

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: Pro DSS Desi

RQ- 2019-10-14-14

Project: LSTR west

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

7/2019

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.	J Parrish	10/14/19	740	23.8	762.7	8.4	8.4	100.3	—	—	P/F	L/F
ICV	J	↓	741	23.8	762.7	8.4	8.46	100.4	—	—	P/F	L/F
CCV	K. Appleby	↓	1554	25.6	761.3	8.2	8.20	100.3	—	—	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.	J Parrish	10/14/19	755	190711B	7/20	1000	1000	P/F	L/F
ICV	J	↓	756	190711A	7/20	100	103.8	P/F	L/F
CCV	K. Appleby	↓	1558	719820	12/19	24,820	24,957	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.	J Parrish	10/14/19	787	2902778	1/21	7.00	24.3	7.01	-30.9	P/F	L/F
Calibr.	J	↓	758	2904300	3/21	4.00	24.3	4.02	150.6	P/F	L/F
Calibr.	J	↓	759	2810F55	4/20	10.00	24.3	10.01	200.7	P/F	L/F
ICV	J	↓	800	2904300	3/21	4.00	24.3	4.02	148.1	P/F	L/F
CCV	K. Appleby	↓	1600	2810F55	4/20	10.00	24.2	10.00	-202.2	P/F	L/F
CCV										P/F	L/F

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

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

mV pH 10 Range -180 $\pm$ 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: 7/2019

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	J Parrish	10/14/19	801	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 STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Nine Mile at Moncrief Dinsmore Rd Date: 10/14/2019

WIN/ Field ID: 20030779 WBID: 2220 Latitude: 30.4063583
(m/n/dd/yyyy)

County: Duval ORG ID: 21FLA Longitude: -81.750369
(Decimal Degrees)

Receiving Body of Water: _____ RQ-2019- 09-30-12

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
K. Appleby									
J. Parrish									

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>DCS</u>		
Equipment ID _____		

Collection Method		
☒ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded Meter ID# DCS Matrix: Fresh / Marine / JI

Photos: ☒ Yes / No Flow: No Flow / Intertidal / Flowing / NA Tide: Rising/ Falling/ Stagnant Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	900	0.16	0.08	0.16	3.36	38.2	6.69	0.14	284.9	21.9
CEN				5						

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

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	SA9129100	5/2020	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO3	NA8344050	12/2019	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHL-SUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC	☒ Formalin			
Periphyton	☒ ALGAE-ID	☒ Ice			
Microbiology	☒ E Coli ☐ F Coli ☐ Enterococci	☒ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☒ W-E8321-DI ☒ W-E8321-MS	☒ Ice			
Pesticides	☒ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA	☒ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Notes:

WIN ID / Field ID :



20030779

Nine Mile at Moncrief Dinsmore rd

Signature: Jeremy Parrish Date: 10/14/19

LIMS EVENT ID: _____ WIN Import ID: _____

Enter Field Parameters, Verify Station ID in LIMS DMT: _____ QC Station ID, Field Parameters in LIMS DMT: _____

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data in WIN: _____



CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Suite 200. Jacksonville, FL 32256
Phone (904) 739-2277 / 800-695-7222 x06 / FAX (904) 739-2011

www.alsglobal.com

SR #
ALS Contact

Page _____ of _____

Project Name SLI Ninemile		Project Number RQ-2019-09-30-12		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																		
Report To J. Parrish		Report CC		NUMBER OF CONTAINERS E. Coli	Preservative																Preservative Key 0. None 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other REMARKS	
Company/Address 8800 Baymeadows way W																						
FDEP NE ROL																						
Phone # (904) 256-1700		FAX #																				
Sampler's Signature [Signature]		Sampler's Printed Name Kimberly Appleby																				
CLIENT SAMPLE ID 20030779	LAB ID	SAMPLING DATE TIME 10/14/19 900		Matrix SW	1																	Fresh
Special Instructions/Comments: O.6^{cl}				TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) STANDARD REQUESTED FAX DATE REQUESTED REPORT DATE				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:										
SAMPLE RECEIPT: CONDITION/COOLER TEMP:				CUSTODY SEALS: Y N																		
Relinquished By Signature [Signature]		Received By Signature [Signature]		Relinquished By Signature		Received By Signature		Relinquished By Signature		Received By Signature		Relinquished By Signature		Received By Signature								
Printed Name Kimberly Appleby		Printed Name [Signature]		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name								
Firm FDEP NE ROL		Firm [Signature]		Firm		Firm		Firm		Firm		Firm		Firm								
Date/Time 10/14/19 1450		Date/Time 10/14/19 1402		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time								

SCI Ninemile, Little Sixmile

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: NE-DIST

Requester: Jeremy M. Parrish

Field Report Prepared By: Kimberly Applaby

Project ID: SMP

Collected By: J. Parrish + K. Applaby

Sampling Agency: FDEP NE ROL

Locati	WIN ID / Field ID :		20030779	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 10/14/2019 Time 900	☒ Eastern ☐ Central	Composite end Date Time	Bottle Group(s) (See pg 2)
Field I	Nine Mile at Moncrief Dinsmore rd			Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 3.36		Total Res. Chlorine (mg/L) — A, B
WIN/E				Temp (C) 21.9	pH 6.69	Sample Depth 0.08	Sp. Conductance (umho/cm) 284.9	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) 0.14	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			
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: K. Applaby	Date/Time 10/14/2019 1530	Shipping Method Fed Ex	Number of Coolers Shipped: 2	Received By:	Date/Time
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Group: A	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
	ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
	CHLSUITE-W						
Group: A	Bottle Type:	P-250ML-WI-THI	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>1</u> → Sent to ALS
	NE-ALS-ECQ						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
	W-E8321-DI W-E8321-MS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	<u>1</u>
	W-ICP W-ICPMS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	<u>1</u>
	W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 2	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
	W-PO4-F						
Group: A	Bottle Type:	BG-1L	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>3</u>
	W-PSNP-TQ						
Group: B	Bottle Type:	PT-50ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	<u>1</u>
	ALGAL_ID						
Group: B	Bottle Type:	PJ-2L	# of Bottles: 4	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	<u>2</u>

Group: B

Bottle Type:

PJ-2L

of Bottles: 4

Preservative:

Formalin

Enter Number of Bottles Sent to Lab

MI-FW-QLDC

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

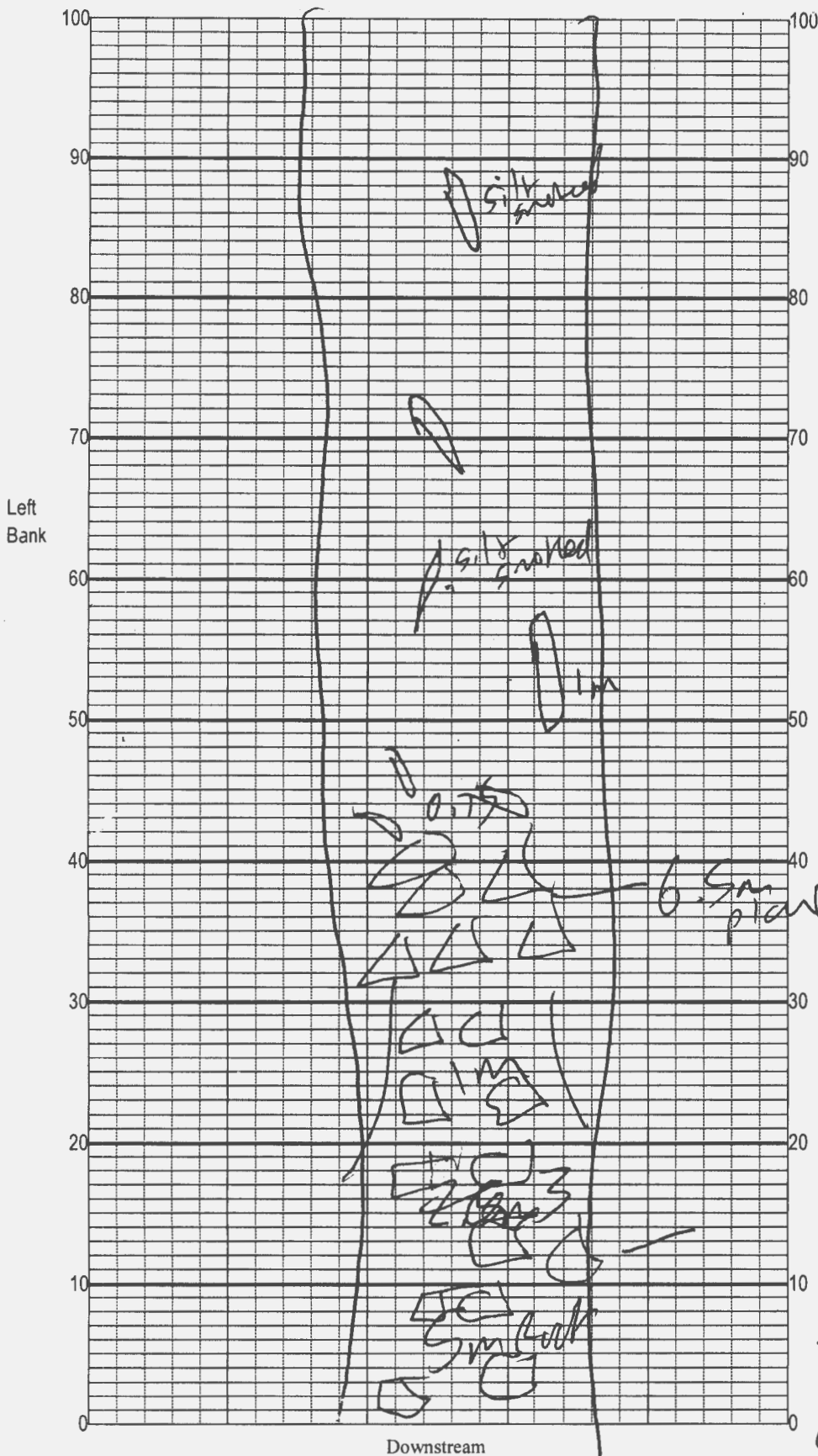
SAMPLING AGENCY: NE ROC		STORET STATION NUMBER: 2003777	DATE (MM/DD/YY): 10/14/19	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Rural	LOCATION: Norway, Angus	FIELD ID/NAME:	

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>6</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 <u>6</u>	5 4 3 2 1
Substrate Availability <u>5</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 <u>5</u> 4 3 2 1
Water Velocity <u>12</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 <u>12</u> 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>8</u> Primary Score <u>31</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 <u>8</u> 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 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>8</u>	20 19 18 17 16	15 14 13 12 11	10 9 <u>8</u> 7 6	5 4 3 2 1
Bank Stability	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.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.
Right Bank <u>4</u> Left Bank <u>7</u>	10 9	8 7 6	5 <u>4</u>	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>6</u> Left Bank <u>6</u>	10 9	8 7 <u>6</u>	5 4	3 2 1
Riparian Zone Vegetation Quality	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>6</u> Left Bank <u>6</u> Secondary Score <u>40</u>	10 9	8 7 <u>6</u>	5 4	3 2 1

71 TOTAL SCORE

Date: 10/14/19	Analyst: J. Purn	Signature: J. Purn
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: 9 mile P. unroll
 Date: 10/14/19
 Sampler: JP/KA

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance. %	
☒ Snags	<u><1</u>
☐ Roots/undercut banks	_____
☐ Leaf Packs (or mats)	_____
☒ Aquatic Macrophytes	<u>2</u>
☒ Rock	<u>3</u>
☐ Pools	total # observed = _____ # range expected = _____
Average width _____ m	
Average depth _____ m	
Velocity measured at _____ meter mark.	
WQ & chemistry taken at _____ 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:

<2 M of Macrophytes was observed while doing the LVS? YES or NO

- 0.3a ser

GLD

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

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

SAMPLE ID _____ ORG ID 21FLA LATITUDE 30.4063583
 COUNTY Duval STORET # 20030779 LONGITUDE -81.750369
 DATE 10/14/19 TIME 900 SAMPLING AGENCY _____
 SITE NAME Nine Mile Manatee River
 FIELD ID/NAME _____ RECEIVING BODY OF WATER _____

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 ☐ 3 m wide	
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>12</u> Right Bank: <u>12-18</u>				Hydrologic Modification Score (per FT 3101) ☐				m/s <u>0.13</u> m/s ☐ m deep <u>0.3</u> m deep ☐	
High Water Mark: <u>0.4</u> + <u>0.3</u> = <u>0.7</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☒ Yes ☐ No				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☒ Heavily Shaded ☐ Moderate Shaded (46-80%)	
Artificially ☐ No ☒ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☒ Recent, severe									

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					
% Coverage Woody Debris (Snags) <u>1</u> Undercut Banks / Roots ☐ Leaf Packs or Mat ☐ Aquatic Vegetation <u>2</u> Rock or Shell Rubble <u>3</u> Sand ☐ Mud / Muck / Silt <u>90</u> Other ☐ Other ☐			INVERT # Times Sampled 2 7 7 4			PERI # Times Sampled 2 7 7 1		
			Depth (M) Top: ☐ Mid: <u>0.15</u> Bottom: <u>0.3</u>			Temp. (°C) <u>21.9</u> pH (SU) <u>6.69</u> D.O. (MG/L) <u>3.36</u> D.O. Sat (%) <u>38.2</u> Cond. (UMHO/CM) <u>285</u> Salinity (PPT) <u>0.14</u> SECCHI (M) <u>0.3</u> TOTAL DEPTH ☐		
			Meter ID: _____					
			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: <u>* Sampled Rock for Habitat</u> <u>was around Bridge</u> ☐ The antecedent hydrologic conditions have been met to my best knowledge.					
SAMPLING TEAM <u>J. Pansh / K. Appleby</u>			SIGNATURE <u>J. Pansh</u>			DATE <u>10/14/19</u>		

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Nine Mile at Manterif Dismore Duval</u>					County: <u>Duval</u>		Date: <u>10/14/19</u>		Investigators: <u>J. Parrish</u>	
					STORET Station Number:					
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	N	60	60	1	N	N	96	
	2					2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8					8				
	9	✓	✓			9	✓	✓		
10	1	4	N	70	70	1	N	N	96	
	2	4				2				
	3	N				3				
	4	4				4				
	5	N				5				
	6	N				6				
	7	N				7				
	8	4				8				
	9	N	✓			9	✓	✓		
20	1	4	N	80	80	1	N	N	96	
	2	4				2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8	✓	✓			8	✓	✓		
	9					9				
30	1	4	N	90	90	1	N	N	92	
	2	4				2				
	3	4				3				
	4					4				
	5					5				
	6					6				
	7					7				
	8					8				
	9	✓	✓			9	✓	✓		
40	1	N	N	100	100	1	N	N	92	
	2					2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8	✓	✓			8	✓	✓		
	9					9				
50	1	N	N	96	96	1	N	N	96	
	2					2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8	✓	✓			8	✓	✓		
	9	✓	✓			9	✓	✓		

Secchi depth

Estimated?

points ranked 4-6 23

total points assessed 23

% points ranked 4-6 23%

Check accompanying data collected at same site/date.

Algal mat sample ☒

Linear Veg Survey ☒

Habitat Assessment ☒

SCI/Biorecon ☒

Water sample ☐

RQ- 09-30-12

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 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: <i>nine mile norwalk river</i>	Date: <i>10/14/11</i>	County: <i>T</i>	Storet Number: <i>20030779</i>
Analyst: <i>Blair</i>	Signature: <i>Blair</i>		

Comments:

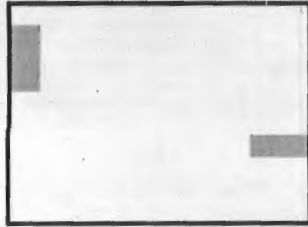
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

[illegible]

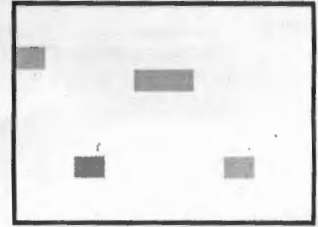
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

Percent Cover Categories for macrophytes in a 10 m segment of a stream 5 m wide

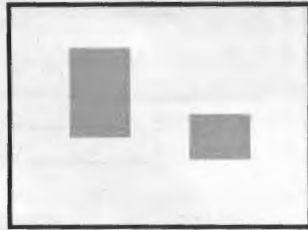
5% Macrophyte Coverage



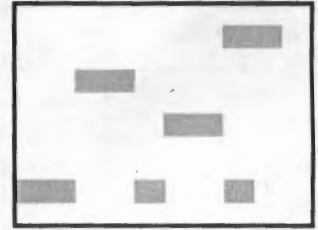
5% Macrophyte Coverage



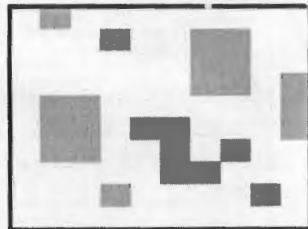
10% Macrophyte Coverage



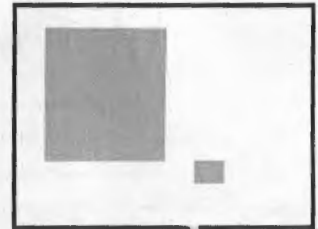
10% Macrophyte Coverage



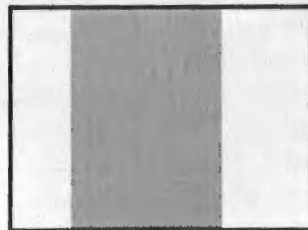
25% Macrophyte Coverage



25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage

