



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?
Yes / ☒ No

WIN Station Name: Hog Creek upstream of Eglin Rd 207 Date: 02/27/2019
(mm/dd/yyyy)
WIN/ Field ID: G4NW0488 WBID: 330 Latitude: 30.70971
(Decimal Degrees)
County: Walton ORG ID: 21FLPNS Longitude: -86.3440403
(Decimal Degrees)
Receiving Body of Water: Titi Creek RQ-2019- 02-28-1

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
<u>S. Slade</u>									
<u>N. Mulkey</u>									

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 / <u>Normal</u> / High / Flooded					Meter ID# <u>54179</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>1315</u>	<u>0.7</u>	<u>0.3</u>	<u>0.7</u>	<u>9.03</u>	<u>94.9</u>	<u>5.57</u>	<u>0.01</u>	<u>21.1</u>	<u>17.7</u>
<u>CEN</u>				<u>NOB</u>						

Biological Samples Collected: None <u>HA</u> <u>SCI</u> <u>RPS</u> Algae ID LVS LVI Other:									
SBIO ID Numbers: SBIO-ID: <u>79233</u> HA-ID: <u>15658</u> RPS-ID: <u>9243</u> Macrophyte-ID: <u>NA</u> LIMS#: <u>NW Dist-2019-02-28-1</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>8197090</u>	<u>7/16/19</u>	☒ <2		
Metals	☒ W-JCPMS ☒ W-ICP			☒ Ice ☐ HNO3	<u>8197080</u>	<u>7/16/19</u>	☒ <2		
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter			☒ Ice					
Chlorophyll	☒ CHL-SUITE-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-BR-IC / W-F / W-TSS / TURBIDITY			☐ Ice					
Macroinvertebrates	☐ MI-FW-QLDC			☒ Formalin					
Periphyton	☐ ALGAE-ID			☐ Ice					
Microbiology	☒ Coli ☐ F Coli ☐ Enterococci			☒ Ice					
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-EG3 ☐ PCR-GFD			☐ Ice					
Tracers	☒ W-E8321-DI ☒ W-E8321-MS			☒ Ice					
Pesticides	☒ W-PSNP-TQ			☒ Ice					
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C								

Notes:	Field/WIN ID → <u>G4NW0488</u>
	Location: Hog Creek upstream of Eglin Rd 207
Signature: <u>Stephen Slade</u>	Date: <u>2/27/19</u>

LIMS EVENT ID: <u>NW DIST-2019-02-28-01</u>	WIN Import ID: _____
Enter Field Parameters, Verify Station ID In LIMS DMT: <u>28</u> <u>2/28/19</u>	QC Station ID, Field Parameters In LIMS DMT: _____
Scan/Save Field Sheets _____	Migrate Data to WIN: _____
(Initials/Date)	(Initials/Date)
Verify Data In WIN: _____	(Initials/Date)

Site Name Hog Creek Upstream of Eglin Rd 207 Date: 2/28/19
Field ID G4NW0488 Storet G4NW0488 Project: SMP
Visit ID 79233 RQ: 2019-02-25-11
RPS ID 9243 LIMS ID: NA
VPDB ID NA
HA ID 15658

☐ LVI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☐ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial SS

☐ Date and Initial QA: _____

☒ RPS entered in SBIO Initial SS

☐ Date and Initial QA: _____

☐ LVI 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: _____

☐ VPDB authorized in SBIO

☐ Date and Initial: _____

☐ VPDB score: _____

☐ SCI complete: _____

SCI Score: _____

☐ If SMP, scanned into database

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

SAMPLE ID 79233 ORG ID 21FLPMS LATITUDE 30.70884
 COUNTY Walton STORET # G4NW0488 LONGITUDE 86.34480
 DATE 2/27/19 TIME 1210 SAMPLING AGENCY FDPA NWRC
 SITE NAME Hogcreek upstream of Eglin Rd 207
 FIELD ID/NAME G4NW0488 Hog Creek RECEIVING BODY OF WATER Titi Creek

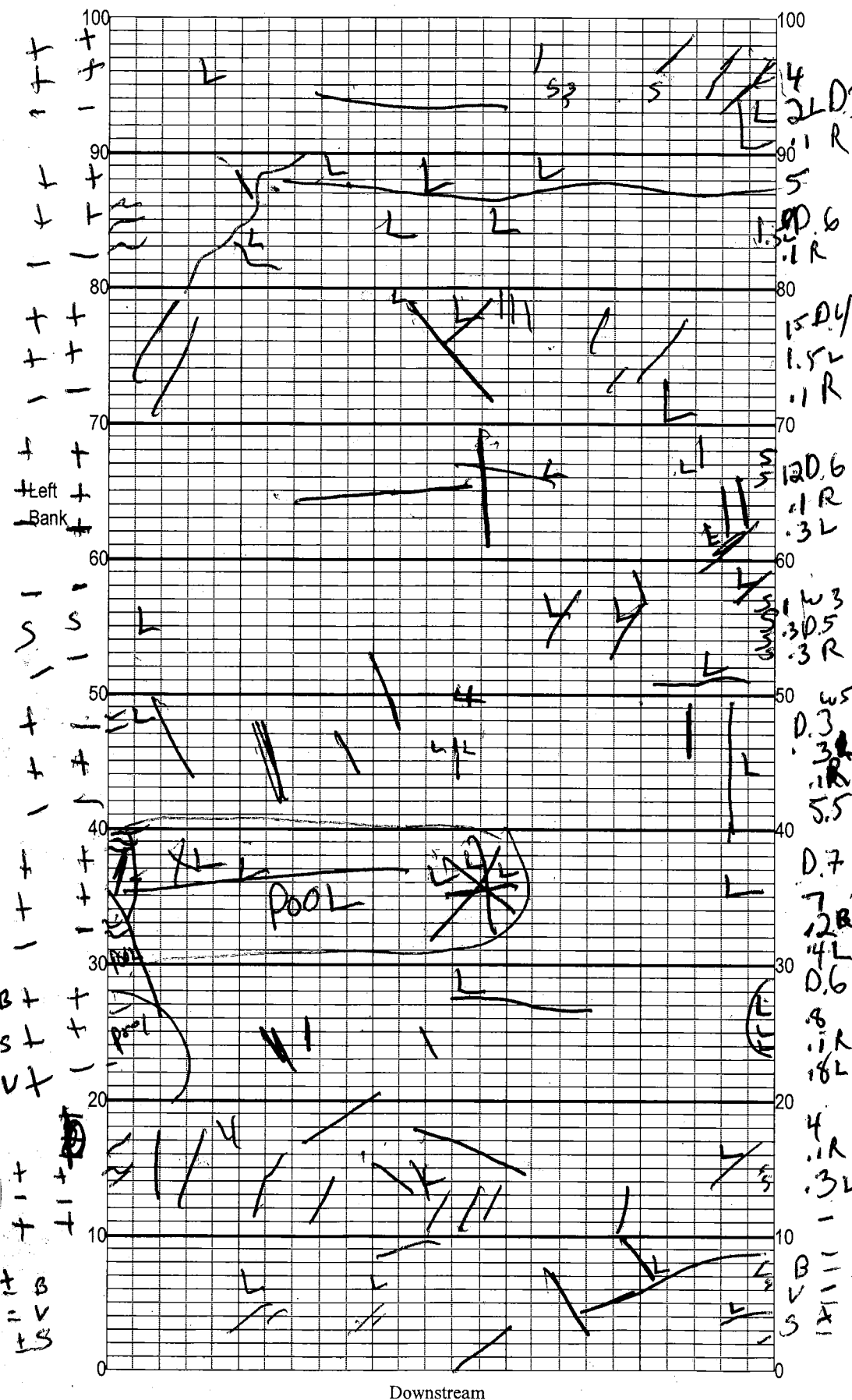
RIPARIAN ZONE / STREAM FEATURES

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 5 m wide 0.4 m/s 0.4 m/s 0.33 m/s 0.3 m deep 0.5 m deep 0.3 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) ☐					
High Water Mark: <u>0.1</u> + <u>0.2</u> = <u>1.3</u> (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 % Coverage INVERT # Times Sampled PERI # Times Sampled			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.3</u> <u>17.7</u> <u>5.57</u> <u>1.03</u> <u>94.9</u> <u>21.1</u> <u>0.01</u> <u>0.7</u> Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒ VOB Bottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ TOTAL DEPTH <u>0.7</u> Meter ID:					
Woody Debris (Snags) <u>21.9</u> <u>7</u> Undercut Banks / Roots <u>0.3</u> <u>4.3</u> <u>0.3</u> Leaf Packs or Mat <u>4.2</u> <u>7</u> Aquatic Vegetation Rock or Shell Rubble Sand <u>73.6</u> <u>4</u> Mud / Muck / Silt Other Other			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: Exp:			Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify)		
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☒ ☐ ☐ Aquatic Plants: ☒ ☐ ☐ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐			Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☒ Yes ☐ No Lot Number: Exp:			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 <u>Stopher Slade, Nathan Mulkey</u>			SIGNATURE <u>Stopher Slade</u>			DATE: <u>2/27/19</u>		

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



Location: Hog Creek
Date: 2/27/19
Sampler: S. Stadel

100 m:	Latitude	<u>30.70923</u>
	Longitude	<u>86.34454</u>
0 m:	Latitude	<u>30.70884</u>
	Longitude	<u>86.34480</u>

Substrates: Code key, draw proportionate habitat abundance.	%
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☒ Snags 54.8 109.6 21.9

55 Roots/undercut banks 1.3m² 0.3

Leaf Packs (or mats) 20.8 16.4m 4.2

Aquatic Macrophytes

[illegible]

0 Pools total # observed = _____
range expected = _____

Average width 5 m
Average depth 0.4 m

Velocity measured at: 50 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:

D.3

W 5.5 m

D.3

S.3
R.1
L.3

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

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

SAMPLING AGENCY: FDEP NWROC		STORET STATION NUMBER: G4NW0488	DATE (MM/DD/YY): 02/27/19	RECEIVING BODY OF WATER: TiTi Creek
REMARKS: HA: 15658	COUNTY: Walton	LOCATION: Hogcreek abv Eglin 207	FIELD ID/NAME: Hogcreek	

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 10	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability 13	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 20	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 20 19 ----- Primary Score 22 62	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. 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	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 (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	Width of vegetation greater than 18 m Right Bank 16 Left Bank 10 (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	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. Right Bank 10 Left Bank 10 ----- Secondary Score 78 (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

144 140 TOTAL SCORE

Date: 2/27/19	Analyst: Stopher Slade	Signature: Stopher Slade
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RPS IP9243

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Hog Creek</u>					County: <u>Walton</u>		Date: <u>2/27/19</u>		Investigators: <u>S. Slade / N. Mulkey</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	
0	1	N			60	1	N			
	2					2				
	3					3				
	4					4				
	5			43%		5				94
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			80%		5				83
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5			74%		5				74
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			43%		5				40
	6			96%		6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			45		5				93
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N				1	N			
	2					2				
	3					3				
	4					4				
	5			78		5				
	6					6				
	7					7				
	8					8				
	9					9				

STORET Station Number: G4NW0488

Secchi depth 160
 Estimated? ☐

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-

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

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>Hog Creek</u>	Date: <u>2/27/19</u>	County: <u>Walton</u>	Storet Number: <u>G-4NW0488</u>
Analyst: <u>Stopher Stadel</u>	Signature: <u>Stopher Stadel</u>		
Comments: <u>less Than 2m² of veg</u>			
Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m 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										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													Micranthemum glomeratum												
Bacopa caroliniana													Micranthemum umbrosum												
Bacopa monneri													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																									

