



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

Location/STORET Station Name: West Sandy Creek

Date: 04/04/18
(mm/dd/yyyy)

WIN ID G3NW0053

WBID: 269

Latitude: 30.77757

County: Walton

RQ - 2018-04-02-53

ORG ID: 21FLPNS

Longitude: -86.07091

(Decimal Degrees)

Receiving Body of Water: Sandy Creek

Field ID: G3NW0053

(Decimal Degrees)

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment			
Frank Butera									☒ Sample Container	☐ Van Dorn	☐ Pole	
Stopher Slade									☐ Carboy	☒ Syringe		
<u>J. A. 715</u>									☐ 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# <u>132737</u>				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 Low						
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)		
EST		<u>1.0</u>	<u>0.3</u>	<u>1.0</u>	<u>8.08</u>	<u>87.3</u>	<u>6.00</u>	<u>0.01</u>	<u>28</u>	<u>19.00</u>		
CEN	<u>1010</u>	<u>0.6</u>		<u>1.5</u>								

Biological Samples Collected: <u>None</u> <u>HA</u> <u>SCI</u> <u>RPS</u> Algae ID LVS LVI Other:									
SBIO ID Numbers: SBIO-ID: <u>78310</u> HA-ID: <u>15067</u> RPS-ID: <u>8955</u> Macrophyte-ID: <u>P/A</u> 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	SA7341020	12/07/18	☐ <2	
Metals	☐ W-ICPMS ☐ W-ICP				☐ Ice ☐ HNO3			☐ <2	
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter				☒ Ice	9798594			
Chlorophyll	☒ CHLSUITE-W				☒ Ice				
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-C / 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 ☐ W-CARB-AA				☐ Ice				
	☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R				☐ Other				

SBIO-ID	<u>78309</u>
Notes:	<u>3 SCI Bottles. Water Quality Samples lost by Fed Ex & canceled. Bact: 7 Sample H/D. to UWF contract lab on time. SCI delivered to TCH win Holding.</u>
Field/WIN ID	<u>G3NW0053</u>
Location:	<u>WEST SANDY CREEK</u>
Signature:	<u>Frank Butera</u>
Date:	<u>04/04/2018</u>

Enter Field Parameters, Verify Station ID in LIMS DMT:	QC Station ID, Field Parameters in LIMS DMT:
Scan/Save Field Sheets <u>FB/4-10-18</u>	Verify Data in WIN:
(Initials/Date)	(Initials/Date)

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

SAMPLE ID 78349 ORG ID 21FLPNS LATITUDE 30.77757
 COUNTY Walton WIN ID/STORET # G3NW0053 LONGITUDE -86.07091
 DATE 04/04/2018 TIME 10:10 CTZ _____ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME West Sandy Creek
 FIELD ID/NAME G3NW0053 RECEIVING BODY OF WATER Sandy Creek WBID 269 Project SMP- TMDL Studies

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☐						Landscape Development Intensity Index (LDI) ☐	
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>10m ml</u> <u>0.4</u> m wide <u>.33</u> m/s <u>.33</u> m/s <u>.33</u> m/s	
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>1-2</u>			High Water Mark: <u>2.1</u> + <u>1.1</u> = <u>3.2</u> (m) (above present water level) (present depth) (above bed)	
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe			Artificially Impounded ☐ Yes ☒ No			Canopy Cover % <u>85%</u> ☐ 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			SECCHI (M)																																										
<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>8.2</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Undercut Banks / Roots</td> <td><u>1.4</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Leaf Packs or Mat</td> <td><u>0.7</u></td> <td><u>5</u></td> <td></td> </tr> <tr> <td>Aquatic Vegetation</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Rock or Shell Rubble..</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sand.....</td> <td><u>66.2</u></td> <td><u>2</u></td> <td></td> </tr> <tr> <td>Mud / Muck / Silt</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other <u>Gravel</u></td> <td><u>17.7</u></td> <td><u>3</u></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				% Coverage	INVERT # Times Sampled	PERI # Times Sampled	Woody Debris (Snags)	<u>8.2</u>	<u>5</u>		Undercut Banks / Roots	<u>1.4</u>	<u>5</u>		Leaf Packs or Mat	<u>0.7</u>	<u>5</u>		Aquatic Vegetation				Rock or Shell Rubble..				Sand.....	<u>66.2</u>	<u>2</u>		Mud / Muck / Silt				Other <u>Gravel</u>	<u>17.7</u>	<u>3</u>		Other				Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>19.0</u> <u>6.40</u> <u>8.08</u> <u>87.3</u> <u>28</u> <u>4.01</u> Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ Bottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ Meter ID: <u>132237</u> <u>42 meter verify</u> ✓			TOTAL DEPTH <u>0.60</u>		
	% Coverage	INVERT # Times Sampled	PERI # Times Sampled																																													
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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 ☐ Globbs ☐ Slick ☐ Other ☐																																										
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) _____			Water Sample Taken? ☒ Yes ☐ No * Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____			Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) _____																																										
AMBIENT FIELD CONDITIONS / NOTES: RQ-2018-04-02-53 *Water Quality samples lost by Fed Ex to Cancelled. Box to ti (E.coli) hand delivered to UWF w/in holding time. ☒ The antecedent hydrologic conditions have been met to my best knowledge.			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐			SAMPLING TEAM: Frank Butera, Stopher Slade, Jimmy Pitts																																										
SIGNATURE: <u>Frank Butera</u>			DATE: <u>04/04/2018</u>																																													

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

SAMPLING AGENCY: 21FLPNS		STORET STATION NUMBER: G3NW0053	DATE (MM/DD/YY):	RECEIVING BODY OF WATER: Sandy Creek
REMARKS: WBID 269	COUNTY: Walton	LOCATION: West Sandy Creek		FIELD ID/NAME: G3NW0053

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>13</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 <u>13</u> 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>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 <u>8</u> 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>20</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>15</u> Primary Score <u>56</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>24</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. 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 9 Right Bank <u>10</u> 10 Left Bank <u>10</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. <u>10</u> 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>9</u> Left Bank <u>9</u> Secondary Score <u>77</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

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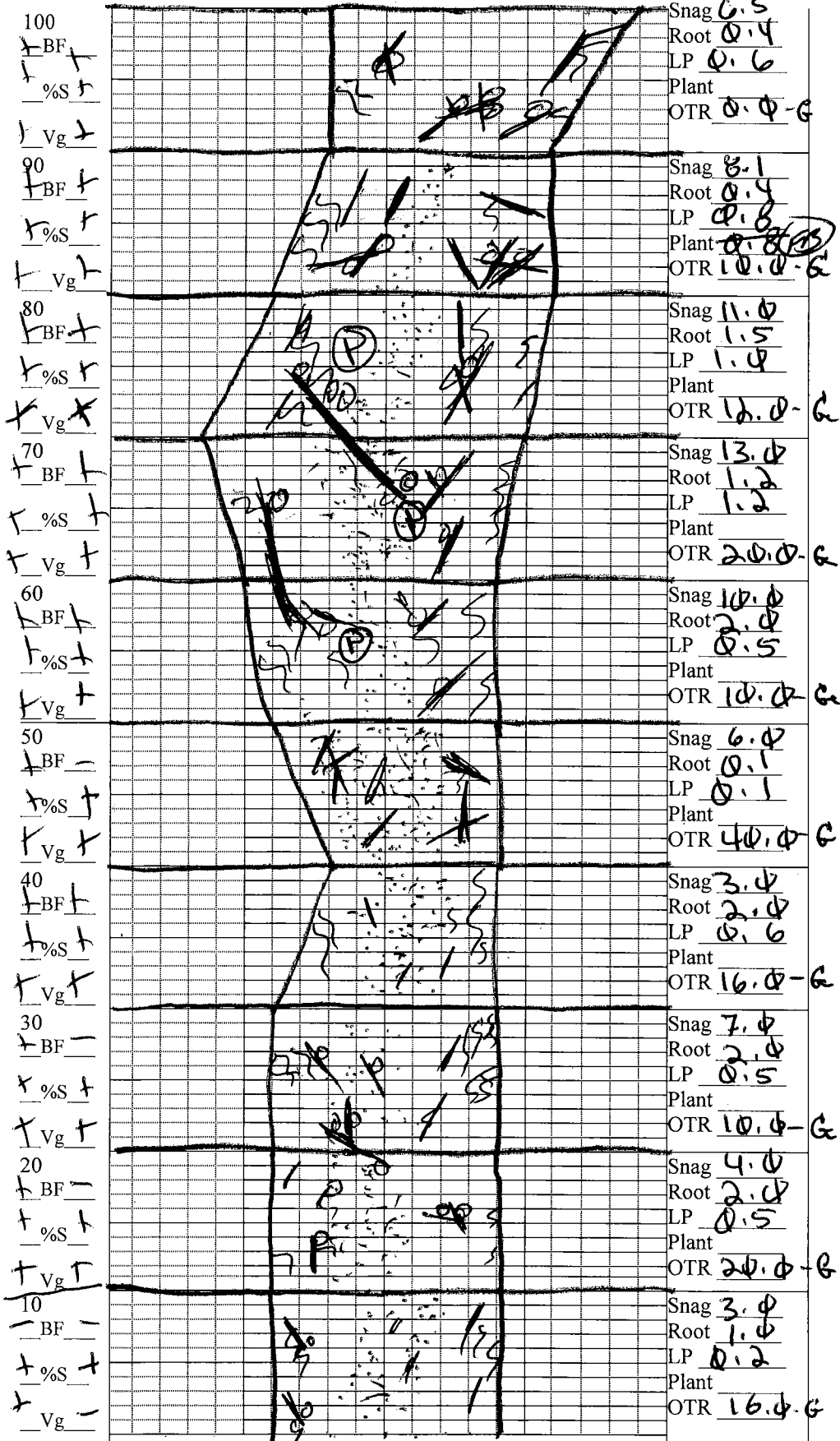
TOTAL SCORE

Date: <u>04/04/2017</u>	Analyst: <u>F. BUTERA</u>	Signature: <u>[Signature]</u>
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SBIO ID: 78309 HA ID: 15487

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 G3NW0053

Substrates: Code key, draw proportionate habitat abundance.



Snags



Roots/undercut banks



Leaf Packs (or mats)



Macrophytes



Gravel



Pool

Velocity:

Note where velocity measures were taken. 10 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 8.7 m

Average depth 0.4 m

WQ & chemistry taken @ 0 m

West Sandy Creek

Project. TMDL Studies

Sampled By/Date: 04/04/2018 /

FB

0 m Latt. 30.77767

0 m Long. -86.07088

100 m Latt 30.77712

100 m Long -86.07166

SB10 ID 78309

Downstream

Left Bank

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: West Sandy Creek					County: Walton		Date: 04/04/2018		Investigators: S. Slade	
									STORET Station Number: G3NW0053	

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	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5			72		5			71	
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N	N		70	1	N	N		
	2					2				
	3					3				
	4					4				
	5			80		5			76	
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N	N		80	1	N	N		
	2					2				
	3					3				
	4					4				
	5			36 80		5			69	
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N	N		90	1	N	N		
	2					2				
	3					3				
	4					4				
	5			90		5			87	
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N	N		100	1	N	N		
	2					2				
	3					3				
	4					4				
	5			94		5			92	
	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			87						
	6									
	7									
	8									
	9									

Secchi depth	1.1
Estimated?	N

# points ranked 4-6	0
total points assessed	99
% points ranked 4-6	0

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	
Habitat Assessment	✓
SCI/Biorecon	✓
Water sample	* ✓
RQ-2018-04-02-53	

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

SBIO Visit ID: 78309

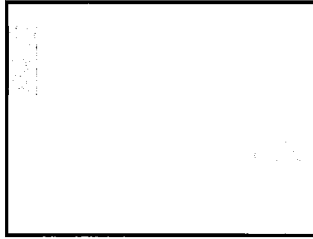
Water Samples lost by Fed. Ex.

R.P.S. ID 8955

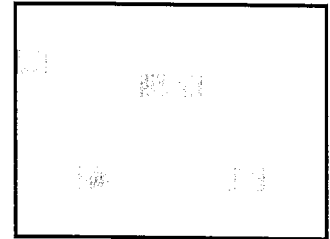
DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET																								
West Sandy Creek.										Date: 04/04/18					County: Walton					Storet Number: G3NW0053				
Analyst: F. Butera										Signature: [Signature]														
Comments: SBIO ID: 78349										Macro ID: N/A. Insufficient Veg. to perform LVS.														
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m ² 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										Specime n collected (check)	HERBACEOUS SPECIES	Meter Mark										Specime n 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												Micranthemum glomeratum												
Bacopa caroliniana												Micranthemum umbrosum												
Bacopa monnieri												Myriophyllum aquaticum												
Bidens mitis												Najas guadelupensis												
Boehmeria cylindrica												Nuphar luteum												
Centella asiatica												Orontium aquaticum												
Ceratophyllum demersum												Panicum hemitomon												
Chara												Panicum repens												
Cicuta maculata												Panicum rigidulum												
Cladium jamaicense												Pistia stratioides												
Colocasia esculenta												Polygonum glabra												
Commelina diffusa												Polygonum hydropiperoides												
Commelina virginica												Polygonum punctatum												
Crinum americanum												Pontedaria cordata												
Diodia virginiana												Potamogeton illinoensis												
Eichhornia crassipes												Ruellia simplex												
Eleocharis (wispy viviparous)												Sacciolepis striata												
Hydrilla verticillata												Sagittaria kurziana												
Hydrocotyle												Sagittaria lancifolia												
Hygrophila polysperma												Sagittaria latifolia												
Hymenocallis												Salvinia minima												
Lachnanthes caroliniana												Samolus parviflora												
Landoltia punctata												Saururus cernuus												
Lemna												Sparganium americanum												
Limnophila sessiflora												Typha												
Ludwigia leptocarpa												Vallisneria americana												
Ludwigia palustris												Zizania aquatica												
Ludwigia peruviana																								
Ludwigia repens																								
Luziola fluitans																								

Percent Cover Categories for macrophytes in a 10 m segment of a stream 5 m wide

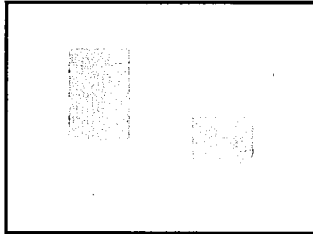
5% Macrophyte Coverage



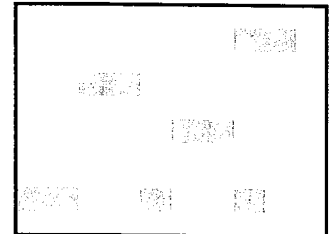
5% Macrophyte Coverage



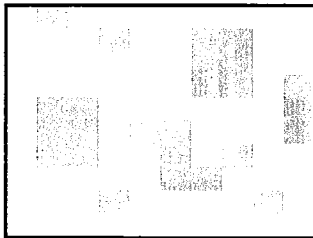
10% Macrophyte Coverage



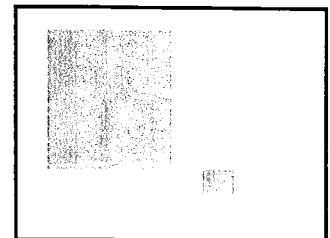
10% Macrophyte Coverage



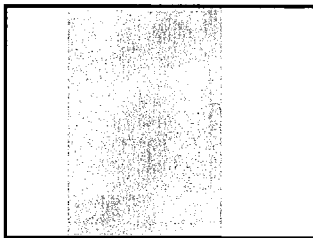
25% Macrophyte Coverage



25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage

