

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

Meter ID:

Pro DSS Dcs:

RQ:

2019-10-14-12

Project:

LSSR Coast/Downtown

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

- 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.	K. Appleby	10/15/19	859	24.2	762.7	8.4	8.40	100.4		1.04	Ⓟ/F	Ⓡ/F
ICV	↓	↓	902	24.4	762.8	8.4	8.39	100.4			Ⓟ/F	Ⓡ/F
CCV	J Parnish	10/15/19	1634	23.9	760.4	8.5	8.45	100.1		1.04	Ⓟ/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.	K. Appleby	10/15/19	905	190711B	7/2020	1000	1000	Ⓟ/F	Ⓡ/F
ICV	↓	↓	908	190711A	7/2020	100	104.5	Ⓟ/F	Ⓡ/F
CCV	J Parnish	10/15/19	1636	190711C	7/2020	50000	50,692	Ⓟ/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.	K. Appleby	10/15/19	916	2902778	1/2021	7.00	24.7	7.00	-31.0	Ⓟ/F	Ⓡ/F
Calibr.	↓	↓	914	2904300	3/2021	4.00	24.8	4.00	152.1	Ⓟ/F	Ⓡ/F
Calibr.	↓	↓	918	2810F55	4/2020	10.00	24.9	10.00	-201.0	Ⓟ/F	Ⓡ/F
ICV	↓	↓	923	2904300	3/2021	4.00	24.9	3.96	152.1	Ⓟ/F	Ⓡ/F
CCV	J Parnish	10/15/19	1639	2810F55	4/2020	10.00	24.9	10.01	-202.8	Ⓟ/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 10 170.0, slope from 4 to 7 183.1 (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	K. Appleby	10/15/19	925	0.00	0.00	Ⓟ/F	Ⓡ/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: MCCOYS CR AT LELAND ST

Date: 10/15/2019

(mm/dd/yyyy)

WIN/ Field ID: 20030725

WBID: 2257

Latitude: 30.32666

(Decimal Degrees)

County: Duval

ORG ID: 21FLA

Longitude: 81.69855

(Decimal Degrees)

Receiving Body of Water: SJR

RQ-2019- 10-14-14

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
<u>J. D. Smith</u> <u>K. Appleby</u>						☒	☒	☒	☒	☒	☒ Sample Container	☐ Van Dorn	☒ Pole		
											☐ Carboy	☐ Syringe			
											☐ Dipper	☐ Other			
											Depth Measured with <u>meter</u>				
Equipment ID <u>Ortho Kit #44</u>						Collection Method									
						☐ Wading	☒ From Shore	☐ Other	☐ Canoe/Kayak						
									☐ Electric Motor						
									☐ Gasoline Motor						
Water Level: <u>Dry</u> / Pooled / Low / <u>Normal</u> / High / Flooded						Meter ID# <u>DESI</u>			Matrix: <u>Fresh</u> / Marine / DI						
Photos: <u>Yes</u> / No						Flow: <u>No Flow</u> / Intestinal / <u>Flowing</u> / NA			Tide: <u>Rising</u> / Falling / Slack / NA			Tide Times: High <u>10:40</u> Low			
Time	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	<u>1445</u>	<u>0.7</u>	<u>0.3</u>	<u>0.7</u>	<u>3.17</u>	<u>38.6</u>	<u>7.31</u>	<u>0.22</u>	<u>453</u>	<u>25.4</u>					
CEN				<u>5</u>											
Biological Samples Collected: <u>None</u> <u>HA</u> <u>SCI</u> <u>RPS</u> <u>Algae</u> <u>LVS</u> <u>LVI</u> 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		<u>SA9129100</u>	<u>5/2020</u>	☒ <2					
Metals		☐ W-ICPMS ☐ W-ICP				☐ Ice ☐ HNO3				☐ <2					
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice		<u>R9BA9675</u>							
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-BR-IC / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY				☐ Ice									
Macroinvertebrates		☐ MI-FW-QLDC				☐ Formalin									
Periphyton		☐ ALGAE-ID				☐ Ice									
Microbiology		☐ E Coll ☐ F Coll ☐ Enterococci				☐ Ice									
Molecular		☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD				☐ Ice									
Tracers		☒ W-E8221-DI ☒ W-E8321-MS <u>KA</u>				☐ 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:



20030725

MCCOYS CR AT LELAND ST

Signature: [Signature]

10/15/2019

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: _____
(Initials/Date) (Initials/Date) (Initials/Date)

LSJR West

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: NE-DIST

Requester: Jeremy M. Parrish

Field Report Prepared By:

Kimberly Appleby

Project ID: SMP

Sampling Agency:

FDEP NE ROL

Location	WIN ID/Field ID:	 20030725	☐ Comp ☒ Grab		Collection (comp begin or grab)	☒ Eastern ☐ Central	Composite end	Bottle Group(s)
Field ID	MCCOYS CR AT LELAND ST		Date	10/15/2019	Time	1445	Date	Time
WIN/STOR			Matrix (type, e.g., Salt, Fresh, etc)	Fresh	Diss. Oxygen	3.17	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Temp (C)	25.4	pH	7.31	Sample Depth
				Salinity (ppt)	0.22	Comments		
Location			☐ Comp ☐ Grab	Collection (comp begin or grab)	☐ Eastern ☐ Central	Composite end	Bottle Group(s)	
Field ID			Date	Time	Date	Time		
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Temp (C)		pH	Sample Depth	
				Salinity (ppt)		Comments		
Location			☐ Comp ☐ Grab	Collection (comp begin or grab)	☐ Eastern ☐ Central	Composite end	Bottle Group(s)	
Field ID			Date	Time	Date	Time		
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Temp (C)		pH	Sample Depth	
				Salinity (ppt)		Comments		
Location			☐ Comp ☐ Grab	Collection (comp begin or grab)	☐ Eastern ☐ Central	Composite end	Bottle Group(s)	
Field ID			Date	Time	Date	Time		
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Temp (C)		pH	Sample Depth	
				Salinity (ppt)		Comments		

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Alicia Hoge	10/16/19	N/A	2		

Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	CHLSUITE-W						
Group: A	Bottle Type:	P-250ML-WI-THI	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	NE-ALS-ECQ						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 1	Preservative:	CH2CICOOH Pre-Preserved	Enter Number of Bottles Sent to Lab	0
	W-CARB-AA						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	W-CT-CI-R W-PCL-SQ-R						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	W-E8321-DI W-E8321-MS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	0
	W-ICP W-ICPMS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	0
	W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	0
	W-PO4-F						

Group: A	Bottle Type: W-PSNP-TQ	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab <u>0</u>
Group: B	Bottle Type: ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab <u>0</u>
Group: B	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab <u>0</u>
Group: B	Bottle Type: NE-ALS-ECQ	P-250ML-WI-THI	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab <u>0</u>
Group: B	Bottle Type: PCR-HF183	QPCR-P-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab <u>0</u>
Group: B	Bottle Type: W-E8321-DI W-E8321-MS	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab <u>0</u>
Group: B	Bottle Type: W-ICP W-ICPMS	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab <u>0</u>
Group: B	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab <u>0</u>
Group: B	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab <u>0</u>
Group: C	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab <u>—</u>

Group: C	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS						
Group: C	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	CHLSUITE-W						
Group: C	Bottle Type:	P-250ML-WI-THI	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	0
	NE-ALS-ECQ						
Group: C	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	0
	W-ICP W-ICPMS						
Group: C	Bottle Type:	P-500ML	# of Bottles: 2	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	0
	W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC						
Group: C	Bottle Type:	P-125ML	# of Bottles: 2	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	0
	W-PO4-F						
Group: D	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS						

Group: D	Bottle Type: BP-1L	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	1
CHLSUITE-W					
Group: D	Bottle Type: P-250ML-WI-THI NE-ALS-ECQ P-120ML-WI-THI	# of Bottles: 1	Preservative: ICE	Enter Number of Bottles Sent to Lab	1 → Sent to ALS
Group: D	Bottle Type: P-500ML	# of Bottles: 1	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
W-NH3					
W-NO2NO3					
W-S-A-TP					
W-TKN					
W-TOC					
Group: D	Bottle Type: P-125ML	# of Bottles: 1	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	1
W-PO4-F					



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 LSSR West		Project Number RQ-2019-10-14-14		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																			
Report To Jeremy Parrish		Report CC		Preservative																Preservative Key			
Company/Address 8800 Baymeadows Way W FDEP NE ROC		Phone # (904) 256-1700		FAX #		NUMBER OF CONTAINERS 16																0. None 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other REMARKS	
Sampler's Signature [Signature]		Sampler's Printed Name K. Appleby																					
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE TIME		Matrix																			
20030725		10/15/19 1445		SW	2 X																Fresh		
Special Instructions/Comments:				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 [Signature]		Received By Signature [Signature]		Relinquished By Signature [Signature]		Received By Signature [Signature]		Relinquished By Signature [Signature]		Received By Signature [Signature]									
Printed Name Kimberly Appleby		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name CEVI MASON									
Firm FDEP		Firm		Firm		Firm		Firm		Firm		Firm		Firm ALS									
Date/Time 10/15/19 1608		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time 10/15/19 1614									

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

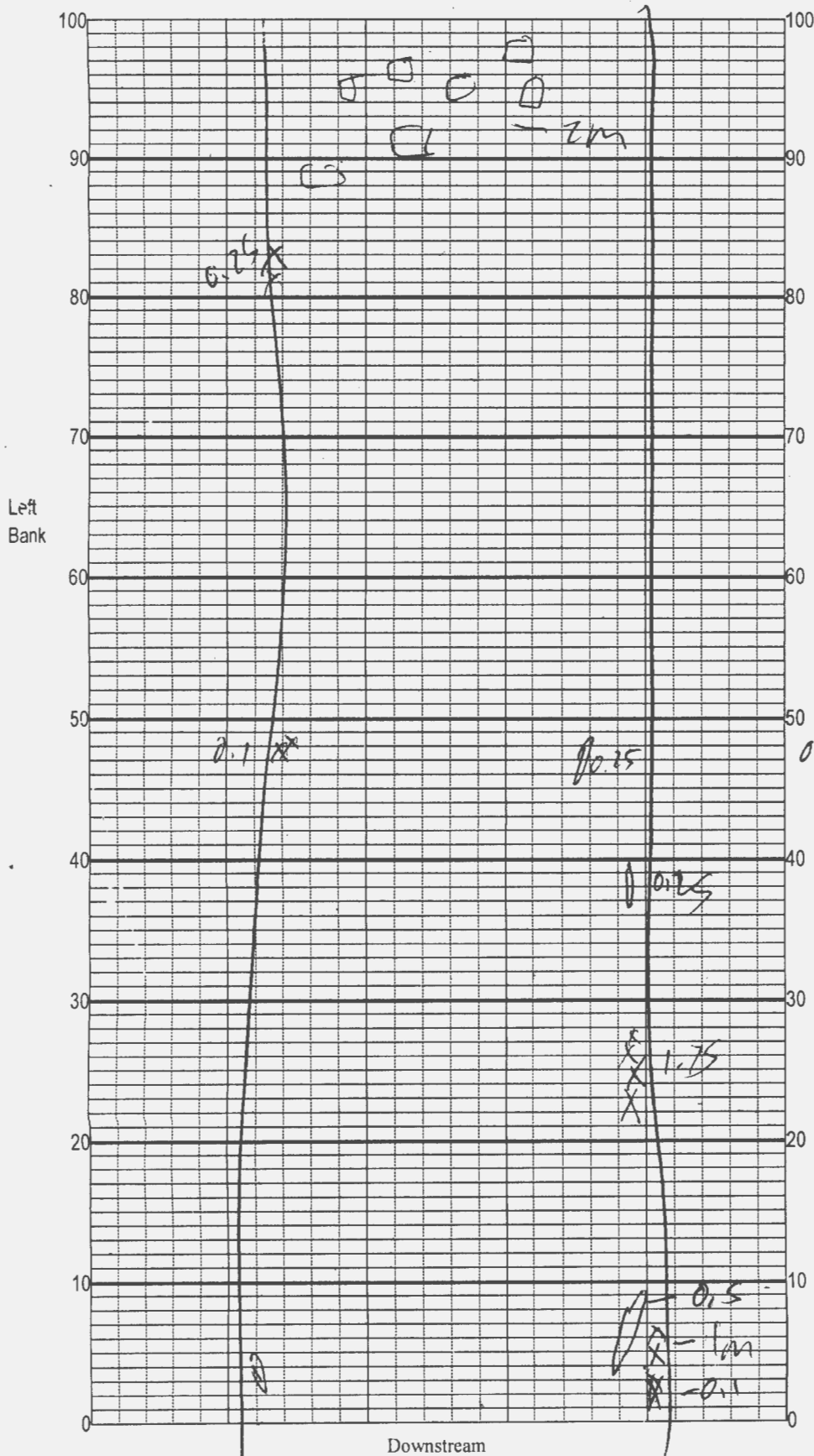
SAMPLING AGENCY:		STORET STATION NUMBER: <u>20030725</u>	DATE (MM/DD/YY): <u>10/15/19</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Puwa</u>	LOCATION: <u>McLoys Cr @ Leland ST</u>		FIELD ID/NAME:

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>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>2</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 <u>2</u> 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>5</u> Primary Score <u>26</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. <u>5</u> 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>5</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	<u>5</u> 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 woody 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 woody root zone with raw, eroded areas.
Right Bank <u>4</u> Left Bank <u>3</u>	10 9	8 7 6	5 <u>4</u>	<u>3</u> 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>3</u> Left Bank <u>2</u>	10 9	8 7 6	5 4	<u>3</u> <u>2</u> 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>3</u> Left Bank <u>2</u> Secondary Score <u>22</u>	10 9	8 7 6	5 4	<u>3</u> 2 1

48 TOTAL SCORE

Date: <u>10/15/19</u>	Analyst: <u>[Signature]</u>	Signature: <u>[Signature]</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



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

Location: McCoy @ Leland

Date: _____

Sampler: _____

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☐	Snags	_____
☐	Roots/undercut banks	_____
☐	Leaf Packs (or mats)	_____
☐	Aquatic Macrophytes	_____
☐	_____	_____
☐	_____	_____
☐	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:

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

SAMPLE ID	ORG ID	LATITUDE
COUNTY	STORET #	LONGITUDE
DATE	TIME	SAMPLING AGENCY
SITE NAME		
FIELD ID/NAME		
RECEIVING BODY OF WATER		

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):		Landscape Development Intensity Index (LDI)
Forest/Natural	Silviculture	Field/Pasture
Agricultural	Residential	Commercial
Industry	Other (Specify)	
Local Watershed Erosion (select one): ☐ None ☐ Slight ☐ Moderate ☒ Heavy		Typical Width (m) Depth (m)/Velocity (m/sec) Transect
Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy		3 m wide
Width of Riparian Vegetation (m) on Each Buffer Side		
Left Bank: < 6	Right Bank: 6	
Hydrologic Modification Score (per FT 3101)		
High Water Mark: 0.7 + 0.7 = 1.4		
(m) (above present water level) (present depth) (above bed)		
Artificially Impounded ☒ Yes ☐ No		
Artificially ☐ NO ☐ Mostly recovered, more sinuous		Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%)
Channelized: ☐ Some recovery ☒ Recent, severe		☐ Heavily Shaded ☒ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils		Sediment Odors		Smothering of Substrates					
☐ Absent ☐ Slight		☐ Normal ☐ Sewage ☐ Petroleum		Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐					
☐ Moderate ☐ Profuse		☐ Chemical ☒ Anaerobic		Silt Smothering: None ☐ Slight ☐ Moderate ☐ Severe ☒					
		☐ Other (Specify):		Algae Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐					
SUBSTRATE TYPE		WATER QUALITY							
Assessment Tool: ☐ SCI ☒ RPS ☒ LVS		Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
☐ LCI ☐ BioRecon		Top:							0.7
% Coverage		Mid:	0.3	25.4	7.31	3.17	38.6	453	0.22
INVERT # Times Sampled		Bottom:	0.7						
PERI # Times Sampled		Meter ID:							
Woody Debris (Snags)		Water Odors		Normal ☒ Petroleum ☐		Water Surface Oils			
Undercut Banks / Roots		Sewage ☒ Chemical ☐ Other ☐				Normal ☒ Sheen ☐			
Leaf Packs or Mat		Water Sample Taken? ☒ Yes ☐ No				Globs ☐ Slick ☐ Other ☐			
Aquatic Vegetation		Sample Preserved? ☒ Yes ☐ No				Color Tannic ☐ Green (Algae) ☐			
Rock or Shell Rubble..		Lot Number: Exp:				Clear ☒ Other (Specify) ☐			
Sand.....		Algae Sample Taken? ☐ Yes ☒ No				Clarity Clear ☐ Slightly Turbid ☒			
Mud / Muck / Silt		Sample Preserved? ☐ Yes ☐ No				Turbid ☒ Opaque ☐			
Other		Lot Number: Exp:							
Other									
ABUNDANCE		System Type: Stream ☐ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐							
Not Obs. Rare Common Abundant		AMBIENT FIELD CONDITIONS / NOTES:							
Periphyton: ☐ ☐ ☒ ☐		Recent - Bridge Removal							
Fish: ☐ ☐ ☒ ☐		concrete left in creek							
Aquatic Plants: ☐ ☒ ☒ ☐		☐ The antecedent hydrologic conditions have been met to my best knowledge.							
Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐									

SAMPLING TEAM

SIGNATURE:

DATE:

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: McCoy's Cr @ Island St. County: Duval Date: 10/15/2019 Investigators: Alicia Hoque, Jeremy Garish

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	1	N	N	
	2	N	N			2	N	N	
	3	N	N			3	N	N	
	4	N	N			4	N	N	
	5	N	N	92		5	N	N	108
	6	N	N			6	N	N	
	7	N	N			7	N	N	
	8	N	N			8	N	N	
	9	N	N			9	N	N	
10	1	N	N		70	1	N	N	
	2	N	N			2	N	N	
	3	N	N			3	N	N	
	4	N	N			4	N	N	
	5	N	N	96		5	N	N	80
	6	N	N			6	N	N	
	7	N	N			7	N	N	
	8	N	N			8	N	N	
	9	N	N			9	N	N	
20	1	N	N		80	1	N	N	
	2	N	N			2	N	N	
	3	N	N			3	N	N	
	4	N	N			4	N	N	
	5	N	N	96		5	N	N	86
	6	N	N			6	N	N	
	7	N	N			7	N	N	
	8	N	N			8	N	N	
	9	N	N			9	N	N	
30	1	N	N		90	1	N	N	
	2	N	N			2	N	N	
	3	N	N			3	N	N	
	4	N	N			4	N	N	
	5	N	N	92		5	N	N	0
	6	N	N			6	N	N	
	7	N	N			7	N	N	
	8	N	N			8	N	N	
	9	N	N			9	N	N	
40	1	N	N		100	1	N	N	
	2	N	N			2	N	N	
	3	N	N			3	N	N	
	4	N	N			4	N	N	
	5	N	N	96		5	N	N	0
	6	N	N			6	N	N	
	7	N	N			7	N	N	
	8	N	N			8	N	N	
	9	N	N			9	N	N	
50	1	N	N			1	N	N	
	2	N	N			2	N	N	
	3	N	N			3	N	N	
	4	N	N			4	N	N	
	5	N	N	90		5	N	N	
	6	N	N			6	N	N	
	7	N	N			7	N	N	
	8	N	N			8	N	N	
	9	N	N			9	N	N	

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:

20030725

Secchi depth 0.75
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- 2019-10-14-14

Algal Thickness Rank

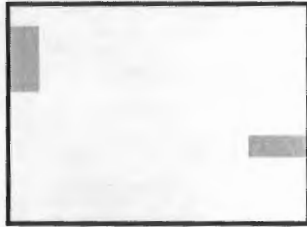
N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

[illegible]

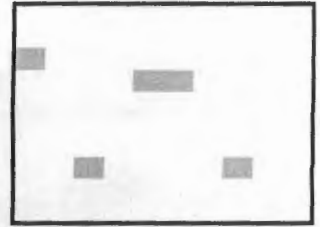
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

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

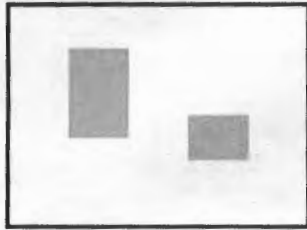
5% Macrophyte Coverage



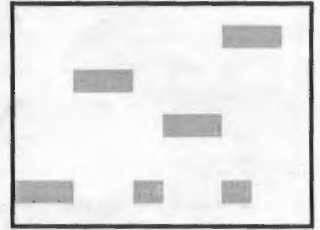
5% Macrophyte Coverage



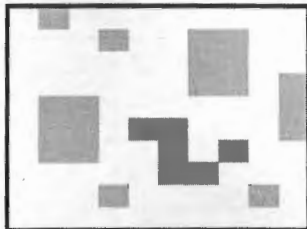
10% Macrophyte Coverage



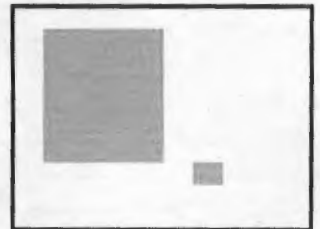
10% Macrophyte Coverage



25% Macrophyte Coverage



25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage

