

RQ-2021- 06-28-19

Login Checklist

Login Station ID: #4

Shipping Method: FedEx | UPS | HD | GreyhoundDate/Time of Receipt: 06/30/21 @ 9:25

*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	
1.6°C				4		X			9293 8014 4321

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: Tyler

Chlorine detected? (One container checked per Field ID)

Yes ☐ No ☐ Init: _____

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: Tyler

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

Yes ☐ No ☐ NA ☒ Init: Tyler

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

Coolers Unpacked/Checked by: Tyler ReynoldsDate: 06/30/21Event contains NCRs (Y/N)? None

Event ID:

Guana river bio
NE-DIST-2021-06-30-02 (SMP)
Date Received: 30-JUN-2021 09:25

Login Checklist

Login Preservation Equipment

Lot # & Exp: Date

Additional Comments:

Infrared Thermometer ID:	#4 Temp Gun EXP:10/28/2021
pH Test Strips 0 – 6	N/A
pH Paper 0 – 3	N/A
pH Paper 0 – 13	210620 EXP:04/15/2023
Chlorine Test Strips	0261 EXP:05/2023

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: 6/29/2021
Customer: NE-DIST
RQ: RQ-2021-06-28-19

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

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

Number of Coolers Shipped: 1

Delivery Method: FedEx

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

Site Location	Field ID/WIN ID
Guana River Above Micklers Rd.	 G5NE0602

RELINQUISHED BY(SIGNATURE):



DATE/TIME: 6/29/2021
1600EST

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By: Tyler

Rec'd/Inspected Date: 06/30/21 ©
9:25

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: Bruce

RQ: 2021-06-28-19

Project: SMPGUSHR

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 5/17/21

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.	Brian Davis	6/29/21	753	17.9	766	9.6	—	100.8	—	1.03	P/F	L/F
ICV				18.0	766	9.5	9.53	100.8	—	1.03	P/F	L/F
CCV	Jeremy Parnish	6/29/21	1315	21.4	766	8.9	8.9	100.7	—	.03	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.	Brian Davis	6/29/21	747	210426B	5/22	1000	1000	P/F	L/F
ICV			748	210426C	5/22	1413	1431	P/F	L/F
CCV	Jeremy Parnish	6/29/21	1318	210426A	5/22	100	102.0	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Brian Davis	6/29/21	803	2012E39	12/22	7.03	17.5	7.03	-29.2	P/F	L/F
Calibr.			805	2103659	3/23	4.00	17.6	4.00	144.4	P/F	L/F
Calibr.			808	2103F53	9/22	10.07	17.6	10.07	-198.1	P/F	L/F
ICV			811	2012E39	12/22	7.03	17.7	7.06	-29.0	P/F	L/F
CCV	J Parnish	6/29/21	1319	2103F53	9/22	10.00	18.7	10.17	-20.4	P/F	L/F
CCV										P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 $\pm$ 50; mV pH 4 Range +180 $\pm$ 50; mV pH 10 Range -180 $\pm$ 50;

If mV are recorded: slope from 7 to 10 169.1, slope from 4 to 7 175.6 (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: 5/17/21

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	Brian Davis	6/29/21	813	0.00	0.00	P/F	L/F

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

COMMENTS:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Guana River Above Micklers Rd.

Date: 6/29/2021

WIN/Field ID: G5NE0602

WBID: 2320B2

ENR:

Latitude: 30.161519

County: St Johns

Org ID: 21FLA

Longitude: -81.3605

Receiving Body of Water: Guana Lake

RQ- 2021-06-28-19

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

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# BRUCE	
Photos: NO	Flow: FLOW	Tide:	Tide Times: High: Low:
Biological Samples Collected: ☐ None ☒ HA ☐ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:			
SBIO ID Numbers:			
Notes: THUNDERSTORM A MILE AWAY. SUNNY, NO WIND.			

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 BD 06/29/2021 Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)



RQ-2021-06-28-19

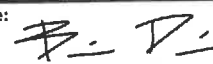
Customer: WQAP

Project ID: SMP

Collected By: Brian Davis, Jeremy Parrish

Field Report Prepared By: Brian Davis

Sampling Agency: FDEP

Place Label Here						Comments:				
WIN ID/Field ID:  G5NE0602										
Location: Guana River Above Micklers 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 (PPTH)
	1000 EST	0.49	5.9	26.7	7.12	0.2	0.4 ☒ VOB (S)	0.4	813	0.4
6/29/2021							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 # SA0353110		Exp: 01/11/22						
Metals (P-500ML)		☐ W-ICPMS ☐ W-ICP ☐ W-HARD				☐ Ice ☐ HNO3*		☐ <2		
		Lot #		Exp:						
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot # RoNB35407								
		Syringe Lot #								
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	A
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SD4-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 Lot #		☐ Formalin				
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☒ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab				☒ Ice			1	A
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice				
Pesticides (BG-500ML) (BG-1L)		W-E8321-DI		W-E8321-MS		W-PSNP-TQ		W-CT-CL-R		☐ Ice
Phytoplankton/Periphyton		W-PCL-TQ-R		W-CAR8-AA (5 ml of MCAA** Buffer Solution)		DTY-QN-C		PKD-QN-BV		☐ Ice
Name: Brian Davis, Jeremy Parrish						Signature: 			Date: 06/29/2021	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

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

SR #

ALS Contact: Mandy Sullivan

Page 1 of 1

[illegible]

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

SAMPLE ID _____ ORG ID 21FLA LATITUDE 30.16519
COUNTY St Johns STORET # 65NE0602 LONGITUDE -81.36050
DATE 6/29/21 TIME 1000 SAMPLING AGENCY NEROC
SITE NAME Guana River abv Micklers Rd.
FIELD ID/NAME _____ RECEIVING BODY OF WATER Guana Lake

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐						Landscape Development Intensity Index (LDI) ☐
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect ☐ m wide <u>15</u> m wide ☐ m/s <u>0.1</u> m/s ☐ m/s ☐ m deep <u>0.5</u> m deep ☐ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18m</u> Right Bank: <u>>18m</u>			Hydrologic Modification Score (per FT 3101) ☐			
High Water Mark: <u>0.2</u> - <u>0.5</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																																																																																			
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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: <u>5055110</u> Exp: <u>1/11/22</u>		Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐																																																																																			
Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____		Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐																																																																																			

ABUNDANCE

	Not Obs	Rare	Common	Abundant
Periphyton	☒	☐	☐	☐
Fish	☐	☐	☒	☐
Aquatic Plants	☐	☐	☐	☒
Iron/Sulfur Bacteria	☒	☐	☐	☐

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

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

FL: R0NB55407

SAMPLING TEAM

Jeremy Parrott / Brian Davis

SIGNATURE:

Jeremy Parrott

DATE:

6/29/21

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Guana River Above Mickles Rd</u>					County: <u>St. Johns</u>		Date: <u>6/29/21</u>		Investigators: <u>B. Davis, J. Parrish</u>											
Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect t (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	STORET Station Number: <u>GGNE0602</u>										
0	1	N			60	1	N			Secchi depth <u>VOP</u> Estimated? <u>NO</u>										
	2					2														
	3					3														
	4					4														
	5			0		5			0											
	6					6														
	7					7														
	8					8														
	9					9														
10	1	N			70	1	N			# points ranked 4-6 <u>0</u> total points assessed <u>99</u> % points ranked 4-6 <u>0</u>										
	2					2														
	3					3														
	4					4														
	5			0		5			0											
	6					6														
	7					7														
	8					8														
	9					9														
20	1	N			80	1	N			Check accompanying data collected at same site/date: Algal mat sample ☐ Linear Veg Survey ☒ Habitat Assessment ☒ SCI/Biorecon ☐ Water sample ☒ RQ-2021-06-28-19										
	2					2														
	3					3														
	4					4														
	5			0		5			0											
	6					6														
	7					7														
	8					8														
	9					9														
30	1	N			90	1	N			Algal Thickness Rank										
	2					2														
	3					3														
	4					4														
	5			0		5			0											
	6					6														
	7					7														
	8					8														
	9					9														
40	1	N			100	1	N			<table border="1"> <tr><td>N</td><td>rough, no algae, slimy, algae up to 1mm</td></tr> <tr><td>3</td><td>>1mm - 6mm</td></tr> <tr><td>4</td><td>>6mm - 20mm</td></tr> <tr><td>5</td><td>>20mm - 10 cm</td></tr> <tr><td>6</td><td>>10 cm</td></tr> </table>	N	rough, no algae, slimy, algae up to 1mm	3	>1mm - 6mm	4	>6mm - 20mm	5	>20mm - 10 cm	6	>10 cm
	N	rough, no algae, slimy, algae up to 1mm																		
	3	>1mm - 6mm																		
	4	>6mm - 20mm																		
	5	>20mm - 10 cm																		
	6	>10 cm																		
	2					2														
	3					3														
	4			0		4														
5				5			0													
6				6																
7				7																
8				8																
9				9																
50	1	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%.															
	2																			
	3																			
	4																			
	5			0																
	6																			
	7																			
	8																			
	9																			

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

SAMPLING AGENCY: <u>NEROC 21 FLA</u>	STORET STATION NUMBER: <u>G5NE0602</u>	DATE (MM/DD/YY): <u>6/29/21</u>	RECEIVING BODY OF WATER: <u>Gucha Lake</u>
REMARKS:	COUNTY: <u>St Johns</u>	LOCATION: <u>Gucha River abv. Rd. Mickles</u>	FIELD ID/NAME:

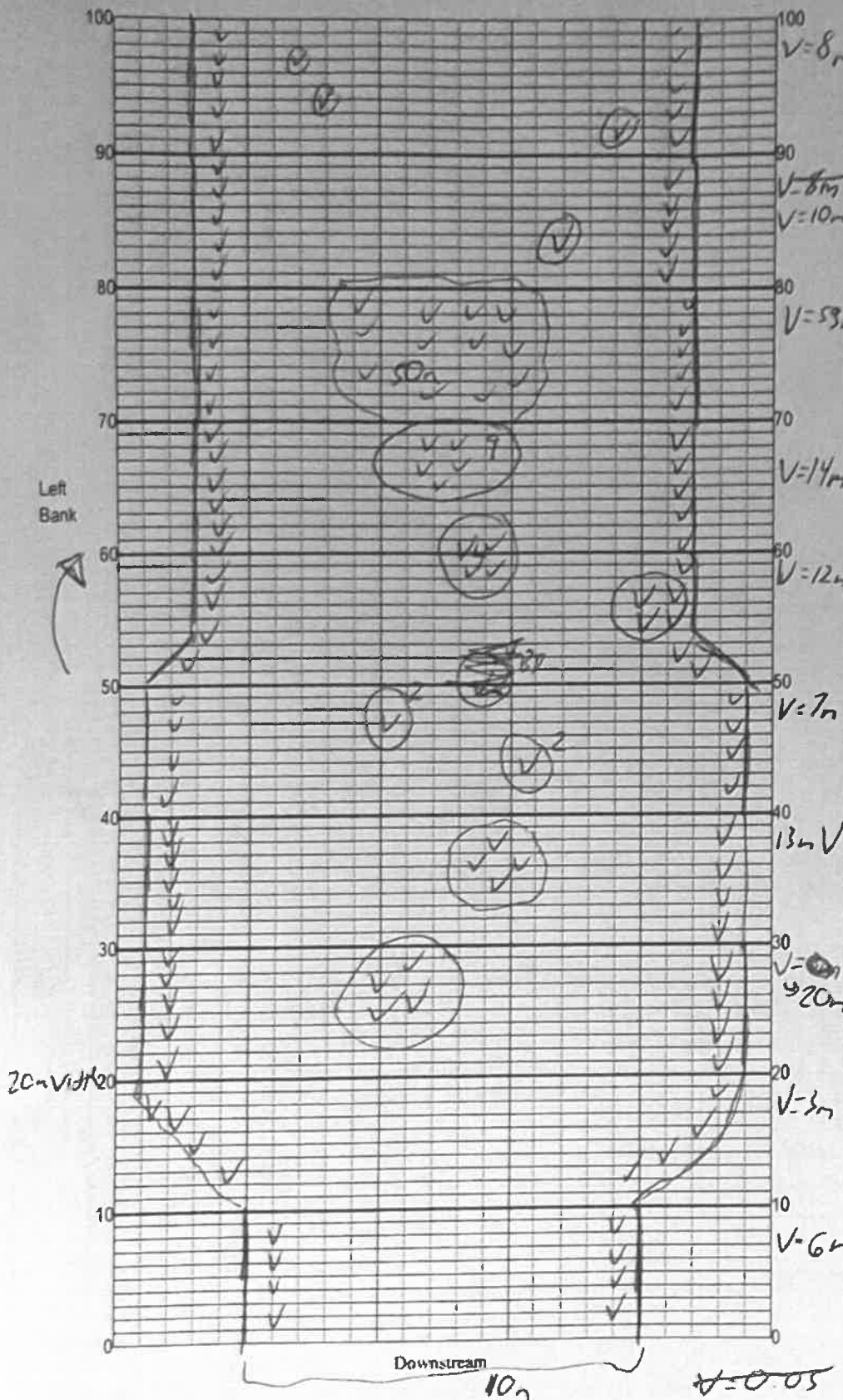
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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>4</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 <u>4</u> 3 2 1
Substrate Availability <u>8</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 <u>8</u> 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>11</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 12 <u>11</u>	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>28</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>4</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 <u>4</u> 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>10</u> Left Bank <u>10</u>	10 9	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>	10 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>5</u> Left Bank <u>5</u> Secondary Score <u>54</u>	10 9	8 7 6	<u>5</u> 4	3 2 1

82

TOTAL SCORE

Date: <u>6/29/21</u>	Analyst: <u>B. L. Davis</u>	Signature: <u>B. L. Davis</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: GENE0602
 Date: 6/29/21
 Sampler: B. Davis, J. Parnis

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	<u>9%</u>
☐ _____	_____
☐ _____	_____
☐ Pools	total # observed = <u>0</u> # range expected = <u>1</u>

Average width 150 m
 Average depth 6.50 m

Velocity measured at 0 meter mark.

WO & chemistry taken at 0 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:

$$V = 136 \text{ m}^2$$

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

$$V = 0.05$$

$$V = 0.1$$

$$r/s$$

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

Waterbody: Guana River above Nicklaus Pt Date: County: St. Johns Storet Number: LBNE0602
 Analyst: Brian Davis Signature: B-D

Comments:

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

HERBACEOUS SPECIES	Meter Mark										Specimens collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimens collected (check)
	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	
<i>Alternanthera philoxeroides</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		<i>Micranthemum glomeratum</i>											
<i>Bacopa caroliniana</i>												<i>Micranthemum umbrosum</i>											
<i>Bacopa monnieri</i>	✓	✓	✓		✓		✓					<i>Myriophyllum aquaticum</i>											
<i>Bidens bitis</i>												<i>Najas guadelupensis</i>											
<i>Boehmeria cylindrica</i>												<i>Nuphar luteum</i>											
<i>Centella asiatica</i>												<i>Orontium aquaticum</i>											
<i>Ceratophyllum demersum</i>	✓	✓	✓	D	C	C	C	D	C	C		<i>Panicum hemitomon</i>											
<i>Chara</i>												<i>Panicum repens</i>			✓					✓			
<i>Cicuta maculata</i>				✓	✓							<i>Panicum rigidulum</i>											
<i>Cladium jamaicense</i>												<i>Pistia stratioides</i>											
<i>Colocasia esculenta</i>												<i>Polygonum glabra</i>											
<i>Commelina diffusa</i>												<i>Polygonum hydropiperoides</i>											
<i>Commelina virginica</i>												<i>Polygonum punctatum</i>	C	C	✓	✓	✓	✓	✓	✓	✓		
<i>Crinum americanum</i>												<i>Pontederia cordata</i>											
<i>Diodia virginiana</i>												<i>Potamogeton illinoensis</i>											
<i>Eichornia crassipes</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		<i>Ruellia simplex</i>											
<i>Eleocharis (wispy viviparus)</i>				✓			✓	✓	✓	✓		<i>Sagittaria lancifolia</i>											
<i>Hydrilla verticillata</i>												<i>Sagittaria latifolia</i>											
<i>Hydrocotyle</i>	✓	C	C	C	✓	✓	✓	✓	✓	C		<i>Salvinia minima</i>	✓			✓	✓	✓	✓	✓	✓		
<i>Hygrophila polysperma</i>												<i>Samolus parviflora</i>											
<i>Hymenocallis</i>												<i>Saururus cernuus</i>											
<i>Lachnanthes caroliniana</i>												<i>Sparganium americanum</i>											
<i>Landoltia punctata</i>												<i>Typha</i>	C	C	C	✓	C	C	✓	C	✓		
<i>Lemna</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		<i>Vallisneria americana</i>											
<i>Limnophila sessiflora</i>												<i>Zizania aquatica</i>											
<i>Ludwigia leptocarpa</i>																							
<i>Ludwigia palustris</i>												<i>Nymphoides aquatica</i>	✓				✓	✓	✓	✓	✓		
<i>Ludwigia peruviana</i>		✓			✓	✓	✓		✓			<i>Scirpus lineatus</i>	✓	✓	✓					✓			
<i>Ludwigia repens</i>												<i>Sambucus nigra</i>	✓										
<i>Luziola fluitans</i>																							
<i>Cyperus odoratus</i>				✓																			
<i>Kosteletzkya P.</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓													
<i>Echinochloa walteri</i>	✓	✓		✓	✓																		
<i>Anarctus australis</i>	✓																						
<i>Juncus megacephalus</i>							✓																
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																							

Date of Request: 27-MAY-2021
 Created By: PARRISH_J On: 27-MAY-2021
 Modified By: JASROTIA_P On: 28-MAY-2021
 Customer: NE-DIST
 Project: SMP
 Division: Division of Environmental Assessment and Restoration
 District: Northeast District
 Event Description: Guana river bio

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: 27-MAY-2021
 Biology Request Reviewed By: JASROTIA_P On: 28-MAY-2021
 Sampling Kit Required: YES Ship on: 18-JUN-2021
 Sampling Kit Shipped: YES On: 17-JUN-2021
 Sampling Kit Packed By: KLUG_K
 Preservatives Needed: NO
 Date to Receive Samples: 28-JUN-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: (Surf fresh)Nutrients, Bacteria,

NE-ALS-ECQ

Packing Notes:

Bottle Group A (Water) With 1 Samples:

Bottle Type: P-1L	Number of Bottles: 1	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: 1	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: 1	Preserved With: ICE
NE-ALS-ECQ	Template: DEFAULT	(SM 9223 B Quanti-Tray) E. coli by Colilert/QT by ALS in Jacksonville
Bottle Type: P-500ML	Number of Bottles: 1	Preserved With: ICE And H ₂ SO ₄
W-NH ₃	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
W-NO ₂ NO ₃	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: 1	Preserved With: FILTER-ICE
W-PO ₄ -F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

