	1	9			70	1	X		
	2	9				2	N		
	3	9				3	N		
	4	9		0		4	N		0
	5	9				5	N		
	6	9				6	N		
	7	9				7	N		
	8	9				8	N		
	9	9				9	X		
20	1	X			80	1	X		
	2	N				2	N		
	3	N				3	N		
	4	N		0		4	N		
	5	9				5	N		0
	6	9				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
30	1	X			90	1	X		
	2	N				2	N		
	3	N				3	N		
	4	9		0		4	N		
	5	9				5	N		0
	6	9				6	N		
	7	9				7	N		
	8	9				8	N		
	9	9				9	N		
40	1	N			100	1	N		
	2	N				2	N		
	3	N				3	N		
	4	9		0		4	N		
	5	N				5	N		0
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
50	1	N			50	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N		0		4	N		
	5	6				5	6		
	6	6				6	6		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		

STORET Station Number: 491058

Secchi depth 2.9 140
 Estimated? N

points ranked 4-6 48
 total points assessed 87
 % points ranked 4-6 55%

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

RQ- 2020-10-19-16

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%.

Waterbody: <u>Little Back River</u>	Date: <u>11/19/12</u>	County: <u>Wade</u>	Storet Number: <u>111059</u>
Analyst: <u>Blake Spencer</u>	Signature: <u>[Signature]</u>		
Comments:			

[illegible]

62-160,800, F.A.C.

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

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

Meter ID:

Exo #1

RQ:

2020-10-19-16

Project:

Wakulla BMAP

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.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro- meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Blake Spencer	10/19/20	0707	18.73	760.2	9.33	9.33	100	—	1.0745	(P) / F	(L) / F
ICV	Blake Spencer	10/19/20	0709	18.75	760.1	9.31	9.35	100.4	—	—	(P) / F	(L) / F
CCV	Amil Wood-McGath	10/19/20	1340	23.6	759.6	8.482	8.34	99.0	—	—	(P) / F	(L) / F
CCV											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 (Pro DSS 0.75 to 1.50); 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 μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Blake Spencer	10/19/20	0712	191120A	12/2020	1000	1000	(P) / F	(L) / F
ICV	Blake Spencer	10/19/20	0715	2911693	11/2021	100	103.8	(P) / F	(L) / F
CCV	Amil Wood-McGath	10/19/20	1346	2911693	11/2021	100	104.6	(P) / F	(L) / F
CCV	Amil Wood-McGath	10/19/20	1347	191120D	12/2020	1000	998	(P) / F	(L) / F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Blake Spencer	10/19/20	0717	200407B	10/21	7.02	20.6	7.02	-19.4	(P) / F	(L) / F
Calibr.	Blake Spencer	10/19/20	0720	191120A	06/21	4.00	20.6	4.00	154.1	(P) / F	(L) / F
Calibr.	Blake Spencer	10/19/20	0723	191120C	06/21	10.05	20.7	10.05	-189.3	(P) / F	(L) / F
ICV	Blake Spencer	10/19/20	0725	191120C	06/21	10.05	20.7	10.04	-189.5	(P) / F	(L) / F
CCV	Amil Wood-McGath	10/19/20	1343	191120A	06/21	4.00	22.7	4.02	153.1	(P) / F	(L) / F
CCV										P / F	L / F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

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)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / **NO** / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: _____

If NO, what will be used? (circle one) Secchi Disk Line / **Sonar** Unique ID: _____; Date of last verification: _____

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						P / F	L / F

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

COMMENTS:

Wakulla BMAP

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: WAS-SECT

Requester: Curtis Musson

Field Report Prepared By:

Project ID: BMAP

Collected By:

Sampling Agency:

Ami Wood-McGrath
EDEF

Ami Wood-McGrath; Blake Spencer

Location Wakulla River at Boat Tram		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 10/19/20 Time 11:50	Eastern Central	Composite end Date Time	Bottle Group(s) (See pg 2)
Field ID 44059	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 34.1		☐ mg/L ☒ % sat	Total Res. Chlorine (mg/L)	A
WIN/STORET # 44059	Temp (C) 21.3	pH 7.28	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 319.1	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt) 0.15	Comments			
Location Wakulla River at Boat Tram		☐ Comp ☐ Grab	Collection (comp begin or grab) Date 10/19/20 Time 11:30	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID 44059	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen		☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	B
WIN/STORET # 44059	Temp (C)	pH	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen		☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen		☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen		☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
WIN/STORET #	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments			

Relinquished By: Ami Wood-McGrath	Date/Time 10/19/20 1:21	Shipping Method Hand Delivered	Number of Coolers Shipped: 1	Received By: S. Madhava Reddy	Date/Time 10-19-2020
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1:30pm

Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	CHLSUITE-W						
Group: A	Bottle Type:	P-250ML-WO-THI	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ECOLI-18QT						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	W-E8321-DI W-E8321-MS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
	W-HARD W-ICP W-ICPMS NA9354060						
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
	W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC H2SO4 LOT# 593354070 EXP: 12/20/2020						
Group: A	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
	W-PO4-F						
Group: A	Bottle Type:	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	W-PSNP-TQ						
Group: B	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALGAL_ID						

Group: B

Bottle Type:

PJ-2L

of Bottles: 2

Preservative:

Formalin

Enter Number of Bottles Sent to Lab

2

MI-FW-QLDC

Wakulla BMAP

Ship Cooler On: 10/15/2020

Customer/Project: WAS-SECT/BMAP

Assigned To: REYNOLDS_T

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, Q-PSNP-TQ

Group B: SCI, Algae_ID

Packing Notes:

No FedEx Labels

No Trash Bag

Requested Analyses:

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

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00077923

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm (not valid for NPDES monitoring)

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 128338

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-250ML-WO-THI

Qty: 1 Preservation: ICE

Lot # 009303

Description: 250 ml Sterilized no tablet

Analysis

ECOLI-18QT

Description

Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems

Container ID: BG-500ML

Qty: 1 Preservation: ICE

Lot # 00872525

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

Description

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Container ID: P-500ML

Qty: 1 Preservation: HNO3

Lot # 0078385

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-HARD

W-ICP

W-ICPMS

Description

Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Container ID: P-500ML

Qty: 1 Preservation: ICE And H2SO4

Lot # 0078385

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 1 Preservation: FILTER-ICE

Lot # 0078141

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Container ID: BG-1L

Qty: 4 Preservation: ICE

Lot # 00077472

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-PSNP-TQ

Description

Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

Bottle Group: B

of Sites: 1

Container ID: PT-50ML

Qty: 1 Preservation: ICE

Lot # 03775003

Description: Plastic Tube 50 mL

Analysis

ALGAL_ID

Description

Qualitative assessment of algal taxa present without counts

Container ID: PJ-2L

Qty: 2 Preservation: Formalin

Lot # BLOWASH

Description: Plastic Jar 2 L

Analysis

MI-FW-QLDC

Description

No. Taxa of FW macroinverts, qual samp, 20 dipnets.

Cooler Packed By: Tyler K

Number of Coolers: 1

Date: 10/12/2020

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle
- ☒ FedEx Bills, if applicable
- ☒ Plastic Bags/Zip Ties
- ☐ 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-2020-10-19-16