

RQ-2019-09-11-47

Field Personnel processing steps

☐ New Field IDs created (when using a new station) Date: _____ initials: _____ ~~A~~ NA

☐ Create entry in SMPStationCreationFile if new station is used

\\Fidep1\wqap\NW ROC\TMDL\WIN_Station Creation

☒ Date sampled Date: 12/11/2019 initials: FB

☒ Update "SMP Tracker" Date: 12/11/2019 initials: FB

☒ Photos put into archive Date: 12/12/2019 initials: FB ☐ NA

☒ Copy of Calibration Log for YSI used

☒ Field Sheets initialed/dated @ "Scan/Save Field Sheets" then scanned and saved into:

Scans_ToBeProcessed Date: 12/12/2019 initials: FB

Scan order; Cover Sheet, Calibration Log, Field Sheets, Tallahassee Submittal Sheets, Overflow Lab COC

☒ Update "Data Tracker"

\\publicfiles\pubfds\DEAR\WQAPmonitoring\StrategicMonitoring\2019\21FLPNS

Ready for folder system (top)

LIMS processing (to be completed by LIMS data personnel) (MC)

☐ Field parameters entered into LIMS Date: _____ initials: _____

☐ Digital RQ packet put into

SMP 2019/Data/Scanned Field Sheets Date: _____ initials: _____

☐ Digital field Sheets put into archive Date: _____ initials: _____

☐ Date submitted for QA/QC Date: _____ initials: _____

☐ Update "Data Tracker"

Database processing (Cheryl)

☐ Field parameters QA/QC in LIMS Date: _____ initials: _____

☐ Lab results put into archive (CB) Date: _____ initials: _____

☐ Data migrated to WINS Date: _____ initials: _____

☐ Update "Data Tracker"

Notes: Little Black Creek upstream of Black Creek. Biology collected. SBIO ID 80524

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID: 155077

RQ: 2019-12-09-47

Project: Smp / Feet Shores

- Notes: (1) Always wait for meter to stabilize before recording any readings.
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 10/17/2019

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro- meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	F. Butler	12/11/19	7:45	21.7	770.1	9.0	8.8	99.0			P/F	L/F
ICV	F. Butler	12/11/19	17:55	20.0	769	9.2	9.2	100			P/F	L/F
CCV											P/F	L/F
CCV											P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro-DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	F. Butler	12/11/19	7:55	190116A	01/2020	1000	1000	P/F	L/F
ICV	F. Butler	12/11/19	8:00	18057A	01/2020	100	102.2	P/F	L/F
CCV	F. Butler	12/11/19	17:45	18057A	01/2020	100	103.1	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	F. Butler	12/11/19	8:03	190405E	12/2020	7.0	21.3	7.0	-10.2	P/F	L/F
Calibr.	F. Butler	12/11/19	8:05	4900525	2/2021	4.0	21.7	4.0	168.1	P/F	L/F
Calibr.	F. Butler	12/11/19	8:07	4904059	9/2020	10.0	21.4	10.0	-184.4	P/F	L/F
ICV	F. Butler	12/11/19	8:10	190405E	12/2020	7.0	21.7	7.03	-10.4	P/F	L/F
CCV	F. Butler	12/11/19	17:50	4900525	2/2021	4.0	21.4	4.07		P/F	L/F
CCV										P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 179.2, slope from 4 to 7 178.3 (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 10/17/19

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass/ Fail	Lab/ Field
Pressure mode in air	F. Butler	12/11/19	8:12	0.00	0.00	P/F	L/F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS: Little Black Creek E3 NW 0200

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
(Decimal Degrees)
County: Walton ORG ID: 21FLPNS Longitude: -85.9856484
(Decimal Degrees)
Receiving Body of Water: Black Creek RQ-2019- 12-09-47

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
FRANK Butera					☒	☒	☒	☒	☒
STEPHEN Stale					☒	☒	☒	☒	☒
HEATHER Schumki					☒	☒	☒	☒	☒

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>PST</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 Meter ID# 155077 Matrix: Fresh / Marine / DI
Photos: Yes / No Flow: No Flow / Intestinal Flowing / NA 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: 95022 Macrophyte-ID: 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>SA 9129100</u>	<u>5/09/20</u>	☐ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☐ HNO3	<u>NA 9189020</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-CH-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 ☐ W-E8321-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:
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 (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data in WIN: (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 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 ☐ 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) <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					
% Coverage Woody Debris (Snags) <u>7.9</u> <u>5</u> Undercut Banks / Roots <u>3.0</u> <u>5</u> Leaf Packs or Mat <u>2.6</u> <u>5</u> Aquatic Vegetation Rock or Shell Rubble.. Sand..... <u>86.5</u> <u>5</u> Mud / Muck / Silt Other Other			Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.2</u> <u>14.8</u> <u>4.52</u> <u>9.25</u> <u>90.1</u> <u>0.11</u> <u>26.4</u> <u>0.4</u> Mid: Bottom: <u>0.4</u> Meter ID: <u>155077</u> <u>13</u>					
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: System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify)					
			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) Clarity ☒ Clear ☒ Slightly Turbid ☒ Turbid ☐ Opaque ☐					
			AMBIENT FIELD CONDITIONS / NOTES: <u>11:00 am - 13:00 12:30</u> <u>< 2m² Vegetation LUG NOT appropriate</u> <u>overcast, light rain prev. 24 hrs & clearing event.</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.					

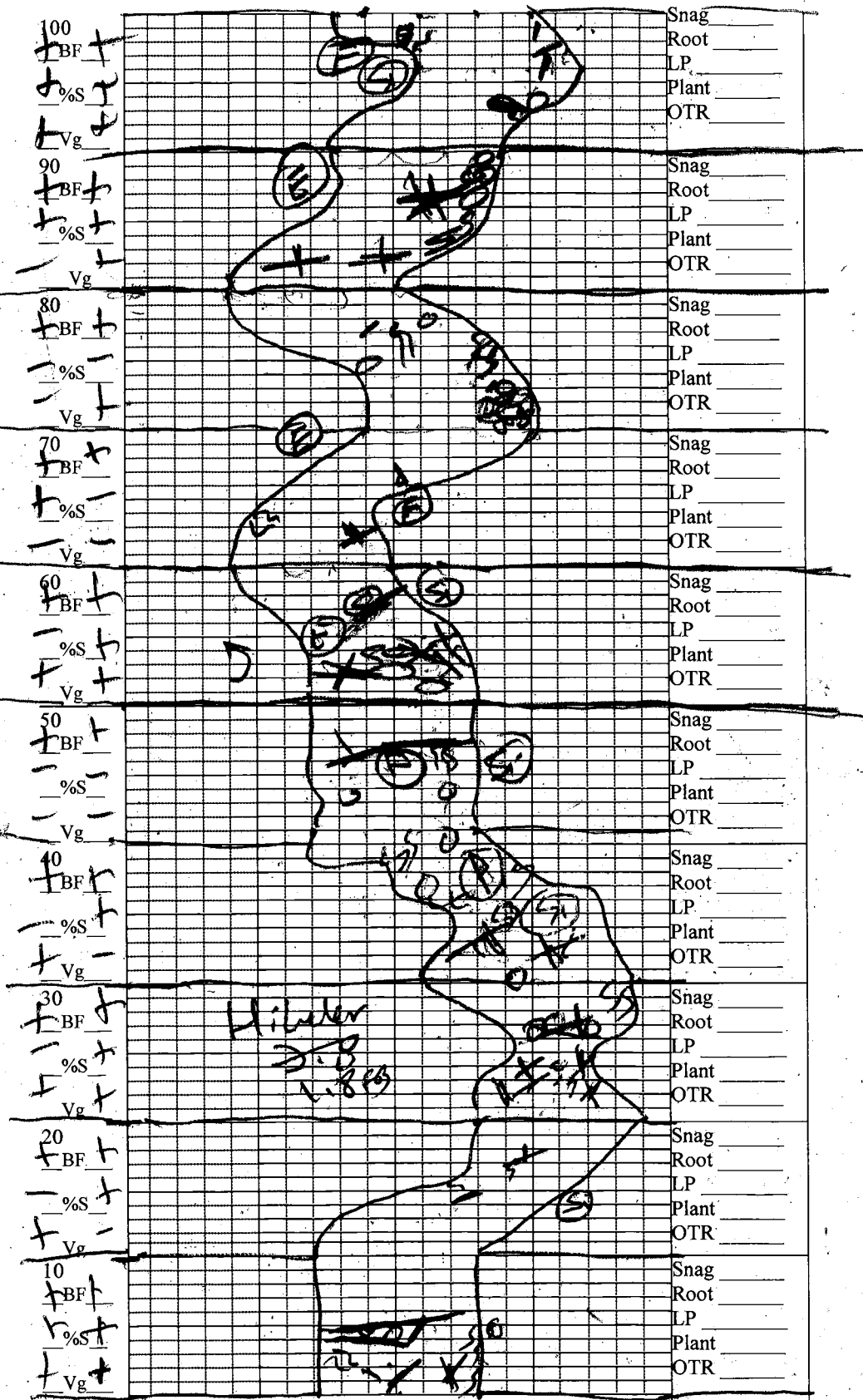
SAMPLING TEAM: Frank Butera,

SIGNATURE

DATE:

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).



Snag	_____
Root	_____
LP	_____
Plant	_____
OTR	_____
Snag	_____
Root	_____
LP	_____
Plant	_____
OTR	_____
Snag	_____
Root	_____
LP	_____
Plant	_____
OTR	_____
Snag	_____
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Plant	_____
OTR	_____
Snag	_____
Root	_____
LP	_____
Plant	_____
OTR	_____
Snag	_____
Root	_____
LP	_____
Plant	_____
OTR	_____

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

$$2 \times 2.5 = 1 \text{ m}^2$$

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 1
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 3.0	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 2.0	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 4.5	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 0.4	Veg	+	+
Max Depth 0.5	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
85.48579

100 meter (Dec Deg)

30.47593

85.90554

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	168	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: 3.0-4.0

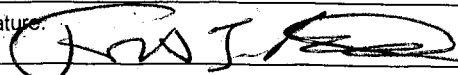
Notes. SB10 ID 80524 3 Poor - 0-3, marginal 4-5, Sub-optimal 6-8, Optimal 9-10

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: WBID 719	COUNTY: Walton	LOCATION: Little Black Creek upstream of Black Creek		FIELD ID/NAME: G3NW0200

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>14</u>	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock) 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 <u>14</u> 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 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>25</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 Artificial Channelization <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. <u>20</u> 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (> 25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank <u>7</u> <u>8</u> Left Bank	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 18 m 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: 12/11/2019	Analyst: F. Butcher	Signature: 
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SBIO ID: 80524
62-160.800, F.A.C.

HA ID: 16413

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little Black Creek upstream of Black Creek

County:
Walton

Date:
12/11/2009

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 Estimated? 123	
	2					2					
	3					3					
	4					4					
	5			96		5			96		# points ranked 4-6 0
	6					6					total points assessed 99
	7					7					% points ranked 4-6 0
	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	
	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		RPS ID. 9502	
	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										

[illegible]

Revision Date: March 1, 2014

Photo Log

Storet G3NW0200

Station Name: Little Black Creek upstream of Black Creek

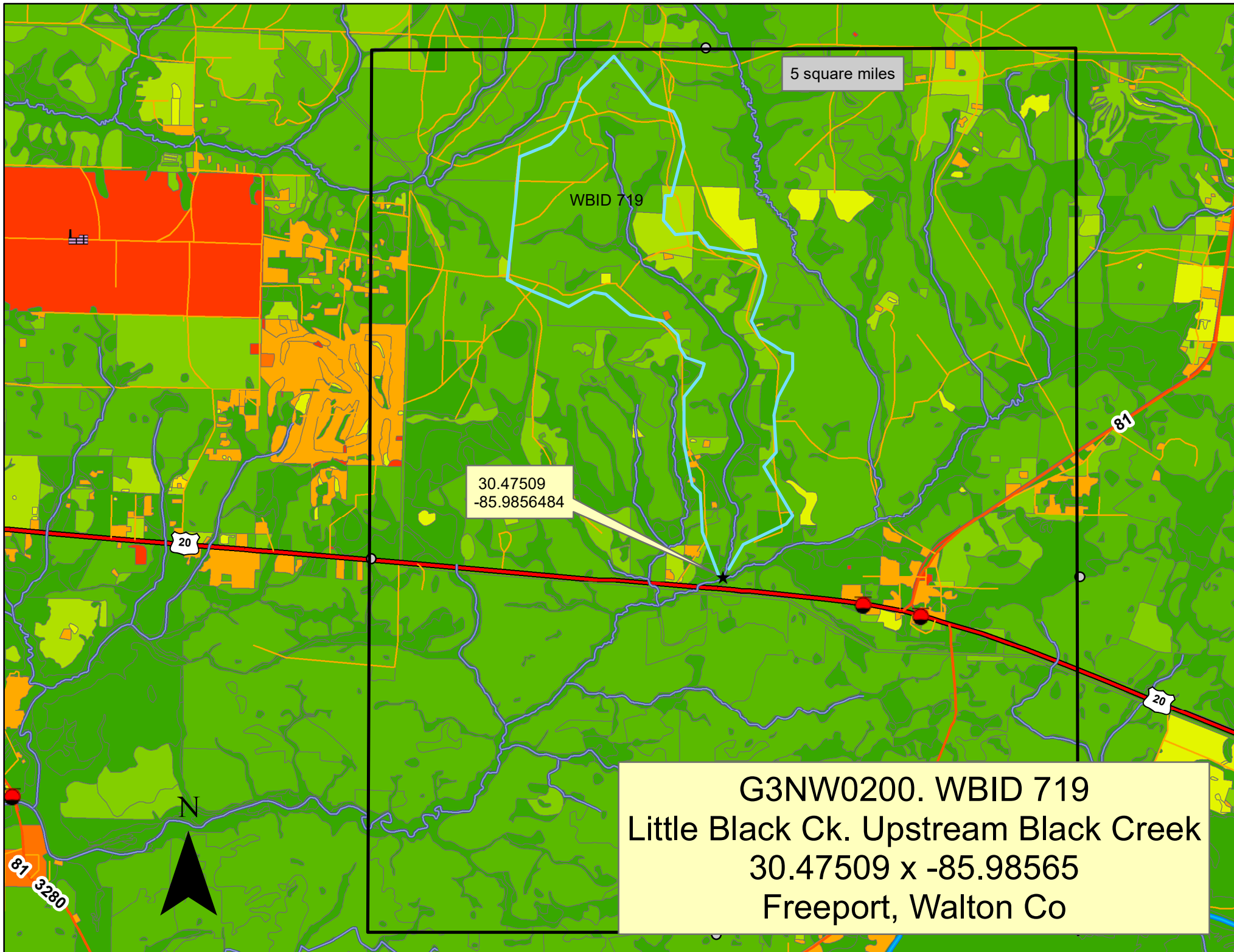
Date: 12/11/2019

Samplers. F. Butera, S. Slade, H. Schmulz

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

75m
0.33 m
0.3 depth 3

Notes.



last revised Jan 25, 2018

Frank Butera

Sampling Agency: FL DEP - NWROC

Location	Field/Win ID →	G3NNW0200		☐ Comp	Collection (comp begin or grab)	Eastern	Composite end	Bottle
Field ID				☒ Grab	Date	Central	Date	Group(s)
WIN/STO	Location:			Matrix (type, e.g., Salt, Fresh, etc)	Temp (C)	pH	Diss. Oxygen	(See pg 2)
Latitude	Little Black Creek upstream of Black Creek							
Location		☐ dd	☐ dms	Salinity (ppt)	26.4	Comments		
Field ID		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
Latitude		☐ dd	☐ dms	Salinity (ppt)	Comments			
Location		☐ Comp	☐ Grab	Collection (comp begin or grab)	Time	Eastern	Composite end	Bottle
Field ID		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	Group(s)
WIN/STORET #		☐ Temp (C)	☐ pH	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	☐ ft	☐ mg/L	

Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	CHLSUITE-W						
Group: A	Bottle Type:	TEST HAS NO BOTTLE	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	NW-UWF-ECQ						
Group: A	Bottle Type:	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	W-E8321-DI						
	W-E8321-MS						
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
	W-ICP						
	W-ICPMS						
		Lot # NA9189080					
		Exp. 07/08/2020					
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
	W-PO4-F						
Group: A	Bottle Type:	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	W-PSNP-TQ						
Group: B	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALGAL_ID						
Group: B	Bottle Type:	PJ-2L	# of Bottles: 2	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	

Group: B	Bottle Type:	PJ-2L	# of Bottles: 2	Preservative:	Formalin	Enter Number of Bottles Sent to Lab
MI-FW-QLDC						2

Sampler's initials: *FB*

2

Page 1 of 1
Date/Time: 12-11-2019 / 1502
Date/Time: 12-11-2019 / 1502

178

[illegible][illegible]

Phone: (850) 595-8300

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