



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End
of Day CCV
☒ Yes / ☐ No

WIN Station Name: Escambia River upstream of Mitchell Creek **Date:** 12/15/2021
WIN/Field ID: G4NW0404 **WBID:** 10B **ENR:** **Latitude:** 30.863119
County: SANTA ROSA **Org ID:** 21FLPNS **Longitude:** -87.306206
Receiving Body of Water: - **RQ:** 2021-11-29-21

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Christopher Stopher Slade	x		x		
☒	Nathan Mulkey		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# 155077 (PRODSS)					
Photos: No		Flow: FLOW		Tide:		Tide Times: High: Low:					
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:											
SBIO ID Numbers: SBIO Visit ID 83555. HA ID 17115. RPS ID 9820											
Notes:											

Duplicate Sample

Time Zone: CEN	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-2021-11-29-21

Customer: WQAP

Project ID: SMP

Collected By: Christopher Stopher Slade, Nathan Mulkey

Field Report Prepared By: Christopher Stopher Slade

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G4NW0404

Location: Escambia River upstream of Mitchell Creek

Comments: Microbiology sample(s) submitted to contract laboratory

Matrix: Fresh

(Check one)

☒ GRAB☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT _h)
	915 CEN	9.3	90.6	14.7	6.9	0.3	0.7 ☐ VOB (S)	2.9	84.7	0.04
12/15/2021										
	920 CEN	9.28	90.4	14.7	6.64	2.4			84.6	0.04
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 #	17236199							
		Syringe Lot #	1005533							
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 Lot #		-	☒ Formalin			1	B
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☒ E Coli ☐ F Coli ☐ Enterococci ☒ Contract Lab				☒ Ice			1	A
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice				
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI	☒ WE8321-MS	☒ W-PSNP-TQ		☒ Ice			3	A
Phytoplankton/Periphyton		☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)								
		☐ PKD-QN-BV ☐ DTY-QN-C				☐ Ice				
Name: Christopher Stopher Slade Nathan Mulkey					Signature: Christopher Slade				Date: 12/15/2021	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Site Name Escambia River
Field ID G3 G4NW0404 Storet G4NW0404
Visit ID 83555
RPS ID 9820
Macro ID —
HA ID 17115

Date: 12/15/2021
Project: Smp
RQ: 2021-11-29-21
LIMS ID: N/A
WBID 10B

☒ tvt SCI

☐ RPS/LVS Only

☐ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial [Signature]

☒ Date and Initial QA: 12/21/2021 FB

☒ RPS entered in SBIO Initial [Signature]

☒ Date and Initial QA: 12/21/2021 FB

☒ LVI entered in SBIO Initial —

☒ Date and Initial QA:

☒ < 2 m² vegetation

☐ Plants getting verified

Date submitted:

☐ Plants verified

Date returned:

☒ RPS authorized in SBIO

☒ Date and Initial: 12/21/2021 FB

☒ RPS score: 1.01

☐ VPDB authorized in SBIO

☐ Date and Initial:

☐ VPDB score:

☐ SCI complete: N/A

SCI Score: N/A

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

SAMPLE ID 83555 ORG ID 2IFLPNS LATITUDE 30.86312
 COUNTY Eschambia River STORET # G4NW404 LONGITUDE -87.30621
 DATE 12/15 TIME 0915 SAMPLING AGENCY FOEP NWROC
 SITE NAME Eschambia River Upstream of Mitchell Creek
 FIELD ID/NAME G4NW404 RECEIVING BODY OF WATER Eschambia Bay

RIPARIAN ZONE / STREAM FEATURES WBID 10B

RQ-2021-11-29-21

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 <u>50mm 75 25 50</u> m wide ☐ m/s <u>0.50</u> m/s ☐ m/s ☐ m deep <u>2.9</u> m deep ☐ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank : <u>718</u> Right Bank : <u>718m</u>				Hydrologic Modification Score (per FT 3101) <u>5-6</u>			
High Water Mark: <u>1</u> + <u>2.9</u> = <u>3.9</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>0.32</u></td> <td><u>7</u></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td><u>0.15</u></td> <td><u>7</u></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td><u>0.01</u></td> <td><u>1</u></td> <td><u>65</u></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>99</u></td> <td><u>5</u></td> <td><u>4</u></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>0.32</u>	<u>7</u>		Undercut Banks / Roots	<u>0.15</u>	<u>7</u>		Leaf Packs or Mat	<u>0.01</u>	<u>1</u>	<u>65</u>	Aquatic Vegetation				Rock or Shell Rubble..				Sand.....	<u>99</u>	<u>5</u>	<u>4</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>14.7</u></td> <td><u>6.90</u></td> <td><u>9.3</u></td> <td><u>90.6</u></td> <td><u>84.7</u></td> <td><u>0.04</u></td> <td><u>0.7</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>2.4</u></td> <td><u>14.7</u></td> <td><u>6.64</u></td> <td><u>9.28</u></td> <td><u>90.4</u></td> <td><u>84.6</u></td> <td><u>0.04</u></td> <td><u>2.9</u></td> </tr> </tbody> </table> Meter ID: <u>155077</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>14.7</u>	<u>6.90</u>	<u>9.3</u>	<u>90.6</u>	<u>84.7</u>	<u>0.04</u>	<u>0.7</u>	Mid:								☐ VOB	Bottom	<u>2.4</u>	<u>14.7</u>	<u>6.64</u>	<u>9.28</u>	<u>90.4</u>	<u>84.6</u>	<u>0.04</u>	<u>2.9</u>
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Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____																																																																														
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AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																				

SAMPLING TEAM S. Slade N. Mulkey SIGNATURE Stephen Slade DATE 12/15/21

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

SAMPLING AGENCY: FDEP NW Roc		STORET STATION NUMBER: G4NW0404	DATE (MM/DD/YY): 12/15/21	RECEIVING BODY OF WATER: Escambia Bay
REMARKS: WBID 10B	COUNTY: Escambia	LOCATION: Escambia River	FIELD ID/NAME: G4NW0404	

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>6</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 <u>6</u>	5 4 3 2 1
Substrate Availability <u>1</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 <u>1</u>
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 <u>20</u> 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>14</u> ----- Primary Score <u>40</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 <u>14</u> 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components Artificial Channelization <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. <u>20</u> 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank <u>6</u> Left Bank <u>7</u>	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. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 <u>7</u> <u>6</u>	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 root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m, human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>73</u>	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. <u>10</u> 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

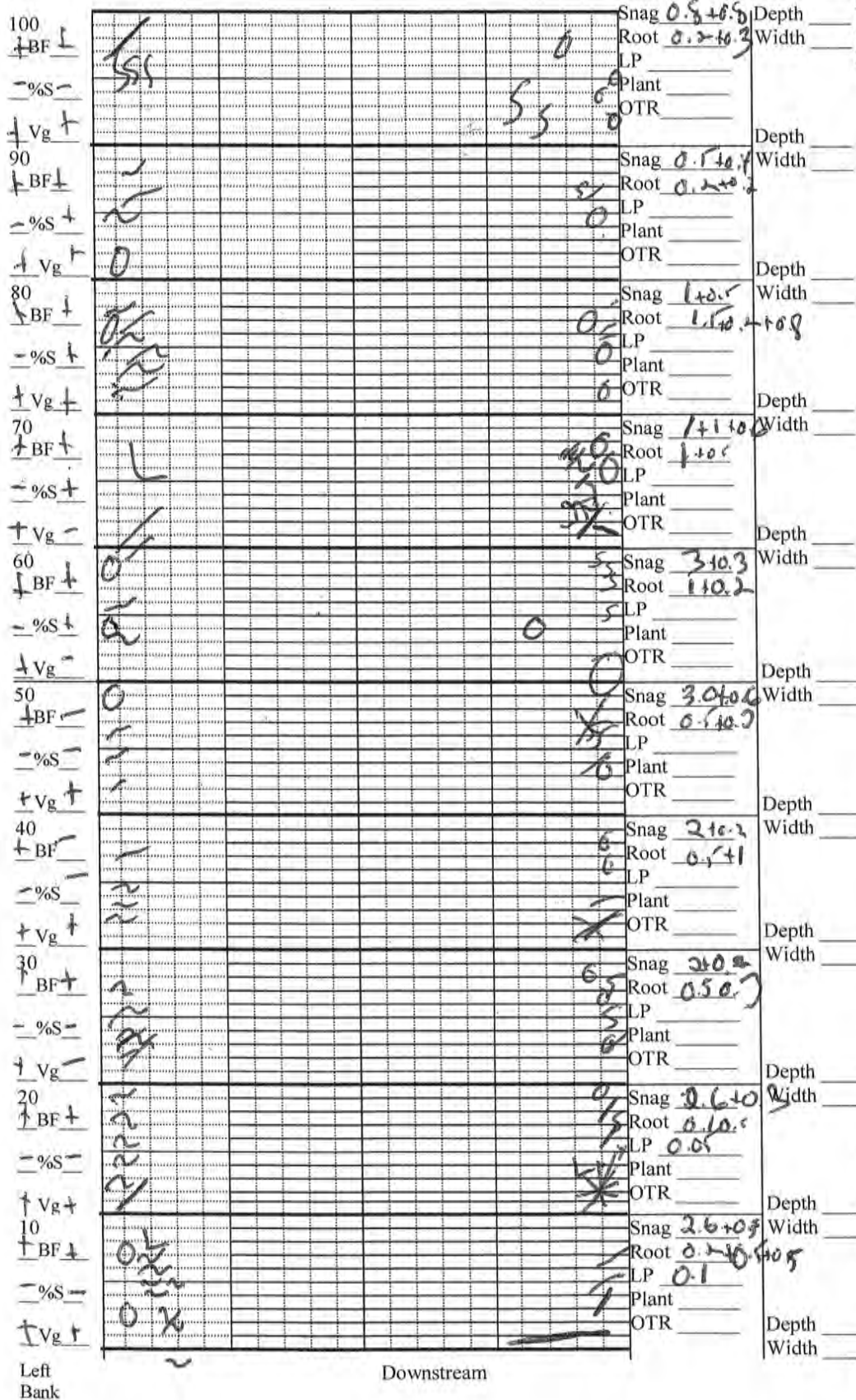
113 TOTAL SCORE

Date: <u>12/15/21</u>	Analyst: <u>J. Hode</u>	Signature: <u>J. Hode</u>
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SBIO ID 83555 HA ID 17115

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

100 m Long -87.30519



DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Escambia R. upstream Mitchell County: Escambia Date: 12/15/21 Investigators: S. Stude N. Mulkey

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	Y		60	1	N	Y		
	2					2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8					8				
	9	N	Y			9	N	Y		
10	1	N	Y		70	1	N	Y		
	2					2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8	N	Y			8				
	9	N	Y			9	N	Y		
20	1	N	Y		80	1	N	Y		
	2					2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8					8				
	9	N	Y			9	N	Y		
30	1	N	Y		90	1	N	Y		
	2					2	N	Y		
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8					8	N	Y		
	9	N	Y			9	N	Y		
40	1	N	Y		100	1	N	Y		
	2					2	N	Y		
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8					8				
	9	N	Y			9	N	Y		
50	1	N	Y			1	N	Y		
	2					2				
	3					3				
	4					4				
	5					5				
	6					6				
	7					7				
	8					8				
	9	N	Y			9	N	Y		

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 densimeter 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: 64 MW 0404

Secchi depth 0.7
Estimated? N

points ranked 4-6 1
total points assessed 1
% 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- 2021-11-29-21

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

RPS ID
SBIO! 9820

SBIO ID 83555

[illegible]