

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date:	<u>12/2/2020</u>	Collected By:	<u>Jeremy Parrish, Kimberly Applebee</u>
Customer:	<u>NE-DIST</u>	Sampling Agency:	<u>FDEP</u>
RQ:	<u>RQ-2020-11-16-12</u>	Project ID:	<u>SMP</u>

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
Deep Creek 1.25 Miles North Of Pine Island Rd.	 G5NE0017

RELINQUISHED BY(SIGNATURE):

Jeremy Parrish

DATE/TIME:

12/2/20

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: Desi

RQ- 2020-11-16-12

Project: SCS Reef

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 10/14/2020

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.	Kim Appleby	12/2/20	1129	20.1	769.6	9.19	9.19	101.2	-	1.0645	(P) F	(L) F
ICV	↓	12/2/20	1130	20.5	769.7	9.20	9.18	101.9	-	1.0645	(P) F	(L) F
CCV	J. Purnish	12/3/20	920	19.6	768	9.3	9.20	101	-	-	(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.	K. Appleby	12/2/20	1131	2009023	9/21	1000	1000	(P) F	(L) F
ICV	↓	↓	1132	200902A	9/21	100	101.4	(P) F	(L) F
CCV	J. Purnish	12/3/20	921	200902C	9/21	1413	1412	(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.	Kim Appleby	12/2/20	1157	2006306	1/2022	7.00	20.9	7.00	-23.5	(P) F	(L) F
Calibr.	↓	↓	1159	2006306	5/2021	4.00	21.1	4.00	153.7	(P) F	(L) F
Calibr.	↓	↓	1200	2002911	8/2021	10.00	21.3	10.00	-196.7	(P) F	(L) F
ICV	↓	↓	1204	2006306	1/2022	7.00	21.0	7.05	-24.8	(P) F	(L) F
CCV	J. Purnish	12/3/20	925	2006306	5/22	4.00	21	4.15	144.6	(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	Kim Appleby	12/2/20	1210	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:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

Yes / No

WIN Station Name: Deep Creek 1.25 Miles North Of Pine Island Rd.

Date: 12/2/2020

WIN/Field ID: G5NE0017

WBID: 2406B

ENR:

Latitude: 30.0681

County: ST. JOHNS

Org ID: 21FLA

Longitude: -81.4029

Receiving Body of Water: Upper East Coast

RQ- 2020-11-16-12

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jeremy Parrish	x		x	x	x
☒	Kimberly Applebee		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: YES	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_DDDMMYYY)
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:

Scan/Save Field Sheets Migrate Data to WIN: Verify Data In WIN:



RQ-2020-11-16-12

Customer: WQAP

Project ID: SMP

Collected By: Jeremy Parrish, Kimberly Applebee

Field Report Prepared By: Jeremy Parrish

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G5NE0017

Location: Deep Creek 1.25 Miles North Of Pine Island Rd.

Comments:

Micro to overflow contract lab

Please add formalin to Macroinvertebrate Jugs

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)
12/2/2020	13:15 JP EST 12:15	7.7	70	11.1	6.67	0.05	0.1 ☒ VOB (S)	0.1	361.1	0.17

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	1	A
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter Filter Lot # ROCB8647 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-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		3	B
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 ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)	☒ Ice		4	A
		☐ Ice			

Name:
Jeremy Parrish
Kimberly Applebee

Signature:

Jeremy Parrish

Date:

12/2/20

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

[illegible]

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

SAMPLING AGENCY:		STORET STATION NUMBER: <u>GSNE0017</u>	DATE (MM/DD/YYYY): <u>12/2/20</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>St Johns</u>	LOCATION: <u>Deep ca. 1.2 mile abv Pine Island rd</u>		FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>11</u>	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 <u>(11)</u>	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 <u>67</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 <u>(7)</u> 6	Less than 5% major productive habitat 5 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>12</u> ----- Primary Score <u>42</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 <u>(12)</u> 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 <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. <u>(20)</u> 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 <u>9</u> Left Bank <u>9</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 <u>(9)</u>	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 <u>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>(10)</u> 9	Width of vegetation > 12 to 18 m 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> ----- Secondary Score <u>78</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

80 119 120 TOTAL SCORE

Date: <u>12/2/20</u>	Analyst: <u>Jeremy Rine</u>	Signature: <u>Jeremy Rine</u>
----------------------	-----------------------------	-------------------------------

GSNEOP17



Booper 1.5 ab

Date:

12/2/20

Sampler:

JP / KA

100 m: Latitude

Longitude

0 m: Latitude

Longitude

Substrates: Code key, draw proportionate habitat abundance.

%

Snags

2.5

XX	Roots/undercut banks
----	----------------------

2.5

 Leaf Packs (or mats)

1.5

 Aquatic Macrophytes

sand/bulk 94

Pools

total # observed =

```
# range expected =
```

Average width 1.5 m

1.5 m

Average depth 0.7 m

0.7 m

Velocity measured at 0.50 meter mark.

WQ & chemistry taken at 90 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:

 $\mathbb{F}_{10} \cong \mathbb{F}_5[x]/(x^2+2)$

104 f 7.

Ins root 0.4 + 0.2 + 0.5 +

$$S_{149} = 2.3 + .21, S \pm 0.1, u_{.15} \pm 0.15$$

C: 13

Depth 0.2

1. S

3

4.5

Revision Date: January 2017

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

SAMPLE ID 65NE0017 ORG ID 21FLA LATITUDE _____
 COUNTY St. Johns STORET # 65NE0017 LONGITUDE _____
 DATE 12/2/20 TIME 1215 SAMPLING AGENCY 21FLA EDEP NE Rol
 SITE NAME Deep Creek 1.25 miles North of Pine Island Rd.
 FIELD ID/NAME _____ RECEIVING BODY OF WATER ICW

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 1.5 m wide				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>5.5m</u> Right Bank: <u>7.8m</u>				Hydrologic Modification Score (per FT 3101) ☐				
High Water Mark: <u>0.5</u> + <u>0.2</u> = <u>0.7</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>11.1</u>	<u>6.67</u>	<u>7.7</u>	<u>70</u>	<u>361</u>	<u>0.17</u>	<u>0.2</u>
Mid:			<u>2</u>							☒ VOB
Bottom:			<u>0.2</u>							
Meter ID: <u>DGS</u>			TOTAL DEPTH <u>0.2</u>							
Woody Debris (Snags) <u>2.5</u> <u>5</u> <u></u> Undercut Banks / Roots <u>2.5</u> <u>5</u> <u></u> Leaf Packs or Mat <u>1.5</u> <u>5</u> <u></u> Aquatic Vegetation <u><1</u> <u>—</u> <u></u> Rock or Shell Rubble <u></u> <u></u> <u></u> Sand <u>93</u> <u>5</u> <u></u> Mud / Muck / Silt <u></u> <u></u> <u></u> Other <u></u> <u></u> <u></u> Other <u></u> <u></u> <u></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) ☐			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐				
Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐							
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐			AMBIENT FIELD CONDITIONS / NOTES: ☐ The antecedent hydrologic conditions have been met to my best knowledge.							
SAMPLING TEAM <u>Glenn / K Appleby</u>			SIGNATURE <u>Glenn</u>			DATE: <u>12/2/20</u>				

Site: Deep Creek 1.25 miles North of Pine Island Rd. County: St. Johns Date: 12/2/20 Investigators: Kim Appleby + Jeremy Parrish

Transec (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transec (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	
0	1	N	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5			80		5				96
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N	N		70	1	N	N		
	2					2				
	3					3				
	4			88		4				
	5					5				96
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N	N		80	1	N	N		
	2					2				
	3					3				
	4			32		4				
	5					5				46
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N	N		90	1	N	N		
	2					2				
	3					3				
	4					4				
	5			96		5				92
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N	N		100	1	N	N		
	2					2				
	3					3				
	4					4				
	5			76		5				96
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N	N			1	N	N		
	2					2				
	3					3				
	4					4				
	5			96		5				
	6					6				
	7					7				
	8					8				
	9					9				

STORET Station Number: GSNE0017

Secchi depth 0.15
Estimated? Y

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 Y
Habitat Assessment Y
SCI/Biorecon Y
Water sample Y

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%.

Analyst: <i>Wm</i>	Signature: <i>Wm</i>
--------------------	----------------------

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.

[illegible]

L 259. MATHS - 40

RQ-2020- 11-16-12

Login Checklist

Login Station ID: #2

Shipping Method: FedEx | UPS | HD | Greyhound

Date/Time of Receipt: 12/3/2020 11:25

*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	
0.2				12		✓		9283 8008 5649	

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 ☒

IM
12/3/20

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: 12/3/2020 Event contains NCRs (Y/N)? N

Event ID: Moses SCI, St. Marys
NE-DIST-2020-12-03-01 (SMP)
 Date Received: 03-DEC-2020 11:25

Login Checklist

Login Preservation Equipment

Lot # & Exp: Date

Additional Comments:

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	0129 exp: 03/2023

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: _____

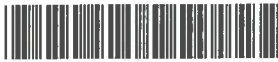
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date: 12/2/2020 **Collected By:** Jeremy Parrish, Kimberly Applebee
Customer: NE-DIST **Sampling Agency:** FDEP
RQ: RQ-2020-11-16-12 **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
Deep Creek 1.25 Miles North Of Pine Island Rd.	 G5NE0017

RELINQUISHED BY(SIGNATURE):

Jeremy Parrish

DATE/TIME: 12/2/20

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By:

IM

Rec'd/Inspected Date:

12/3/20

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: DeSi

RQ: 2020-11-16-12

Project: SCS Reap

- 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 10/14/2020

DO FDEP 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.	Kim Appleby	12/2/20	1129	20.1	769.6	9.19	9.19	101.2	-	1.06	P/F	L/F
ICV	↓	12/2/20	1130	20.5	769.7	9.20	9.18	101.9	-	1.06	P/F	L/F
CCV	J. Parash	12/3/20	920	19.6	768	9.3	9.20	101	-	-	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.	K. Appleby	12/2/20	1131	2009023	9/21	1000	1000	P/F	L/F
ICV	↓	↓	1132	200902A	9/21	100	101.4	P/F	L/F
CCV	J. Parash	12/3/20	921	200902C	9/21	1413	1412	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH FDEP 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.	Kim Appleby	12/2/20	1157	2001231	1/2022	7.00	20.9	7.00	-23.5	P/F	L/F
Calibr.	↓	↓	1159	20012306	5/2021	4.00	21.1	4.00	153.7	P/F	L/F
Calibr.	↓	↓	1200	20012911	8/2021	10.00	21.3	10.00	-196.7	P/F	L/F
ICV	↓	↓	1204	2001231	1/2022	7.00	21.0	7.05	-24.8	P/F	L/F
CCV	J. Parash	12/3/20	925	2006206	5/22	4.00	21	4.15	144.6	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	Kim Appleby	12/2/20	1210	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:



RQ-2020-11-16-12

Customer: WQAP

Project ID: SMP

Collected By: Jeremy Parrish, Kimberly Applebee

Field Report Prepared By: Jeremy Parrish

Sampling Agency: FDEP

Place Label Here						Comments:				
WIN ID/Field ID:  G5NE0017						Micro to overflow contract lab *Please add formalin to Macroinvertebrate Jugs*				
Location: Deep Creek 1.25 Miles North Of Pine Island Rd.										
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 _h)
12/2/2020	13:15 EST	7.7	70	11.1	6.67	0.05	0.1 ☒ VOB (S)	0.1	361.1	0.17
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	1	A
		Lot # NA9354060		Exp: 12/20/20						
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot # ROCB8647								
		Syringe Lot #								
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	A
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / 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			3	B
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☒ E Coli ☐ F Coli ☐ Enterococci				☒ Ice			1	A
		☒ Contract Lab								
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3				☐ Ice				
		☐ PCR-GULL2 ☐ PCR-GFD ☐								
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				☒ Ice			4	A
		☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)				☐ Ice				
						☐ Ice				
Name: Jeremy Parrish Kimberly Applebee				Signature: 				Date: 12/2/20		

*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 CCY

Yes / No

WIN Station Name: Deep Creek 1.25 Miles North Of Pine Island Rd.

Date: 12/2/2020

WIN/Field ID: G5NE0017

WBID: 2406B

ENR:

Latitude: 30.0681

County: ST. JOHNS

Org ID: 21FLA

Longitude: -81.4029

Receiving Body of Water: Upper East Coast

RQ- 2020-11-16-12

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒ Jeremy Parrish	☒	☒	☒	☒	☒
☒ Kimberly Applebee		☒			
☐					
☐					

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: YES	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:

Scan/Save Field Sheets Migrate Data to WIN: Verify Data In WIN:



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

ALS Contact: Mandy Sullivan

Page 1 of 1

[illegible]

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

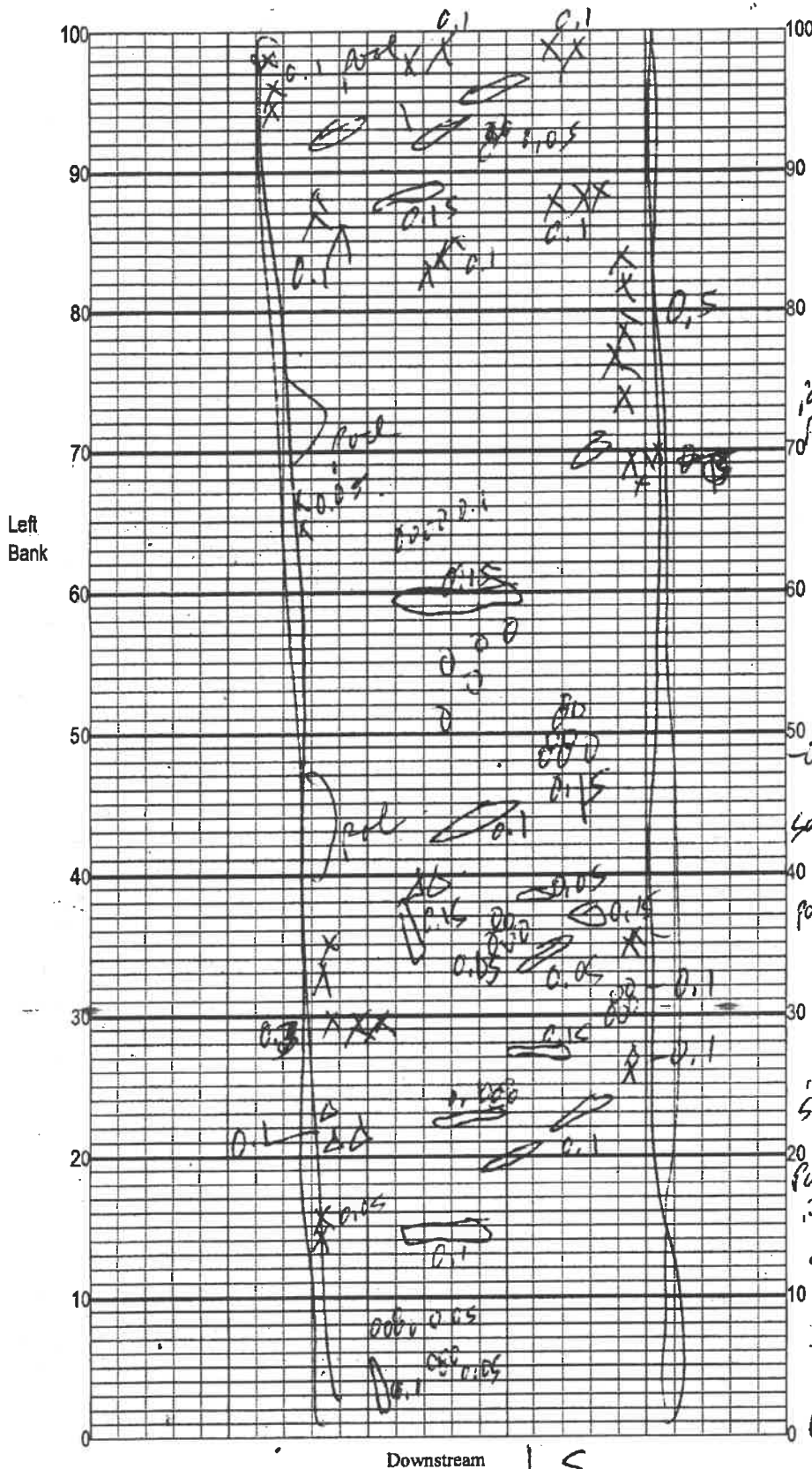
SAMPLING AGENCY:		STORET STATION NUMBER: <u>GSNE0017</u>	DATE (mm/dd/yyyy): <u>12/2/20</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>St Johns</u>	LOCATION: <u>Deep cr. 1.25 mile up Pine Island Rd</u>	FIELD ID/NAME:	

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>67</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 <u>7</u> <u>6</u>	Less than 5% major productive habitat 5 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>12</u> Primary Score <u>42</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 <u>12</u> 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	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>20</u>	<u>20</u> 19 18 17 16	15 14 13 12 11	10 9 8 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 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>9</u> Left Bank <u>9</u>	10 <u>9</u>	8 7 6	5 4	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>10</u> Left Bank <u>10</u>	<u>10</u> 9	8 7 6	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>10</u> Left Bank <u>10</u> Secondary Score <u>78</u>	<u>10</u> 9	8 7 6	5 4	3 2 1

119 120 TOTAL SCORE

Date: <u>12/2/20</u>	Analyst: <u>Jeremy Rine</u>	Signature: <u>Jeremy Rine</u>
----------------------	-----------------------------	-------------------------------

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



Location: Beeper 1.5 km
 Date: 12/2/20
 Sampler: JP/KA

100 m: Latitude _____
 Longitude _____
 0 m: Latitude _____
 Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

	Snags	2.5
	Roots/undercut banks	2.5
	Leaf Packs (or mats)	1.5
	Aquatic Macrophytes	1
	Sand/Silt	94
	Pools	total # observed = # range expected =

Average width 1.5 m
 Average depth 0.2 m
 Velocity measured at 0.5, 1.0, 1.5 meter mark.
 WQ & chemistry taken at 90 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:
Phragmites

Shrub
100 ft +
Ins root 0.4 + 0.2 + 0.5 +
snags - 0.3 + 0.2 + 0.1 + 0.15 + 0.15
0.13
1.75
depth 0.2

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 G5NE0017 ORG ID 21FLA LATITUDE _____
 COUNTY St. Johns STORET # G5NE0017 LONGITUDE _____
 DATE 12/2/20 TIME 1215 SAMPLING AGENCY 21FLA EDEPNEROL
 SITE NAME Deep Creek 1.25 miles North of Pine Island Rd.
 FIELD ID/NAME _____ RECEIVING BODY OF WATER ICW

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) <u>1.5</u> m wide Depth (m) <u>0.13</u> m/s Velocity (m/sec) <u>0.13</u> m/s m deep <u>0.2</u> m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718m</u> Right Bank: <u>718m</u>				Hydrologic Modification Score (per FT 3101) ☐				
High Water Mark: <u>0.5</u> + <u>0.2</u> = <u>0.7</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				
Artificially Channelized: ☒ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☐ 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 ☒ DRPS ☒ LVS ☐ LCI ☐ BioRecon			WATER QUALITY					
Woody Debris (Snags) <u>2.5</u> <u>5</u> <u>5</u> Undercut Banks / Roots <u>2.5</u> <u>5</u> <u>5</u> Leaf Packs or Mat <u>1.5</u> <u>5</u> <u>5</u> Aquatic Vegetation <u><1</u> <u>5</u> <u>5</u> Rock or Shell Rubble <u>93</u> <u>5</u> <u>5</u> Sand <u>93</u> <u>5</u> <u>5</u> Mud / Muck / Silt <u>93</u> <u>5</u> <u>5</u> Other <u>93</u> <u>5</u> <u>5</u> Other <u>93</u> <u>5</u> <u>5</u>			Top: <u>0.05</u> <u>11.1</u> <u>6.67</u> <u>7.7</u> <u>70</u> <u>361</u> <u>0.17</u> <u>0.2</u> Mid: <u>2</u> <u>5</u> <u>5</u> <u>5</u> <u>5</u> <u>5</u> <u>5</u> <u>5</u> Bottom: <u>0.2</u> <u>5</u> <u>5</u> <u>5</u> <u>5</u> <u>5</u> <u>5</u> <u>5</u> Meter ID: <u>DOS</u>					
ABLUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐			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 ☐					
			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

Glenn / K Appleby

SIGNATURE

Glenn

DATE:

12/2/20

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Deep Creek 1.25 miles North of Pine Island Rd. County: St. Johns Date: 12/2/20 Investigators: Kim Appleby & Jeremy Parrish

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

STORET Station Number: GSNE0017

Secchi depth 2.1 m
Estimated? Y
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 Y
Habitat Assessment Y
SCI/Biorecon Y
Water sample Y
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%.

[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: S
 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:

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.