

Site Name Little Black Creek upstream of Black Creek

Date: 12/11/2019

Field ID G3NW0200 Storet G3NW0200

Project: TMDL STUDIES / SMP

Visit ID 80524

RQ: 2019-12-09-47

RPS ID 9502

LIMS ID: _____

VPDB ID N/A

HA ID 16413

☒ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB 12/12/19 ☐ Date and Initial QA: _____

☒ RPS entered in SBIO Initial FB 12/12/19 ☐ Date and Initial QA: _____

☐ LVS 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: _____

☐ RPS score: _____

☐ VPDB authorized in SBIO ☐ Date and Initial: _____

☐ VPDB score: _____

☐ SCI complete: _____ SCI Score: _____

☒ If SMP, scanned into database



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Little Black Creek upstream of Black Creek

Date: 12/11/2019
(mm/dd/yyyy)

WIN/ Field ID: G3NW0200

WBID: 719

Latitude: 30.4750900

County: Walton

ORG ID: 21FLPNS

Longitude: -85.9856484

Receiving Body of Water: Black Creek

RQ-2019- 12-09-47

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
FRANK Butera					X	X	X	X	X
STUPHER Stader					X	X	X	X	X
Heather Schumki					X	X	X	X	X

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>EST</u>		
Equipment ID <u>155077</u>		

Collection Method		
☒ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded
Photos: Yes / No / NA Flow: No Flow / Intestinal / Flowing / NA
Meter ID# 155077 Matrix: Fresh / Marine / DI
Tide: Rising/ Falling/ Slack/ NA Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)
EST	12:30	0.4	0.2	0.4	9.25	90.1	4.52	26.4	0.01	14.8
CEN				5"						

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:
SBIO ID Numbers: SBIO-ID: 80524 HA-ID: 16413 RPS-ID: 9502 Macrophyte-ID: N/A LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	<u>SA9129100</u>	<u>5/09/20</u>	☐ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☐ HNO3	<u>NA9189020</u>	<u>7/08/20</u>	☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 um Filter	☒ Ice	<u>16570048</u>		
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC	☒ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☒ E-Coli ☐ F-Coli ☐ Enterococci	☒ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☒ W-E8321-DI ☒ W-E8321-MS	☒ Ice			
Pesticides	☒ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI ☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA	☐ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				

Notes: < 2 m² Vegetation. LVS not appropriate

Field/Win ID → G3NW0200

Location: Little Black Creek upstream of Black Creek

Signature: [Signature] Date: 11-12-2019

LIMS EVENT ID: WIN Import ID: 8

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

Scan/Save Field Sheets FB/12-12-2019 Migrate Data to WIN: Verify Data In WIN:

(Initials/Date) (Initials/Date) (Initials/Date) (Initials/Date)

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

SAMPLE ID 80524 ORG ID 21FLPNS LATITUDE 30.47509
 COUNTY Walton WIN ID/STORET # G3NW0200 LONGITUDE ~~86.98505~~ -85.9756484
 DATE 12/11/2019 TIME 12:30 CTZ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME Little Black Creek upstream of Black Creek RQ-2019-12-09-47
 FIELD ID/NAME G3NW0200 RECEIVING BODY OF WATER Black Creek WBID 719 Project: SMP / TMDL Studies

RIPARIAN ZONE / STREAM FEATURES

LIMS ID:

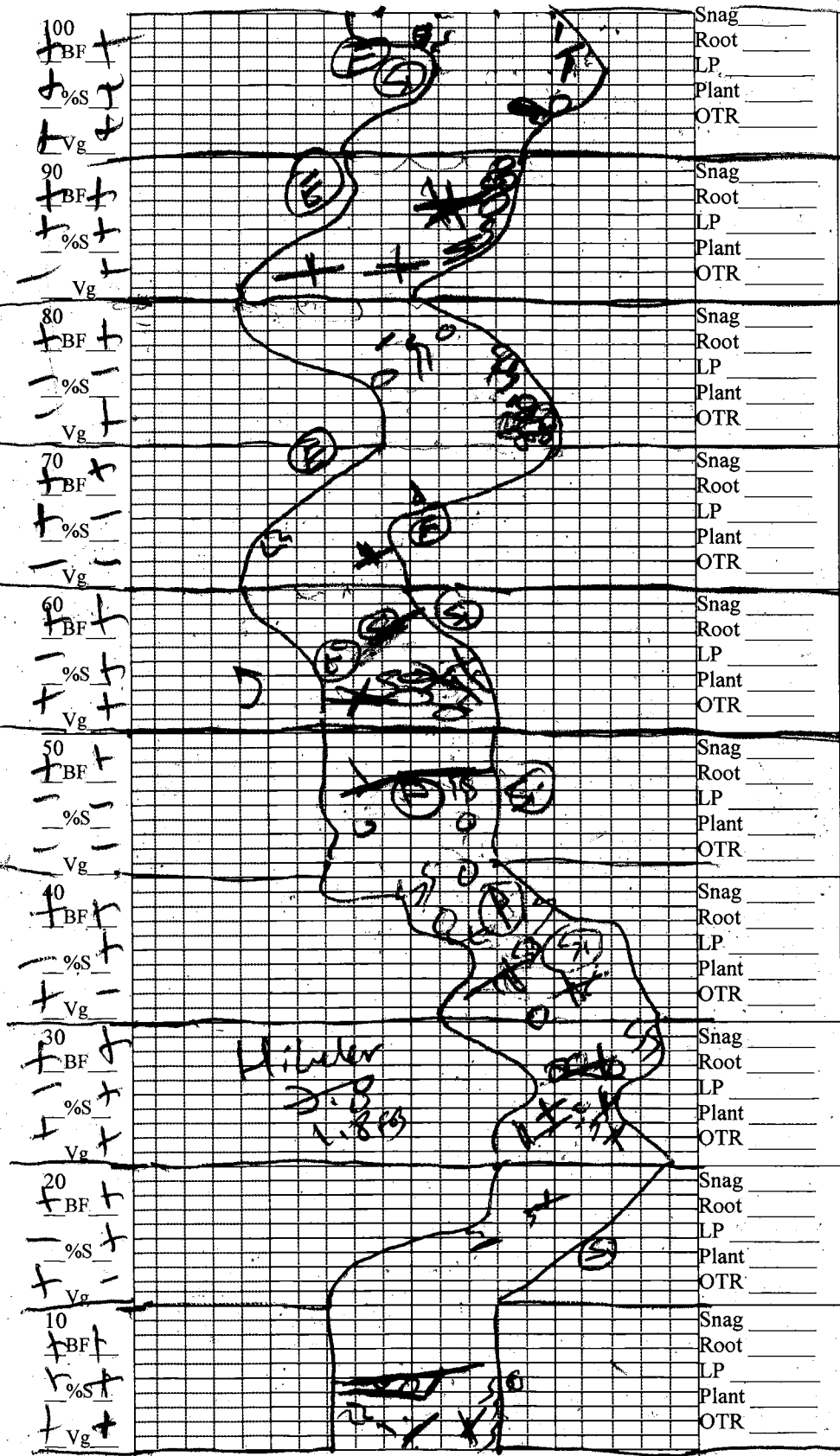
PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ X ☐ Sliviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐ Landscape Development Intensity Index (LDI) N/A						
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy				Typical Width (m) <u>9m</u> Depth (m)/Velocity (m/sec) Transect <u>2.5</u> m wide		
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>7.6</u> Right Bank: <u>7.6</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>		
High Water Mark: <u>1.8</u> + <u>0.8</u> = <u>2.6</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			WATER QUALITY							
Invert ☐ Peri ☐ % Coverage # Times Sampled # Times Sampled			Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Woody Debris (Snags)			<u>7.9</u>	<u>5</u>	<u>5</u>	<u>14.8</u>	<u>4.5</u>	<u>9.25</u>	<u>90.1</u>	<u>0.4</u>
Undercut Banks / Roots			<u>3.0</u>	<u>5</u>	<u>5</u>					☒ VOB
Leaf Packs or Mat			<u>2.6</u>	<u>5</u>	<u>5</u>					
Aquatic Vegetation										
Rock or Shell Rubble..										
Sand.....			<u>86.5</u>	<u>5</u>	<u>5</u>					
Mud / Muck / Silt										
Other										
Other										
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			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: Exp: Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐ Clarity ☒ Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐							
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐			AMBIENT FIELD CONDITIONS / NOTES: 11:00 am - 12:30 2m ² Vegetation LVS NOT appropriate overcast, light rain prev. 24 hrs & changing event. ☒ The antecedent hydrologic conditions have been met to my best knowledge.							
SAMPLING TEAM: Frank Butera, Heather Schumaker, Stephen Slade, Frank Butera			SIGNATURE				DATE: 12/11/2019			

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 G3NW0200

Substrates: Code key, draw proportionate habitat abundance.



Snags

$$\frac{24.5}{310} = 7.9\%$$



Roots/undercut banks

$$\frac{9.3}{310} = 3.0\%$$



Leaf Packs (or mats)

$$\frac{8.6}{310} = 2.8\%$$



Macrophytes

Velocity:

Note where velocity measures were taken. 9 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 3.1 m

Average depth 0.4 m

WQ & chemistry taken @ 4 m

Little Black Creek upstream of Black Creek

Project. SMP / TMDL Studies

Sampled By/Date: 12 / 11 / 2019

0 m Latt. 30.47556

0 m Long. 85.93579

100 m Latt. 30.47593

100 m Long. 85.92554

SB10 ID 80524

Left Bank

Downstream

2.8 1.8 1.8

0-10 meter [A]	Habitat Area (M)	Left Bank	Right Bank
	Snag 5	Bankfull	Bankfull
0m width (m) 3	Root .7	+	+
10m width 3	Leaf 0.5	Slope	Slope
Avg. Depth 0.4	Veg	+	+
Max Depth 0.6	Gravel	Veg	Veg
Rip. Buff L 718	Rock		
Rip. Buff R 718			

10-20 meter [B]	Habitat Area (M)	Left Bank	Right Bank
	Snag 0.5	Bankfull	Bankfull
20m width 3	Root 0.6	+	+
	Leaf	Slope	Slope
Avg. Depth 0.3	Veg	-	+
Max Depth 0.6	Gravel	Veg	Veg
Rip. Buff L 718	Rock		
Rip. Buff R 718			

20-30 meter [C]	Habitat Area (M)	Left Bank	Right Bank
	Snag 0.5	Bankfull	Bankfull
30m width 4.0	Root 0.5	+	+
	Leaf 1.0	Slope	Slope
Avg. Depth 0.4	Veg	-	+
Max Depth 0.7	Gravel	Veg	Veg
Rip. Buff L 718	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 2.0	+	+
	Leaf 2.8	Slope	Slope
Avg. Depth 0.4	Veg	-	+
Max Depth 0.8	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718			

40 - 50 meter [E]	Habitat Area (M)	Left Bank	Right Bank
	Snag 2.0	Bankfull	Bankfull
50m width 3.0	Root 0.5	+	+
	Leaf 0.5	Slope	Slope
Avg. Depth 0.4	Veg	-	-
Max Depth 0.8	Gravel	Veg	Veg
Rip. Buff L 718	Rock	-	-
Rip. Buff R 718			

50-60 meter [F]	Habitat Area (M)	Left Bank	Right Bank
	Snag 3.0	Bankfull	Bankfull
60m width	Root 2.0	+	+
	Leaf 1.0	Slope	Slope
Avg. Depth 0.4	Veg	-	-
Max Depth 0.7	Gravel	Veg	Veg
Rip. Buff L 718	Rock		
Rip. Buff R 718			

60-70 meter [G]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.5	Bankfull	Bankfull
70m width 3.0	Root 0.5	+	+
	Leaf 0.4	Slope	Slope
Avg. Depth 0.4	Veg	+	-
Max Depth 0.7	Gravel	Veg	Veg
Rip. Buff L 718	Rock	-	-
Rip. Buff R 718			

70-80 meter [H]	Habitat Area (M)	Left Bank	Right Bank
	Snag 0.5	Bankfull	Bankfull
80m width 3.0	Root 1.0	+	+
	Leaf 2.5	Slope	Slope
Avg. Depth 0.4	Veg	-	-
Max Depth 0.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	-	+
Rip. Buff R 718			

80-90 meter [I]	Habitat Area (M)	Left Bank	Right Bank
	Snag 4.0	Bankfull	Bankfull
90m width 3.0	Root 1.0	+	+
	Leaf 1.0	Slope	Slope
Avg. Depth .4	Veg	+	+
Max Depth .5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	-	+
Rip. Buff R 718			

90 - 100 meter [J]	Habitat Area (M)	Left Bank	Right Bank
	Snag 1.0	Bankfull	Bankfull
100m width 3.0	Root 0.5	+	+
	Leaf 0.3	Slope	Slope
Avg. Depth 0.4	Veg	+	+
Max Depth 0.5	Gravel	Veg	Veg
Rip. Buff L 718	Rock	+	+
Rip. Buff R 718			

Little Black Creek Upstream of Black Ck

Storet: G3NW0200

Date 12/11/2019

0 meter (Dec Deg)

30.47556
85.98579

100 meter (Dec Deg)

30.47593

85.98554

Water Quality Measured at

Stream Velocity and location.

0.33 m/s 09 meter mark

Number of Pools & Location

2, D, E
High Water: 1.8

Silt smothering @

B, D, F, G, J

Sand Smothering @

Algae Smothering @

Degraded Banks @

C, F, G, I, J

Fe/Sulfur Bact. @

Total Habitat	Sq. Meters	Percent
Snags	24.5	7.9
Roots	9.3	3.0
Leaf	8.0	2.6
Veg		
Rock		
Gravel		
Sand	268	86.5
Other		
Sum 1 st Habitat		13.5

Avg. Depth	Max. Depth	Avg. Width
0.4	0.8	3.1

Bank Stability Score. Left Bank 7.7 Right Bank 6.7 Category Left Bk

Right Bk

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: 3.0-3.9

Notes. SB10 ID 80524 3 Pwr - 0-3, marginal 4-5, Sub-optimal 6-8, Optimal 9-10

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

SAMPLING AGENCY: 21FLPNS		STORET STATION NUMBER: G3NW0200	DATE (MM/DD/YYYY): 12/11/2019	RECEIVING BODY OF WATER: Black Creek
REMARKS:	COUNTY: Walton	LOCATION: Little Black Creek upstream of Black Creek		FIELD ID/NAME: G3NW0200
WBID 719				

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 <u>14</u> 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>10</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 <u>10</u> 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 <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>17</u> ----- Primary Score <u>61</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>20</u>	<u>20</u> 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability Right Bank <u>7</u> Left Bank <u>8</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>10</u> Left Bank <u>10</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

136

TOTAL SCORE

136/160 = 85%

Date: <u>12/11/2019</u>	Analyst: <u>F. Butcher</u>	Signature: <u>[Signature]</u>
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SBIO ID: 80524

HA ID: 16413

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little Black Creek upstream of Black Creek

County:
Walton

Date:
12/11/2019

Investigators: F. Butera

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	STORET Station Number: G3NW0200	
0	1	N	N		60	1	N	N		Secchi depth 103 Estimated? N	
	2					2					
	3					3					
	4					4					
	5			96		5			96		# points ranked 4-6 0 total points assessed 99 % points ranked 4-6 0
	6					6					
	7					7					
	8					8					
	9					9					
10	1	N	N		70	1	N	N		Check accompanying data collected at same site/date. Algal mat sample Linear Veg Survey Habitat Assessment SCI/Biorecon Water sample RQ-2019-12-09-47	
	2					2					
	3					3					
	4					4					
	5			96		5			96		
	6					6					
	7					7					
	8					8					
	9					9					
20	1	N	N		80	1	N	N		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	
	2					2					
	3					3					
	4					4					
	5			72		5			96		
	6					6					
	7					7					
	8					8					
	9					9					
30	1	N	N		90	1	N	N		SBIO Visit ID. 80524 RPS ID. 9502	
	2					2					
	3					3					
	4					4					
	5			96		5			96		
	6					6					
	7					7					
	8					8					
	9					9					
40	1	N	N		100	1	N	N			
	2					2					
	3					3					
	4					4					
	5			96		5			96		
	6					6					
	7					7					
	8					8					
	9					9					
50	1	N	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										
	5			96							
	6										
	7										
	8										
	9										

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

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>																								

Revision Date: March 1, 2014

Photo Log

Storet G3NW0200

Station Name: Little Black Creek upstream of Black Creek

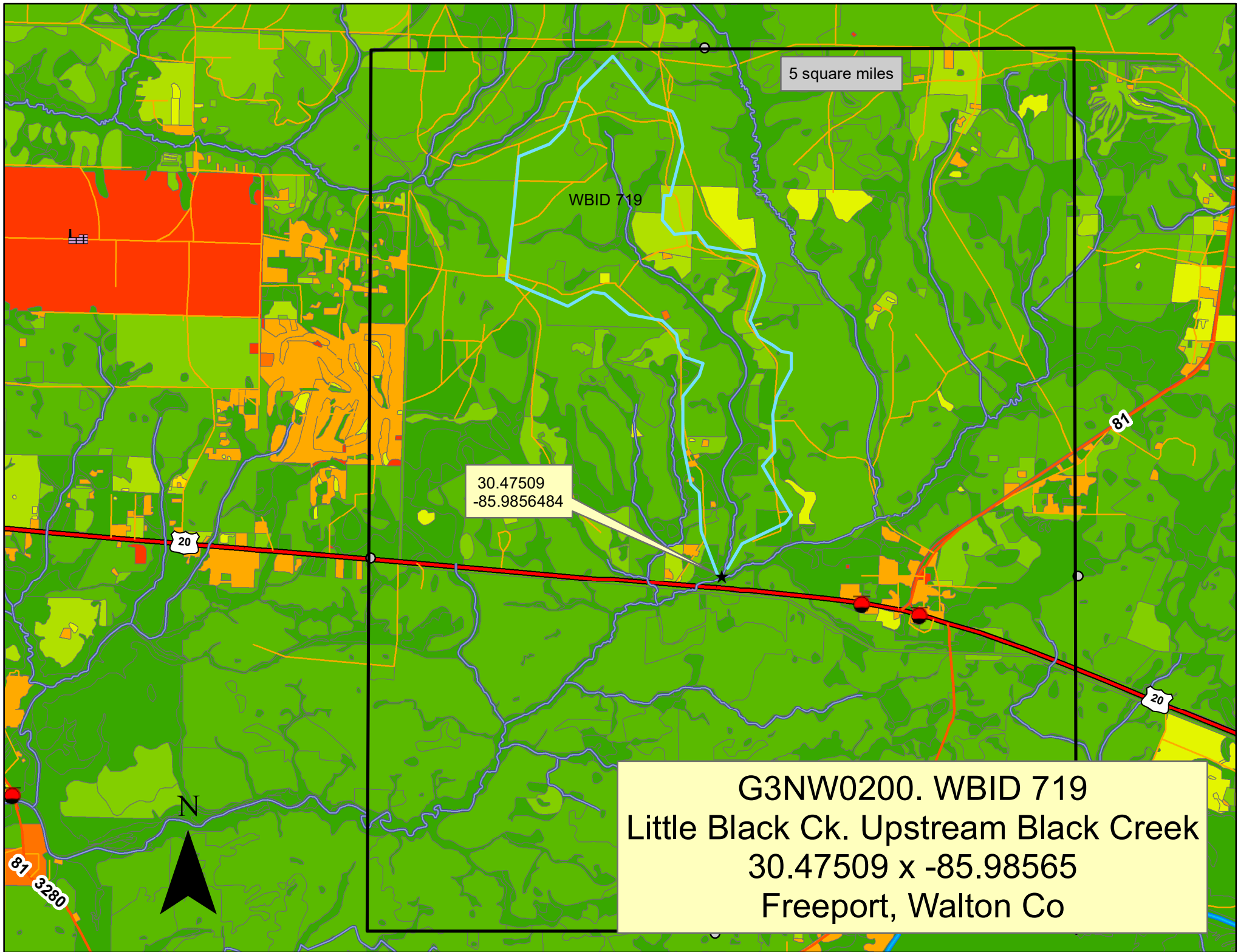
Date: 12/11/2019

Samplers: F. Butera, S. Slade, H. Schmulder

1	N
2	E
3	S
4	W
5	Up Ⓢ
6	Down Ⓢ
7	65 m
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	

75m
0.33 m
0.3 depth 0.3

Notes.



5 square miles

WBID 719

30.47509
-85.9856484

G3NW0200. WBID 719
Little Black Ck. Upstream Black Creek
30.47509 x -85.98565
Freeport, Walton Co