



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV
Yes / No

WIN Station Name:		Cotton Creek upstream of power lines				Sample Date:		4/17/2023	
WIN / Field ID:	G4NW0034	ORG ID:	21FLPNS	ENR:		Latitude:	30.85333		
County:	Escambia	WBID:	131	STREAM		Longitude:	-87.33077		
Receiving Body of Water:		Escambia River				RQ-	2023-04-17-25		

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

Sampling Equipment			
x	Sample Container		Carboy
	Dipper		Van Dorn
x	Syringe		Pole
Syringe Lot# 1363514		Filter Lot# 17460495	
Secchi Equipment ID:		BFA	
Collection Method			
x	Wading		Canoe/Kayak
	From Shore		Electric Motor
			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	955	0.5	0.3	9.17	92.5	16	5.28	0.5	24.7	0.01
Biological Samples Collected:								HA LVS RPS SCI		
SBIO Visit ID: 86562		HA ID: 18283		RPS ID: 10085		Macrophyte ID: N/A		LIMS Sample ID Entered Into The Macrophyte Module: 2401170		

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	Syring Lot#:1363514; Filter Lot#:17460495		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	3013020	01/25/24
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	2230040	09/01/23
Organics (LC)	W-E8321-DI	W-E8321-MS			MCAA***		
Macroinvertebrates	MI-FW-QLDC			Formalin	1234		
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)					SyringLot#		FilterLot#
Field Comments:	/ SCI Collection Time: 1200						
Comments on COC:	Microbiology sample(s) submitted to contract laboratory.						
Relinquish Date:	04/17/2023	Signature:					

LIMS EVENT ID: _____ WIN Import ID: _____

Enter Field Parameters, Verify Station ID In LIMS DMT: _____ QC Station ID, Field Parameters In LIMS DMT: _____

Save Field Sheets on Network: _____ Migrate Data to WIN: _____

(Initials/Date) (Initials/Date)

Site Name Cotton Creek Upstream of Powerlines

Date: 04/17/2023

WIN ID G4NW0034

Field ID G4NW0034

Project: SMP / TMDL Studies

Visit ID 86562

RQ: 2023-04-17-25

RPS ID 10085

LIMS ID: 2401170

Macro ID N/A

WBID: 131

HA ID 18283

☒ SCI

☐ RPS/LVS ONLY

☒ Sample Site Created in SBIO

☒ Phys/Chem in SBIO Initial FB

☒ Date and Initial QA: 5/22/23 st

☒ HA entered in SBIO Initial FB

☒ Date and Initial QA: 5/22/23 st

☒ RPS entered in SBIO Initial FB

☐ Date and Initial QA: 5/22/23 st

☐ LVS entered in SBIO Initial N/A

☐ Date and Initial QA: _____

☐ < 2 m² vegetation

☐ Macro getting verified

Date submitted: _____

☐ Plant verified

Date returned: _____

☒ RPS authorized in SBIO

☒ Date and Initial: 5/22/23 FB

☒ RPS score: 1.14

☐ Macro authorized in SBIO

☐ Date and Initial: _____

☐ LVS Score: _____

☒ SCI complete: M. Hearn 7/10/23 SCI Score: 71

☒ Add SBIO-ID, HA-ID, RPS-ID, MACROPHYTE-ID and LIMS# to field sheet in database

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

SAMPLE ID 86562 ORG ID 21FLPNS LATITUDE N30.85333
 COUNTY Escambia WIN ID/STORE# G4NW0034 LONGITUDE W, 87.33472
 DATE 4/17/2023 TIME 9:58 CTZ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME Cotton Creek Upstream Power Lines RQ-2023-04-17-25
 FIELD ID/NAME G4NW0034 RECEIVING BODY OF WATER: Escambia R. WBID 131 Project: SMP / TMDL Studies

RIPARIAN ZONE / STREAM FEATURES

LIMS ID: 2401170

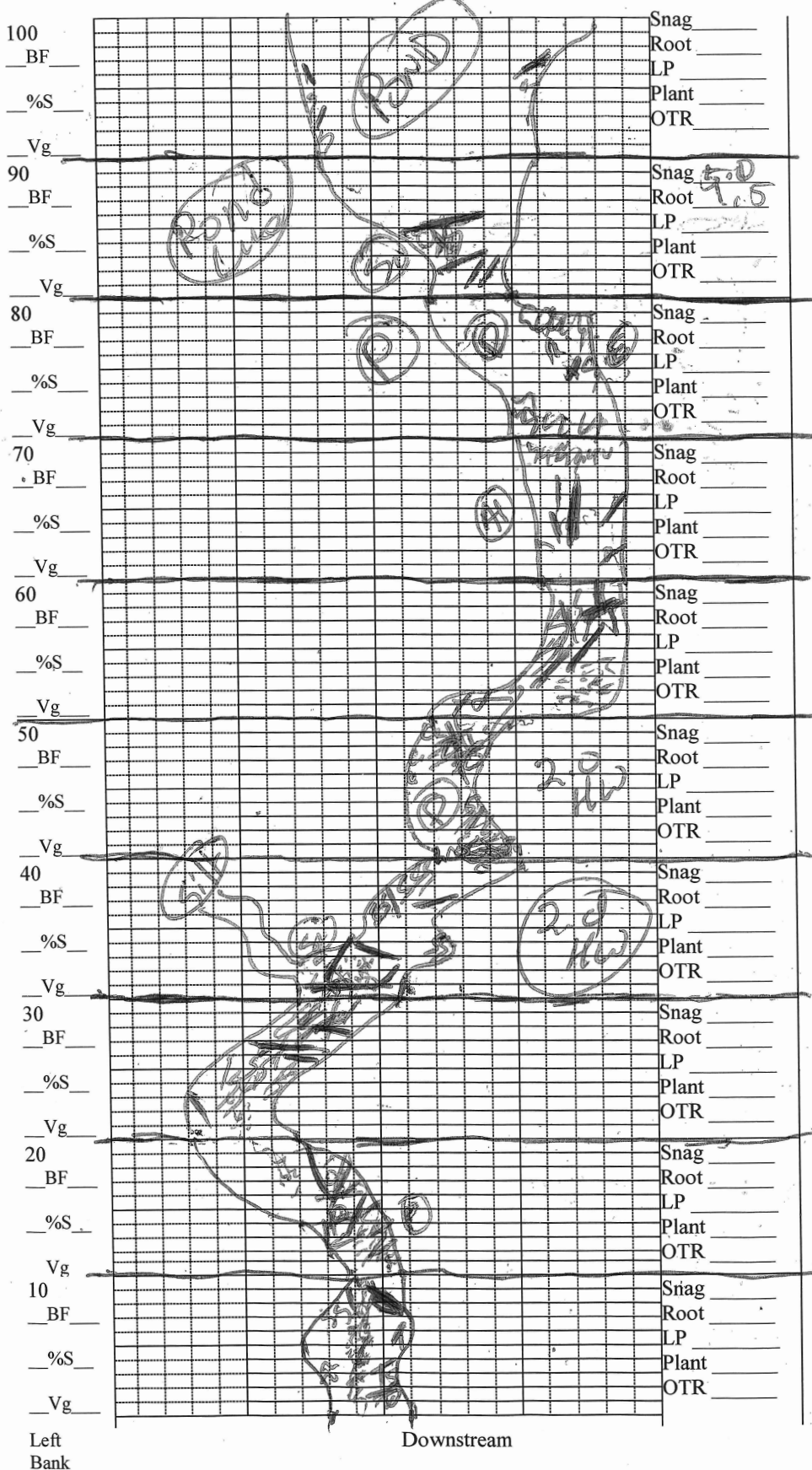
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ Silviculture ☒ Field/Pasture ☒ Agricultural ☒ Residential ☒ Commercial ☒ Industry ☒ Other (Specify) ☒ Gas Line						Landscape Development Intensity Index (LDI) N/A
Local Watershed Erosion (select one): ☐ None ☐ Slight ☐ Moderate ☒ Heavy Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect 10 m mk. 2.0 m wide .33 m/s .33 m/s .25 m/s
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: 7.10 Right Bank: 7.18			Hydrologic Modification Score (per FT 3101) 3-4		.5 m deep .6 m deep .5 m deep	
High Water Mark: 2.4 + 7.18 = 3.9 (m) (above present water level) (present depth) (above bed)			Artificially Impounded ☐ Yes ☒ No		Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe	
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>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: 0.3</td> <td>16</td> <td>5.28</td> <td>9.17</td> <td>92.5</td> <td>21.7</td> <td>0.01</td> <td>0.5</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>TOTAL DEPTH 0.5</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: 0.3	16	5.28	9.17	92.5	21.7	0.01	0.5	Mid:							VOB	Bottom:							TOTAL DEPTH 0.5
Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)																																	
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Mid:							VOB																																	
Bottom:							TOTAL DEPTH 0.5																																	
Woody Debris (Snags) 15.3 7 Undercut Banks / Roots 11.6 67 Leaf Packs or Mat 8.4 4 Aquatic Vegetation Rock or Shell Rubble Sand / Gravel 12.7 2 Mud / Muck / Silt Other Other			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: Exp:			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify)																																		
ABUNDANCE <table border="1"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Fish:</td> <td>☐</td> <td>☒</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☐	☒	☐	Fish:	☐	☒	☒	☐	Aquatic Plants:	☐	☒	☐	☐	Iron/Sulfur Bacteria:	☒	☐	☐	☐	Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: Exp:			Clarity Clear ☐ Slightly Turbid ☒ Turbid ☒ Opaque ☐									
	Not Obs.	Rare	Common	Abundant																																				
Periphyton:	☐	☐	☒	☐																																				
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Iron/Sulfur Bacteria:	☒	☐	☐	☐																																				
SAMPLING TEAM: Nathan Mulkey, Frank Butler			SIGNATURE: [Signature]			DATE: 4/17/2023																																		
AMBIENT FIELD CONDITIONS / NOTES: clearing immediately above below reach for power lines. 162" rain previous Upstream tributary has silt issues 72 hours The antecedent hydrologic conditions have been met to my best knowledge. DEP is looking at CFP.																																								

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).



WIN ID G3NWD024

Substrates: Code key,
draw proportionate habitat
abundance.



Snags
 $66/430=15.3\%$



Roots/undercut banks
 $50/430=11.6\%$



Leaf Packs (or mats)
 $1.6/430=0.4\%$



Macrophytes



Gravel
 $84/430=19.5\%$



Sand
 $228.4/430=53.1\%$

Velocity: 0.33 m/s
Note where velocity
measures were taken. 10 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 4.3 m

Average depth 0.6 m

WQ & chemistry taken @ 60 m

Station Name:

Cotton Creek Upstream
at Powerlines

Project. SMP / TMDL Studies

Sampled By/Date: 4/17/2023

FS/NM

0 m Latt. 30.85332

0 m Long. 87.33061

100 m Latt 30.85362

100 m Long 87.33113

0-10 meter [A]	Habitat Area (M)	Left Bank	Right Bank
	Snag 5.0	Bankfull	Bankfull
0m width (m) 2.8	Root 4.0	+	+
10m width 2.0	Leaf 0.1	Slope	Slope
Avg. Depth 0.8	Veg	+	+
Max Depth 1.2	Gravel 1.0	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718	(A)		

10-20 meter [B]	Habitat Area (M)	Left Bank	Right Bank
	Snag 8	Bankfull	Bankfull
20m width 4.0	Root 8.2	-	+
	Leaf 8.2	Slope	Slope
Avg. Depth 0.5	Veg	+	+
Max Depth 1.1	Gravel 10	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718	(P)		

20-30 meter [C]	Habitat Area (M)	Left Bank	Right Bank
	Snag 8.4	Bankfull	Bankfull
30m width 3.5	Root 8.8	+	-
	Leaf 0.2	Slope	Slope
Avg. Depth 0.4	Veg	+	+
Max Depth 0.6	Gravel 10	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718			

30-40 meter [D]	Habitat Area (M)	Left Bank	Right Bank
	Snag 4.0	Bankfull	Bankfull
40m width 3.0	Root 3.5	+	-
	Leaf 0.2	Slope	Slope
Avg. Depth 0.4	Veg	+	+
Max Depth 0.7	Gravel 10	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718	(S)	2.0HW	

40 - 50 meter [E]	Habitat Area (M)	Left Bank	Right Bank
	Snag 15	Bankfull	Bankfull
50m width 3.0	Root 5	-	+
	Leaf 0.2	Slope	Slope
Avg. Depth 0.4	Veg	+	+
Max Depth 1.0	Gravel 12	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718	(P)	2.0HW	

50-60 meter [F]	Habitat Area (M)	Left Bank	Right Bank
	Snag 15	Bankfull	Bankfull
60m width 2.8	Root 5	-	+
	Leaf 0.1	Slope	Slope
Avg. Depth 0.8	Veg	+	+
Max Depth 1.0	Gravel 10	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718		HW	2.4

60-70 meter [G]	Habitat Area (M)	Left Bank	Right Bank
	Snag 5	Bankfull	Bankfull
70m width 4.0	Root 4.0	-	-
	Leaf 0.1	Slope	Slope
Avg. Depth 0.3	Veg	+	+
Max Depth 0.4	Gravel 15	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718	(A)		

70-80 meter [H]	Habitat Area (M)	Left Bank	Right Bank
	Snag 3.0	Bankfull	Bankfull
80m width 3.0	Root 15	-	-
	Leaf	Slope	Slope
Avg. Depth 0.3	Veg	+	+
Max Depth 7.15	Gravel 5	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718	(E) (P)		

80-90 meter [I]	Habitat Area (M)	Left Bank	Right Bank
	Snag 5.0	Bankfull	Bankfull
90m width 8.0	Root 1.5	-	+
	Leaf 0.5	Slope	Slope
Avg. Depth 1.0	Veg	+	+
Max Depth 1.2	Gravel 4.0	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718	(S) (P)		Pond

90 - 100 meter [J]	Habitat Area (M)	Left Bank	Right Bank
	Snag 2.0	Bankfull	Bankfull
100m width 11.0	Root 1.0	+	+
	Leaf	Slope	Slope
Avg. Depth 1.2	Veg	+	+
Max Depth 7.5	Gravel	Veg	Veg
Rip. Buff L 713	Rock		
Rip. Buff R 718	(S) (P)		

Station Name Cotton Creek
 Upstream Power Lines
 Storet: 64NW0034
 Date 4/17/2023

0 meter (Dec Deg) 30.8533
87.33061
 100 meter (Dec Deg) 30.85362
87.33113

Water Quality Measured at 10m
 Stream Velocity and location. 0.33 m/s 14 meter mark

Number of Pools & Location
 3. C, F, I
 High Water: 2.4

Silt smothering @ D, I, J

Sand Smothering @ N/A

Algae Smothering @ A, G, S, I

Degraded Banks @ H

Fe/Sulfur Bact. @ NA

Total Habitat	Sq. Meters	Percent
Snags	66	15.3
Roots	54	11.6
Leaf	1.6	0.4
Veg		
Rock		
Gravel	84	19.5
Sand	228.1	53.1
Other		
Sum 1° Habitat		27.3

Avg. Depth	Max. Depth	Avg. Width
0.6	71.5	4.3

Bank Stability Score. Left Bank 2.4 Right Bank 2.6 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; DEAR, NWROC. 21FLPNS		STORET STATION NUMBER: G3NW0034	DATE (MM/DD/YY): 4/17/23	RECEIVING BODY OF WATER: Escambia R
REMARKS: WBID 131	COUNTY: Escambia	LOCATION: Cotton Creek upstream Power Line	FIELD ID/NAME: G3NW0034	

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>14</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>15</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>24</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>63</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>24</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <u>9</u> Left Bank <u>9</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the 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 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 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 Right Bank <u>9</u> Left Bank <u>8</u> ----- Secondary Score <u>75</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. 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

138

TOTAL SCORE

139/160 = 86.9%

Date: 4/17/2023	Analyst: F. Butler	Signature: [Signature]
-----------------	--------------------	------------------------

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Cotton Creek Upstream Power Line County: Escambia Date: 4/17/2023 Investigators: F. Butler

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	No	96	60	1	N	No	96
	2	N	No						
	3	N	No						
	4	N	No						
	5	N	No						
	6	N	No						
	7	N	No						
	8	N	No						
	9	N	No						
10	1	N	No	96	70	1	N	No	96
	2	N	No						
	3	N	No						
	4	N	No						
	5	N	No						
	6	N	No						
	7	N	No						
	8	N	No						
	9	N	No						
20	1	N	No	96	80	1	N	No	96
	2	N	No						
	3	N	No						
	4	N	No						
	5	N	No						
	6	N	No						
	7	N	No						
	8	N	No						
	9	N	No						
30	1	N	No	96	90	1	N	No	85
	2	N	No						
	3	N	No						
	4	N	No						
	5	N	No						
	6	N	No						
	7	N	No						
	8	N	No						
	9	N	No						
40	1	N	No	96	100	1	N	No	96
	2	N	No						
	3	N	No						
	4	N	No						
	5	N	No						
	6	N	No						
	7	N	No						
	8	N	No						
	9	N	No						
50	1	N	No	96		1	N	No	
	2	N	No						
	3	N	No						
	4	N	No						
	5	N	No						
	6	N	No						
	7	N	No						
	8	N	No						
	9	N	No						

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%.

WIN Station Number: G3NW0034

Secchi depth 0.5
Estimated? No

points ranked 4-6 1
total points assessed 1
% points ranked 4-6 100%

88 points assessed

Check accompanying data collected at same site/date.

Algal mat sample ☐
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒

RQ-2023-04-10-25

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. 86562

RPS ID. 10085

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET																								
Waterbody: <u>Cotton Creek Up. Pool</u>					Date: <u>4/17/2023</u>					County: <u>Escambia</u>					Storet Number: <u>ESNW0079</u>									
Analyst: <u>F. Butler</u>										Signature: <u>[Signature]</u>														
Comments:																								
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m ² 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												HERBACEOUS SPECIES												
Alternanthera philoxeroides Bacopa caroliniana Bacopa monnieri Bidens mitis Boehmeria cylindrica Centella asiatica Ceratophyllum demersum Chara Cicutia maculata Gladium jamaicense Colocasia esculenta Commelina diffusa Commelina virginica Crinum americanum Diodia virginiana Eichhornia crassipes Eleocharis (wispy viviparous) Hydrilla verticillata Hydrocotyle Hygrophila polysperma Hymenocallis Lachnanthes caroliniana Landoltia punctata Lemna Limnophila sessiflora Ludwigia leptocarpa Ludwigia palustris Ludwigia peruviana Ludwigia repens Luziola fluitans												Micranthemum glomeratum Micranthemum umbrosum Myriophyllum aquaticum Najas guadelupensis Nuphar luteum Orontium aquaticum Panicum hemitomon Panicum repens Panicum rigidulum Pistia stratioides Polygonum glabra Polygonum hydropiperoides Polygonum punctatum Pontedaria cordata Potamogeton illinoensis Ruellia simplex Sacciolepis striata Sagittaria kurziana Sagittaria lancifolia Sagittaria latifolia Salvinia minima Samolus parviflora Saururus cernuus Sparganium americanum Typha Vallisneria americana Zizania aquatica <u>Lyng</u>												
If no Dominant or Co-Dominant were selected, indicate with "X"												Indicate % cover macrophytes per section												
0-5% Macrophyte Coverage												0-5% Macrophyte Coverage												
>5 and ≤10% Macrophyte Coverage												>5 and ≤10% Macrophyte Coverage												
>10 and ≤25% Macrophyte Coverage												>10 and ≤25% Macrophyte Coverage												
>25 and ≤50% Macrophyte Coverage												>25 and ≤50% Macrophyte Coverage												
> 50% Macrophyte Coverage												> 50% Macrophyte Coverage												

VPDB-ID 12/A

[illegible]

Photo Log

Storet

G3NWD034

Station Name:

Cotton Creek Upstream Power Lines

Date:

4/17/2023

Samplers:

N. Mulkey, F. Burton

- 1 N
- 2 E
- 3 S
- 4 W
- 5 Up
- 6 Down
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

62 m
 m/s
2.5 sec
0.3

Notes.