



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

☒ Yes / ☐ No

WIN Station Name: Graveyard Branch Downstream Of Tradewinds Dr.

Date: 10/15/2020

WIN/Field ID: G4NW0455

WBID: 639

ENR:

Latitude: 30.5098

County: ESCAMBIA

Org ID: 21FLPNS

Longitude: -87.1732

Receiving Body of Water: Pensacola

RQ- 2020-10-12-54

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Heather Schmuki	x		x		
☒	Nathan Mulkey		x		x	x
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Sonar	
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 ID: 81640; HA ID 16684; RPS ID 9611													
Notes:													

Duplicate Sample

Time Zone: CEN	Time: N/A	Field ID: N/A	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone:	Time: N/A	Field ID: N/A	(Blank Type_DDDMMYYY)
DI Source: N/A		Location: N/A	
DI Type: N/A		Equipment ID: N/A	

LIMS EVENT ID: WIN Import ID:

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

Scan/Save Field Sheets Migrate Data to WIN: Verify Data In WIN:



RQ-2020-10-12-54

Customer: WQAP

Project ID: SMP

Collected By: Heather Schmuki, Nathan Mulkey

Field Report Prepared By: Heather Schmuki

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



G4NW0455

Location: Graveyard Branch Downstream Of Tradewinds Dr.

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 (PPTH)
10/15/2020	08:53 CEN	7.57	86.4	21.9	7.09	0.1	0.2 ☒ VOB (S)	0.2	129.3	0.06

Central Lab please use top row for login purposes

	CEN									

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 # Sa9354050 Exp: 12/20/20	☒ Ice ☒ H2SO4*	☒ <2	1	A
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD Lot # Na9354060 Exp: 12/20/20	☒ Ice ☒ HNO3*	☒ <2	1	A
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter Filter Lot # Syringe Lot #	☐ Ice			
Chlorophyll (BP-1L)	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
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)	☒ Ice		2	A
		☐ Ice			

Name:
Heather Schmuki
Nathan Mulkey

Signature:

Date:

10/15/2020

*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 91640 ORG ID 21FLPNS LATITUDE 30.5098177
 COUNTY Escambia WIN ID/STORET # 64NW0455 LONGITUDE -87.17320
 DATE 10/15/20 TIME 9:53 CTZ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME Guleyford Branch Downstream Tulewinds RQ-2020- 10-12-54
 FIELD ID/NAME RECEIVING BODY OF WATER Pensacola Bay WBID 639 Project: Smp

RIPARIAN ZONE / STREAM FEATURES

LIMS ID: NA

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) 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 2.62 m wide 4.5 m/s 5 m/s 4 m/s 0.22 m/s 0.2 m/s 0.26 m/s 0.1 m deep 0.2 m deep 0.1 m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>14</u> Right Bank: <u>218</u>			Hydrologic Modification Score (per FT 3101) <u>7-8</u>				
High Water Mark: ☐ + ☐ = ☐ (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 Invert PERI % Coverage # Times Sampled # Times Sampled Woody Debris (Snags) <u>2.1</u> <u>0.02</u> <u>5</u> Undercut Banks / Roots <u>3.5</u> <u>0.03</u> <u>5</u> Leaf Packs or Mat <u>0.9</u> <u>0.01</u> <u>5</u> Aquatic Vegetation <u></u> <u></u> <u></u> Rock or Shell Rubble <u></u> <u></u> <u></u> Sand <u>93.3</u> <u>99.9</u> <u>2</u> Mud / Muck / Silt <u></u> <u></u> <u>1</u> Other <u>Gravel</u> <u>0.00</u> <u>2</u> Other <u></u> <u></u> <u></u>		WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.1</u> <u>21.9</u> <u>7.09</u> <u>7.57</u> <u>86.4</u> <u>129.3</u> <u>0.06</u> <u>0.2</u> Mid: <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> Bottom: <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> Meter ID: <u>155077</u> Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>935400</u> Exp: <u>12/20/20</u> Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: <u></u> Exp: <u></u> System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐ AMBIENT FIELD CONDITIONS / NOTES: <u>obvious signs of Hurricane Sally damage in floodplain area especially</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.			
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☐ ☐ ☒ ☐		Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐ Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐			
SAMPLING TEAM: <u>M. Clark</u> <u>N. Mulkey</u> <u>H. Schmucki</u>		SIGNATURE: <u>[Signature]</u>		DATE: <u>10/15/20</u>	

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

SAMPLING AGENCY: 21FLPNS		STORET STATION NUMBER: G4NW0455	DATE (MM/DD/YYYY): 10/15/20	RECEIVING BODY OF WATER: Pensacola
REMARKS: HATO: 16684	COUNTY: Escambia	Graveyard Branch downstream of Tradewinds Dr.		FIELD ID/NAME: 64NW0455
WBID 639				

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 <u>11</u>	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 <u>11</u>	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 <u>14</u> 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>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae.	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae.	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth).	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation.
Primary Score <u>47</u>	20 19 18 17 16	15 14 13 12 <u>11</u>	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 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>16</u>	20 19 18 17 <u>16</u>	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>8</u> Left Bank <u>7</u>	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width <u>10</u>	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>8</u> Left Bank <u>6</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>6</u> Left Bank <u>7</u>	10 9	8 <u>7</u> <u>6</u>	5 4	3 2 1
Secondary Score <u>60</u>				

107 TOTAL SCORE

Date: 10/15/20	Analyst: Myranda Clark	Signature: Myranda Clark
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Graveyard Br. downstream of Tradewinds Dr. County: Escambia Date: 10/15/2020 Investigators: Nathan 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	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5			10		5			20	
	6					6				
	7					7				
	8					8				
	9	X	X			9	X	X		
10	1	N	N		70	1	N	N		
	2					2				
	3					3				
	4					4				
	5			90		5			95	99
	6					6				
	7					7				
	8					8				
	9	X	X			9	X	X		
20	1	N	N		80	1	N	N		
	2					2				
	3					3				
	4					4				
	5			30		5			40	
	6					6				
	7					7				
	8					8				
	9	X	X			9	X	X		
30	1	N	N		90	1	N	N		
	2					2				
	3	3				3				
	4					4				
	5			40		5			70	
	6					6				
	7					7				
	8					8				
	9	X	X			9	X	X		
40	1	N	N		100	1				
	2					2				
	3					3				
	4					4				
	5			90		5				
	6					6				
	7					7				
	8					8				
	9	X	X			9	X	X		
50	1	N	N			1				
	2					2				
	3					3				
	4					4				
	5			96		5				
	6					6				
	7					7				
	8					8				
	9	X	X			9	X	X		

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 densitometer 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%.

Secchi depth: 103
Estimated?: N

points ranked 4-6: 0
total points assessed: 99
% points ranked 4-6: 0

Check accompanying data collected at same site/date.
Algal mat sample: ☐
Linear Veg Survey: ☒
Habitat Assessment: ☒
SCI/Biorecon: ☒
Water sample: ☒
RQ-2019-02-11-28 NM

RQ-2020-10-12-54

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: 81640

RPSTID: 9611