



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE ____ OF ____

February 2016

Data Qualified?
Yes / No

STORET Station Name: S. Prong St. Marys R. @ US90

Date: 07/05/2016
(mm/dd/yyyy)

STORET Station ID: 19010021

Latitude: 30.279278
(Decimal Degrees)

WBID: 2274 RQ-2016-06-27-22

ORG ID: 21 FLA

Longitude: 82.145240
(Decimal Degrees)

Receiving Body of Water: SMR

Field ID: _____

County: Baker

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
B. Davis					✓				
P. O'Connor						✓	✓	✓	✓

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Equipment ID _____		
Collection Method		
☒ Wading From	Via Boat	
☐ Shore	☐ Canoe/Kayak	
☐ Other (note below)	☐ Electric	
	☐ Motor	

Water Level: Dry / Low / Normal / High / Flooded
Matrix: Fresh / Marine / DL
Meter ID# YSI 556 #1 Photos: Yes / No Tide Falling: Yes / No / NA

Time Zon	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk(m)	Sp COND. (µmhos/cm)	Temp.(C°)
<u>EST</u>	<u>0945</u>	<u>0.3</u>	<u>0.7</u>	<u>3.1</u>	<u>46.0</u>	<u>6.8</u>	<u>0.06</u>	<u>0.4</u>	<u>120</u>	<u>26.4</u>
CEN										

Biological Samples Collected: None HA SCI LVS RPS LVI Other _____

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S A-TP	☒ Ice ☒ H ₂ SO ₄	<u>5259020</u>	<u>9/16/16</u>	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO ₃	<u>5113210</u>	<u>4/23/16</u>	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☐ Ice			
BOD	BOD-BNIN	☐ Ice			
Physical/Aggregate (Kit A)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Kit B)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC	☐ Formalin			
Microbiology	☒ E Coli ☐ F Coli ☐ Enteroc ☒ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-NP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-A-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			
<u>Sucralose</u>	<u>R</u>	<u>Ice</u>			

Contains
1:1
Sulfuric Acid
SA-5259020
EXP: 09/16
Warning!
See MSDS

Place Preservative Sticker(s) Here
(If Available)

Notes: _____

Place Label Here
(If Available)

Signature: POam Date: 07/05/16

Field Parameters Entered into LIMS: Frank 7/8/16 Field Parameters QC in LIMS: _____
(Initials/Date) (Initials/Date)

Date Migrated to STORET: _____ Field Sheets Scanned/Saved: _____
(Initials/Date) (Initials/Date)

76451 DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

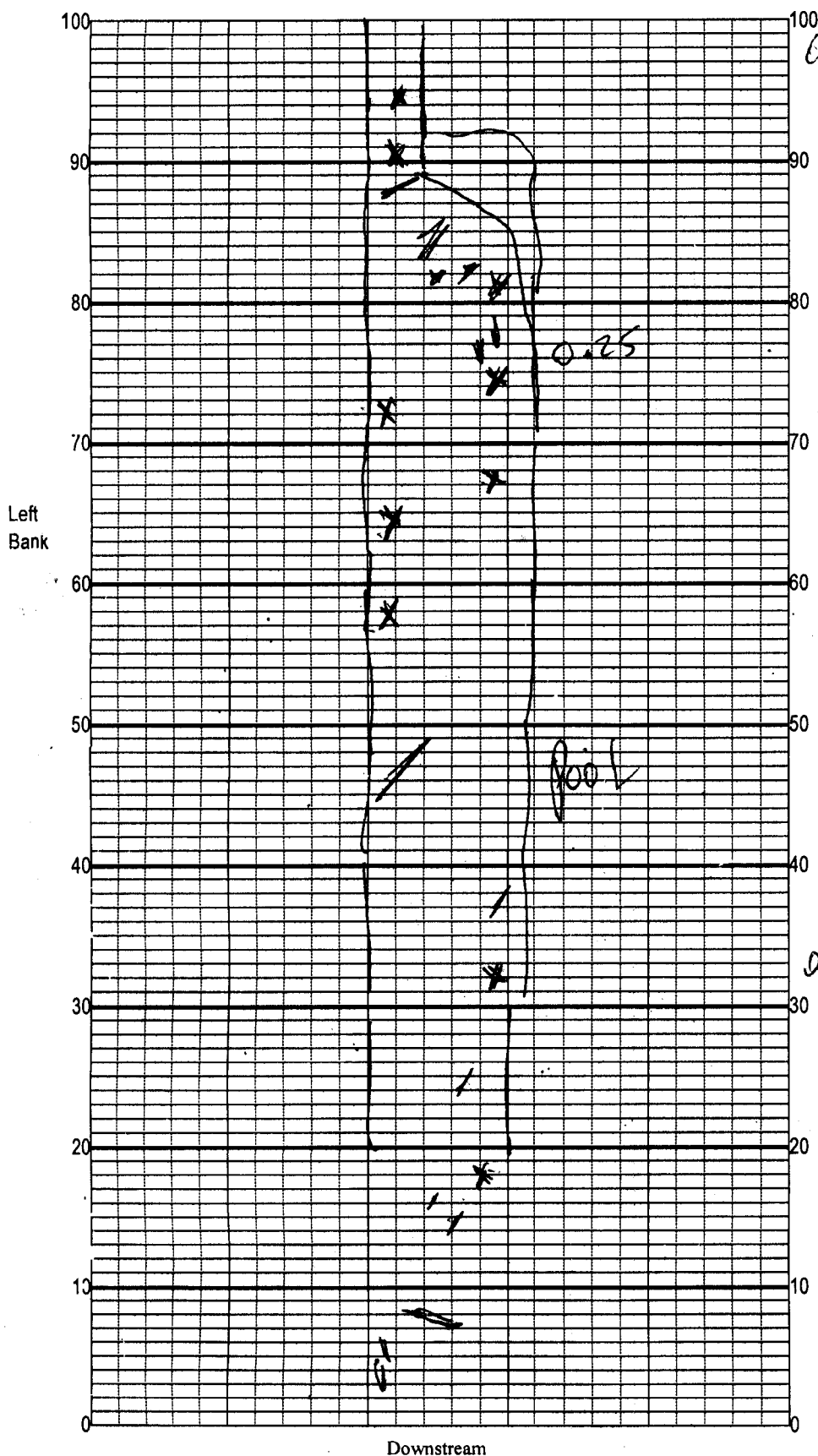
SAMPLING AGENCY: <u>NE ROC</u>		STORET STATION NUMBER: <u>19010021</u>	DATE (MM/DD/YY): <u>07/05/16</u>	RECEIVING BODY OF WATER: <u>SURR</u>
REMARKS:	COUNTY: <u>Baker</u>	LOCATION: <u>St Mary Spring</u> <u>CJS 90</u>		FIELD ID/NAME:

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 <u>8</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>5</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>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 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>13</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 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>15</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>66</u> Left Bank	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>5</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>57</u>	10 9	8 7 6	5 4	3 2 1

97 TOTAL SCORE

Date: <u>07/05/16</u>	Analyst: <u>PODum</u>	Signature: <u>Parkman</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



0.5 m/s SPONGY SMUCK
 Location: US 90
 Date: 07/05/14

Sampler: O'Connor

100 m: Latitude _____
 Longitude _____
 0 m: Latitude _____
 Longitude _____

Substrates: Code key, draw proportionate habitat abundance.	%
Snags	3
Roots/undercut banks	2
Leaf Packs (or mats)	1
Aquatic Macrophytes	<2M
_____	_____
_____	_____
Pools	total # observed = _____ # range expected = _____

Average width 6 m
 Average depth 0.7 m

Velocity measured at 30 meter mark.

WQ & chemistry taken at 100 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:

<2 M of Macrophytes was observed while doing the LVS? YES or NO
 2% Roots
 3% SNAGS
 <2M² AQUATIC Veg

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

SAMPLE ID 76451 **ORG ID** 21 FLA **LATITUDE** _____
COUNTY BALCO **STORET #** 19010021 **LONGITUDE** _____
DATE 01/05/16 **TIME** 0945 **SAMPLING AGENCY** NE ROC
SITE NAME SMR Spring QU 590
FIELD ID/NAME _____ **RECEIVING BODY OF WATER** SMR

RIPARIAN ZONE / STREAM FEATURES

Meter ID: _____

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

Width of Riparian Vegetation (m) on Each Buffer Side

Left Bank: 12 Right Bank: >18

Hydrologic Modification Score
(per FT 3101)

High Water Mark: 2.0 + 0.7 = 2.7
(m) (above present water level) (present depth) (above bed)

Artificially Impounded

☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

6 m wide

0.2 m/s

0.7 m deep

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**
Times # Times
Sampled Sampled

Woody Debris (Snags) 30 7

Undercut Banks / Roots 20 7

Leaf Packs or Mat _____

Aquatic Vegetation _____

Rock or Shell Rubble _____

Sand 95 95

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:								<u>0.4</u>
Mid:	<u>0.3</u>	<u>26.4</u>	<u>6.8</u>	<u>3.7</u>	<u>46</u>	<u>120</u>	<u>0.06</u>	<u>0.7</u>
Bottom:								

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

Water Odors Normal ☒ Petroleum ☐
Sewage ☐ Chemical ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: _____ Exp: _____

Algae Sample Taken? ☐ Yes ☒ No

Sample Preserved? ☐ Yes ☐ No

Lot Number: 5259010 Exp: 9/16/16

Water Surface Oils Normal ☒ Sheen ☐
Globs ☐ Slick ☐ Other ☐

Color Tannic ☒ Green (Algae) ☐
Clear ☐ Other (Specify) _____

Clarity Clear ☒ Slightly Turbid ☐
Turbid ☐ Opaque ☐

ABUNDANCE

Not Obs. Rare Common Abundant

Periphyton: ☐ ☐ ☒ ☐

Fish: ☐ ☐ ☒ ☐

Aquatic Plants: ☐ ☒ ☐ ☐

Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐

AMBIENT FIELD CONDITIONS / NOTES:

Hot 90+

Hydrologic Disturbance Scoring ☐ 1-2 ☐ 3-4 ☒ 5-6 ☐ 7-8 ☐ 9-10

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

B DAVIS, P O'Connor

SIGNATURE:

PO'Connor

08193

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Spring Smk 0590 County: Baker Date: 07/05/16 Investigators: BDAJLS

STORET Station Number: 19010021

Transect (m)	Point 1=right	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N			60	1	N		
	2	N				2	N		
	3	N				3			
	4	N				4			
	5	X		88		5			96
	6					6			
	7					7			
	8					8			
	9	N				9	N		
10	1	N			70	1	N		
	2	N				2			
	3	X				3			
	4	X				4			
	5	X		96		5			92
	6					6			
	7					7			
	8					8			
	9	N				9	N		
20	1	N			80	1	N		
	2					2			
	3					3			
	4					4			
	5			94		5			94
	6					6			
	7					7			
	8					8			
	9	N				9	N		
30	1	N			90	1	N		
	2					2			
	3					3			
	4	X				4			
	5	X		96		5			96
	6	X				6			
	7	X				7			
	8	X				8			
	9	N				9	N		
40	1	X			100	1	N		
	2					2			
	3					3			
	4					4	X		
	5			7		5	X		96
	6					6	X		
	7					7	N		
	8					8			
	9	N				9	N		
50	1	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%.				
	2								
	3								
	4	X							
	5	X		95					
	6	X							
	7	X							
	8	X							
	9	N							

Secchi depth 0.9
Estimated?

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

Check accompanying data collected at same site/date.

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

RQ-2016-06-27-22

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

[illegible]

2m² AQUATIC Vegetation