



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

June 2016

PAGE 1 OF 7

Data Qualified?
Yes ☒ No ☐

STORET Station Name: Black Creek upstream of Bloxham Cutoff

Date: 06/23/2016

(mm/dd/yyyy)

STORET Station ID: G1WA0023

WBID: 1054

Latitude: 30.27792

(Decimal Degrees)

County: Wakulla

RQ - 2016-06-06-56

ORG ID: 21FLWQA

Longitude: -84.3858

(Decimal Degrees)

Receiving Body of Water: Wakulla Springs

Field ID: G1WA0023

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Curtis Musson						X	X		
Paule Blair					X	X	X	X	X

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Equipment ID		

Collection Method	
☒ Wading	☐ Via Boat
☐ From Shore	☐ Canoe/Kayak
☐ Other (note below)	☐ Electric Motor
	☐ Gasoline Motor

Water Level: Dry / Low / <u>Normal</u> / High / Flooded					Matrix: <u>Fresh</u> / Marine / DI					
Meter ID# Biology 2			Photos: Yes / <u>No</u>			Tide Falling: Yes / No / <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°)
EST	13:15	0.3	0.6	6.77	79.5	4.1	0.02	0.3	55	23.31
CEN										

Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>LVS</u> <u>RPS</u> LVI Other					
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	SA 5259020	09/16/2016	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
BOD	☐ BOD-UNIN	☐ 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			
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Notes: SBIO: 76311 L2M ² MacroPhyte	Place Label Here (If Available)
Signature: <i>Curtis Musson</i>	Date: 6-23-2016

Field Parameters Entered into LIMS:

(Initials/Date)

Field Parameters QC in LIMS:

Date Migrated to STORET:

(Initials/Date)

Field Sheets Scanned/Saved:

(Initials/Date)

DEP-SOP-001/01: Form FD 9000-5
STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
STREAM/RIVER HABITAT ASSESSMENT FIELD SHEET

SUBMITTING AGENCY CODE: <u>21FLGW</u>		STORET STATION NUMBER: <u>GIWA0023</u>	DATE (MM/DD/YY): <u>6-23-16</u>	RECEIVING BODY OF WATER: <u>Wakulla Springs</u>
SUBMITTING AGENCY NAME: <u>WQAP, WAS</u>				
REMARKS:	COUNTY: <u>Wakulla</u>	LOCATION: <u>Black Creek 100m upstream of Bloxham cut off</u>		FIELD ID/NAME: <u>GIWA0023</u>

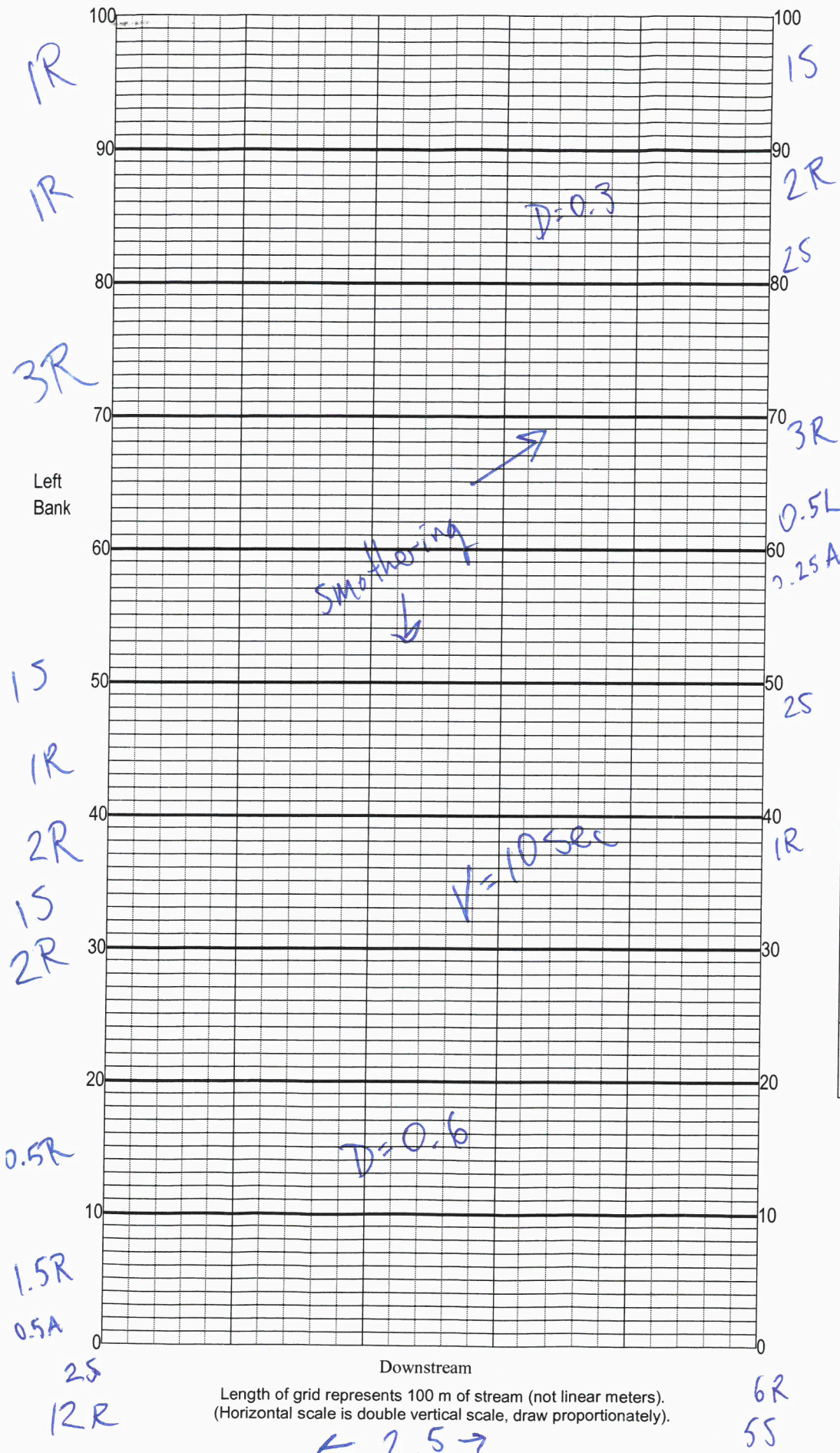
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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>10</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>8</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>10</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>9</u> ----- Primary Score <u>28.37</u> <u>cm</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>	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>10</u> Left Bank <u>10</u>	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>10</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>80</u>	10 9	8 7 6	5 4	3 2 1

117 ~~108~~ cm

TOTAL SCORE

Date: <u>6-23-16</u>	Analyst: <u>Paul Blair / Curtis Musson</u>	Signature: <u>Paul Blair</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: Black Creek
 Date: 6-23-16
 Sampler: Paul Blair/Curtis Mussen

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

Substrates: Code key, draw proportionate habitat abundance. %

<u>S</u>	Snags	<u>2.8</u>
<u>R</u>	Roots/undercut banks	<u>7.2</u>
<u>L</u>	Leaf Packs (or mats)	<u>0.2</u>
<u>A</u>	Aquatic Macrophytes	<u>0.3</u>
<u>K</u>	<u>rock</u>	
	Pools	total # observed = _____ # range expected = _____

Average width 2.5 m

Average depth 0.4 m

Velocity measured at 35 meter mark.

WQ & chemistry taken at 5 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:

S = 7 2.8%
 R = 18 7.2%
 A = 0.75 0.3%
 L = 0.5 0.2%

10.8%

Revision Date: March 1, 2014

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

SAMPLE ID G1WA0023 ORG ID 21FLWQA LATITUDE 30.27792
 COUNTY Wakulla STORET # G1WA0023 LONGITUDE -84.3858
 DATE 06/23/2016 TIME _____ SAMPLING AGENCY FDEP
 SITE NAME Black Creek upstream of Bloxham Cutoff
 FIELD ID/NAME G1WA0023 RECEIVING BODY OF WATER Wakulla Springs

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>69.4</u> Silviculture <u>25.3</u> Field/Pasture <u>0.1</u> Agricultural <u>—</u> Residential <u>4.3</u> Commercial <u>0.1</u> Industry <u>0.7</u> Other (Specify) <u>Reservoirs</u>							Landscape Development Intensity Index (LDI) <u>1.35</u>
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy							Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>2.5</u> m wide _____ m/s <u>0.1</u> m/s _____ m/s _____ m deep <u>0.4</u> m deep _____ m deep
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>			
High Water Mark: <u>0.6</u> + <u>0.6</u> = <u>1.2</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No			
Artificially Channelized: ☒ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☐ 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 <table border="1"> <thead> <tr> <th></th> <th>% Coverage</th> <th>INVERT # Times Sampled</th> <th>PERI # Times Sampled</th> </tr> </thead> <tbody> <tr> <td>Woody Debris (Snags)</td> <td><u>2.8</u></td> <td><u>7</u></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td><u>7.2</u></td> <td><u>7</u></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td><u>0.2</u></td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td><u>0.3</u></td> <td><u>0</u></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td><u>—</u></td> <td><u>—</u></td> <td></td> </tr> <tr> <td>Sand.....</td> <td><u>89.2</u></td> <td><u>6</u></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td><u>—</u></td> <td><u>—</u></td> <td></td> </tr> <tr> <td>Other</td> <td><u>—</u></td> <td><u>—</u></td> <td></td> </tr> <tr> <td>Other</td> <td><u>—</u></td> <td><u>—</u></td> <td></td> </tr> </tbody> </table>				% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	<u>2.8</u>	<u>7</u>		Undercut Banks / Roots	<u>7.2</u>	<u>7</u>		Leaf Packs or Mat	<u>0.2</u>	<u>0</u>		Aquatic Vegetation	<u>0.3</u>	<u>0</u>		Rock or Shell Rubble..	<u>—</u>	<u>—</u>		Sand.....	<u>89.2</u>	<u>6</u>		Mud / Muck / Silt	<u>—</u>	<u>—</u>		Other	<u>—</u>	<u>—</u>		Other	<u>—</u>	<u>—</u>		WATER QUALITY <table border="1"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td><u>—</u></td> <td><u>—</u></td> <td><u>—</u></td> <td><u>—</u></td> <td><u>—</u></td> <td><u>—</u></td> <td><u>—</u></td> <td><u>0.3</u></td> </tr> <tr> <td>Mid:</td> <td><u>0.3</u></td> <td><u>23.3</u></td> <td><u>4.1</u></td> <td><u>6.77</u></td> <td><u>79.5</u></td> <td><u>55</u></td> <td><u>0.02</u></td> <td>☐ VOB</td> </tr> <tr> <td>Bottom</td> <td><u>0.6</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> Meter ID: <u>Biology #2</u> TOTAL DEPTH <u>0.6</u>							Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>0.3</u>	Mid:	<u>0.3</u>	<u>23.3</u>	<u>4.1</u>	<u>6.77</u>	<u>79.5</u>	<u>55</u>	<u>0.02</u>	☐ VOB	Bottom	<u>0.6</u>							
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AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.																																																																																				
SAMPLING TEAM <u>Curtis Mussen / Paul Blair</u>				SIGNATURE: <u>[Signature]</u>		DATE: <u>6/23/2016</u>																																																																														

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Black Creek upstream of Bloxham Cutoff

County: Wakulla

Date: 06/23/2016

Investigators: Curtis Musson

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

STORET Station Number: G1W

G1WAC023

Secchi depth 0.3
Estimated? No

points ranked 4-6 2
total points assessed 99
% points ranked 4-6 2.0

Check accompanying data collected at same site/date.

Algal mat sample No
Linear Veg Survey Yes
Habitat Assessment Yes
SCI/Biorecon Yes
Water sample Yes

RQ-2016-06-06-56

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

SBI: 76311

RPS: 8120

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

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

Waterbody: Black Creek Upstream of Bloxham Cutoff Date: 6/23/2016 County: Wakulla Storet Number: G1WA0023

Analyst: Curtis Musson Signature:

Comments: Less Than 2 square meters

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	X	X									
Boehmeria cylindrica												Panicum hemitomon											
Centella asiatica												Panicum repens											
Ceratophyllum demersum												Panicum rigidulum											
Chara												Pistia stratioides											
Cicuta maculata												Polygonum glabra											
Cladium jamaicense												Polygonum hydropiperoides											
Colocasia esculenta												Polygonum punctatum											
Commelina diffusa												Pontedaria cordata											
Commelina virginica												Potamogeton illinoensis											
Crinum americanum												Rhynchospora inundata											
Diodia virginiana												Rosa palustris											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Rumex verticillatus											
Hydrilla verticillata												Sacciolepis striata											
Hydrocotyle												Sagittaria kurziana											
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												Peltandra Virginica			X		X						
Micranthemum glomeratum																							
Micranthemum umbrosum																							
Mikania scandens																							
Myriophyllum aquaticum																							
If no Dominant or Co-Dominant were selected, indicate with "X"																							
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage																							
>5 and ≤10% Macrophyte Coverage																							
>10 and ≤25% Macrophyte Coverage																							
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

Request Number: RQ-2016-06-06-56

Sally Ward Spring, Eight Mile Pond, Godby Ditch, Black Creek and Soapstone Branch

Customer: WQAP

Project ID: SMP

Florida Department of Environmental Protection Central Laboratory Submittal Form

Page 1 of 2

last revised Apr 7, 2016

Requester: Benjamin Ralys

Field Report Prepared By:

Curtis Mussen

Collected By: Curtis Mussen, P9016145

Sampling Agency:

FDEP

Location Godby Drainage Ditch at Vega Dr.		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 6/23/2016 Time 0955	Eastern Central	Composite end Date Time	Bottle Group(s) (See pg 2)
Field ID GIWA0025	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 5.41	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)		A
STORET # GIWA0025	Temp (C) 24.97	pH 7.58	Sample Depth 0.2	☐ ft ☒ m	Sp. Conductance (umho/cm) 185	
Latitude 30.46341	☒ dd ☐ dms	Longitude -84.33479	☐ dd ☐ dms	Salinity (ppt) 0.09	Comments	
Location Eight Mile Pond Middle		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 6/23/2016 Time 11:15	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID GIWA0024	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 6.51	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)		A
STORET # GIWA0024	Temp (C) 27.62	pH 7.27	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 81	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) 0.04	Comments	
Location Sally Ward Spring at Wakulla Park Dr.		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 6/23/2016 Time 11:57	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID GIWA0021	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 3.26	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)		A
STORET # GIWA0021	Temp (C) 20.78	pH 7.54	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 329	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) 0.16	Comments	
Location Black Creek 100 m upstream of Black Creek Cutoff		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 6/23/2016 Time 13:15	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID GIWA0023	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 6.77	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)		A, C
STORET # GIWA0023	Temp (C) 23.31	pH 4.1	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 55	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt) 0.02	Comments	

Relinquished By: Curtis Mussen	Date/Time 6/23/16 15:15	Shipping Method Drop Off	Number of Coolers Shipped: 1	Received By: RW	Date/Time 6/23/16/1520
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