



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No



WIN Station Name:		SISTER RIVER MOUTH				Sample Date:		5/18/2023	
WIN / Field ID:	G3NW0154	ORG ID:	21FLPNS	ENR:		Latitude:	30.39612		
County:	WALTON	WBID:	951	STREAM	3F	Longitude:	-86.051034		
Receiving Body of Water:		Choctawhatchee River Estuary				RQ-	2023-05-08-47		

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Frank Butera	x	x	x		
Nathan Mulkey		x		x	x

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
	Syringe	Pole	
Syringe Lot# 136514		Filter Lot# 17460495	
Secchi Equipment ID:		BFA	
Collection Method			
	Wading	Canoe/Kayak	
	From Shore	Electric Motor	
		x	Gasoline Motor
Depth Measured With		Meter	

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	155077 (ProDSS)
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
CEN	1235	8.3	0.3	6.41	79.5	26.4	6.75	1.1	122.7	0.06
	1244		6.54	2.19	26.3	24.4	6.53		166.4	0.08

Biological Samples Collected:		HA LVS RPS SCI	
SBIO Visit ID: 86783	HA ID: 18548	RPS ID: 10123	Macrophyte ID: 12487
Benth ID: 45606		LIMS Sample ID Entered Into The Macrophyte Module: 2411401	

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
				Type	Lot#	Expiration Date	pH Check
Microbiology	E. coli	Contract Lab	UWF	ICE			
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:136514; Filter Lot#:17460495		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	SA2299040	11/04/2023
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	NA2126030	06/02/2023
Organics (LC)	W-E8321-DI	W-E8321-MS					
Macroinvertebrates	MI-FW-QLDC			Formalin	1111111		
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton							
Phytoplankton							
BOD							
DOC							
Other(s)				SyringeLot#		FilterLot#	
Field Comments:	/ SCI Collection Time: 1100						
Comments on COC:	Microbiology sample(s) submitted to contract laboratory. Dissolved Oxygen YSI Post Verification failed.						
Relinquish Date:	05/18/2023	Signature:					

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)

Save Field Sheets on Network: Migrate Data to WIN:

(Initials/Date)

(Initials/Date)

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

SAMPLE ID 86783 ORG ID 21FLPNS LATITUDE 30.39612
 COUNTY Walton WIN ID/STORET # G3NW0154 LONGITUDE -86.05103
 DATE 05/08/2023 5/18/2023 TIME 11:00 CTZ _____ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME Sister River Mouth RQ- 2023-05-08-47
 FIELD ID/NAME G3NW0154 RECEIVING BODY OF WATER Choctaw R. WBID 951 Project: SMP / TMDL Studies

RIPARIAN ZONE / STREAM FEATURES

LIMS ID: 2411401

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>N/A</u>
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 <u>30m mk</u> <u>80</u> m wide _____ m/s <u>0.05</u> m/s _____ m/s _____ m deep <u>8.3</u> m deep _____ m deep			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank : <u>7.7</u> Right Bank : <u>7.8</u>		Hydrologic Modification Score (per FT 3101) <u>1-2</u>					
High Water Mark: <u>0.3</u> + <u>8.3</u> = <u>8.6</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

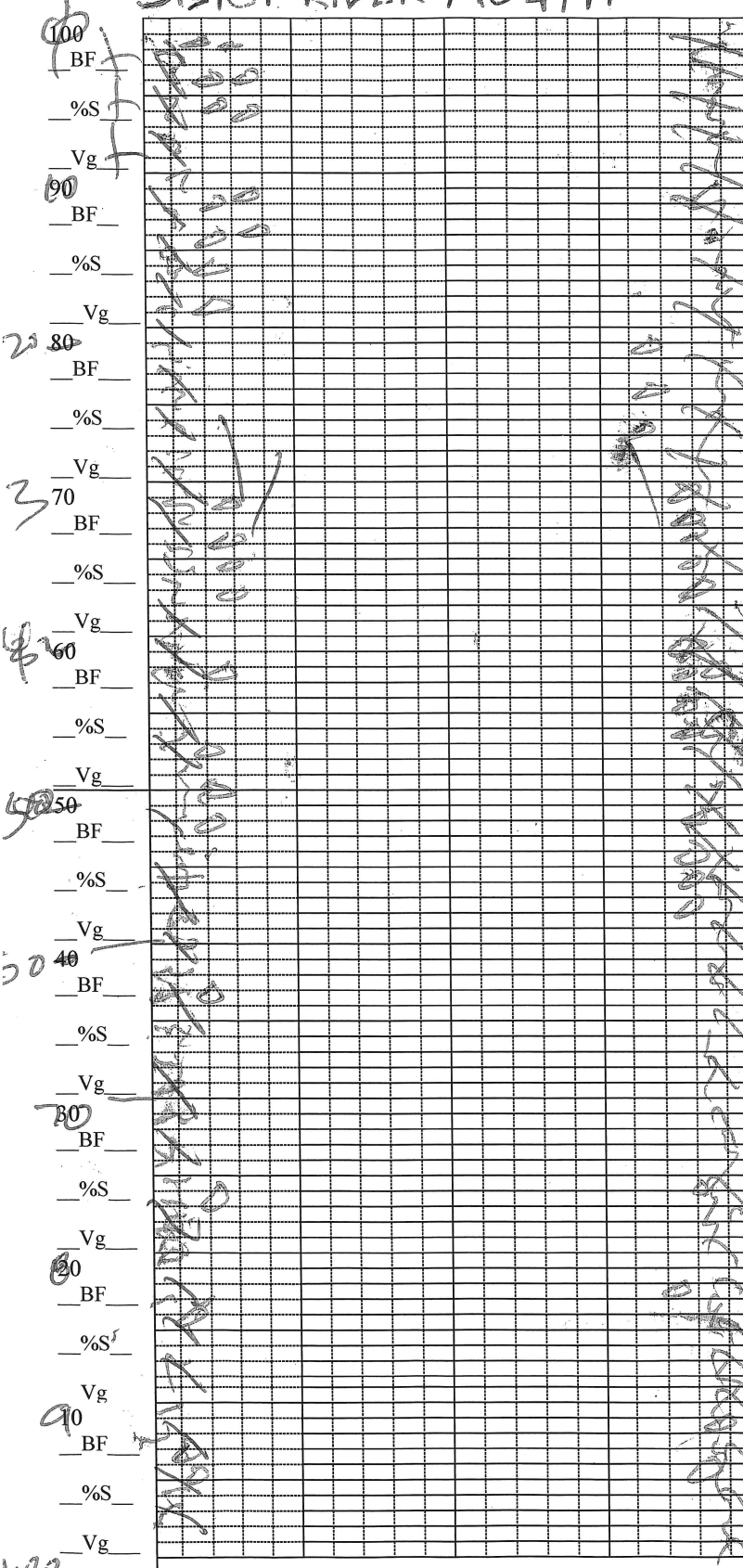
Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse		Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify) : _____		Smothering of Substrates Sand Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐																																																																													
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon <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>6.9</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td><u>4.8</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td><u>3.9</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sand.....</td> <td><u>84.5</u></td> <td><u>5</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>6.9</u>	<u>5</u>		Undercut Banks / Roots	<u>4.8</u>	<u>5</u>		Leaf Packs or Mat				Aquatic Vegetation	<u>3.9</u>	<u>5</u>		Rock or Shell Rubble..				Sand.....	<u>84.5</u>	<u>5</u>		Mud / Muck / Silt				Other				Other				WATER QUALITY <table border="1"> <thead> <tr> <th></th> <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 :</td> <td><u>0.3</u></td> <td><u>26.4</u></td> <td><u>6.75</u></td> <td><u>6.41</u></td> <td><u>79.5</u></td> <td><u>122.7</u></td> <td><u>0.04</u></td> <td><u>1.1</u></td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☐ VOB</td> </tr> <tr> <td>Bottom</td> <td><u>6.54</u></td> <td><u>24.4</u></td> <td><u>6.53</u></td> <td><u>2.19</u></td> <td><u>26.3</u></td> <td><u>146.4</u></td> <td><u>0.08</u></td> <td></td> </tr> </tbody> </table> Meter ID: <u>155077</u> Time <u>12:35</u> TOTAL DEPTH <u>8.3</u>					Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top :	<u>0.3</u>	<u>26.4</u>	<u>6.75</u>	<u>6.41</u>	<u>79.5</u>	<u>122.7</u>	<u>0.04</u>	<u>1.1</u>	Mid:								☐ VOB	Bottom	<u>6.54</u>	<u>24.4</u>	<u>6.53</u>	<u>2.19</u>	<u>26.3</u>	<u>146.4</u>	<u>0.08</u>	
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System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐		AMBIENT FIELD CONDITIONS / NOTES: <u>SCI Time 11:00</u> <u>sampled at 7/14/2023 making</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																															
SAMPLING TEAM: <u>Frank Bukoy N. Munkley</u>		SIGNATURE: <u>[Signature]</u>		DATE: <u>5/08/2023</u>																																																																													

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (June 1, 2001)

Length of grid represents 100 m of stream (not linear meters).

(Horizontal scale is double vertical scale, draw proportionately).

Sister River Mouth



Snag	5	20
Root	5	10
LP		
Plant	25	30
OTR		
Snag	10	30
Root	10	5
LP		
Plant	30	
OTR		
Snag	20	20
Root	15	10
LP		
Plant		15
OTR		
Snag	20	20
Root	10	20
LP		
Plant	20	20
OTR		
Snag	30	5
Root	15	10
LP		
Plant	5	30
OTR		
Snag	30	20
Root	25	20
LP		
Plant	10	20
OTR		
Snag	30	30
Root	15	10
LP		
Plant	5	
OTR		
Snag	20	20
Root	25	10
LP		
Plant	5	2
OTR		
Snag	10	30
Root	20	30
LP		
Plant	5	15
OTR		
Snag	25	10
Root	30	10
LP		
Plant	10	10
OTR		

WIN ID 63NW0154

Substrates: Code key,
draw proportionate habitat
abundance.



Snags

$\frac{45}{1000} = 4.5\%$



Roots/undercut banks

$\frac{205}{6000} = 3.4\%$



Leaf Packs (or mats)



Macrophytes

$\frac{233}{6000} = 3.9\%$



$\frac{5000}{6000} = 83.3\%$

Velocity:

Note where velocity
measures were taken 30 m

Habitat Smothering:

Note areas (on map) where
sand or silt is something
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.

Average width 60 m

Average depth — m

WQ & chemistry taken @ 10 m

Station Name:

Sister River Mouth

Project.

Sampled By/Date: 5/18/23

63NW0154

0 m Latt. 30.39590

0 m Long. 86.05101

100 m Latt. 30.39521

100 m Long. 86.05049

0-10 meter [A]	Habitat Area (M)	Left Bank	Right Bank
	Snag 45	Bankfull	Bankfull
0m width (m) 60	Root 40	+	+
10m width 60	Leaf	Slope	Slope
Avg. Depth	Veg 20	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

10-20 meter [B]	Habitat Area (M)	Left Bank	Right Bank
	Snag 40	Bankfull	Bankfull
20m width 60	Root 30	+	+
	Leaf	Slope	Slope
Avg. Depth 2	Veg 20	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

20-30 meter [C]	Habitat Area (M)	Left Bank	Right Bank
	Snag 40	Bankfull	Bankfull
30m width 60	Root 35	+	+
	Leaf	Slope	Slope
Avg. Depth	Veg 7	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

30-40 meter [D]	Habitat Area (M)	Left Bank	Right Bank
	Snag 60	Bankfull	Bankfull
40m width 60	Root 25	+	+
	Leaf	Slope	Slope
Avg. Depth	Veg 5	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

40 - 50 meter [E]	Habitat Area (M)	Left Bank	Right Bank
	Snag 50	Bankfull	Bankfull
50m width 60	Root 45	+	+
	Leaf	Slope	Slope
Avg. Depth	Veg 30	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

50-60 meter [F]	Habitat Area (M)	Left Bank	Right Bank
	Snag 35	Bankfull	Bankfull
60m width 60	Root 25	+	+
	Leaf	Slope	Slope
Avg. Depth	Veg 35	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

60-70 meter [G]	Habitat Area (M)	Left Bank	Right Bank
	Snag 30	Bankfull	Bankfull
70m width 60	Root 30	+	+
	Leaf	Slope	Slope
Avg. Depth	Veg 40	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

70-80 meter [H]	Habitat Area (M)	Left Bank	Right Bank
	Snag 40	Bankfull	Bankfull
80m width 60	Root 25	+	+
	Leaf	Slope	Slope
Avg. Depth	Veg 15	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

80-90 meter [I]	Habitat Area (M)	Left Bank	Right Bank
	Snag 50	Bankfull	Bankfull
90m width 60	Root 15	+	+
	Leaf	Slope	Slope
Avg. Depth	Veg 30	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

90 - 100 meter [J]	Habitat Area (M)	Left Bank	Right Bank
	Snag 25	Bankfull	Bankfull
100m width 60	Root 15	+	+
	Leaf	Slope	Slope
Avg. Depth	Veg 30	+	+
Max Depth	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718	Other	Other	Other

Station Name

Sister River Mouth

Storet: G3NW0154

Date 5/18/2023

0 meter (Dec Deg)

34.39590

86.05101

100 meter (Dec Deg)

34.39521

86.05049

Water Quality Measured at

Stream Velocity and location.

0.05 m/s 340 meter mark

Number of Pools & Location

N/A

High Water: 0.3

Silt smothering @

Sand Smothering @

Algae Smothering @

N/A

Degraded Banks @

N/A

Fe/Sulfur Bact. @

N/A

Total Habitat	Sq. Meters	Percent
Snags	415	6.9
Roots	285	4.8
Leaf	—	—
Veg	332	3.9
Rock	—	—
Gravel	—	—
Sand	5048	84.5
Other	—	—
Sum 1° Habitat	—	15.5

Avg. Depth	Max. Depth	Avg. Width
—	8.5	60

Bank Stability Score. Left Bank 30 Right Bank 30 Category Left Bk optimal Right Bk optimal
Add all plus signs (Max. 30 possible) and Divide by 10. Scoring. Poor: 0.0 - 0.9 pts. Marginal: 1.0 - 1.9 pts. Suboptimal: 2.0 - 2.9 Optimal: 2.1 +

Notes.

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

SAMPLING AGENCY: FL DEP NW 200 2144AS		STORET STATION NUMBER: G3NW0154	DATE (MM/DD/YY): 5/18/23	RECEIVING BODY OF WATER: Chocoma River
REMARKS: WBID 951	COUNTY: Walton	LOCATION: Sister River Mouth	FIELD ID/NAME: G3NW0154	

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>15</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>11</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>6</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>18</u> ----- Primary Score <u>50</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 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 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 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> ----- Secondary Score <u>80</u>	10 9	8 7 6	5 4	3 2 1

130

TOTAL SCORE

Date: <u>5/18/2023</u>	Analyst: <u>F Butler</u>	Signature: <u>[Signature]</u>
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SBIO ID: 86723

HA ID: 18547

62-160.800, F.A.C.

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Sister River Mouth County: Walton Date: 5/18/23 Investigators: F. Butera

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

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

STORET Station Number: G3 NW0154

Secchi depth 1.1
Estimated?

points ranked 4-6 90
total points assessed 90
% points ranked 4-6 100

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey ✓
Habitat Assessment ✓
SCI/Biorecon ✓
Water sample ✓
RQ: 2023-05-08-47

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

SBIO Visit ID: 86783

RPS ID: 10123

RPS Score 0

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

Waterbody: Sister River Date: 5/10/23 County: Walden Storet Number: 63NW0154
Analyst: F. Butler Signature: [Signature]

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 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										Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimen 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	
Alternanthera philoxeroides												Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum											
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nuphar luteum											
Centella asiatica												Orontium aquaticum											
Ceratophyllum demersum												Panicum hemitomon											
Chara												Panicum repens											
Cicuta maculata												Panicum rigidulum											
Cladium jamaicense												Pistia stratioides											
Colocasia esculenta												Polygonum glabra											
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum											
Crinum americanum												Pontedaria cordata											
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Sacciolepis striata											
Hydrilla verticillata												Sagittaria kurziana											
Hydrocotyle												Sagittaria lancifolia											
Hygrophila polysperma												Sagittaria latifolia											
Hymenocallis												Salvinia minima											
Lachnanthes caroliniana												Samolus parviflora											
Landoltia punctata												Saururus cernuus											
Lemna												Sparganium americanum											
Limnophila sessiflora												Typha											
Ludwigia leptocarpa												Vallisneria americana											
Ludwigia palustris												Zizania aquatica											
Ludwigia peruviana												<u>Najas</u>											
Ludwigia repens												<u>TAXODIUM</u>											
Luziola fluitans												<u>Trapa</u>											
<u>Euphorbia</u>												<u>Sagittaria</u>											
<u>Mikania</u>												<u>Ligularia</u>											
<u>Hypericum</u>												<u>Alisma</u>											
												<u>Cleome</u>											
If no Dominant or Co-Dominant were selected, indicate with "X"												<u>Lycopus</u>											
Indicate % cover macrophytes per section												<u>Zizaniopsis</u>											
0-5% Macrophyte Coverage	X	X	X	X	X					X	X												
>5 and ≤10% Macrophyte Coverage										X	X												
>10 and ≤25% Macrophyte Coverage																							
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

Field ID: 63NW0154

RPS ID: 10123

SBIO ID: 86783

VPDB ID: 12487

LIMS ID: 2411401

Station: Sister River, Mouth
 GPS: 30.39612 x -86.05103
 Storet: G3NW0154 Field ID G3NW0154
 SBIO Sample ID: 86783
 Macro ID: 12487

Sampled : 05/18/2023
 Sampled By: F. Butera, N. Mulkey
 Location: Walton Co.
 Receiving Waters: Choctawhatchee River
 LIMS ID: 2411401

	Taxa	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	C of C	Coll.	Verified
1	<i>Crinum americanum</i>			1			1	1	1	1				
2	<i>Zizaniopsis miliaceae</i>		1	1	1	1			1					
3	<i>Hypericum brachyphyllum</i>			1		1				1		7.55		
4	<i>Lycopus</i> sp.								1		1			
5	<i>Mikania scandens</i>					1						1.95		
6	<i>Nuphar luteum</i>			D	D	D		1	1	D		4.64		
7	<i>Triadenum virginicum</i>								1			8.16		
8	<i>Acer rubrum</i>						1					4.65		
9	<i>Alnus serrulata</i>			1										
10	<i>Clethra alnifolia</i>	1	1	1			1					5.63		
11	<i>Liquidambar styraciflua</i>	1	1									5.56		
12	<i>Nyssa sylvatica</i> var. <i>biflora</i>	1	1		1	1	1		1	1		9.04		
13	<i>Taxodium</i> sp.	1	1	1	1	1	1	1	1	1	1	7.21		
14	<i>Fontinalis</i> sp.			1			1		1	1	1			
15	<i>Osmunda regalis</i>		1									8.04		
	Total	4	6	8	4	6	6	3	8	6	3	5.4		
	Exotic Present	0	0	0	0	0	0	0	0	0	0	Herb. Taxa		7
	Avg. taxa per section	5	0									Woody Taxa		6
	sections with exotics	0										Ferns		2
	Exotic Taxa	0										Macro Algae		
	Exotics per Section: 0												Total Taxa	

* These taxa were observed fully within the stream channel.

Bioassessment- Sister River SCI	WBID	Kit	Qty	Bottle Group	Bottles
Sister River Mouth G3NW0154	951	SCI Kit	1	A	
		Nutrients			3
		Ortho-Phosphate			1
		Metals			1
		Tracers: E8321-MS/DI			1
		PNSP-TQ-R, TR-SQ-R			4
		Escherichia coli	1		1
		SCI	1	B	2
		Periphyton	1		1
		HA	1		-
		RPS	1		-
		LVS	1		-
RQ-2023-05-08-47 NEED PICS					

Field ID	WBID	WIN Description	County	Lat Long
G3NW0154	951	Sister River Mouth		30.39612, 86.051034

Test	Lot #	Expiration date:
UWF Bottle	L20020*..021	1/13/2025
Sulfuric Acid	SA2299040	11/4/2023
Nitric Acid	NA2126030	6/2/2023
Syringe	136514	-
PO4 Filter	17460495	-

Notes (access, boat ramp, etc.)	
G3NW0154. Need Rhino	Needs Pics

Bioassessment- Mill Creek SCI				
Field ID	TIME	Conductivity	pH	DO mg-L / Temp.
G3NW0154				
RQ-2023-05-08-47 NEED PICS				