



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

October 2016

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Data Qualified?
Yes / No

STORET Station Name: Merritt's Mill Pond mid under powerlines

Date: 12/14/2106

(mm/dd/yyyy)

STORET Station ID: G2WA0008

WBID: 180A

Latitude: 30.7698

(Decimal Degrees)

County: Jackson

RQ - 2016-12-12-534

12/14/16

ORG ID: 21FLWQA

Longitude: -85.1731

(Decimal Degrees)

Receiving Body of Water: Chipola River

Field ID: G2WA0008-12142016

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment			
Curtis Musson									☒ Sample Container	☐ Van Dorn	☐ Pole	
Ben Ralys									☐ Carboy	☒ Syringe		
Robert Wiwi									☐ Dipper	☐ Other		
									Equipment ID			
									Collection Method			
									☐ Wading	Via Boat		
									☐ From Shore	☐ Canoe/Kayak		
									☐ Other (note below)	☐ Electric Motor		
										☒ Gasoline Motor		
Water Level: Dry / Low / <u>Normal</u> / High / Flooded									Matrix: <u>Fresh</u> / Marine / DI			
Meter ID# <u>Biology 2</u>				Photos: Yes / <u>No</u>				Tide Falling: Yes / No / <u>NA</u>				
Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)		
<u>EST</u>	10:35	0.3	2.2	9.90	107.9	7.88	0.13	10B	270	19.52		
CEN	10:40	1.8 ^{REV} 1.7		9.36	100.8	7.80	0.13		271	18.89		
Biological Samples Collected: None HA SCI <u>LVS</u> <u>RPS</u> LVI Other												
Parameter Suite		Parameter Methods				Preservation		Acid Lot#	Expiration	pH Check		
Preserved Nutrients		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☐ H2SO4		SA-6209120	7/27/17	☒ <2		
Metals		☒ W-ICPMS ☒ W-ICP				☒ Ice ☐ HNO2		NA-6218060	8/5/17	☒ <2		
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice		Contains 1:1 Sulfuric Acid SA-6209120 EXP: 07/27/17 Warning! See SDS Contains 1:1 Nitric Acid NA-6218060 EXP: 08/05/17 Warning! See SDS				
Chlorophyll		☒ CHLSUITE-W				☐ Ice						
Physical/Aggregate (Fresh)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice						
Physical/Aggregate (Marine)		☐ Alkalinity / W-F / W-TSS / TURBIDITY				☐ Ice						
Macroinvertebrates		☐ MI-FW-QLDC				☐ Formalin						
Microbiology		☐ E Coli ☐ F Coli ☐ 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						

Notes:

Grass
carr
presentMerritt's Mill Pond
mid under
powerlines

STORET ↓



G1WA0008

Field ID →

Merritt's Mill Pond
mid under powerlines

Dec 14, 2016



G2WA0008-12142016

Signature:

Date:

12/14/16

Field Parameters Entered into LIMS: DT 12/19/16
(Initials/Date)Field Parameters QC in LIMS: _____
(Initials/Date)Date Migrated to STORET: _____
(Initials/Date)Field Sheets Scanned/Saved: _____
(Initials/Date)LIMS: 1857879
SBIO: 77163

RPS: 8519

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Merritt's Mill Pond mid under powerlines

County: Tadousac

Date: 12/14/16

Investigators: Curk's Muggon, Ben Palys, Albert Wini

STORET Station Number: G2W/A0008

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

Secchi depth VOB
Estimated? N

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

Check accompanying data collected at same site/date.
Algal mat sample ☒
Linear Veg Survey ☐
Habitat Assessment ☒
SCI/Biorecon ☐
Water sample ☒
RQ-2016-12-12-534 DT 12/14/16

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

LIMS: 1857879
SB10: 77163
RPS: 8519

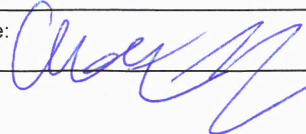
Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.
Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. 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 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: Florida Department of Environmental Protection		STORET STATION NUMBER: G2WA0008	DATE (MM/DD/YY): 12/14/16	RECEIVING BODY OF WATER: Chipda River
REMARKS:	COUNTY: Jackson	LOCATION: Merritt's Mill Pond mid under powerlines		FIELD ID/NAME: G2WA0008-121416

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Snag Leaf Aquatic Vegetation Roots Rock 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 1 1 %	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 6 .05 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 13 ----- Primary Score 27	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 bankfull 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 2 Left Bank 3	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 (6-9m) (4-5m) (<2m)
Riparian Zone Vegetation Quality Right Bank 9 Left Bank 9 ----- Secondary Score	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

TOTAL SCORE

Date: 12/14/16	Analyst: Curtis Mussen	Signature: 
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CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

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

Meter B30 #2 RQ- 2016-12-12-584 Project 12/14/16

- 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 09/23/2016

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 M. Sisson	12/14/16	0715	21.43	8.946	8.85	100.0	50.2	—	P	LAB
ICV	Curtis M. Sisson	12/14/16	0717	21.42	8.946	8.97	100.3	51.2	—	P	LAB
CCV	Curtis M. Sisson	12/14/16	1603	22.03	8.744	9.50	108.7	49.2		Fail	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 μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis M. Sisson	12/14/16	0719	160330D	04/2017	1000	1000	P	LAB
ICV	Curtis M. Sisson	12/14/16	0721	160330D	04/2017	1000	1007	P	LAB
CCV	Curtis M. Sisson	12/14/16	1605	161111E	05/2017	100	100	P	LAB
CCV									

Report specific conductance as a whole number with no decimal figure.

Conductivity Acceptance criteria $\pm 5\%$

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 M. Sisson	12/14/16	0723	161111B	09/2018	7.0	7.00	48.5	P	L
Calibr.	Curtis M. Sisson	12/14/16	0725	161111A	4/2017	4.01	4.01	157.9	P	L
Calibr.	Curtis M. Sisson	12/14/16	0727	160330C	10/2017	10.01	9.97	48.2	P	L
ICV	Curtis M. Sisson	12/14/16	0729	161111A	11/2017	4.01	3.97	158.6	P	L
CCV	Curtis M. Sisson	12/14/16	1607	160330C	10/2017	10.01	10.06	-188.5	P	L
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU;

mV pH7 Range 0 ± 50 ;

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

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 $\pm 5\%$ or ± 0.05 m, whichever is greater

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

Request Number: RQ-2018-12-12-54

Merritt's Mill Pond
Customer: WQAP
Project ID: SMP

Requester: Benjamin Ralys

Collected By: Curtis Musson, Benjamin Ralys, Robert Dwi

Field Report Prepared By: Robert Dwi
Sampling Agency: FDEP

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STORET ↓

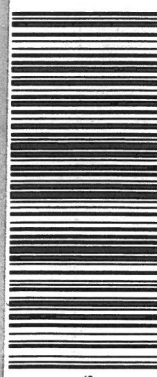
G1WA00009

Field ID →

Merritt's Mill Pond
500 meters
upstream of dam
Dec 14, 2016 G2WA00009-12142016

STORET ↓

G1WA00008

Field ID →

Merritt's Mill Pond
mid under powerlines
Dec 14, 2016 G2WA00008-12142016

STORET ↓

G1WA00007

Field ID →

Merritt's Mill Pond
600 meters
downstream of
Jackson Blue
Spring
Dec 14, 2016 G2WA00007-12142016

Collection (comp begin or grab)		Date		Time		Bottle Group(s)	
Comp	Grab	Eastern	Central	Eastern	Central	Eastern	Central
☐	☒	12/14/16	10:20	11.16	0.3	250	A
Matrix (Salt, Fresh)		Diss. Oxygen (mg/L)		pH		Sp. Conductance (umho/cm)	
Fresh		7.99		0.3		250	
Temp (C)		Salinity (ppt)		Sample Depts (m)		Comments	
17.54		0.12					
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)					
30.755		-85.1881					
☐	☒	12/14/16	10:35	9.90	0.3	270	A, B
Matrix (Salt, Fresh)		Diss. Oxygen (mg/L)		pH		Sp. Conductance (umho/cm)	
Fresh		7.88		0.3		270	
Temp (C)		Salinity (ppt)		Sample Depts (m)		Comments	
19.52		0.13				Grass carp present	
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)					
30.7698		-85.1731					
☐	☒	12/14/16	9:50	7.92	0.3	273	A
Matrix (Salt, Fresh)		Diss. Oxygen (mg/L)		pH		Sp. Conductance (umho/cm)	
Fresh		7.51		0.3		273	
Temp (C)		Salinity (ppt)		Sample Depts (m)		Comments	
20.45		0.13					
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)					
30.787		-85.1459					

Relinquished By: 	Date/Time: 12/14/16 15:23	Number of Coolers: 1	Received By: 	Date/Time: 12-14-16/1523
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Group: A	Bottle Type: ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-TDS W-TSS	P-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	3
Group: A	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	3
Group: A	Bottle Type: W-ICP W-ICPMS	P-500ML	# of Bottles: 3	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	3
Group: A	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 3	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	3
Group: A	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 3	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	3
Group: B	Bottle Type: ALGAL_ID	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1

Cooler Packing Worksheet for Request: RQ-2016-12-12-54

Merritt's Mill Pond

Ship Cooler On: 12/13/2016

Customer/Project: WQAP/BMAP

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 kit including metals

Bottle Group B: Algal ID

Requested Analyses:

Bottle Group: A

of Sites: 3

Container ID: P-1L

Qty: 3 Preservation: ICE

Lot # 00065893

Description: Plastic Bottle 1L

Analysis

ALKALINITY
TURBIDITY
W-CL-IC
W-COLOR
W-F
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
Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Total Dissolved Solids in aqueous matrices
Total Suspended Solids in aqueous matrices

Container ID: BP-1L

Qty: 3 Preservation: ICE

Lot # 1185930

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Cooler Packed By: _____

Date: _____

12/12/16

DEP Cooler ID #(s): _____

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-2016-12-12-54