

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: YST 0054 RQ: 2020-11-12 Project: SCS 26,116

- 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.	JT Parnish	12/15/20	755	22.2	761	8.7	8.7	100.2	—	—	P/F	L/F
ICV	L	12/15/20	756	22.2	761	8.7	8.73	100.2	—	—	P/F	L/F
CCV	JT Parnish	12/15/20	1045	22.8	761	9.0	9.1	101.4	—	—	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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	JT Parnish	12/15/20	757	2009020	9/21	1000	1000	P/F	L/F
ICV	L		758	2009020	9/21	100	100.3	P/F	L/F
CCV	JT Parnish	12/1	1647	2009020	9/21	1413	1397	P/F	L/F
CCV								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.	JT Parnish	12/15/20	759	2001031	1/22	7.	23.2	7.01	23	P/F	L/F
Calibr.	L		800	2006806	5/22	4.	23.2	4.00	115	P/F	L/F
Calibr.	L		801	2006806	12/21	10.	23.2	10.02	200	P/F	L/F
ICV	L		802	2006806	5/22	4.	23.2	7.00	115	P/F	L/F
CCV	JT Parnish	12/15/20	1648	2001031	1/22	7.0	22.4	7.17	37.3	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	JT Parnish	12/15/20	800	0.00	0.00	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:

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date: 12/15/2020
Customer: NE-DIST
RQ: RQ-2020-11-16-12

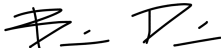
Collected By: Jeremy Parrish, Brian Davis
Sampling Agency: FDEP
Project ID: SMP

PLEASE RETURN THE ORIGINAL OF THIS FORM WITH SAMPLE SUBMITTAL
FORMS AND THE COOLER PACKING WORKSHEET TO THE LAB

Number of Coolers Shipped: 1

FIELD ID (Labels) submitted under this RQ for this collection date.

Site Location	Field ID/WIN ID
Little st.Marys 200m below murphee rd	 G4NE0295

RELINQUISHED BY(SIGNATURE): 

DATE/TIME: 1600 12/15/20

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By:

Rec'd/Inspected Date:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Little st.Marys 200m below murphee **Date:** 12/15/2020
WIN/Field ID: G4NE0295 **WBID:** 2106 **ENR:** **Latitude:** 30.74276
County: Nassau **Org ID:** 21fla **Longitude:** 81.9184
Receiving Body of Water: St. Marys **RQ:** 2020-11-16-12

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jeremy Parrish	x		x		
☒	Brian Davis		x		x	x
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☐ Syringe	☐ Pole
Depth measured with: Meter	
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# DESI					
Photos: NA		Flow: FLOW		Tide:		Tide Times: High: Low:					
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:											
SBIO ID Numbers:											
Notes:											

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_DDMMYYYY)
DI Source: N/A		Location: N/A	
DI Type: N/A		Equipment ID: N/A	

LIMS EVENT ID: _____ WIN Import ID: _____
Enter Field Parameters, Verify Station ID In LIMS DMT: _____ QC Station ID, Field Parameters In LIMS DMT: _____
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets BD 12/16/20 Migrate Data to WIN: _____ Verify Data In WIN: _____
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2020-11-16-12

Customer: WQAP

Project ID: SMP

Collected By: Jeremy Parrish, Brian Davis

Field Report Prepared By: Jeremy Parrish

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G4NE0295

Location: Little st.Marys 200m below murphee rd

Comments: Microbiology sample(s) submitted to contract laboratory

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 (PPTH)
12/15/2020	1245 EST	4.45	44	14.6	5.49	0.05	0.1 ☒ VOB (S)	0.1	76	0.04

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 # Sa0038110 Exp: 2/7/21				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO3*	☒ <2		A
	Lot # Na9354060 Exp: 12/20/20				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # R9na98003				
	Syringe Lot #				
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			
Macroinvertebrates (PJ-2L)	☒ MI-FW-QLDC	☒ Formalin		2	
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
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			
Pesticides (BG-500ML) (BG-1L)	☒ W-E8321-DI ☐ WE8321-MS ☒ W-PSNP-TQ ☐ W-CT-CL-R	☒ Ice		4	A
	☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)				
		☐ Ice			

Name:
Jeremy Parrish
Brian Davis

Signature:

Date:

12/15/20

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 / Ph(904) 739-2277 / FAX (904) 739-2011

Page 1 of 1

SR #

ALS Contact: Mandy Sullivan

Client Name FDEP-NE ROC		Project Number RQ-2020-11-16-12		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																			
Report To Dep-Overflowmicro@dep.state.fl.us		Report CC SCI Littlest Marys		NUMBER OF CONTAINERS	E.Coli	Enterocool																	Preservative Key 0. None 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. ICE REMARKS
Company/Address 8800 Baymeadows Way W Jacksonville, FL 32256																							
Phone # 904-256-1700		FAX #																					
Sampler's Signature Jeremy Parrish		Sampler's Printed Name Jeremy Parrish																					
CLIENT SAMPLE ID G4NE02915	LAB ID 1/5/21	SAMPLING DATE TIME 12/15/20 1245		Matrix SW	1	X																	Fresh
Special Instructions/Comments: Email Report to: Dep-Overflowmicro@dep.state.fl.us				TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) ☒ STANDARD				REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data Edata Yes No				INVOICE INFORMATION P.O. # Bill to:											
Relinquished By Signature Jeremy Parrish		Received By Signature Helen Hernandez		Relinquished By Signature		Received By Signature		Relinquished By Signature		Received By Signature													
Printed Name Jeremy Parrish		Printed Name Helen Hernandez		Printed Name		Printed Name		Printed Name		Printed Name													
Firm FDEP		Firm HCS		Firm		Firm		Firm		Firm													
Date/Time 12/15/20 1615		Date/Time 12/15/20 1615		Date/Time		Date/Time		Date/Time		Date/Time													

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet
G4NE0295

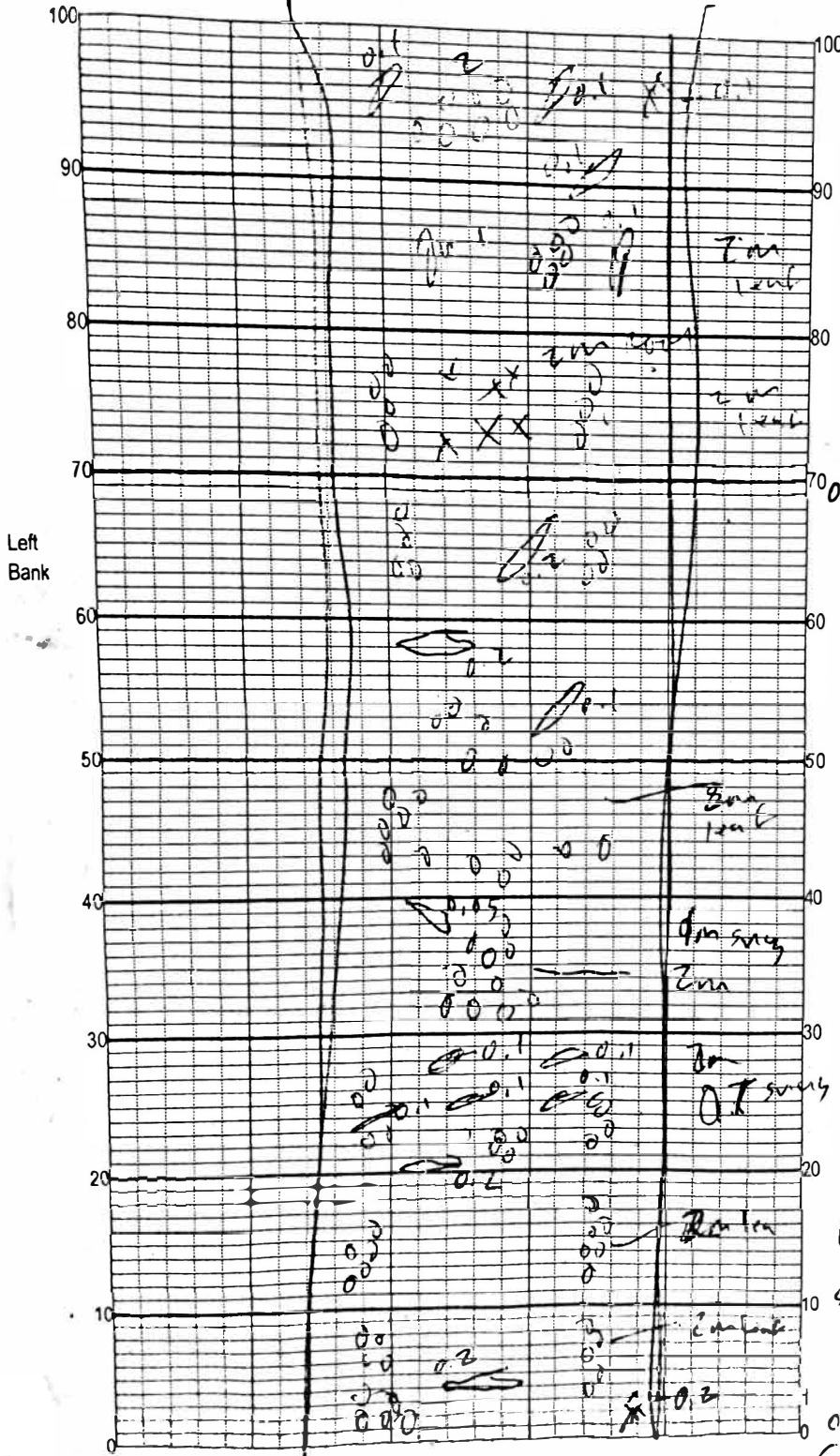
SAMPLING AGENCY:		STORET STATION NUMBER: <u>G4NE0291</u>	DATE (MM/DD/YY): <u>12/15/20</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Nassau</u>	LOCATION: <u>Little St Marys 200m below bridge</u>	FIELD ID/NAME:	

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>11</u>	20 19 18 17 16	15 14 13 12 <u>11</u>	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>10</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 <u>10</u> 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>13</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 <u>13</u> 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>10</u> ----- Primary Score <u>44</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). <u>10</u> 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>19</u>	20 <u>19</u> 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability <u>7</u> <u>7</u> Right Bank <u>7</u> Left Bank <u>7</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. <u>8</u> <u>7</u> <u>6</u>	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 <u>10</u> Right Bank <u>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 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 <u>10</u> Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>73</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. <u>10</u> 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

117 TOTAL SCORE

Date: <u>12/15/20</u>	Analyst: <u>[Signature]</u>	Supervisor: <u>[Signature]</u>
-----------------------	-----------------------------	--------------------------------

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



Location: Little St mays
200 m dam above

Date: 12/15/20

Sampler: JF/B?

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☒ Snags 2.5

☒ Roots/undercut banks 1.0

☒ Leaf Packs (or mats) 10

☐ Aquatic Macrophytes _____

☐ _____

☐ _____

☐ Pools total # observed = 4
range expected = 0

Average width 2 m

Average depth 0.15 m

Velocity measured at 0 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:

leaf ~ 20 m leaf

snags - 1 m

0.2 m sec

0.2 day

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

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little St Mews 200m down from Hughes Rd County: Norfolk Date: 12/15/20 Investigators: Brian Davis

STORET Station Number: G4NE0291 G4NE0295

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	N	IV	82	60	1	N	IV	91
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9	N							
10	1	N		84	70	1	N		89
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9	N							
20	1	N		81	80	1	N		91
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9	N							
30	1	N		90	90	1	N		86
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9	N							
40	1	N		89	100	1	N		90
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9	N							
50	1	N		93		1	N		
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9	N							

Secchi depth VOB
Estimated? NO

points ranked 4-6 1
total points assessed 99
% points ranked 4-6 1

Check accompanying data collected at same site/date.
Algal mat sample ☒
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ-2020-11-16-12

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%.

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

SAMPLE ID _____ ORG ID 21FLA LATITUDE 30.74276
 COUNTY Nassau STORET # 64ME0291 G4NE0295 LONGITUDE -81.9184
 DATE 12/15/20 TIME 1245 SAMPLING AGENCY DEAR NEKOC
 SITE NAME Little St. Melys 200m below Mumphree Rd
 FIELD ID/NAME _____ RECEIVING BODY OF WATER St Melys River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐								Landscape Development Intensity Index (LDI) ☐
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 _____ m wide _____ m/s _____ m/s <u>0.2</u> m/s _____ m deep _____ m deep <u>0.2</u> 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) ☐				
High Water Mark: <u>0.2</u> + <u>0.2</u> = <u>0.4</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

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	<u>2.5</u>	<u>7</u>	
Undercut Banks / Roots	<u>1.0</u>		
Leaf Packs or Mat	<u>1.0</u>		
Aquatic Vegetation			
Rock or Shell Rubble			
Sand			
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:	<u>0.05</u>	<u>14.6</u>	<u>5.49</u>	<u>4.45</u>	<u>44.0</u>	<u>76</u>	<u>0.04</u>	<u>0.1</u>
Mid:								☒ VOB
Bottom:								

Meter ID: Pesi

Water Odors Normal ☒ Petroleum ☐
 Sewage ☐ Chemical ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
 Sample Preserved? ☒ Yes ☐ No

Lot Number: _____ Exp: _____

Algae Sample Taken? ☐ Yes ☒ No
 Sample Preserved? ☐ Yes ☒ No

Lot Number: _____ Exp: _____

Water Surface Oils Normal ☒ Sheen ☐
 Globbs ☐ Slick ☐ Other ☐

Color Tannic ☒ Green (Algae) ☐
 Clear ☐ Other (Specify) ☐

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

Brian Paris, Jeremy Parrish

SIGNATURE:

B = P =

DATE:

12/15/20

G4NE0295

Storet Number: 64NE0291

Signature: B. D.

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² 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.

Less than 2 square
meters of plants

RQ-2020-11-16-12

Login Checklist

Login Station ID: #4

Shipping Method: FedEx | UPS | HD | GreyhoundDate/Time of Receipt: 12/16/2020 @ 10:20

*Cooler Temperature	Samples Frozen?	* All Samples in Cooler Preserved with		Number of Sample Containers in Cooler	Evidence Tape				Waybill Tracking #
					Present?		*Intact?		
	YES	HNO ₃	Formalin		Yes	No	Yes	No	
1.6°C				11		X			9117 6382 0661

COOLER CHECK

*All samples received on ice unless otherwise noted. HNO₃ and Formalin preserved samples do NOT have a temperature requirement.

- If the temperature of a cooler exceeds 6.0 °C (above 10.0 °C for W-1-4-DIOX and microbiology) or received without ice, identify affected samples in an NCR. NCR# _____
- DOH coolers can exceed 2.0 °C above the standard temperature (6.0 or 10.0 °C for W-1-4-DIOX) without login confirmation from customer for samples requiring ice preservation; identify affected samples in an NCR. NCR# _____
- If cooler or samples are received with a damaged Evidence Seal; identify the affected samples in an NCR. NCR# _____
- If coolers or samples are received late; identify the affected samples in an NCR. NCR# _____

Chain of Custody/ Field Sheet(s) Included?

Yes ☒ No ☐

Micro-Biology Overflow Chain of Custody/ Field Sheet(s) Included?

Yes ☒ No ☒ STR

CONTAINER CHECK

Evidence Tape on Bottles?

Yes ☐ No ☐ NA ☒Evidence Tape intact? Yes ☐ No ☐

If Criminal, photographs taken?

Yes ☐ No ☐Containers intact? Yes ☒ No ☐

Caps on tight?

Yes ☒ No ☐

Sufficient Sample Volume:

Yes ☒ No ☐If **NO** is checked above, generate an NCR listing affected sample IDs in its appropriate category. NCR# _____

CHLORINE CHECK REQUIRED? (Blue dot on container)

Yes ☒ No ☐ Init: Tulnn

Chlorine detected? (One container checked per Field ID)

Yes ☐ No ☒ Init: Tulnn

If chlorine is detected, generate an NCR listing affected sample IDs . NCR# _____

PRESERVATION CHECK (EXCLUDING SAMPLES SENT TO OVERFLOW LABS, "OV-")

**Acid Preserved Samples: pH < 2.0?

Yes ☒ No ☐ NA ☐ Init: Tulnn

**W-1-4-DIOX (Green dot on container) preserved to pH < 4.0?

Yes ☐ No ☐ NA ☒ Init: Tulnn

If samples were not preserved correctly, generate an NCR listing affected sample IDs . NCR# _____

Coolers Unpacked/Checked by: Tulnn nupnol Date: 12/16/2020 Event contains NCRs (Y/N)? NO

Event ID: _____

Moses SCI, St. Marys

NE-DIST-2020-12-16-01 (SMP)

Date Received: 16-DEC-2020 10:20

Login Checklist

Login Preservation Equipment

Lot # & Exp: Date

Additional Comments:

Infrared Thermometer ID:	#4 Temp Gun EXP:10/28/2021
pH Test Strips 0 – 6	N/A
pH Paper 0 – 3	N/A
pH Paper 0 – 13	231019 EXP:11/01/2022
Chlorine Test Strips	8261 EXP:07/2021

ENCORE SAMPLES

S-VOC-MS samples in Encores must be frozen within 48 hours of collection.

Were Encore samples received? Yes _____ Init: _____

Date and time placed in freezer _____

Were all samples placed in freezer within 48 hours of collection? Yes _____ No _____

If no, were samples shipped on dry ice? Yes _____ No _____

If S-VOC-MS samples were not preserved correctly, generate an NCR listing affected sample IDs . NCR# _____

FOR CLEAN LAB USE ONLY – Total Mercury Preservation Check (W-HG-AF;W-HG-AF-F):

Samples preserved within 48 hours? Yes _____ No _____

Date and time samples preserved: _____

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date: 12/15/2020
Customer: NE-DIST
RQ: RQ-2020-11-16-12

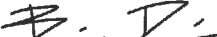
Collected By: Jeremy Parrish, Brian Davis
Sampling Agency: FDEP
Project ID: SMP

PLEASE RETURN THE ORIGINAL OF THIS FORM WITH SAMPLE SUBMITTAL
FORMS AND THE COOLER PACKING WORKSHEET TO THE LAB

Number of Coolers Shipped: 1

FIELD ID (Labels) submitted under this RQ for this collection date.

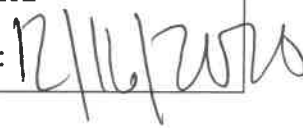
Site Location	Field ID/WIN ID
Little st.Marys 200m below murphee rd	 G4ne0291

RELINQUISHED BY(SIGNATURE): 

DATE/TIME: 1600 12/15/20

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By: 

Rec'd/Inspected Date: 

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: YST 0454 RQ: 2020-11-11-12 Project: SCS 12,116

- 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.	JT Branch	12/15/20	755	22.2	761	8.7	8.7	100.2	-	-	P/F	L/F
ICV	JT Branch	12/15/20	756	22.2	761	8.7	8.73	100.2	-	-	P/F	L/F
CCV	JT Branch	12/15/20	1045	20.8	761	9.0	9.1	101.4	-	-	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.	JT Branch	12/15/20	757	200907B	9/21	1000	1000	P/F	L/F
ICV	JT Branch	12/15/20	758	200907A	9/21	100	100.3	P/F	L/F
CCV	JT Branch	12/11	1647	200902C	9/21	1413	1397	P/F	L/F
CCV								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.	JT Branch	12/15/20	759	2001031	1/22	7.	23.2	7.01	73	P/F	L/F
Calibr.	JT Branch	12/15/20	800	2006B06	5/22	4.	23.2	4.00	115	P/F	L/F
Calibr.	JT Branch	12/15/20	901	2006F35	12/11	10.	23.2	10.02	200	P/F	L/F
ICV	JT Branch	12/15/20	802	2006B06	5/22	4.	23.2	3.98	115	P/F	L/F
CCV	JT Branch	12/15/20	1648	2001031	1/22	7.0	22.4	7.17	32.3	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	JT Branch	12/14/20	8:20	0.02	0.02	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:



RQ-2020-11-16-12

Customer: WQAP

Project ID: SMP

Collected By: Jeremy Parrish, Brian Davis

Field Report Prepared By: Jeremy Parrish

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G4ne0291

Location: Little st.Marys 200m below murphee rd

Comments: Microbiology sample(s) submitted to contract laboratory

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)
12/15/2020	1245 EST	4.45	44	14.6	5.49	0.05	0.1 ☒ VOB (S)	0.1	76	0.04

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 Lot # Sa0038110 Exp: 2/7/21	☒ Ice ☒ H2SO4*	☒ <2	1	A
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD Lot # Na9354060 Exp: 12/20/20	☒ Ice ☒ HNO3*	☒ <2		A
Filtered Nutrients (P125ML)	☒ W-P04-F ☒ Field Filtered 0.45 µm Filter Filter Lot # R9na98003 Syringe Lot #	☒ Ice		1	A
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-S04-IC / W-TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☒ MI-FW-QLDC	☒ Formalin		2	
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
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			
Pesticides (BG-500ML) (BG-1L)	☒ W-E8321-DI ☐ W-E8321-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:
Jeremy Parrish
Brian Davis

Signature:

Date:

12/15/20

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Little st.Marys 200m below murphee rd **Date:** 12/15/2020
WIN/Field ID: G4ne0291 **WBID:** 2106 **ENR:** **Latitude:** 30.74276
County: Nassau **Org ID:** 21fla **Longitude:** 81.9184
Receiving Body of Water: St. Marys **RQ-** 2020-11-16-12

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jeremy Parrish	☒	☒	☒		
☒	Brian Davis		☒		☒	☒
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☐ Syringe	☐ Pole
Depth measured with: Meter	
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# DESI							
Photos: NA		Flow: FLOW		Tide:		Tide Times: High: Low:							
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:													
SBIO ID Numbers:													
Notes:													

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_DDMMYYYY)
DI Source: N/A		Location: N/A	
DI Type: N/A		Equipment ID: N/A	

LIMS EVENT ID: WIN Import ID:
Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets BD 12/16/20 Migrate Data to WIN: Verify Data In WIN:
(Initials/Date) (Initials/Date)

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

SAMPLING AGENCY:		STORET STATION NUMBER: <u>64NE0291</u>	DATE (MM/DD/YY): <u>12/15/20</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Norfolk</u>	LOCATION: <u>Little Springs 200m below bridge #1</u>	FIELD ID/NAME:	

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>11</u>	20 19 18 17 16	15 14 13 12 <u>11</u>	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>10</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 <u>10</u> 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>13</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 <u>13</u> 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>10</u> Primary Score <u>44</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). <u>10</u> 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>19</u>	20 <u>19</u> 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <u>7</u> Left Bank <u>7</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. <u>8</u> <u>7</u> <u>6</u> <u>5</u>	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 <u>10</u> 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>	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. <u>10</u> 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
Secondary Score <u>73</u> <u>117</u>				

TOTAL SCORE

Date: <u>12/15/20</u>	Analyst: <u>Juan</u>	Signature: <u>Juan</u>
-----------------------	----------------------	------------------------

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

Location: Little St. Marys
200 m down river
 Date: 12/15/20
 Sampler: JR/BP

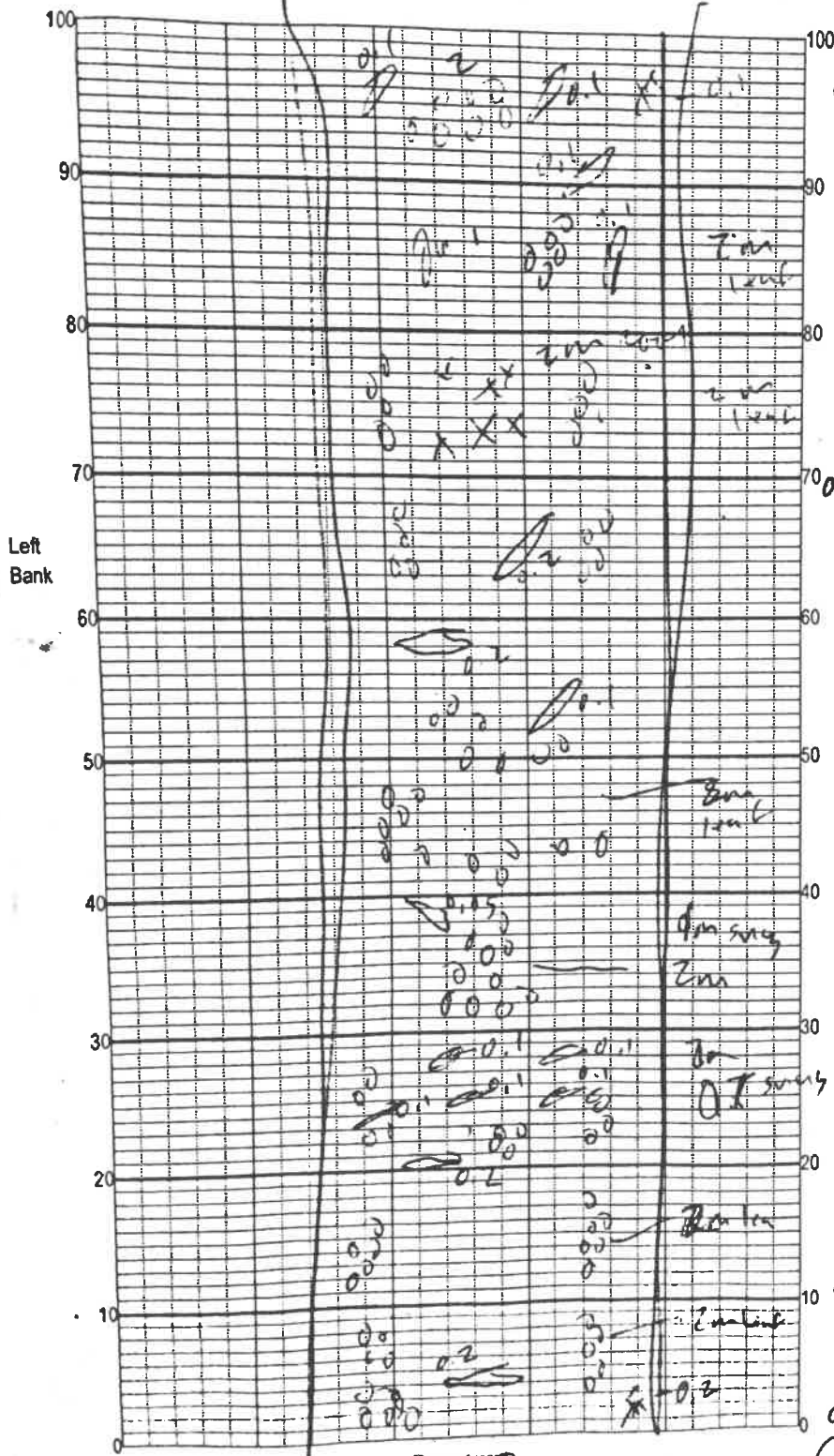
100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance. %	
☒ Snags	<u>2.5</u>
☒ Roots/undercut banks	<u>1.0</u>
☒ Leaf Packs (or mats)	<u>10</u>
☐ Aquatic Macrophytes	_____
☐ _____	_____
☐ _____	_____
☐ Pools	total # observed = <u>4</u> # range expected = <u>0</u>
Average width <u>2</u> m	
Average depth <u>0.15</u> m	
Velocity measured at <u>0</u> meter mark.	
WQ & chemistry taken at <u>50</u> 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:

leaf ~ 20 m leaf

snags - 1 m

0.7 m sec
0.7 deep



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

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little St Mays 200m down from Highway Rd County: Norfolk Date: 12/15/20 Investigators: Brian Davis

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	N	IV	82	60	1	N	IV	91
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
10	1	N		84	70	1	N		89
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
20	1	N		81	80	1	N		91
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
30	1	N		90	90	1	N		86
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
40	1	N		89	100	1	N		90
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
50	1	N		93		1	N		
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								

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%.

STORET Station Number:

64NE0291

Secchi depth 108
Estimated? NO

points ranked 4-6 1
total points assessed 99
% points ranked 4-6 1

Check accompanying data collected at same site/date.

Algal mat sample ☐
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒

RQ-2020-11-16-12

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

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

SAMPLE ID _____ ORG ID 21FLA LATITUDE 30.74276
 COUNTY Nassau STORET # 64WEO291 LONGITUDE -81.9184
 DATE 12/15/20 TIME 1245 SAMPLING AGENCY DEAR NEKOC
 SITE NAME Little St. Melys 200m below Mumpsee Rd
 FIELD ID/NAME _____ RECEIVING BODY OF WATER St Melys River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐							Landscape Development Intensity Index (LDI) ☐
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 _____ m wide			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>218</u> Right Bank: <u>218</u>				Hydrologic Modification Score (per FT 3101) ☐			
High Water Mark: <u>0.2</u> + <u>0.2</u> = <u>0.4</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							
	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)			
Top:	<u>0.05</u>	<u>14.6</u>	<u>5.49</u>	<u>4.45</u>	<u>44.0</u>	<u>76</u>	<u>0.04</u>	<u>0.1</u>			
Mid:											
Bottom:											
Meter ID: <u>Peri</u>				TOTAL DEPTH <u>0.1</u>							
Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐				Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ 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

Brian Davis, Jeremy Parrish

SIGNATURE:

B = P =

DATE:

12/15/20

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

Waterbody Little Sr Mays

Date: 12/15/20 County: Navajo

Storet Number: 64NE0291

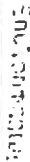
Analyst: Brian Davis

Signature: B. P.

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² 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.

Species for additional taxa names.												Meter Mark												Specime n collected (check)	Meter Mark												Specime n collected (check)										
HERBACEOUS SPECIES												0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	HERBACEOUS SPECIES												0-10	10-20	20-30		30-40	40-50	50-60	60-70	70-80	80-90	90-100			
Alternanthera philoxeroides																							Micranthemum glomeratum																								
Bacopa caroliniana																							Micranthemum umbrosum												✓	✓	✓			✓	✓			✓	✓		
Bacopa monneri																							Myriophyllum aquaticum																								
Bidens mitis																							Najas guadelupensis																								
Boehmeria cylindrica																							Nuphar luteum																								
Centella asiatica																							Orontium aquaticum																	✓						✓	
Ceratophyllum demersum																						✓	Panicum hemitomon																								
Chara																							Panicum repens																								
Cicuta maculata																							Panicum rigidulum																								
Cladium jamaicense																							Pistia stratioides																								
Colocasia esculenta																							Polygonum glabra																								
Commelina diffusa																							Polygonum hydropiperoides																								
Commelina virginica																							Polygonum punctatum																								
Cnrum americanum																							Pontedaria cordata																								
Diodia virginiana																							Potamogeton illinoensis																								
Eichhornia crassipes																							Ruellia simplex																								
Eleocharis (wispy viviparous)																							Sacciolepis striata																								
Hydrilla verticillata																							Sagittaria kurziana																								
Hydrocotie																							Sagittaria lancifolia																								
Hygrophila polysperma																							Sagittaria latifolia																								
Hymenocallis																							Salvinia minima																								
Lachnanthes caroliniana																							Samolus parviflora																								
Landoltia punctata																							Saururus cernuus																								
Lemna																							Sparganium americanum																								
Limnophila sessiflora																							Typha																								
Ludwigia leptocarpa																							Vallisneria americana																								
Ludwigia palustris																							Zizania aquatica																								
Ludwigia peruviana																																															
Ludwigia repens																																															
Luziola fluitans																																															



SK #

ALS Contact: Maundy Sullivan

9143 Phillips Highway, Suite 200 Jacksonville, FL 32256 / Ph(904) 739-2277 / FAX (904) 739-2011

Page 1 of 1

[illegible]

Date of Request: 21-OCT-2020
 Created By: PARRISH_J On: 21-OCT-2020
 Modified By: JASROTIA_P On: 22-OCT-2020
 Customer: NE-DIST
 Project: SMP
 Division: Division of Environmental Assessment and Restoration
 District: Northeast District
 Event Description: Moses SCI, St.Marys

Send Coolers To:

Phone: 904-256-1700
 8800 Baymeadows Way West
 Suite 100
 Jacksonville, FL 32256
 Attn: Jeremy Parrish
 Cooler Ship EMail: Jeremy.M.Parrish@dep.state.fl.us

Priority: 3
 Event Status: R
 Criminal Investigation: NO
 Chemistry Request Reviewed By: WATTS_J On: 21-OCT-2020
 Biology Request Reviewed By: JASROTIA_P On: 22-OCT-2020
 Sampling Kit Required: YES Ship on: 06-NOV-2020
 Sampling Kit Shipped: YES On: 02-NOV-2020
 Sampling Kit Packed By: SHAIK_A
 Preservatives Needed: NO
 Date to Receive Samples: 16-NOV-2020
 Logged In By: MCCOY_I On: 03-DEC-2020

Send Final Report To:

8800 Baymeadows Way West
 Suite 100
 Jacksonville, FL 32256
 Attn: Jeremy Parrish
 Report Notification EMail: Jeremy.M.Parrish@dep.state.fl.us

Comments: Group A: Nutrients, Metals, Tracers, Q-PSNP-TQ, Bacteria
 Group B: SCI, Algae_ID

NE-ALS-ECQ

Packing Notes:
 none

Bottle Group A (Water) With 2 Samples:

Bottle Type: P-1L	Number of Bottles: 2	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-2011) Alkalinity in aqueous matrices as mg CaCO ₃ /L
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
W-COLOR	Template: DEFAULT	(SM 2120 B-2011) True Color measured at 450 nm (not valid for NPDES monitoring)
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-2011) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO ₄ -IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices
W-TDS	Template: DEFAULT	(SM 2540 C-2011) Total Dissolved Solids in aqueous matrices
W-TSS	Template: DEFAULT	(SM 2540 D-2011) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample
Bottle Type: BP-1L	Number of Bottles: 2	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry
Bottle Type: P-250ML-WI-THI	Number of Bottles: 2	Preserved With: ICE
NE-ALS-ECQ	Template: DEFAULT	(SM 9223 B Quanti-Tray) E. coli by Colilert/QT by ALS in Jacksonville
Bottle Type: BG-500ML	Number of Bottles: 2	Preserved With: ICE
W-E8321-DI	Template: DEFAULT	(EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
W-E8321-MS	Template: DEFAULT	(EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
Bottle Type: P-500ML	Number of Bottles: 2	Preserved With: HNO ₃
W-HARD	Template: DEFAULT	(SM 2340B) Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃
Hardness		
W-ICP	Template:	(EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Bottle Group A (Water) With 2 Samples:

Bottle Type: P-500ML	Number of Bottles: 2	Preserved With: HNO3
W-ICP	Template:	(EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Barium
Calcium
Iron
Magnesium
Potassium
Sodium
Zinc

W-ICPMS	Template:	(EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects
---------	-----------	---

*Boron
Aluminum
Antimony
Arsenic
Beryllium
Cadmium
Chromium
Copper
Lead
Nickel
Selenium
Silver
Thallium

Bottle Type: P-500ML	Number of Bottles: 2	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
W-TOC	Template: DEFAULT	(SM 5310 B-2011) Nonpurgeable Organic Carbon in aqueous matrices

Bottle Type: P-125ML	Number of Bottles: 2	Preserved With: FILTER-ICE
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Type: BG-1L	Number of Bottles: 6	Preserved With: ICE
W-PSNP-TQ	Template: MASTERLIST	(EPA 8270E) Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

Bottle Group B (Biological) With 2 Samples:

Bottle Type: PJ-2L	Number of Bottles: 4	Preserved With: Formalin
MI-FW-QLDC	Template: DEFAULT	(SOP-IZ06) No. Taxa of FW macroinverts, qual samp, 20 dipnets.

Bottle Type: PT-50ML	Number of Bottles: 2	Preserved With: ICE
ALGAL_ID	Template: DEFAULT	(SOP-AB05) Qualitative assessment of algal taxa present without counts

* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.