Login Checklist

RQ-2021-02-01-66 **Login Station ID:** #2

Shipping Method: FedEx | UPS | HD | Greyhound **Date/Time of Receipt:** 2/5/2021 9:40

*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	
0.9				8		✓			9293 8007 9414 8
2.2				2		✓			9117 63 8105 35

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 oC (above 10.0 oC 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 _____

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: IM

Chlorine detected? *(One container checked per Field ID)* Yes _____ No ✓ Init: IM

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: IM

**W-1-4-DIOX *(Green dot on container)* preserved to pH<4.0? Yes _____ No _____ NA ✓ Init: IM

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

Coolers Unpacked/Checked by: IM **Date:** 2/5/2021 **Event contains NCRs (Y/N)?** N

Event ID: LSJR SCI's
NE-DIST-2021-02-05-01 (SMP)
Date Received: 05-FEB-2021 09:40

Login Checklist

Login Preservation Equipment	Lot # & Exp: Date
Infrared Thermometer ID:	IR TEMP GUN #2 exp:10/28/21
pH Test Strips 0 – 6	
pH Paper 0 – 3	
pH Paper 0 – 13	231019 exp: 11/1/22
Chlorine Test Strips	0261 exp: 05/2023

Additional Comments:

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:	2/4/2021	**Collected By:**	Jeremy Parrish, Kelly McDonald
Customer:	NE-DIST	**Sampling Agency:**	FDEP
RQ:	RQ-2021-02-01-66	**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: 2

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

Site Location	Field ID/WIN ID
Wills Br N Fork @ Old Middleburg Rd.	20030582

RELINQUISHED BY(SIGNATURE): Kelly A McDonald **DATE/TIME:** 2/4/2021 1600

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By: EM **Rec'd/Inspected Date:** 2/5/21

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: ST TCH RQ: 2021-0201-66 Project: LSJR SCI

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 10/14/20

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.	JTamsh	2/4/21	926	19.2	765	9.3	9.3	100.7	—	1.03	P/F	L/F
ICV	〃	〃	928	19.3	765	9.3	9.3	100.7	—	1.03	P/F	L/F
CCV	JTamsh	2/4/21	1525	19.5	763	9.2	9.25	101.3	—	—	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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	JTamsh	2/4/21	925	20122?B	1/22	1000	1000	P/F	L/F
ICV	〃	〃	930	200907A	9/21	100	103.0	P/F	L/F
CCV	JTamsh	2/4/21	1527	200902C	9/21	1413	1403	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria ± 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.	JTamsh	2/4/21	940	2006E62	6/22	7.02	20.8	~~4.07~~ 7.02	19.7	P/F	L/F
Calibr.	〃	〃	941	29128?1	12/21	4.00	20.9	4.00	162	P/F	L/F
Calibr.	〃	〃	942	2006L28	12/21	10.05	20.8	10.05	-188.6	P/F	L/F
ICV	〃	〃	945	2912B71	12/21	4.	20.9	~~4.15~~ 4.13	152	P/F	L/F
CCV	JTamsh	2/4/21	1528	2006E28	12/21	10.00	21.0	10.09	193.5	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 ± 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	JTamsh	2/4/21	946	0.00	0.00	P/F	L/F

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

COMMENTS:

Form effective August 1, 2018

RQ-2021-02-01-66
Customer: WQAP
Project ID: SMP

Collected By: Jeremy Parrish, Kelly McDonald
Field Report Prepared By: Jeremy Parrish
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: 20030582

Location: Wills Br N Fork @ Old Middleburg 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)
2/4/2021	1145 EST	11.04	100.5	11.2	7.47	0.15	0.303 ☒ VOB (S)	0.303	233.5	0.11
							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 ☒ H_2SO_4*	☒ <2	1	A
	Lot # Sa0293040 Exp:	10.19.21			
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO_3*	☒ <2	1	A
	Lot # 116856 Exp:	3.31.22			
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # R9na9003				
	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)	X W-E8321-DI X WE8321-MS X W-PSNP-TQ W-CT-CL-R W-PCL-SQ-R W-CARB-AA (5 ml of MCAA** Buffer Solution) W-DIELDRIN	☒ Ice		3	A
Phytoplankton/Periphyton	DTM-QL-C PEN-QL-C DTY-QN-C PKD-QN-C DTM-QN-C PRN-QN-C PKD-QN-BV	☐ Ice			

Name: Jeremy Parrish, Kelly McDonald

Signature: Kelly A McDonald

Date: 2/4/2021

*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: Wills Br N Fork @ Old Middleburg Rd. **Date:** 2/4/2021

WIN/Field ID: 20030582 **WBID:** 2282 **ENR:** _____ **Latitude:** 30.2911

County: DUVAL **Org ID:** 21FLA **Longitude:** -81.7658

Receiving Body of Water: Lower St. Johns **RQ-** 2021-02-01-66

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Jeremy Parrish		x		x	x
[x] Kelly McDonald	x		x	x	x
[ ]					
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [ ] Syringe
- [ ] Carboy
- [ ] Van Dorn
- [ ] Pole

Depth measured with: Meter

Secchi Equipment ID:

Collection Method

- [x] **Wading**
- [ ] **From Shore**
- [ ] **Other** _____
- [ ] **Canoe/Kayak**
- [ ] **Electric Motor**
- [ ] **Gasoline Motor**

Water Level: [x] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# STITCH

Photos: NO **Flow:** FLOW **Tide:**

Tide Times: High: Low:

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

SBIO ID Numbers:

Notes:

Duplicate Sample

Time Zone: EST **Time:** _____ **Field ID:** N/A (WIN ID_DUP)

WIN DMT Activity ID: _____

Blank

Time Zone: _____ **Time:** _____ **Field ID:** _____ (Blank Type_DDMMYYYY)

DI Source: _____ **Location:** _____

DI Type: _____ **Equipment ID:** _____

DI Container (Name/ID): **DI Container Type:**

LIMS EVENT ID: _____ **WIN Import ID:** _____

Enter Field Parameters, Verify Station ID In LIMS DMT: _____ (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** _____ (Initials/Date)

Scan/Save Field Sheets _____ (Initials/Date) **Migrate Data to WIN:** _____ (Initials/Date) **Verify Data In WIN:** _____ (Initials/Date)

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

ALS Environmental

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

SR #

ALS Contact: Mandy Sullivan

Client Name	Project Number
FDEP-NE ROC	RQ-2021-02-01-Lele
Report To	**Report CC**
Dep-Overflowmicro@dep.state.fl.us	
Company/Address	
8800 Baymeadows Way W Jacksonville, Fl 32256	
Phone #	**FAX #**
904-256-1700	
Sampler's Signature	**Sampler's Printed Name**
Kelly a McDonald	Kelly A McDonald

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	Matrix	NUMBER OF CONTAINERS	E.Coli	Enterococci	REMARKS
20030582		2/4/21	1145	SW	1	X		Fresh

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

Preservative Key
0. None
1. HCL
2. HNO3
3. H2SO4
4. NaOH
5. Zn. Acetate
6. MeOH
7. NaHSO4
8. ICE

Special Instructions/Comments: Email Report to: Dep-Overflowmicro@dep.state.fl.us

0.4°C

TURNAROUND REQUIREMENTS
___ RUSH (SURCHARGES APPLY)
X STANDARD
REQUESTED FAX DATE
N/A
REQUESTED REPORT DATE
N/A

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. # B10739
Bill to

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: Kelly a McDonald	Signature:	Signature	Signature	Signature	Signature
Printed Name: Kelly A McDonald	Printed Name: Mandy M Sullivan	Printed Name	Printed Name	Printed Name	Printed Name
Firm: FDEP NEROC	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 2/4/21 1443	Date/Time: 2/04/21 1444	Date/Time	Date/Time	Date/Time	Date/Time

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

Waterbody: Mills N Br. @ Old ... | Date: 2/4/21 | County: Duval | Storet Number: 2CR3055Z

Analyst: JP | Signature: [signature]

Comments:

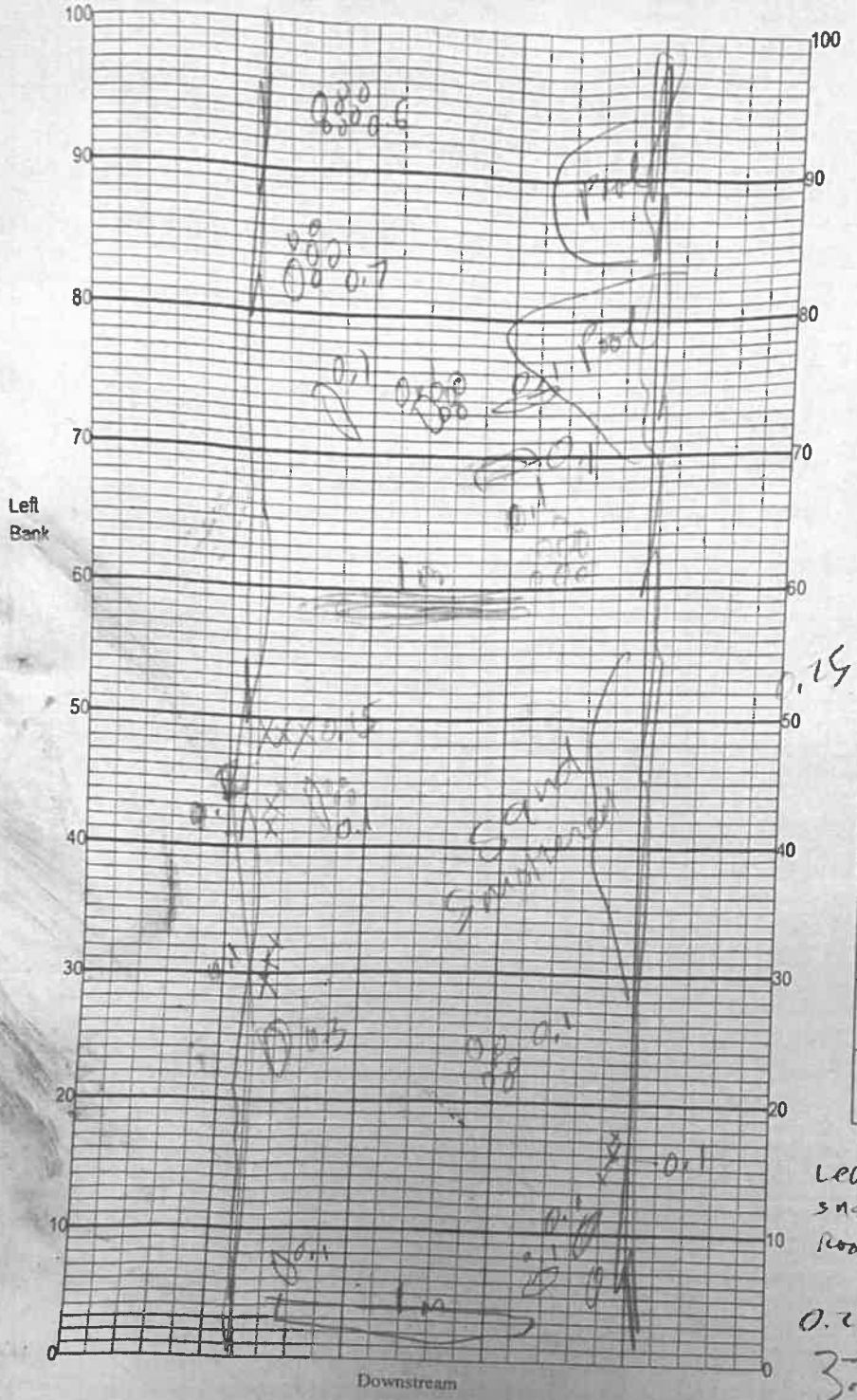
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m^2 of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata											
Hydrocotle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											

HERBACEOUS SPECIES	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontedaria cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											

	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100		0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
If no Dominant or Co-Dominant were selected, indicate with "X"																					
Indicate % cover macrophytes per section																					
0-5% Macrophyte Coverage																					
>5 and ≤10% Macrophyte Coverage																					
>10 and ≤25% Macrophyte Coverage																					
>25 and ≤50% Macrophyte Coverage																					
> 50% Macrophyte Coverage																					

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: Willsc Middlebrg

Date: 2/4/21

Sampler: JP / KM

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance	%
Snags	1.5
Roots/undercut banks	< 1
Leaf Packs (or mats)	< 1
Aquatic Macrophytes	
Pools — total # observed = ____ ; # range expected = ____	

Average width	4 m
Average depth	0.2 m
Velocity measured at	0.50 meter mark.
WQ & chemistry taken at	100 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 = 1.1/m

snag = 1.5 + 0.3 + 0.1 + 1 + 0.5 = 4.5/m

Pool = 0.6

0.2 m/sec

3.75 - 4 m deep

62-160.800, F.A.C

Revision Date: January 2017

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

SAMPLING AGENCY		STORET STATION NUMBER	DATE (mm/dd/yy)	RECEIVING BODY OF WATER
		20030582	2/4/21	
REMARKS	COUNTY	LOCATION		FIELD ID/NAME
		Wilkes Br. NF Rocklicks		

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity 5	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock) 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered (5) 4 3 2 1
Substrate Availability ~~3~~ 3	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat ~~5~~ 4 (3) 2 1
Water Velocity 15	Max. observed at typical transect. > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect. >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 (15) 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering 11 Primary Score 34	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae 15 14 13 12 (11)	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components Artificial Channelization 20	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. (20) 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank 4 Left Bank 4	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 (4)	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 9 Left Bank 9	Width of vegetation greater than 18 m ~~10~~ (9)	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank 6 Left Bank 6 Secondary Score 58	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 (6)	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

92 **TOTAL SCORE**

Date: 2/4/21	Analyst: JHarn	Signature: JHarn

62-160.800, F.A.C.

Revision Date: January 2017

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Wills Br N Fork @ Old Middleburg Rd

County: Duval

Date: 2/4/21

Investigators: K McDonald, J Parrish

STORET Station Number: 20030582

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N	N	
	2			
	3	1		
	4			
	5			
	6			38
	7			
	8			
	9	↓	↓	
10	1			
	2			
	3			
	4			
	5			
	6			42
	7			
	8			
	9	↓	↓	
20	1	1		
	2			
	3			
	4			
	5			25
	6			
	7			
	8			
	9	↓	↓	
30	1			
	2			
	3			
	4			
	5			15
	6			
	7			
	8			
	9	↓	↓	
40	1			
	2			
	3			
	4			
	5			37
	6			
	7			
	8			
	9	↓	↓	
50	1			
	2			
	3			
	4			
	5			14
	6			
	7			
	8			
	9	↓	↓	

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N	Y	
	2			
	3			
	4			
	5		↓	68
	6		N	
	7			
	8			
	9	↓	↓	
70	1	N		
	2			
	3			
	4			
	5		↓	12
	6			
	7		Y	
	8		↓	
	9	↓		
80	1		N	
	2			
	3			
	4			
	5			20
	6			
	7			
	8			
	9	↓	↓	
90	1		Y	
	2			
	3			
	4			
	5			80
	6			
	7		↓	
	8		N	
	9	↓	N	
100	1			
	2			
	3			
	4			
	5			8
	6			
	7			
	8			
	9	↓	↓	

Secchi depth	0.3
Estimated?	N

# points ranked 4-6	0
total points assessed	99
% points ranked 4-6	0

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

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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%.

62-160.800, F.A.C.

Revision Date: January 2017

62-160.800, F.A.C.

Revision Date: January 2017

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

SAMPLE ID
COUNTY Duval
DATE 2/4/21
SITE NAME Wills Br N Fork @ Old Middleburg Rd
FIELD ID/NAME
ORG ID 21FLA
STORET # 20030582
TIME 1145
LATITUDE 30.2911
LONGITUDE -81.7058
SAMPLING AGENCY NERDC
RECEIVING BODY OF WATER Lower St. Johns 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

Width of Riparian Vegetation (m) on Each Buffer Side
Left Bank: 718m Right Bank: >18m

Hydrologic Modification Score (per FT 3101):

High Water Mark: 1.3 (m) + 0.3 (above present water level) = 1.6 (present depth) (above bed)

Artificially Impounded: ☐ Yes ☒ No

Artificially Channelized: ☒ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☐ Recent, severe

Typical Width (m) Depth (m)/Velocity (m/sec) Transect
4.0 | 0.4 m wide | 0.25 m/s | 0.3 m deep | 0.2 m deep | m/s | m deep | Km

Canopy Cover %: AVG 32.09 % ☐ Open ☐ Heavily Shaded ☒ Lightly Shaded (11-45%) ☐ 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)	1.5	10	
Undercut Banks / Roots	<1	3	
Leaf Packs or Mat	<1	4	
Aquatic Vegetation			
Rock or Shell Rubble			
Sand	96.5	3	
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)
Top:	0.15	11.2	7.47	11.04	100.5	233.5	0.1
Mid:							
Bottom							

SECCHI (M): 0.303 ☒ VOB

TOTAL DEPTH: 0.303

Meter ID: Pro DSS Stitch

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

Water Surface Oils: Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
Sample Preserved? ☒ Yes ☐ No
Lot Number: see data sheet 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:
Sunny, clear day

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM
J. Parrish & K. McDonald

SIGNATURE: Jay Parrish

DATE:

62-160.800, F.A.C.

Revision Date: January 2017

RQ-2021-02-01-66

Date of Request: 25-JAN-2021
Created By: PARRISH_J On: 25-JAN-2021
Modified By: JASROTIA_P On: 25-JAN-2021
Customer: NE-DIST
Project: SMP
Division: Division of Environmental Assessment and Restoration
District: Northeast District
Event Description: LSJR SCI's

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: A
Criminal Investigation: NO
Chemistry Request Reviewed By: WATTS_J On: 25-JAN-2021
Biology Request Reviewed By: JASROTIA_P On: 25-JAN-2021
Sampling Kit Required: NO Ship on:
Sampling Kit Shipped:
Sampling Kit Packed By:
Preservatives Needed: NO
Date to Receive Samples: 01-FEB-2021
Logged In By:

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 CaCO3/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 Color (true)	Template: DEFAULT	(SM 2120 B-2011) True Color measured at 450 nm (not valid for NPDES monitoring)
W-F	Template: DEFAULT	(SM 4500 F-C-2011) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO4-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: HNO3

W-HARD Hardness	Template: DEFAULT	(SM 2340B) Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3
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
Manganese
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: DEFAULT	(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.