Site Name Little Alligator Creek Below 280 Bridge

Field ID G3MW006S Storet G3MW006S

Visit ID 79390

RPS ID 9308

Macro ID N/A

HA ID 15740

Date: 4/23/19

Project: SMP

RQ: 2019-03-11-28

LIMS ID: _____

WBID: 432

☑ SCI

☐ RPS/LVS Only

☑ Sample Site Created in SBIO

☑ Phys/Chem entered in SBIO

☑ HA entered in SBIO Initial FB 4/24/2019 ☐ Date and Initial QA: _____

☑ RPS entered in SBIO Initial FB 4/29/2019 ☐ 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 2018

Data Qualified? Yes / (No)

Location/STORET Station Name: Little Alaqua Creek Below 282 Bridge **Date:** 4/23/19 (mm/dd/yyyy)

WIN ID G3NW0065 **WBID:** 432 **Latitude:** 30.554540 (Decimal Degrees)

County: Walton **RQ -** 2019-03-11-28 **ORG ID:** 21FLPNS **Longitude:** -86.184600 (Decimal Degrees)

Receiving Body of Water: Alaqua Creek **Field ID:** G3NW0065

Sampling Team Members	Water Measurements	Sample Collection	Decontamination	Preservation	Preservation Check
N. Mulkey		X		X	X
MVranda		X		X	X
J. Pius	X		X		

Sampling Equipment

- [X] Sample Container [ ] Van Dorn [ ] Pole
- [ ] Carboy [X] Syringe
- [ ] Dipper [ ] Other

Equipment ID

- [X] Wading [ ] Canoe/Kayak
- [ ] From Shore [ ] Electric Motor
- [ ] Other [ ] Gasoline Motor

Water Level: Dry / Low / (Normal) / Above Normal / Flooded **Meter ID#** 154179 **Matrix:** (Fresh) / Marine / DI

Photos: (Yes) / No **Flow:** No Flow / Intestital / (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	Sp COND (µmhos/cm)	Temp. (C°)
EST	11:00	~~1.0~~ 1.1 JP	0.3	1.1 (S)	8.88	92.4	5.20	0.00	11.5	17.9
CEN										

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

SBIO ID Numbers: SBIO-ID: 7939Φ HA-ID: 1574Φ RPS-ID: 9308 Macrophyte-ID: N/A LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	[X] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	[ ] Ice [X] H_2SO_4	8101020	4/19/19	[ ] <2
Metals	[X] W-ICPMS [ ] W-ICP	[X] Ice [X] HNO_3	8344050	12/10/19	[ ] <2
Filtered Nutrients	[X] W-PO4-F [X] Field Filtered 0.45 µm Filter	[X] Ice			
Chlorophyll	[X] CHLSUITE-W	[X] Ice			
Physical/Aggregate (Fresh)	[X] Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	[X] Ice			
Physical/Aggregate (Marine)	[ ] Alkalinity / W-F / W-TSS / TURBIDITY	[ ] Ice			
Macroinvertebrates	[X] MI-FW-QLDC	[X] Formalin			
Periphyton	[ ] ALGAE-ID	[ ] Ice			
Microbiology	[X] E Coli [ ] F Coll [ ] Enterococci	[X] Ice			
Molecular	[ ] PCR-FILTER [X] PCR-HF183 [ ] PCR-BacR [ ] PCR-GULL2 [ ] PCR-GFD	[X] Ice			
Tracers	[ ] W-SUC-AA-R [ ] W-UHERB-AA [ ] W-AHERB-AA	[ ] Ice			
Pesticides	[X] W-PSNP-TQ [ ] W-UHERB-AA [ ] W-AHERB-AA [ ] W-CARB-AA [ ] W-PCL-SQ-R [ ] W-PYR-AA-R [ ] W-GLYPH [ ] W-SUC-AA-R	[X] Ice [ ] Other			

Place Preservative Sticker(s) Here (If Available)

Ref:
Dep:
Date: 25Feb19
Wgt: 10.00 LBS
DV: 0.00
SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Svns: PRIORITY OVERNIGHT Master 4751 8777 1944
TRCK: 4751 8777 1944

Field/WIN ID

G3NW0065

Location:
Little Alaqua Creek Below 282 Bridge

Signature: [signature] Date: 4/23/19

Enter Field Parameters, Verify Station ID In LIMS DMT: _____ (Initials/Date) QC Station ID, Field Parameters In LIMS DMT: _____ (Initials/Date)

Scan/Save Field Sheets _____ (Initials/Date) Migrate Data to WIN: _____ (Initials/Date) Verify Data In WIN: _____ (Initials/Date)

79390. **DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet**

SAMPLE ID ~~G3NW0065 FB~~ ORG ID 21FLPNS
COUNTY Walton STORET # G3NW0065
DATE 4/23/19 TIME 11:00
SITE NAME Little Alaqua Creek below 292 Bridge
FIELD ID/NAME G3NW0065 RECEIVING BODY OF WATER Alaqua Creek
LATITUDE ~~30.554540~~ 30.55394
LONGITUDE 86.18547
SAMPLING AGENCY 21 FL PNS

RIPARIAN ZONE / STREAM FEATURES

WBID: 432 RQ: 2019-03-11-28

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)
100							

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

Width of Riparian Vegetation (m) on Each Buffer Side: Left Bank: >18 Right Bank: >18

Hydrologic Modification Score (per FT 3101): 1-2

High Water Mark: 1.5 (m) + 1.0 (above present water level) = 2.5 (present depth) (above bed)

Artificially Impounded: ☐ Yes ☒ No

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

5.0 m wide		
m/s	0.21 m/s	m/s
m deep	1.0 m deep	m deep

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

	None	Slight	Moderate	Severe
Sand Smothering:	☐	☒	☐	☐
Silt Smothering:	☐	☐	☐	☒
Algae Smothering:	☒	☐	☐	☐

SUBSTRATE TYPE

Assessment Tool: ☐ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	27.6	5	
Undercut Banks / Roots	3.1	5	
Leaf Packs or Mat	0.1	5	
Aquatic Vegetation			
Rock or Shell Rubble..			
Sand.....	69.2	5	
Mud / Muck / Silt			
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:	0.3	17.9	5.20	8.88	92.4	11.5	0.00	1.1
Mid:								☒ VOB
Bottom								TOTAL DEPTH
								1.1

Meter ID: 15479

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: _____ Exp: _____

Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☒ No
Sample Preserved? ☐ Yes ☐ No
Lot Number: _____ Exp: _____

Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☒	☐	☐
Fish:	☐	☐	☒ JP	☒
Aquatic Plants:	☒	☐	☐	☐
Iron/Sulfur Bacteria:	☒	☐	☐	☐

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

Heavy silt. Sample ID 79390

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM: Nathan Milby / Jim Pitts / Miranda Clark

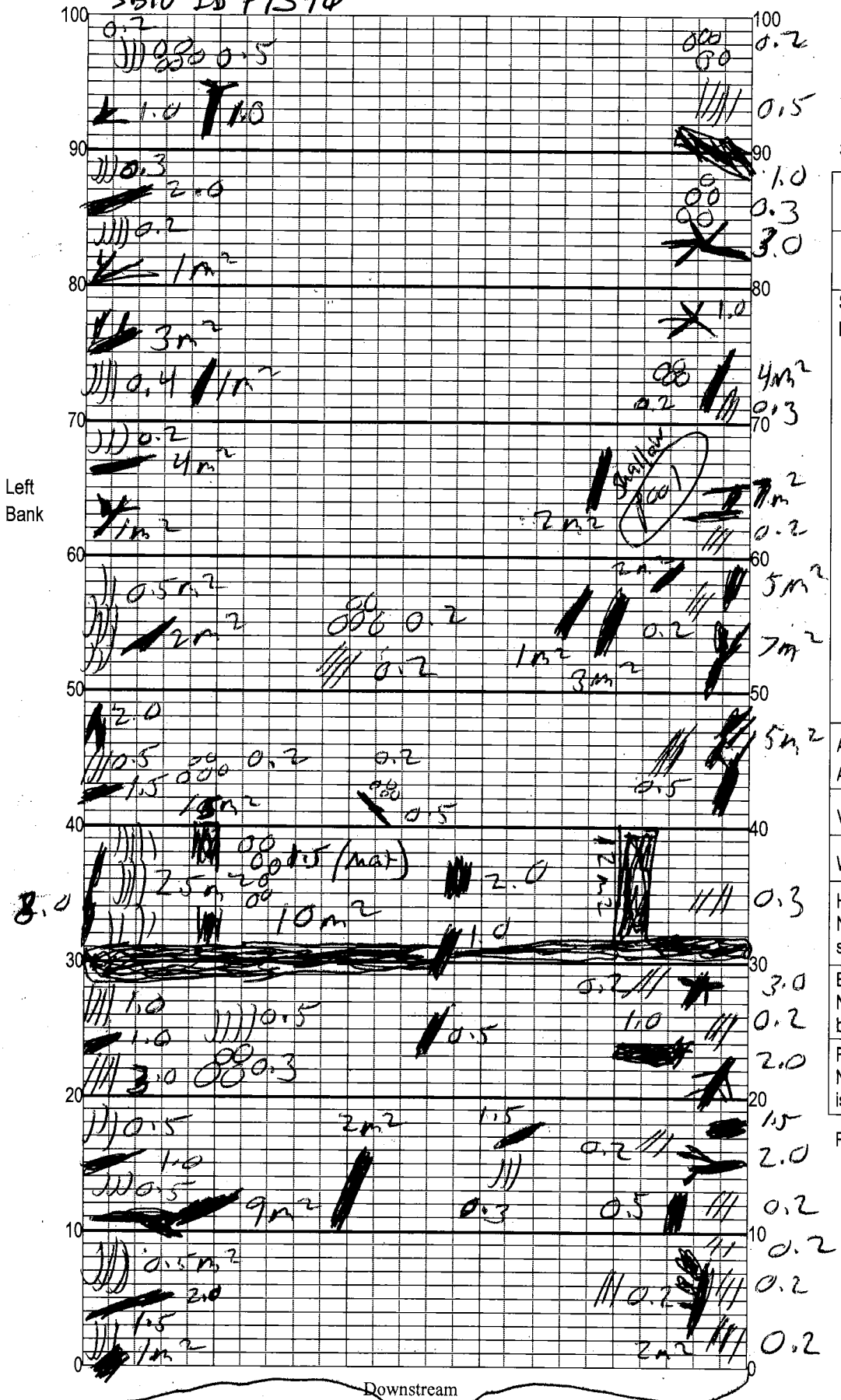
SIGNATURE:

DATE: 4/23/19

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

SBIO ID 7939Φ

G3NW0065



Location: Little Alaqua

Date: 4/23/19

Sampler: James Pitts

100 m: Latitude	30.554181
Longitude	86.18473
0 m: Latitude	30.55394
Longitude	86.18547

Substrates: Code key, draw proportionate habitat abundance.

		%
	Snags	27.6
///	Roots/undercut banks	3.1
oo	Leaf Packs (or mats)	0.1
T	Aquatic Macrophytes	0
	Pools	total # observed = 1
		# range expected = 1-2

Average width 5.0 m

Average depth 1.0 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:

Heavy S.A.

Shallow Pools

/ : $\frac{138 m^2}{500 m^2}$ /// : $\frac{15.4 m^2}{500 m^2}$ oo : $\frac{3.6 m^2}{500 m^2}$

62-160.800, F.A.C

Revision Date: January 2017

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

SAMPLING AGENCY:		STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
21 FLPNS		G3NW0065	4/23/19	Alaqua Creek
REMARKS:	COUNTY:	LOCATION:		FIELD ID/NAME:
	Walton	Little Alaqua Creek		G3NW0065

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 15	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 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 16	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 14	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 6 Primary Score 51	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** 8	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 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 9 Left Bank 9	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody 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 woody root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank 10 Left Bank 10	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 10 Left Bank 10 Secondary Score ~~58~~ 66	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

~~(6)109~~ 117 **TOTAL SCORE** ~~SBIO~~ SBIO = 79.50 HAID 1574

Date: 4/23/19	Analyst: James Pitts	Signature:

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Little Alaqua | County: Walton | Date: 4/23/19 | Investigators: James Pitts/Nathan Mulkey

STORET Station Number: 03NW0065

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N	N	
	2			
	3			
	4			
	5			76
	6			
	7			
	8			
	9	N	N	
10	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9	N	N	
20	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9	N	N	
30	1	N	N	
	2			
	3			
	4			
	5			70
	6			
	7			
	8			
	9	N	N	
40	1	N	N	
	2			
	3			
	4			
	5			90
	6			
	7			
	8			
	9	N	N	
50	1	N	N	
	2			
	3			
	4			
	5			84
	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	
	2			
	3			
	4			
	5			88
	6			
	7			
	8			
	9	N	N	
70	1	N	N	
	2			
	3			
	4			
	5			78
	6			
	7			
	8			
	9	N	N	
80	1	N	N	
	2			
	3			
	4			
	5			50
	6			
	7			
	8			
	9	N	N	
90	1	N	N	
	2			
	3			
	4			
	5			62
	6			
	7			
	8			
	9	N	N	
100	1	N	N	
	2			
	3			
	4			
	5			66
	6			
	7			
	8			
	9	N	N	

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-2019-03-11-28

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

RAS ID 9348

SBIO ID 79396

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: Little Alaqua Creek	Date: 4/23/19	County: Walton	Storet Number: [illegible]
Analyst: Nathan Miley		Signature: [illegible]	
Comments: < 2m² SAV			

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.

SB10 ID 7939Ø

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata											
Hydrocotle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
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											

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontedaria cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											