

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: 153464

RQ: 2021-01-16-44

Project: SMP

- 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 3/3/21

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.	Jon Woods	4/7/21	800	20.4	759.1	9.0	9.03	99.9	—	1.08	(P) F	(L) F
ICV	"	"	816	20.1	759.2	9.1	9.01	98.9	—	—	(P) F	(L) F
CCV	"	"	1347	21.7	758.5	8.8	8.68	96.3	—	—	(P) F	(L) F
CCV											P / F	L / F

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Jon Woods	4/7/21	801	201209H	12/2021	1000	1000	(P) F	(L) F
ICV	"	"	813	2911C93	11/2021	100	96.7	(P) F	(L) F
CCV	"	"	1350	"	"	100	100.5	(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.	Jon Woods	4/7/21	804	200407B	10/2021	7.02	18.6	7.03	-52.2	(P) F	(L) F
Calibr.	"	"	806	201809E	6/2022	4.00	19.3	4.00	120.6	(P) F	(L) F
Calibr.	"	"	807	200407A	10/2021	10.06	19.2	10.07	-220.8	(P) F	(L) F
ICV	"	"	810	"	"	10.06	18.7	10.07	-221.6	(P) F	(L) F
CCV	"	"	1352	201209E	6/2022	4.00	20.0	3.48	131.4	(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 10 168.6, slope from 4 to 7 173.0 (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: 4/1/21

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	Jon Woods	4/7/21	809	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
CHAIN OF CUSTODY FORM

Date:	<u>4/7/2021</u>	Collected By:	<u>Jonathan Woods, Jade Burtchett</u>
Customer:	<u>TLH-DIST</u>	Sampling Agency:	<u>FDEP</u>
RQ:	<u>RQ-2021-01-18-44</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:** 2**Delivery Method:** HandDelivered**FIELD ID (Labels) submitted under this RQ for this collection date.**

Site Location	Field ID/WIN ID
Tributary South Mosquito Creek	 G2TLHR0008
Ocklawaha Creek @ SR65	 G1TLHR0054
Big Creek @ SR65	 G1TLHR0056

RELINQUISHED BY(SIGNATURE):

DATE/TIME:

THIS SECTION TO BE COMPLETED BY LABORATORY**Rec'd/Inspected By:****Rec'd/Inspected Date:**



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Tributary South Mosquito Creek **Date:** 4/7/2021
WIN/Field ID: G2TLHR0008 **WBID:** 390 **ENR:** - **Latitude:** 30.6898
County: GADSDEN **Org ID:** 21FLTLHR **Longitude:** -84.8005
Receiving Body of Water: Apalachicola - Chipola **RQ:** 2021-01-18-44

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jonathan Woods	x		x		
☒	Jade Burtchett		x		x	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# 153484					
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:											

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_DDDMMYYY)
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: QC Station ID, Field Parameters In LIMS DMT:
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets Migrate Data to WIN: Verify Data In WIN:
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2021-01-18-44
Customer: WQAP
Project ID: SMP

Collected By: Jonathan Woods, Jade Burtchett
Field Report Prepared By: Jonathan Woods
Sampling Agency: FDEP

Place Label Here WIN ID/Field ID: G2TLHR0008 Location: Tributary South Mosquito Creek						Comments:				
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)
4/7/2021	935 EST	10.16	101.9	15.5	7.3	0.2	0.4 ☒ VOB (S)	0.4	147.9	0.07
	EST						Central Lab please use top row for login purposes			
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 #	0353110		Exp:	1/11/22				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	A
		Lot #	0344060		Exp:	1/4/22				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot #	16930646							
		Syringe Lot #	0079900							
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			1	A
Pesticides (BG-500ML) (BG-1L)		W-E8321-DI		WE8321-MS	☒ W-PSNP-TQ	W-CT-CL-R		☒ Ice	2	A
		W-PCL-SQ-R		W-CARB-AA (5 ml of MCAA** Buffer Solution)		W-DIELDRIN				
Phytoplankton/Periphyton		DTM-QL-C		PEN-QL-C	DTY-QN-C		PKD-QN-C	☐ Ice		
		DTM-QN-C		PRN-QN-C	PKD-QN-BV					
Name: Jonathan Woods Jade Burtchett					Signature:				Date:	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID _____ COUNTY Gradsen ORG ID 21FLTLHR LATITUDE _____
 DATE 4/7/21 STORET # G2TLHR0008 LONGITUDE _____
 SITE NAME Tributary South Mosquito Creek TIME 945 SAMPLING AGENCY 4034
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Mosquito Creek

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)
<u>10</u>	<u>20</u>	<u>40</u>	<u>20</u>	<u>10</u>				

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: 0-6 Right Bank: 6-12

Hydrologic Modification Score (per FT 3101) _____

High Water Mark: 2.0 + 0.4 = 2.4
 (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%)

Typical Width (m) Depth (m) Velocity (m/sec) Transverse
1.5 m wide 0.25 m/s 0.33 m/s 0.25 m/s
0.1 m deep 0.4 m deep 0.1 m deep

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)	<u>1.3</u>	<u>7</u>	
Undercut Banks / Roots	<u>0.33</u>	<u>1</u>	
Leaf Packs or Mat	<u>0.33</u>	<u>1</u>	
Aquatic Vegetation			
Rock or Shell Rubble	<u>11</u>	<u>5</u>	
Sand	<u>87.04</u>	<u>6</u>	
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)	Secchi (M)
Top	<u>0.2</u>	<u>15.5</u>	<u>7.30</u>	<u>10.16</u>	<u>101.9</u>	<u>147.9</u>	<u>0.07</u>	<u>0.4</u>
Mid								☒ VOB
Bottom								TOTAL DEPTH
Meter ID:	<u>153484</u>							<u>0.4</u>

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

Water Surface Oils Normal ☒ Sheen ☐
 Globes ☐ Slick ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
Sample Preserved? ☒ Yes ☐ No
 Lot Number: 20353110 Exp: 1/4/22

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

☒ The antecedent hydrologic conditions are not representative of the current conditions.

WIN ID / Field ID →

KIT: SCI

Location

Tributary South Mosquito Creek



G2TLHR0008

SAMPLING TEAM

Woods / Bustle

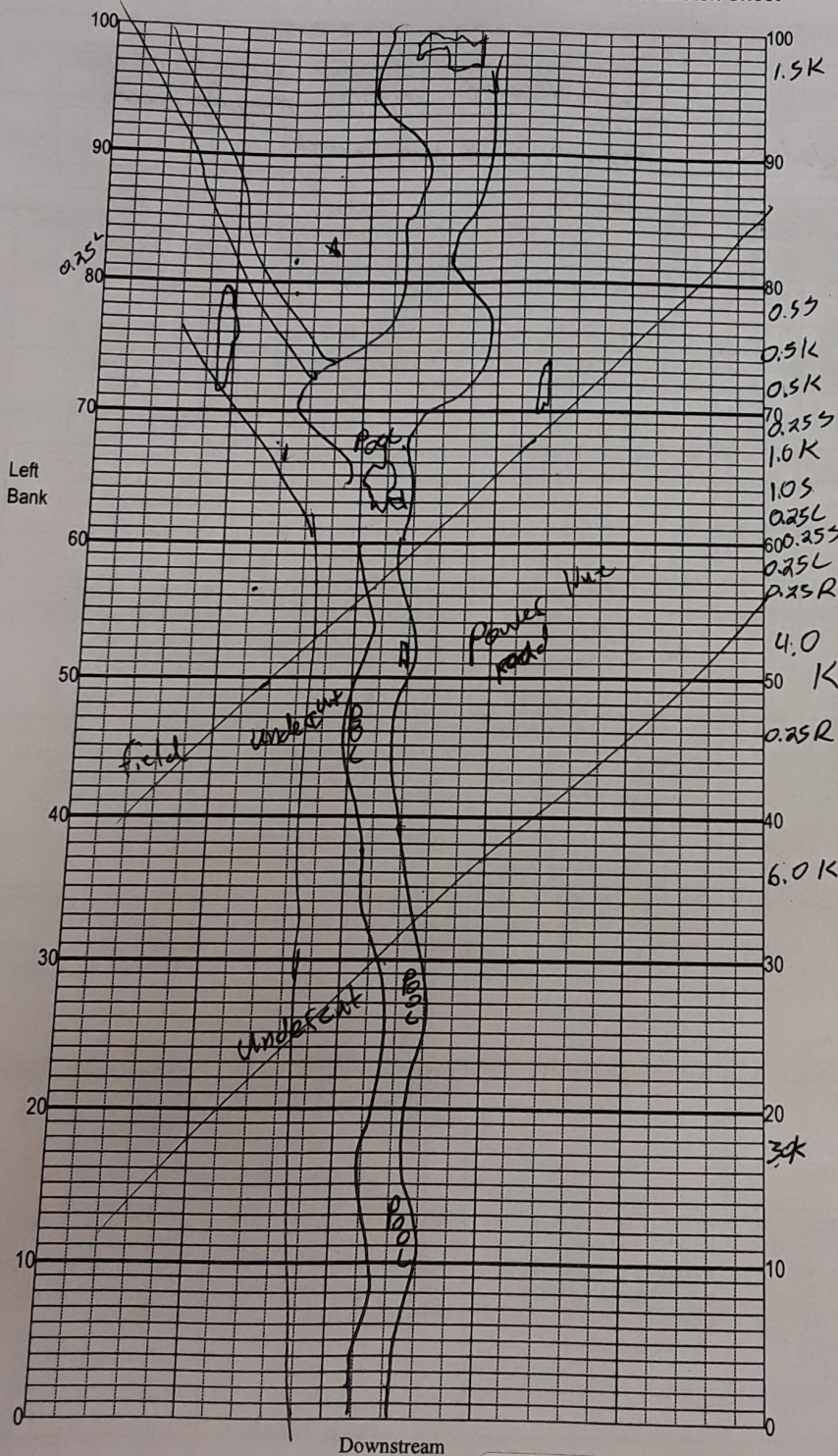
SIGNATURE:

[Signature]

DATE:

4/7/21

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



Location: G2TLHR0008

Date: 4/7/21

Sampler: Sam Woods

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

Substrates: Code key, draw proportionate habitat abundance. %

☐ S	Snags	1.3
☐ R	Roots/undercut banks	0.33
☐ L	Leaf Packs (or mats)	0.33
☐ A	Aquatic Macrophytes	
☐ K	Rock	11
☐		
☐	Pools	total # observed = 4 # range expected =

Average width 1.5 m
Average depth 0.2 m

Velocity measured at 100 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:

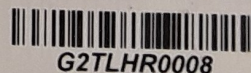
16.5 K
7.0 S
0.5 R
0.5 L

Length of grid represents 100 m of stream
(Horizontal scale is double vertical scale)

WIN ID / Field ID →

KIT: SCI

Location



G2TLHR0008

62-160.800, F.A.C

Tributary South Mosquito Creek

ary 2017

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

SAMPLING AGENCY: <u>8034</u>		STORET STATION NUMBER: <u>GATLH20008</u>	DATE (MM/DD/YY): <u>04/07/21</u>	RECEIVING BODY OF WATER: <u>Mosquito Creek</u>
REMARKS:	COUNTY: <u>Gradsden</u>	LOCATION: <u>Tributary South Mosquito Creek</u>		

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>8</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>6</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>20</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 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>13</u> ----- Primary Score <u>49</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. 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>	20 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>10</u> Left Bank <u>8</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>5</u> Left Bank <u>3</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>8</u> Left Bank <u>6</u> ----- Secondary Score <u>60</u>	10 9	8 7 6	5 4	3 2 1

109

TOTAL SCORE

Date: <u>4/7/21</u>	Analyst: <u>Woods/Burkett</u>	Signature: <u>[Signature]</u>
---------------------	-------------------------------	-------------------------------

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site:

G2TLHR0008

County: Gadsden

Date: 4/7/21

Investigators: Woods / Bartschett

STORET Station Number:

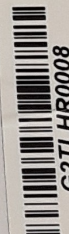
Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	6	N		60	1	N	N	
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	3		0		5	N		40
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
10	1	6	N		70	1	N	N	
	2	N				2	N		
	3	3				3	N		
	4	N				4	N		
	5	N		0		5	N		60
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	N				9	N		
20	1	N	N		80	1	N	N	
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		0		5	N		85
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	6				9	N		
30	1	N	N		90	1	6	N	
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		0		5	N		96
	6	N				6	N		
	7	N				7	N		
	8	N				8	6		
	9	N				9	N		
40	1	N	N		100	1	N	N	
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5	N		25		5	N		98
	6	N				6	N		
	7	N				7	N		
	8	N				8	N		
	9	6				9	6		
50	1	N	N		Record "N" and check "Estimated" for points deeper than the Secchi depth. Check "Estimated" if thickness estimated for points that were presumed absent. Check "Estimated" if thickness estimated for points that were not reached. Record "X" for points shallower than Secchi depth for which Secchi depth was not reached with the hand. No estimated rank. Record canopy cover as the number of small densiometer quadrats with 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	N							
	3	N							
	4	N							
	5	N		36					
	6	N							
	7	N							
	8	N							
	9	N							

Secchi depth 0.4
Estimated? N

points ranked 4-6 27
total points assessed 99
% points ranked 4-6 27

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey
Habitat Assessment
SCI/Biorecon
Water sample
RQ-2021-01-18-44

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



G2TLHR0008

WIN ID / Field ID

KIT: SCI

Location

Tributary South Mosquito Creek

Waterbody: <u>Triunfante South Marquitos Creek</u>	Date: <u>4/7/21</u>	County: <u>Gradsden</u>	Storet Number:
Analyst: <u>Woods</u>	Signature: <u>[Signature]</u>		

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

WIN ID / Field ID

Location

Revision Date: January 2017



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Ocklawaha Creek @ SR65 **Date:** 4/7/2021
WIN/Field ID: G1TLHR0054 **WBID:** 811 **ENR:** - **Latitude:** 30.4629
County: GADSDEN **Org ID:** 21FLTLHR **Longitude:** -84.7394
Receiving Body of Water: Ochlockonee - St. Marks **RQ:** 2021-01-18-44

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jonathan Woods	x		x		
☒	Jade Burtchett		x		x	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# 153484							
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:													

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_DDDMMYYY)
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: QC Station ID, Field Parameters In LIMS DMT:
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets Migrate Data to WIN: Verify Data In WIN:
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2021-01-18-44

Customer: WQAP

Project ID: SMP

Collected By: Jonathan Woods, Jade Burtchett

Field Report Prepared By: Jonathan Woods

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G1TLHR0054

Location: Ocklawaha Creek @ SR65

Comments:

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)
4/7/2021	1105 EST	9.6	98	16.2	4.81	0.015	0.3 ☒ VOB (S)	0.3	17.7	0.01
	EST						Central Lab please use top row for login purposes			

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 # 0353110 Exp: 1/11/22	☒ Ice ☒ H2SO4*	☒ <2	1	A
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD Lot # 0344060 Exp: 1/4/22	☒ Ice ☒ HNO3*	☒ <2	1	A
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter Filter Lot # 16930646 Syringe Lot # 0079900	☒ 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		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		1	A
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) ☐ W-DIELDRIN	☒ Ice		2	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:
Jonathan Woods
Jade Burtchett

Signature:

Date:

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID _____ COUNTY Gradsden ORG ID 21FUTHR LATITUDE _____
 DATE 4/7/21 STORET # _____ LONGITUDE _____
 SITE NAME Ocklawaha creek @ SR65 TIME 11:25 SAMPLING AGENCY 8034
 FIELD ID/NAME _____ RECEIVING BODY OF WATER lake Talquin

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>30</u> Silviculture <u>60</u> Field/Pasture <u>5</u> Agricultural _____ Residential <u>5</u> 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>0.25</u> m/s <u>0.25</u> m/s <u>0.25</u> m/s <u>0.2</u> m deep <u>0.4</u> m deep <u>0.2</u> m deep				
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) _____				
High Water Mark: <u>1.2</u> + <u>0.4</u> = <u>1.6</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																																																																									
<table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td><u>6.3</u></td> <td><u>7</u></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td><u>0.42</u></td> <td><u>2</u></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td><u>4.2</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sand</td> <td><u>89.08</u></td> <td><u>6</u></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	<u>6.3</u>	<u>7</u>		Undercut Banks / Roots	<u>0.42</u>	<u>2</u>		Leaf Packs or Mat	<u>4.2</u>	<u>5</u>		Aquatic Vegetation				Rock or Shell Rubble				Sand	<u>89.08</u>	<u>6</u>		Mud / Muck / Silt				Other				Other				<table border="1"> <thead> <tr> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top: <u>0.15</u></td> <td><u>16.2</u></td> <td><u>4.81</u></td> <td><u>9.60</u></td> <td><u>96.0</u></td> <td><u>17.7</u></td> <td><u>0.01</u></td> <td><u>0.3</u></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☒ VOB</td> </tr> <tr> <td>Bottom:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top: <u>0.15</u>	<u>16.2</u>	<u>4.81</u>	<u>9.60</u>	<u>96.0</u>	<u>17.7</u>	<u>0.01</u>	<u>0.3</u>	Mid:							☒ VOB	Bottom:							
	% Coverage	INVERT # Times Sampled	PERI # Times Sampled																																																																								
Woody Debris (Snags)	<u>6.3</u>	<u>7</u>																																																																									
Undercut Banks / Roots	<u>0.42</u>	<u>2</u>																																																																									
Leaf Packs or Mat	<u>4.2</u>	<u>5</u>																																																																									
Aquatic Vegetation																																																																											
Rock or Shell Rubble																																																																											
Sand	<u>89.08</u>	<u>6</u>																																																																									
Mud / Muck / Silt																																																																											
Other																																																																											
Other																																																																											
Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)																																																																				
Top: <u>0.15</u>	<u>16.2</u>	<u>4.81</u>	<u>9.60</u>	<u>96.0</u>	<u>17.7</u>	<u>0.01</u>	<u>0.3</u>																																																																				
Mid:							☒ VOB																																																																				
Bottom:																																																																											
Meter ID: <u>153484</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: <u>0353110</u> Exp: <u>1/11/22</u>		Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐		Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐																																																																							

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☐	☒	☐
Algae:	☐	☐	☒	☐
Aquatic Plants:	☒	☐	☐	☐
Iron/Sulfur Bacteria:	☒	☐	☐	☐

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

AMBIENT FIELD CONDITIONS

☒ The antecedent hydrologic conditions are typical for the season.

WIN ID / Field ID →

KIT: SCI

Location

Ocklawaha Creek @ SR65

SAMPLING TEAM

Woods/Buckner

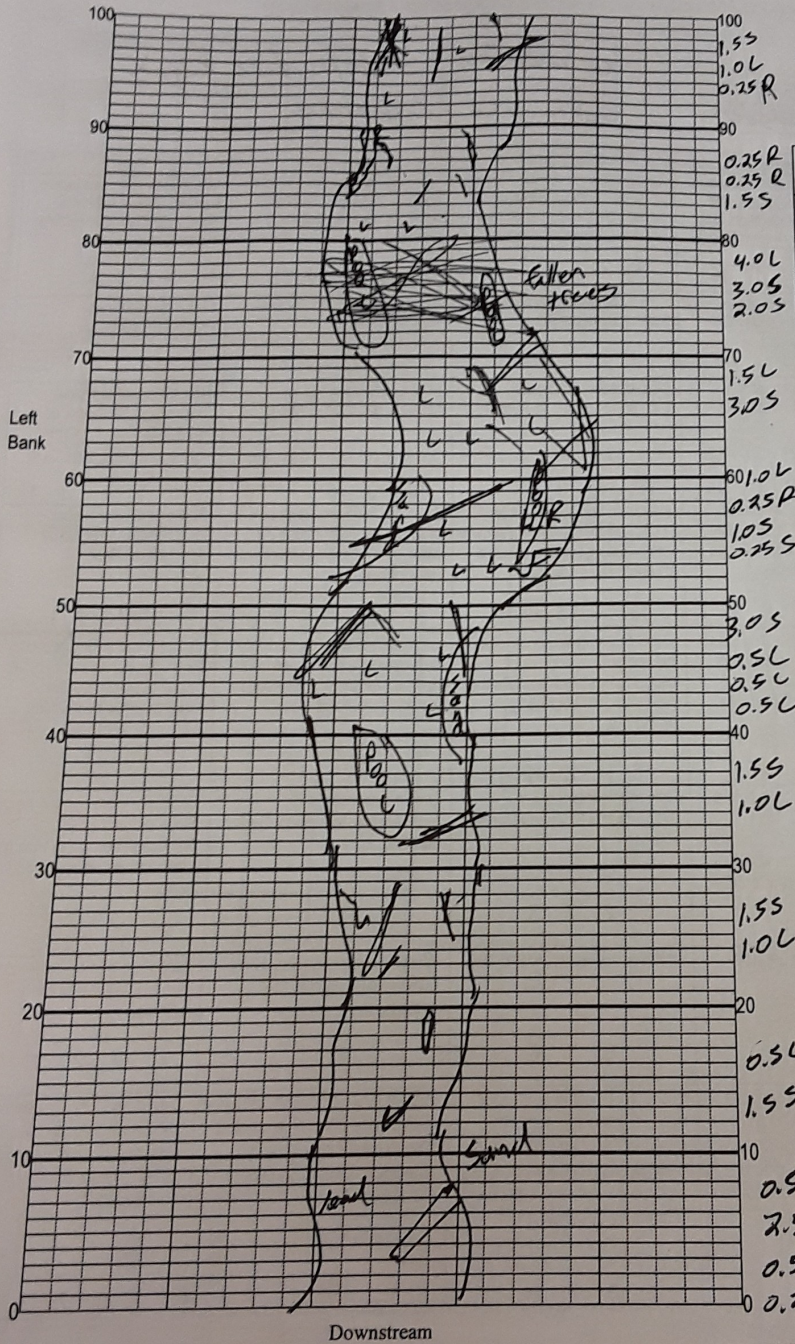
SIGNATURE:

[Signature]

DATE:

4/7/21

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



Location: G1TLHR0054

Date: 4/7/21

Sampler: Sam Woods

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☒ S	Snags	6.3
☒ R	Roots/undercut banks	0.42
☒ L	Leaf Packs (or mats)	4.2
☒ A	Aquatic Macrophytes	
☒ K		
☐		
☐	Pools	total # observed = <u>4</u> # range expected = _____

Average width 3 m

Average depth 0.4 m

Velocity measured at 0 meter mark.

WQ & 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:

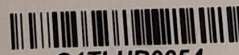
19.0S
~~FOR~~ 1.25R
12.5L

Length of grid represents 100 r
(Horizontal scale is double verti

WIN ID / Field ID →

KIT: SCI

Location



G1TLHR0054

Ocklawaha Creek @ SR65

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

SAMPLING AGENCY: <u>6034</u>		STORET STATION NUMBER: <u>GITCHROOSY</u>	DATE (MM/DD/YY): <u>04/07/21</u>	RECEIVING BODY OF WATER: <u>Lake Talquin</u>
REMARKS:	COUNTY: <u>Gadsden</u>	LOCATION: <u>Ocklawaha Creek @ SR65</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>10</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>7</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>16</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 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>15</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. 5 4 3 2 1
Primary Score <u>48</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	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>	20 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>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>10</u> Left Bank <u>10</u>	10 9	8 7 6	5 4	3 2 1
Secondary Score <u>80</u>	10 9	8 7 6	5 4	3 2 1

128

TOTAL SCORE

Date: <u>4/7/21</u>	Analyst: <u>Woods/Butchett</u>	Signature: <u>[Signature]</u>
---------------------	--------------------------------	-------------------------------

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: 62 G1TLHR0054 County: Gadsden Date: 4/7/21 Investigators: Woods / Mitchell

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

0 1 N 2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 6 60 1 2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 92

10 1 N 2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 96 70 1 2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 96

20 1 3 2 N 3 N 4 N 5 3 6 6 7 N 8 4 9 N 80 1 2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 64

30 1 N 2 N 3 N 4 N 5 N 6 3 6 6 7 N 8 N 9 N 90 1 2 N 3 N 4 N 5 N 6 N 7 3 8 N 9 N 52

40 1 N 2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 N 96 100 1 2 N 3 N 4 N 5 N 6 3 7 N 8 N 9 N 82

0 1 N 2 N 3 N 4 N 5 N 6 N 7 N 8 N 9 3 88

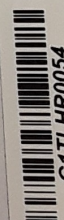
STORET Station Number:

Secchi depth 0.3
Estimated? N

points ranked 4-6
total points assessed
% points ranked 4-6

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ-2021-01-16-44

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



WIN ID / Field ID

KIT: SCI

Location

Ocklawaha Creek @ SR65

Record "N" and check "Estimated" for points deeper than the Secchi depth presumed absent. Check "Estimated" if thickness estimated for depth but not reached.
Record "X" for points shallower than Secchi depth for which substrate was reached with the hand. No estimated rank.
Record canopy cover as the number of small densiometer quadrats with canopy cover. Measure facing upstream at point 4, 5, or 6.
Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

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

Date: 4/7/21

County: GadsdenStoret Number 672HR0054

Analyst: W. J. J. J.

Signature: *M. J. [illegible]*

Comments: less than 2 m^2

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]

KIT: SCI

G1TLHR0054

Location

Ocklawaha Creek @ SR65

Revision Date: January 2017



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: Big Creek @ SR65 **Date:** 4/7/2021
WIN/Field ID: G1TLHR0056 **WBID:** 913 **ENR:** - **Latitude:** 30.4108
County: LIBERTY **Org ID:** 21FLTLHR **Longitude:** -84.785
Receiving Body of Water: Ochlockonee - St. Marks **RQ:** 2021-01-18-44

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jonathan Woods	x		x		
☒	Jade Burtchett		x		x	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# 153484						
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:												

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_DDDMMYYY)
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: QC Station ID, Field Parameters In LIMS DMT:
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets Migrate Data to WIN: Verify Data In WIN:
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2021-01-18-44

Customer: WQAP

Project ID: SMP

Collected By: Jonathan Woods, Jade Burtchett

Field Report Prepared By: Jonathan Woods

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G1TLHR0056

Location: Big Creek @ SR65

Comments:

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)
4/7/2021	1200 EST	10.01	103.1	16.6	4.88	0.2	0.4 ☒ VOB (S)	0.4	19.3	0.01
	EST						Central Lab please use top row for login purposes			

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 # 0353110 Exp: 1/11/22				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO3*	☒ <2	1	A
	Lot # 0344060 Exp: 1/4/22				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # 16930646				
	Syringe Lot # 0079900				
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		1	A
Pesticides (BG-500ML) (BG-1L)	W-E8321-DI W-E8321-MS ☒ W-PSNP-TQ W-CT-CL-R	☒ Ice		2	A
	W-PCL-SQ-R W-CARB-AA (5 ml of MCAA** Buffer Solution) W-DIELDRIN				
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:
Jonathan Woods
Jade Burtchett

Signature:

Date:

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

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

SAMPLE ID _____ ORG ID 21FLTLHR LATITUDE _____
 COUNTY Liberty STORET # G1TLHR0056 LONGITUDE _____
 DATE 4/7/21 TIME 1220 SAMPLING AGENCY SR65
 SITE NAME Big Creek @ SR65
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Teloga

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>40</u> Silviculture <u>40</u> Field/Pasture <u>10</u> Agricultural _____ Residential <u>10</u> 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 _____ m/s _____ m/s _____ m/s
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>7/8</u> Right Bank: <u>7/8</u>				Hydrologic Modification Score (per FT 3101) _____				_____ m deep _____ m deep _____ m deep
High Water Mark: <u>1.2</u> + <u>0.4</u> = <u>1.6</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☒ Heavily Shaded ☐ Moderate Shaded (46-80%)
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe								

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse	Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify): _____	Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐ Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐
--	---	---

SUBSTRATE TYPE

Assessment Tool: ☒ SCI ☒ RPS ☒ LVS

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	<u>3</u>	<u>6</u>	
Undercut Banks / Roots	<u>2.1</u>	<u>6</u>	
Leaf Packs or Mat	<u>0.5</u>	<u>3</u>	
Aquatic Vegetation			
Rock or Shell Rubble			
Sand			
Mud / Muck / Silt	<u>94.4</u>	<u>5</u>	
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:	<u>0.2</u>	<u>16.6</u>	<u>4.88</u>	<u>10.01</u>	<u>103.1</u>	<u>19.3</u>	<u>0.01</u>	<u>0.4</u>
Mid:								☒ VOB
Bottom:								
Meter ID:	<u>153484</u>							<u>0.4</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: <u>D353110</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) _____

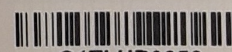
AMBIENT FIELD CONDITION

☒ The antecedent hydrologic

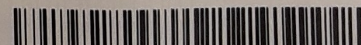
WIN ID / Field ID →

KIT: SCI

Location



G1TLHR0056



BIG CREEK @ SR65

SAMPLING TEAM

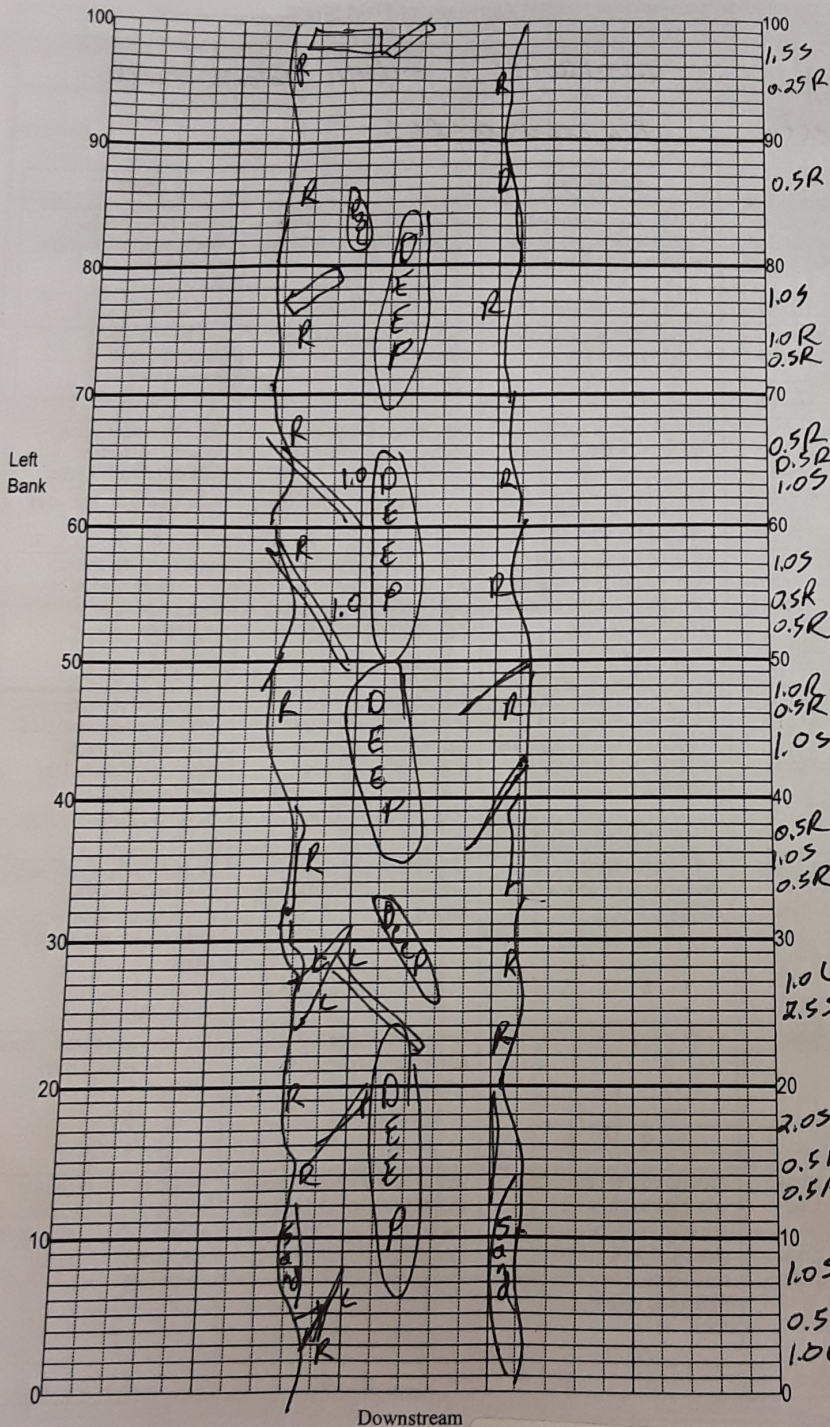
Woods/Burkhardt

SIGNATURE

[Signature]

4/7/21

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



Location: G1TLHR0056

Date: 4/7/21

Sampler: Don Woods

100 m: Latitude _____
Longitude _____

0 m: Latitude _____
Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☐ S Snags 3

☐ R Roots/undercut banks 2.0

☐ L Leaf Packs (or mats) 0.5

☐ A Aquatic Macrophytes _____

☐ K ROCK _____

☐ _____

☐ Pools total # observed = 6
range expected = _____

Average width 4 m

Average depth 0.4 m

Velocity measured at 100 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:

0.2 m/s

12.0 S
8.75 R
2.0 L

Length of grid represents 100 m of _____
(Horizontal scale is double vertical scale)

WIN ID / Field ID →

KIT: SCI

G1TLHR0056

62-160.800, F.A.C

Location

BIG CREEK @ SR65

January 2017

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

SAMPLING AGENCY: <u>034</u>		STORET STATION NUMBER: <u>61TCHR0056</u>	DATE (mm/dd/yy): <u>04/07/21</u>	RECEIVING BODY OF WATER: <u>Taloga creek</u>
REMARKS:	COUNTY: <u>Liberty</u>	LOCATION: <u>Big creek @ SP65</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 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>5</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>14</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 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>11</u> ----- Primary Score <u>41</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. 5 4 3 2 1
Secondary Habitat Components	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
Artificial Channelization <u>20</u>				
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. 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	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	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
Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>72</u>				

113

TOTAL SCORE

Date: <u>4/7/21</u>	Analyst: <u>Woods/Burkett</u>	Signature: <u>[Signature]</u>
------------------------	----------------------------------	----------------------------------

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: G1TLHR0056 County: Woods Date: 4/7/21 Investigators: Woods/Buckett

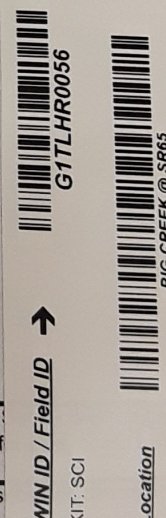
Transect (m)	Point	Algal Thickness Rank	Estimated	Canopy Cover	Transect (m)	Point	Algal Thickness Rank	Estimated	Canopy Cover
	1=right 9=left	(N-6, X)				1=right 9=left	(N-6, X)		
0	1	N	✓		60	1	N		
	2	N	✓			2	N		
	3	N	✓			3	N	✓	
	4	N	✓			4	N	✓	
	5	N	✓	76		5	N	✓	48
	6	N				6	N	✓	
	7	N				7	N	✓	
	8	N				8	N		
	9	N				9	N		
10	1	N			70	1	N		
	2	N				2	N	✓	
	3	N	✓			3	N	✓	
	4	N	✓			4	N	✓	
	5	N	✓	42		5	N	✓	97
	6	N	✓			6	N	✓	
	7	N	✓			7	N	✓	
	8	N	✓			8	N	✓	
	9	N				9	N		
20	1	N	✓		80	1	N		
	2	N	✓			2	N		
	3	N	✓			3	N		
	4	N	✓			4	N	✓	
	5	N	✓	90		5	N	✓	90
	6	N	✓			6	N	✓	
	7	N	✓			7	N	✓	
	8	N	✓			8	N		
	9	N				9	N		
30	1	N	✓		90	1	N		
	2	N	✓			2	N		
	3	N	✓			3	N	✓	
	4	N	✓			4	N	✓	
	5	N	✓	96		5	N	✓	96
	6	N	✓			6	N	✓	
	7	N	✓			7	N	✓	
	8	N	✓			8	N		
	9	N				9	N		
40	1	N	✓		100	1	N		
	2	N	✓			2	N		
	3	N	✓			3	N	✓	
	4	N	✓			4	N	✓	
	5	N	✓	60		5	N	✓	48
	6	N	✓			6	N		
	7	N	✓			7	N		
	8	N	✓			8	N		
	9	N				9	N		
0	1	N				1	N		
	2	N				2	N		
	3	N	✓			3	N		
	4	N	✓			4	N	✓	
	5	N	✓	72		5	N	✓	
	6	N	✓			6	N		
	7	N	✓			7	N		
	8	N				8	N		
	9	N				9	N		

Secchi depth 2.4
Estimated? N

points ranked 4-6 1
total points assessed 36
% points ranked 4-6

Check accompanying data collected at same site/date.
Algal mat sample ✓
Linear Veg Survey ✓
Habitat Assessment ✓
SCI/Biorecon ✓
Water sample ✓
RQ-2021-01-14-44

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



WIN ID / Field ID

KIT: SCI

Location

are
can
een or
at

Record "N" and check "Estimated" for points deeper than the presumed absent. Check "Estimated" if thickness estimated but not reached.
Record "X" for points shallower than Secchi depth for which s reached with the hand. No estimated rank.
Record canopy cover as the number of small densimeter qu HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.
Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

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

Date: 4/7/20

County: Liberty

Storet Number:

Analyst: W. Woods

Signature: *[Signature]*

Comments: Less than 2 m^2

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

[illegible]

KIT; SCI

G1TLHR0056

Location



BIG CREEK @ SR65

ary 2017