



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End
of Day CCV
☒ Yes / ☐ No

WIN Station Name: Calkins Ck Trib @ Hamp Register Rd **Date:** 12/17/2020
WIN/Field ID: 19010042 **WBID:** 2274 **ENR:** **Latitude:** 30.3305
County: BAKER **Org ID:** 21FLA **Longitude:** -82.2434
Receiving Body of Water: Nassau - St. Marys **RQ:** 2020-12-14-15

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Jeremy Parrish		x		x	x
☒	Kelly McDonald	x		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# DESI					
Photos: YES		Flow: FLOW		Tide:		Tide Times: High: Low:					
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:											
SBIO ID Numbers:											
Notes: CODE R FOR RECENT RAIN. V TURBID. FLOW AND WATER LEVEL HIGHER THAN USUAL.											

Duplicate Sample

Time Zone: EST	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_DDMMYYYY)
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:** _____
(Initials/Date) (Initials/Date)
Scan/Save Field Sheets _____ **Migrate Data to WIN:** _____ **Verify Data In WIN:** _____
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2020-12-14-15

Customer: WQAP

Project ID: SMP

Collected By: Jeremy Parrish, Kelly McDonald

Field Report Prepared By: Jeremy Parrish

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



19010042

Location: Calkins Ck Trib @ Hamp Register Rd

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 (PPTH)
12/17/2020	1000 EST	7.44	70.6	13	5.12	0.05	0.102 ☒ VOB (S)	0.102	53.7	0.02

Central Lab please use top row for login purposes

	EST									

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 # Sa0293040 Exp: 10.19.21	☐ 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 # R9ba86875 Syringe Lot #	☒ 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		3	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		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		3	A
		☐ Ice			

Name:
Jeremy Parrish
Kelly McDonald

Signature:

Kelly A McDonald

Date:

12/17/2020

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

SAMPLE ID 81730 ORG ID 21FLA LATITUDE 30.3305
 COUNTY Bayer STORET# 19010042 LONGITUDE -82.2434
 DATE 12/17/2020 TIME 1000 SAMPLING AGENCY FDEP NEROX
 SITE NAME Calkins CK Trib @ Hamp Register Rd
 FIELD ID/NAME RECEIVING BODY OF WATER Calkins Creek km

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) ☐

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: 12-18 Right Bank: 12-18 Hydrologic Modification Score (per FT 3101) ☐

High Water Mark: 0.9 + 0.34 = 1.3
 (m) (above present water level) (present depth) (above bed)

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) Transect
 1 m wide
 0.33 m/s ☐ m/s ☐ m/s
 0.4 m deep ☐ m deep ☐ m deep

Nassau - St. Marys

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)	5	7	
Undercut Banks / Roots	1.5	2	
Leaf Packs or Mat	2	7	
Aquatic Vegetation			
Rock or Shell Rubble			
Sand	91.5	95	4
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	0.05	13.0	5.12	7.44	70.6	53.7	0.02	0.102
Mid								
Bottom								

Meter ID: Pro DSS Desi

Water Odors: Normal ☒ Sewage ☐ Chemical ☐ Petroleum ☐ Other ☐
 Water Sample Taken? ☒ Yes ☐ No
 Sample Preserved? ☒ Yes ☐ No
 Lot Number: Exp:

Water Surface Oils: Normal ☒ Sheen ☐
 Globs ☐ Slick ☐ Other ☐
 Color: Tannic ☒ Green (Algae) ☐
 Clear ☐ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☒ No
 Sample Preserved? ☒ Yes ☐ No km
 Lot Number: Exp:

Clarity: Clear ☐ Slightly Turbid ☒
 Turbid ☐ Opaque ☐

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

ABUNDANCE

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

AMBIENT FIELD CONDITIONS / NOTES:

< 2m² vegetation
 high water/flow due to recent rain
☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

J. Parrish, K. McDonald

SIGNATURE:

Kellie McDonald

DATE:

12/17/20

A hand-drawn map on a grid, likely representing a river section. The grid has a vertical axis on the left and right labeled from 0 to 100 in increments of 10. The horizontal axis at the bottom is labeled "Downstream". The map contains several handwritten labels and symbols:

- At the top (around 95-100), there is a label "0.25" and "0.2".
- Below these, there are several curved lines and arrows, some labeled "0.2".
- In the middle section (around 60-70), there are labels "0.1", "0.15", and "0.2".
- Below these, there are several "X" marks and labels like "0.1", "0.2", and "0.15".
- At the bottom (around 10-20), there are more "X" marks and labels like "0.1", "0.2", and "0.15".

The map appears to be a sketch of a river's cross-section or a plan view, with various features and measurements indicated by the labels and symbols.

Sampler JP1KM

100 m: Latitude _____	Longitude _____
0 m: Latitude _____	Longitude _____
Substrates: Code key, draw proportionate habitat abundance.	
☒ Snags	5
☒ Roots/undercut banks	1.5
☒ Leaf Packs (or mats)	2
☐ Aquatic Macrophytes	_____
☐ _____	_____
☐ _____	_____
☐ Pools	total # observed = _____ # range expected = _____
Average width	1.5 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:

10 root = 0.240.240.3 + 0.2 to 2
leaf = 0.2 1.5 m 2 10 3 to 2 2 2
2 m
5 m 5 m
0.3 m depth

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

SAMPLING AGENCY: FDEP NEROC		STORET STATION NUMBER: 19010042	DATE (MM/DD/YY): 12/17/20	RECEIVING BODY OF WATER: Nassau - St. Marys
REMARKS: high water / flow due to recent rain	COUNTY: Nassau	LOCATION: calhoun mbe Hampton station		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 8	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 8	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 20	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 8	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 44				
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 19	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 6 Left Bank 6	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 18 m	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 9 Left Bank 8	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 7 Left Bank 8	10 9	8 7 6	5 4	3 2 1
Secondary Score 61				

TOTAL SCORE

Date: **12/17/20**Analyst: **[Signature]**Signature: **[Signature]**

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site:

Calkins Cr. Tribe Register Rd

County:

Baker

Date:

12/17/20

Investigators:

J. Parrish, K. McDonald

STORET Station Number:

19010042

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			60	1	N			
	2					2				
	3					3				
	4					4				
	5			910		5				84
	6					6				
	7					7				
	8					8				
	9					9				
10	1				70	1				
	2					2				
	3					3				
	4					4				
	5			90		5				96
	6					6				
	7					7				
	8					8				
	9					9				
20	1				80	1				
	2					2				
	3					3				
	4					4				
	5			93		5				85
	6					6				
	7					7				
	8					8				
	9					9				
30	1				90	1				
	2					2				
	3					3				
	4					4				
	5			88		5				96
	6					6				
	7					7				
	8					8				
	9					9				
40	1				100	1				
	2					2				
	3					3				
	4					4				
	5			86		5				57
	6					6				
	7					7				
	8					8				
	9					9				
50	1					1				
	2					2				
	3					3				
	4					4				
	5			94		5				
	6					6				
	7					7				
	8					8				
	9					9				

Secchi depth 0.12
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- 2020-12-14-15

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

sand bottom

896
39
57

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%.

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

Waterbody: <u>Calkins Creek & Ramp</u>	Date: <u>2/12/20</u>	County: <u>Baker</u>	Store Number: <u>19010042</u>
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Analyst K McDonald

Signature Kelly McDonald

Comments: $< 2 \text{ m}^2$ aquatic vegetation

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	
<i>Alternanthera philoxeroides</i>												<i>Micranthemum glomeratum</i>											
<i>Bacopa caroliniana</i>												<i>Micranthemum umbrosum</i>											
<i>Bacopa monnieri</i>												<i>Myriophyllum aquaticum</i>											
<i>Bidens mitis</i>												<i>Najas guadelupensis</i>											
<i>Boehmeria cylindrica</i>												<i>Nuphar luteum</i>											
<i>Centella asiatica</i>												<i>Orontium aquaticum</i>											
<i>Ceratophyllum demersum</i>												<i>Panicum hemitomon</i>											
<i>Chara</i>												<i>Panicum repens</i>											
<i>Cicuta maculata</i>												<i>Panicum rigidulum</i>											
<i>Cladium jamaicense</i>												<i>Pistia stratioides</i>											
<i>Colocasia esculenta</i>												<i>Polygonum glabra</i>											
<i>Commelina diffusa</i>												<i>Polygonum hydropiperoides</i>											
<i>Commelina virginica</i>												<i>Polygonum punctatum</i>											
<i>Crinum americanum</i>												<i>Pontedaria cordata</i>											
<i>Diodia virginiana</i>												<i>Potamogeton illinoensis</i>											
<i>Eichhornia crassipes</i>												<i>Ruellia simplex</i>											
<i>Eleocharis (wispy viviparous)</i>												<i>Sacciolepis striata</i>											
<i>Hydrilla verticillata</i>												<i>Sagittaria kurziana</i>											
<i>Hydrocotyle</i>												<i>Sagittaria lancifolia</i>											
<i>Hygrophila polysperma</i>												<i>Sagittaria latifolia</i>											
<i>Hymenocallis</i>												<i>Salvinia minima</i>											
<i>Lachnanthes caroliniana</i>												<i>Samolus parviflora</i>											
<i>Landoltia punctata</i>												<i>Saururus cernuus</i>											
<i>Lemna</i>												<i>Sparganium americanum</i>											
<i>Limnophila sessiflora</i>												<i>Typha</i>											
<i>Ludwigia leptocarpa</i>												<i>Vallisneria americana</i>											
<i>Ludwigia palustris</i>												<i>Zizania aquatica</i>											
<i>Ludwigia peruviana</i>																							
<i>Ludwigia repens</i>																							
<i>Luziola fluitans</i>																							
					</																		