

Site Name Huckleberry Creek
Field ID 63NW0135 Storet 63NW0135
Visit ID 79330
RPS ID 9294
Macro ID N/A
HA ID 15727

Date: 4/16/19
Project: SMP
RQ: 2019-03-04-39
LIMS ID: _____
WBID: 246

☒ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO

Initial FB 4/24/19

☐ Date and Initial QA: _____

☒ RPS entered in SBIO

Initial FB 4/24/19

☐ 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: _____

☐ Macro authorized in SBIO

☐ Date and Initial: _____

☐ LVS 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:

Huckleberry Creek

Date:

04/16/2019
(mm/dd/yyyy)

WIN/ Field ID: G3NW0135

WBID: 246

Latitude: 30.808769

County: Walton

ORG ID: 21FLPNS

Longitude: -86.089558

Receiving Body of Water: Sandy Creek

RQ-2019-03-04-39

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J. P. Miller					X	X			XX

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

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

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded

Meter ID# 154179

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 (µmhos/cm)	Temp. (C°)
EST	1230	0.6	0.3	0.6	8.70	88.5	5.51	0.01	29.6	16.6
CEN				15)						

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: 79330 HA-ID: 15727 RPS-ID: 9294 Macrophyte-ID: N/A LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H ₂ SO ₄	8101020	4/20/19	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☒ HNO ₃	8344050	12/10/19	☒ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	1649623		
Chlorophyll	☒ HLSUITE-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. Coll ☐ F. Coll ☐ 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-PC-SQ-R ☒ W-E8321-MS ☒ W-CARB-AA	☒ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C				

Place Preservative Sticker(s) Here
(If Available)

Notes: < 2m² veg

Signature: J. P. Miller

Field/WIN ID: G3NW0135

Location: HUCKLEBERRY CREEK

Date: 4/16/19

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 (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 79330 ORG ID 21 FL PNS LATITUDE 30.808769
 COUNTY Walton STORET # G3NW0135 LONGITUDE -86.089558
 DATE 04/16/2019 TIME 1230 SAMPLING AGENCY 21 FL PNS
 SITE NAME Huckleberry Creek
 FIELD ID/NAME G3NW0135 RECEIVING BODY OF WATER Sandy Creek

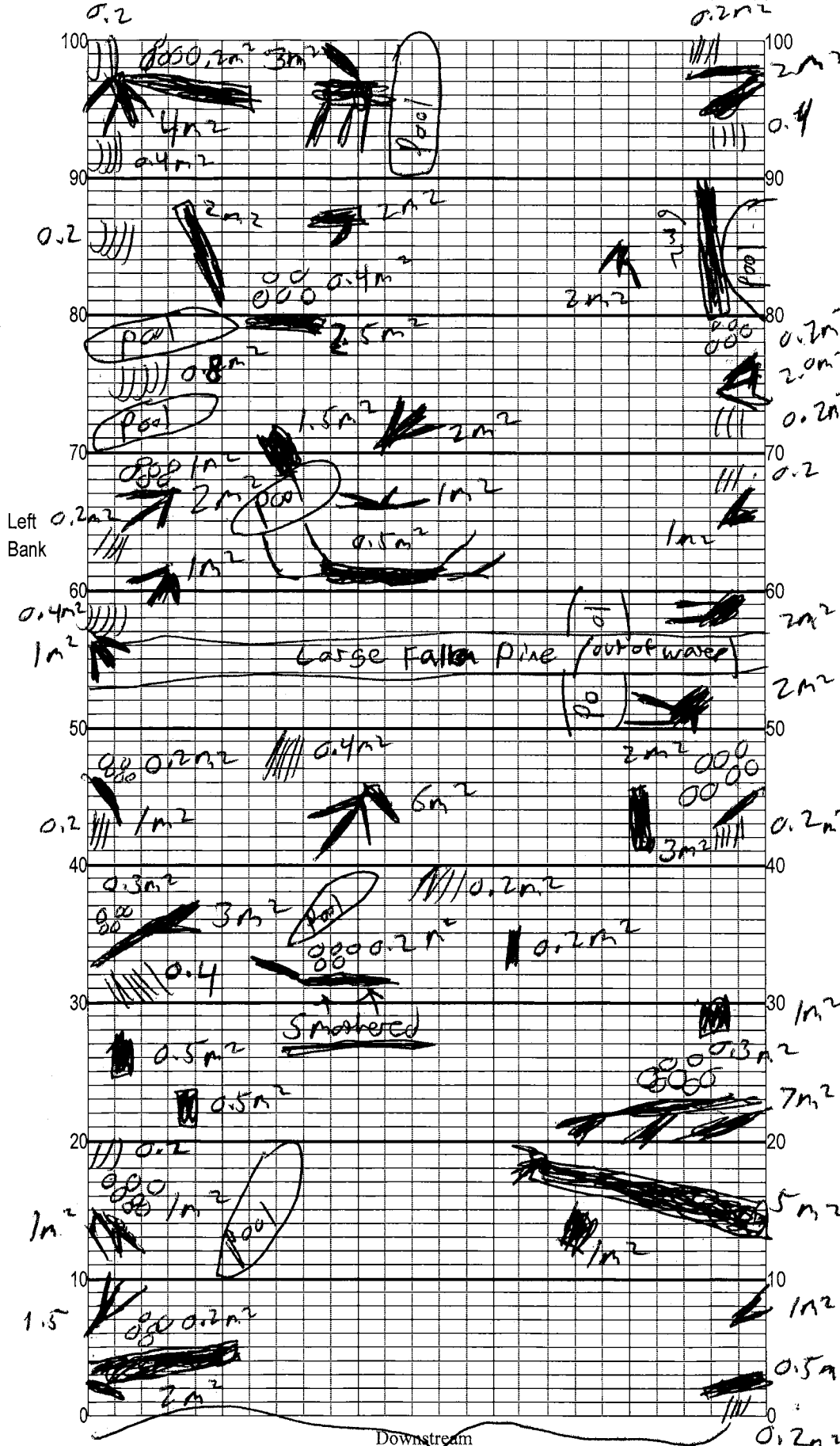
RIPARIAN ZONE / STREAM FEATURES WBD 246 Re-2019-03-04-39

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ 88 Silviculture ☐ Field/Pasture ☐ Agricultural ☒ 10 Residential ☒ 2 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) Depth (m)/Velocity (m/sec) Transect ☒ 2.5 m wide			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: ☒ 718m Right Bank: ☒ 718m				Hydrologic Modification Score (per FT 3101) ☒ 1-2			
High Water Mark: ☒ 1.5 + ☒ 0.6 = ☒ 2.1 (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No			
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☒ Heavily Shaded ☐ Moderate Shaded (46-80%)			

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse		Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):		Smothering of Substrates Sand Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☒ Slight ☐ Moderate ☐ Severe ☐	
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon			WATER QUALITY		
Invert # Times Sampled: ☒ 5 Peri # Times Sampled: ☐			Depth (M): ☒ 0.3 Temp. (°C): ☒ 16.6 pH (SU): ☒ 5.51 D.O. (MG/L): ☒ 8.70 D.O. Sat (%): ☒ 88.5 Cond. (UMHO/CM): ☒ 29.6 Salinity (PPT): ☒ 0.01 SECCHI (M): ☒ 0.6	Top: ☒ 0.3 Mid: ☐ Bottom: ☐ Meter ID: ☒ 154179 TOTAL DEPTH: ☒ 0.6	
Woody Debris (Snags): ☒ 31.6 ☒ 5 Undercut Banks / Roots: ☒ 1.8 ☒ 5 Leaf Packs or Mat: ☒ 2.4 ☒ 5 Aquatic Vegetation: ☐ Rock or Shell Rubble: ☐ Sand: ☒ 64.2 ☒ 5 Mud / Muck / Silt: ☐ Other: ☐ Other: ☐			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:		
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☒ ☐ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐ Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐		
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐			AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.		
SAMPLING TEAM Nathan Mulkey & James Ploss			SIGNATURE: [Signature]		DATE: 4/16/19

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



G3NW0135
 Location: Huckleberry Creek
 Date: 4/16/19
 Sampler: James Potts

100 m: Latitude	<u>30.80866</u>
Longitude	<u>-86.09039</u>
0 m: Latitude	<u>30.80866</u>
Longitude	<u>-86.08953</u>
Substrates: Code key, draw proportionate habitat abundance.	
	Snags <u>31.6</u>
	Roots/undercut banks <u>1.8</u>
	Leaf Packs (or mats) <u>2.4</u>
	Aquatic Macrophytes <u>0</u>
	Pools <u>total # observed = 8</u> <u># range expected = 4-8</u>

Average width 2.5 m
 Average depth 0.6 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 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:

< 2m² veg

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

$$2.5m \times 1 = \frac{78.9m^2}{250m^2} = 31.6$$

$$\frac{6.0m^2}{250} = 2.4$$

$$\frac{4.6m^2}{250} = 1.8$$

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

SAMPLING AGENCY: <u>21 FL PMS</u>		STORET STATION NUMBER: <u>63NW0135</u>	DATE (MM/DD/YYYY): <u>4/16/19</u>	RECEIVING BODY OF WATER: <u>Sandy Creek</u>
REMARKS:	COUNTY: <u>Walton</u>	LOCATION: <u>Huckleberry Creek</u>	FIELD ID/NAME: <u>63NW0135</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>15</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) <u>15</u> 14 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>20</u>	Greater than 30% major productive habitat present at site <u>20</u> 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>15</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 <u>15</u> 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>67</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 <u>17</u> 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 or straightening 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>9</u> Left Bank <u>9</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. 10 <u>9</u>	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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>10</u> Left Bank <u>9</u>	Width of vegetation greater than 18 m <u>R</u> <u>10</u> <u>9</u>	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>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 <u>9</u>	>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

142

TOTAL SCORE

SB10 ID 79330

HA ID 15727

Date: <u>4/16/19</u>	Analyst: <u>Jared PMS</u>	Signature: <u>[Signature]</u>
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Huckleberry Creek County: Walton Date: 4/16/19 Investigators: Jared Pires & Nathan Mulvey

STORET Station Number: G3NW0135

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N	N	96
	2			
	3			
	4			
	5			
	6			
	7			
	8	N	N	
	9	N	N	
10	1	N	N	92
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	
20	1	N	N	96
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	
30	1	N	N	96
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	
40	1	N	N	88
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	
50	1	N	N	96
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N	N	96
	2			
	3			
	4			
	5			
	6			
	7			
	8	N	N	
	9	N	N	
70	1	N		96
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	
80	1	N		92
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	
90	1	N	N	90
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	
100	1	N	N	94
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	N	N	

Secchi depth	0.6
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-2019-03-04-39	

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

SB10 ID
79330

RPS ID
9294

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
50	1	N	N	96
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9	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%.

Waterbody: <u>Huckdam Creek</u>	Date: <u>4/6/19</u>	County: <u>Walton</u>	Storet Number: <u>62110135</u>
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Analyst: Japes P Signature: Jm P

Comments: 2×2 SAV

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² 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.

[illegible]