



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

Location/STORET Station Name: Burnt Mill Creek Upstream of US 27

Date: 1-4-18
(mm/dd/yyyy)

STORET # G1WA0067

WBID: 918

Latitude: 30.409052

(Decimal Degrees)

County: Jefferson

RQ - 2018-01-01-22

ORG ID: 21FLWQA

Longitude: -84.063343

(Decimal Degrees)

Receiving Body of Water: St. Marks River

Field ID: G1WA0067

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ben Ralys						X	X	X	X	X
Curtis Musson							X	X		

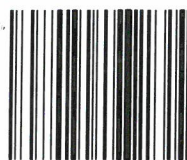
Sampling Equipment			
☒ Sample Container	☐ Van Dorn	☐ Pole	
☐ Carboy	☒ Syringe		
☐ Dipper	☐ Other		
Equipment ID			
Collection Method			
☒ Wading	☐ Canoe/Kayak		
☐ From Shore	☐ Electric Motor		
☐ Other	☐ Gasoline Motor		

Water Level: Dry / Low / <u>Normal</u> / Above Normal / Flooded				Meter ID# Biology #2		Matrix: <u>Fresh</u> / Marine / DI				
Photos: Yes / No		Flow: No Flow / Intestinal / <u>Flowing</u> / NA		Tide: Rising/ Falling/ Slack/ <u>NA</u>		Tide Times: High <u>NA</u> Low <u>NA</u>				
Time Zone	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>	10:25	0.2	0.4	12.78	98.6	6.87	0.03		63	4.42
CEN								VOB		

Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>RPS</u> <u>Algae ID</u> <u>LVS</u> LVI Other:							
SBIO ID Numbers: SBIO-ID: <u>78170</u> HA-ID: <u>14969</u> RPS-ID: <u>9881</u> Macrophyte-ID: <u>72m</u> LIMS#: <u>1957421</u>							
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>7233030</u>	<u>8/21/18</u>	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP			☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter			☒ Ice	<u>10827054</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-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-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD			☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA			☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA			☐ Ice			
	☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R			☐ Other			

Notes: Kit-A, Bacteria, SCI, RPS, LVS

STORET FILED/WIN ID
Burnt Mill Creek
Upstream of US 27



G1WA0067

Signature: Curtis Musson

Date: 1-4-2018

Enter Field Parameters, Verify Station ID In LIMS: 1/12/18 (Initials/Date)

QC Station ID, Field Parameters In LIMS: CM 2-19-18 (Initials/Date)

Migrate Data To WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

Scan/Save Field Sheets: (Initials/Date)

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

SAMPLING AGENCY: Florida Department of Environmental Protection		STORET STATION NUMBER: <u>G1WA0067</u>	DATE (MM/DD/YY): <u>1/4/2018</u>	RECEIVING BODY OF WATER: <u>St. Marks River</u>
REMARKS:	COUNTY: <u>Jefferson</u>	LOCATION: <u>Burnt Mill Creek</u>	FIELD ID/NAME:	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components <u>Snag Leaf</u> Roots Rock Aquatic Vegetation <u>9</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 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 <u>9</u> 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Diversity <u>4</u>	Major productive habitat present at site (>30% 27.2% 25.8% 24.4% 26.6%) 20 19 18 17 16	Major productive habitat, by aerial extent (21.6% 20.2% 18.8% 17.4% 16%) 15 14 13 12 11	6% to 15% major productive habitat (15% 13% 11% 9% 6%) 10 9 8 7 6	Less than 5% major productive habitat 5 <u>4</u> 3 2 1
Water Velocity <u>18</u> <u>0.29</u> m/s	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 <u>0.29</u> 0.27 >0.25 20 19 <u>18</u> 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>16</u> Primary Score <u>47</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 <u>16</u>	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>15</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. <u>15</u> 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>5</u> Left Bank <u>5</u> If Banks are PipeClay, BedRock or Concrete at Bank full: Optimal	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. (+,-,-) <u>5</u> 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 <u>10</u> 9	Width of vegetation >12 to 18m 8 7 6 (18m 15m 12m)	Width of vegetation 6 to 12 m. human activities close to system 5 4 (9m)	Less than 6 m of buffer zone due to intensive human activities 3 2 1 (6-5m) (4-3m) (<2m)
Riparian Zone Vegetation Quality Right Bank <u>10</u> Left Bank <u>10</u> Secondary Score <u>65</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. <u>10</u> 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

112 TOTAL SCORE

Date: <u>1-4-2018</u>	Analyst: <u>Curtis Musson, Ben Ralls</u>	Signature: <u>Curtis Musson</u>
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SBFO-ID: 78170
HA ID: 14969
RPS ID: 8881

Entered By: Ben Ralls 1/12/18
QC: CM 2-19-18

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

SBFO ID: 78170

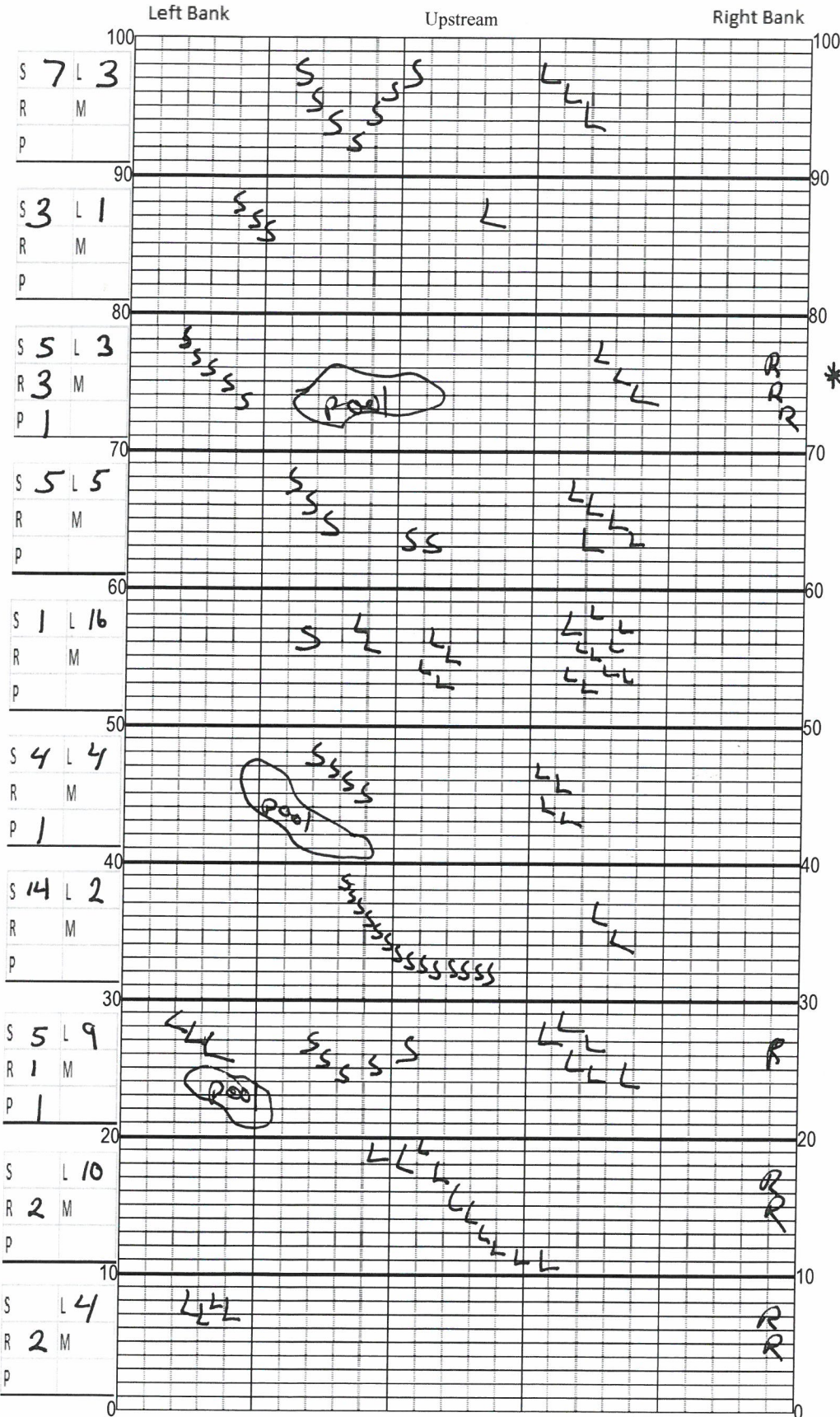
HA ID: 14969

RP ID: 8881

Location: Burnt Mill Creek

Date: 1/4/2018

Sampler: Ben Ralys, Curtis Musson



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

Substrates: Code key, draw proportionate habitat abundance. %

☐ S	Snags	1.5
☐ R	Roots/undercut banks	0.5
☐ L	Leaf Packs (or mats)	2.0
☐ M	Aquatic Macrophytes	0
☐ Rc	Rock	0
☐	<u>total</u>	<u>4%</u>
☐ P	Pools	total # observed = <u>3</u> # range expected = <u>2-3</u>

Average width 5 m

Average depth 0.2 m

Velocity measured at 10 meter mark.

Velocity _____ m/s

WQ & chemistry taken at 10 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.

Notes/Plants Observed:

2m² = 16 Sweeps

Flow 3.5 sec.
5.0m wide

# of Sweeps	Conversion	m ²	%
Snag <u>44</u>	$\div 8$	<u>6.6</u> m ²	<u>1.3</u>
Root <u>8</u>	$\div 8$	<u>1.2</u> m ²	<u>0.2</u>
Leaf <u>57</u>	$\div 8$	<u>8.6</u> m ²	<u>1.7</u>
Macrophyte <u>0</u>	$\div 8$	m ²	
Rock <u>0</u>	$\div 8$	m ²	
Total Available Habitat		m ²	
Total Area		m ²	
Total Unavailable Habitat		m ²	

Meter Mark	Depth (m)	Width (m)	Velocity Measurement (Sec)
		<u>5</u>	<u>3.5</u>
Avg.			

Length of grid represents 100 m of stream (not linear meters). (Horizontal scale is double vertical scale, draw proportionately).

$1/3.5 = .285$ Expected Number of Pools

$$\left(\frac{100}{12 \times \text{W}}\right) \times 1 = 1.66$$

$$\left(\frac{100}{12 \times \text{W}}\right) \times 2 = 3.33$$

HA ID: 14969
RPS ID: 8881

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

SAMPLE ID 78170 ORG ID 21CLWQA LATITUDE 30.409052
COUNTY Jefferson STORET # GIWA0067 LONGITUDE -84.063343
DATE 1/4/18 TIME 1215 (SCT) 1025 (WQ) SAMPLING AGENCY FDEP
SITE NAME Burnt Mill Creek upstream of US 27
FIELD ID/NAME GIWA0067 RECEIVING BODY OF WATER St. Marks River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):								Landscape Development Intensity Index (LDI) <u>2.01</u>
Forest/Natural <u>60.8</u>	Silviculture <u>19.1</u>	Field/Pasture <u>11.8</u>	Agricultural <u>0.5</u>	Residential <u>6.1</u>	Commercial <u>0</u>	Industry <u>1.1</u>	Other (Specify) <u>(H₂O) 0.8</u>	
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy								Typical Width (m) Depth (m)/Velocity (m/sec) Transect m wide
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy								
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) <u>3-4</u>				m/s <u>0.29</u> m/s <u>0.1</u> m/s <u>—</u>
High Water Mark: <u>0.3</u> + <u>0.2</u> = <u>0.5</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				
Artificially ☐ No ☒ Mostly recovered, more sinuous				Canopy Cover % <u>68%</u> ☐ Open ☐ Lightly Shaded (11-45%)				
Channelized: ☐ Some recovery ☐ Recent, severe				☐ 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 % Coverage Woody Debris (Snags) <u>1.5</u> <u>7</u> <u>—</u> Undercut Banks / Roots <u>0.5</u> <u>3</u> <u>—</u> Leaf Packs or Mat <u>2.0</u> <u>7</u> <u>—</u> Aquatic Vegetation <u>0</u> <u>0</u> <u>—</u> Rock or Shell Rubble.. <u>0</u> <u>0</u> <u>—</u> Sand..... <u>96</u> <u>3</u> <u>—</u> Mud / Muck / Silt <u>0</u> <u>0</u> <u>—</u> Other <u>—</u> <u>—</u> <u>—</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>0.2</u> <u>4.42</u> <u>6.87</u> <u>12.78</u> <u>78.6</u> <u>63</u> <u>0.03</u> Mid: <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> Meter ID: <u>Bio #2</u> TOTAL DEPTH <u>0.4</u>					
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☒ ☐ Fish: ☒ ☐ ☐ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐		
			Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>See Field Sheet</u> Exp: <u>—</u>			Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐		
			Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>See</u> Exp: <u>See</u>			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐		
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐			AMBIENT FIELD CONDITIONS / NOTES: ☐ The antecedent hydrologic conditions have been met to my best knowledge.					

SAMPLING TEAM

SIGNATURE :

DATE :

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Burnt Mill Creek</u>					County: <u>Jefferson</u>		Date: <u>1/4/2018</u>		Investigators: <u>Burley & Curtis Mussen</u>	
STORET Station Number: <u>G1WA0067</u>										
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	
6	1	4	N		4	1	5	N		
	2	5				2	5			
	3	5				3	5			
	4	0				4	0			
	5	4		94		5	5		71	
	6	0				6	0			
	7	4				7	0			
	8	4				8	0			
	9	0				9	0			
4	1	0			2	1	0			
	2	5				2	0			
	3	0				3	0			
	4	0				4	0			
	5	5		92		5	4		68	
	6	4				6	0			
	7	4				7	0			
	8	0				8	0			
	9	0				9	0			
1	1	0			2	1	4			
	2	0				2	4			
	3	0				3	0			
	4	0				4	0			
	5	0		96		5	0		78	
	6	0				6	0			
	7	0				7	0			
	8	0				8	0			
	9	0				9	0			
6	1	4			1	1	4			
	2	0				2	0			
	3	0				3	0			
	4	5				4	0			
	5	5		56		5	0		89	
	6	0				6	0			
	7	4				7	0			
	8	4				8	0			
	9	4				9	0			
3	1	4			4	1	0			
	2	4				2	4			
	3	4				3	4			
	4	0				4	0			
	5	0		92		5	4		68	
	6	0				6	5			
	7	0				7	0			
	8	0				8	0			
	9	0				9	0			
4	1	4			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	4								
	3	4								
	4	4								
	5	0		96						
	6	0								
	7	0								
	8	0								
	9	0								

Secchi depth NO
Estimated? NO

points ranked 4-6 37
total points assessed 79
% points ranked 4-6 37

(Exclude X's)

Check accompanying data collected at same site/date.

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

RQ- 2018-01-01-22

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

(> 3 considered smothered)

(N to 1 mm)

(3) 6mm

(4) 20mm

(5) 10cm

(6)

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

Waterbody: Burnt Mill Creek Date: 1/4/18 County: Jefferson Storet Number: GIWA0067
 Analyst: Ben Balys, Curtis Mussen Signature: Ben Balys
 Comments: SMP Sampling No Aquatic Plants

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											
Alternanthera philoxeroides												Myriophyllum heterophyllum																					
Bacopa caroliniana												Najas guadelupensis																					
Bacopa monnieri												Nuphar luteum																					
Bidens mitis												Orontium aquaticum																					
Boehmeria cylindrica												Panicum hemitomon																					
Centella asiatica												Panicum repens																					
Ceratophyllum demersum												Panicum rigidulum																					
Chara												Peltandra virginica																					
Cicuta maculata												Pistia stratioides																					
Cladium jamaicense												Polygonum glabra																					
Colocasia esculenta												Polygonum hydropiperoides																					
Commelina diffusa												Polygonum punctatum																					
Commelina virginica												Pontedaria cordata																					
Crinum americanum												Potamogeton illinoensis																					
Diodia virginiana												Rhynchospora inundata																					
Eichhornia crassipes												Rosa palustris																					
Eleocharis (wispy viviparous)												Ruellia simplex																					
Hydrilla verticillata												Rumex verticillatus																					
Hydrocotyle												Sagittaria latifolia																					
Hygrophila polysperma												Sagittaria lancifolia																					
Hymenocallis												Sagittaria latifolia																					
Lachnanthes caroliniana												Salvinia minima																					
Landoltia punctata												Samolus parviflora																					
Lemna												Saururus cernuus																					
Limnophila sessiflora												Scirpus (schenoplectus) californicus																					
Ludwigia leptocarpa												Sparganium americanum																					
Ludwigia palustris												Typha																					
Ludwigia peruviana												Vallisneria americana																					
Ludwigia repens												Zizania aquatica																					
Luziola fluitans																																	
Micranthemum glomeratum																																	
Micranthemum umbrosum																																	
Mikania scandens																																	
Myriophyllum aquaticum																																	
If no Dominant or Co-Dominant were selected, indicate with "X"																																	
Indicate % cover macrophytes per section												Notes: <u>No Plants</u> ✓ < 2m2																					
0-5% Macrophyte Coverage																																	
>5 and ≤10% Macrophyte Coverage																																	
>10 and ≤25% Macrophyte Coverage																																	
>25 and ≤50% Macrophyte Coverage																																	
> 50% Macrophyte Coverage																																	

Bent Mill, Central D. Ditch
Black, Cherry

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

Boldly "X" this box if there is qualified data on this name.

Meter ID: Bio 2 RQ- 2018-01-01-22 Project: Smp

- 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.

Circle/Fill In Lab Calibration or Calibration/Verification on Site _____

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification _____

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Mussen	1/4/18	707	19.16	9.239	9.25	100.0	56	—	P/F	L/F
ICV	Curtis Mussen	1/4/18	709	19.15	9.258	9.25	100.0	56	—	P/F	L/F
CCV	Curtis Mussen	1-4-18	1434	19.21	9.239	9.26	100.2	55	—	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; 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.	Curtis Mussen	1/4/18	710	17100SD	10/2018	1000	1000	P/F	L/F
ICV	Curtis Mussen	1/4/18	711	17100SD	10/2018	1000	1001	P/F	L/F
CCV	Curtis Mussen	1/4/18	1435	17100SE	10/2018	100	102	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	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Mussen	1/4/18	714	170614B	12/2018	7.0	7.00	29	P/F	L/F
Calibr.	Curtis Mussen	1/4/18	715	17100SA	10/2018	4.01	4.01	190	P/F	L/F
Calibr.	Curtis Mussen	1/4/18	717	17100SC	4/2019	10.01	9.97	-123	P/F	L/F
ICV	Curtis Mussen	1/4/18	719	17100SA	10/2018	4.01	4.01	189	P/F	L/F
CCV	Curtis Mussen	1/4/18	1436	17100SC	4/2019	10.01	10.13	-131	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 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes / No If yes, list date of last quarterly depth 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	Curtis Mussen	1/4/18	722	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:

Customer: WAS-SECT

Project ID: SMP

Requester: Curtis Musson

Collected By: Curtis Musson, Ben Rabys

Field Report Prepared By: Ben Rabys, Curtis Musson

Sampling Agency: FDEP

Location		STORET/Field/WIN ID →		Central Drainage Ditch Downstream of Orange Ave.		Latitude 30.4095 Longitude -84.3073		Field ID		STORET #		Bottle Group(s)	
Field ID		STORET/Field/WIN ID →		Black Creek upstream of Bloxxham Cutoff		Latitude 30.2792 Longitude -84.3858		Field ID		STORET #		Bottle Group(s)	
Field ID		STORET/Field/WIN ID →		Chicken Branch at Old Plank Rd		Latitude 30.3261 Longitude -84.1481		Field ID		STORET #		Bottle Group(s)	
Field ID		STORET/Field/WIN ID →		Burnt Mill Creek Upstream of US 27		Latitude 30.409052 Longitude -84.063343		Field ID		STORET #		Bottle Group(s)	

☐ Comp Grab	Collection (comp begin or grab) Date 1/4/2018 Time 7:55	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 11.32	Sample Depth 0.15	Sp. Conductance (umho/cm) 186	Composite end Date	Time	Bottle Group(s) A, B, C, E
☒ Grab	Collection (comp begin or grab) Date 1/4/2018 Time 8:50	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 12.39	Sample Depth 0.6	Sp. Conductance (umho/cm) 44	Composite end Date	Time	Bottle Group(s) A, C
☐ Comp Grab	Collection (comp begin or grab) Date 1/4/2018 Time 9:45	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 10.05	Sample Depth 0.3	Sp. Conductance (umho/cm) 320	Composite end Date	Time	Bottle Group(s) A, C, D, E
☒ Grab	Collection (comp begin or grab) Date 1/4/2018 Time 10:25	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 12.78	Sample Depth 0.2	Sp. Conductance (umho/cm)	Composite end Date	Time	Bottle Group(s) A, C, G, H

Relinquished By: Curtis Musson

Date/Time 1-4-2018 12:59

Shipping Method Droppoff

Number of Coolers Shipped: 2 cooler / 3 set jugs

Received By: Tyler Ray

Date/Time 01/04/18

1.56gpc

Group: A	Bottle Type: ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS	P-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: A	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: A	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 4	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	4
Group: A	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 4	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	4
Group: B	Bottle Type: W-ICP W-ICPMS	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
Group: C	Bottle Type: ECOLI-18QT	P-250ML-WO-THI	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: D	Bottle Type: W-AHERB-AA W-SUC-AA-R W-UHERB-AA	BG-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
Group: E	Bottle Type: PCR-FILTER PCR-HF183	QPCR-P-250ML	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: F	Bottle Type: W-AHERB-AA	BG-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2

Group: F	Bottle Type: W-GLYPH W-PYR-AA-R W-SUC-AA-R W-UHERB-AA	BG-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
Group: F	Bottle Type: W-PCL-SQ-R	BG-500ML	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: F	Bottle Type: W-PSNP-TQ	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: G	Bottle Type: MI-FW-QLDC	PJ-2L	# of Bottles: 2	Preservative:	Formalin	Enter Number of Bottles Sent to Lab	2
Group: H	Bottle Type: ALGAL_ID	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1

Cooler Packing Worksheet for Request: RQ-2018-01-01-22**Burnt Mill,Chicken, Black, Central Ditch****Ship Cooler On: 12/18/2017****Customer/Project: WAS-SECT/SMP**

Assigned To: SHAIK_A

Requester: Curtis Musson

Priority: 3

850-245-8453

2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

Group A: Nutrients, CHLA, Physical Aggregates

Group B: Metals

Group C: Microbiology (E.coli)

Group D: Organics (Wastewater Tracers) AHERB Shortlist

Group E: PCR (Wastewater Markers)

Group F: Pesticides

Group G: SCI

Group H: Algal ID

Packing Notes:

1 - case of sulfuric acid

1 - case of nitric acid

No FedEx labels

Requested Analyses:**Bottle Group: A****# of Sites: 4****Container ID: P-1L****Qty: 4 Preservation: ICE****Lot #** 00069122**Description: Plastic Bottle 1L****Analysis**

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices

Container ID: BP-1L

Qty: 4 Preservation: ICE

Lot # 1204544

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-500ML

Qty: 4 Preservation: ICE And H2SO4

Lot # 55069255

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 4 Preservation: FILTER-ICE

Lot # 55068595

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group: B

of Sites: 1

Container ID: P-500ML

Qty: 1 Preservation: HNO3

Lot # 55069255

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP

W-ICPMS

Description

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Bottle Group: C

of Sites: 4

Container ID: P-250ML-WO-THI

Qty: 4 Preservation: ICE

Lot # 117048

Description:

Analysis

Description

Bottle Group: D**# of Sites: 1**

Container ID: BG-1L

Qty: 1

Preservation: ICE

Lot # 55069348

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-AHERB-AA

W-SUC-AA-R

W-UHERB-AA

Description

Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS

Analysis of sucralose in water matrices by HPLC/MS/MS

Urea herbicides and other chemicals in water matrices by HPLC/MS/MS

Bottle Group: E**# of Sites: 2**

Container ID: QPCR-P-250ML

Qty: 4

Preservation: ICE

Lot # 5506801

Description:

Analysis

PCR-FILTER

PCR-HF183

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction

Bottle Group: F**# of Sites: 1**

Container ID: BG-1L

Qty: 2

Preservation: ICE

Lot # 55068348

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-AHERB-AA

W-GLYPH

W-PYR-AA-R

W-SUC-AA-R

W-UHERB-AA

Description

Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS

Glyphosate in water matrices by HPLC/MS/MS

Pyraclostrobin in water matrices by HPLC/MS/MS

Analysis of sucralose in water matrices by HPLC/MS/MS

Urea herbicides and other chemicals in water matrices by HPLC/MS/MS

Container ID: BG-500ML

Qty: 4

Preservation: ICE

Lot # 55067841

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-PCL-SQ-R

Description

Organochlorine pesticides in water matrices by GC/MS-SIM

Container ID: BG-1L

Qty: 4 Preservation: ICE

Lot # 52069348

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-PSNP-TQ

Description

Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS

Bottle Group: G

of Sites: 1

Container ID: PJ-2L

Qty: 2 Preservation: Formalin

Lot # Browns

Description: Plastic Jar 2 L

Analysis

MI-FW-QLDC

Description

No. Taxa of FW macroinverts, qual samp, 20 dipnets.

Bottle Group: H

of Sites: 1

Container ID: PT-50ML

Qty: 1 Preservation: ICE

Lot # 03775003

Description: Plastic Tube 50 mL

Analysis

ALGAL_ID

Description

Qualitative assessment of algal taxa present without counts

Cooler Packed By: ABJ

Number of Coolers: 3

Date: 12-19-17

Kit must also include:

- ☒ Field Sheets
- ☐ Temperature Control Bottle
- ☒ FedEx Bills, if applicable
- ☒ Plastic Bags
- ☐ Zip Ties

If Preservation Included:

ID <u>H25041.1</u>	Exp <u>10-2-18</u>	Lot # <u>SA7275010</u>
ID <u>4N-31.1</u>	Exp <u>09-18-18</u>	Lot # <u>NA7261120</u>
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2018-01-01-22