



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

WIN Station Name: Blackwater Creek In County Park

Date: 4-16-18
(mm/dd/yyyy)

WIN/ Field ID: G2SW0065

WBID: 1482

Latitude: 28.14584

(Decimal Degrees)

County: Hillsborough

ORG ID: 21FLTPA

Longitude: -82.17122

(Decimal Degrees)

Receiving Body of Water: Hillsborough R.

RQ-2018-04-16-52

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Judy Ashton										
Ben Paswater										

Sampling Equipment									
☒ Sample Container	☐ Van Dorn	☐ Pole							
☐ Carboy	☐ Syringe								
☐ Dipper	☐ Other								
Depth Measured with Secchi									
Equipment ID Secchi #1									
Collection Method									
☒ Wading	☐ Canoe/Kayak								
☐ From Shore	☐ Electric Motor								
☐ Other	☐ Gasoline Motor								

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded										Meter ID#	Matrix: Fresh Marine / DI	
Photos: Yes No										Flow: No Flow / Interstitial / 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	1010	0.6	0.3	0.5	7.3	81	7.2	/	256	20.1		

Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:									
SBIO ID Numbers: SBIO-ID: 78364 HA-ID: 15121 RPS-ID: 8989 Macrophyte-ID: 10896 LIMS#: 1984934									
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	5855010	12/07/18	☒ <2	
Metals	☐ W-ICPMS ☐ W-ICP				☐ Ice ☐ HNO3			☒ <2	
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice	9841668			
Chlorophyll	☒ HLSUITE-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-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates	☐ MI-FW-QLOC				☐ Formalin				
Periphyton	☐ ALGAE-ID				☐ Ice				
Microbiology	☒ CoII ☐ F CoII ☐ 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 ☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R				☐ Ice ☐ Other				

Notes:

HA
DUP + Blank

Field ID/WIN

G2SW0065

Site Name: Blackwater Creek in County Park

Signature:

Ben Paswater

Date:

4-16-18

Enter Field Parameters, Verify Station ID in LIMS DMT: SM 05/07/2018

QC Station ID, Field Parameters in LIMS DMT: SM 06/18/2018 SM 07/05/2018

Scan/Save Field Sheets

(Initials/Date)

Migrate Data to WIN: SM 07/05/2018 5842

(Initials/Date)

Verify Data in WIN:

(Initials/Date)

QA/QC Sample Information Duplicate

2 of 2

Time Zone: EST CEN		Time: 1015		Field ID: G2SW0065	
(WIN ID + DUP)					
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	SA7341020	12/7/18	☐ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll	☒ CHLSUITE-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-F / ☐ W-TSS / ☐ TURBIDITY	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD				
Tracers	☒ W-SUC-AA-R ☒ W-UHERB-AA ☒ W-AHERB-AA				
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-CARB-AA ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R				

Field ID: G2SW0065_DUP

Location: Blackwater Creek in County Park_DUP

WIN ID: G2SW0065

Blank

Time Zone: EST CEN		Time: 1030		Field ID: BLANK	
(Blank_DDDMMYY)					
DI Source: CAL BODY		Location: FIELD			
☐ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank		Equipment ID: _____			
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			☐ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll	☒ CHLSUITE-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-F / ☐ W-TSS / ☐ TURBIDITY	☐ 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-AHERB-AA ☐ W-PYR-AA-R ☐ W-CARB-AA ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

Contains: 1:1 H2SO4
Lot No.: SA7341020
Expires: 12/07/18
See Safety Data Sheet (SDS)

Place Preserv

Notes:	Field ID/WIN BLANK
	Site Name: Field Blank
Signature: _____	Date: _____

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

Field ID/WIN

G2SW0065



ROC	STORET STATION NUMBER:	DATE (MM/DD/YY):	RECEIVING BODY OF WATER:
	LOCATION: SWROC		Hillsborough River
Site Name: Blackwater Creek in County Park		FIELD ID/NAME:	

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>17</u>	20 19 18 <u>17</u> 16	15 14 13 12 11	10 9 8 7 6	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>19</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> <u>19</u> 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>20</u> Primary Score <u>76</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. <u>20</u> 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>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 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>10</u> 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. LR <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 LR <u>10</u> 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>78</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> LR	>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

154

TOTAL SCORE

Date: 4/16/2008	Analyst: Ben Pant	Signature: Ben Pant
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P _____

LATITUDE _____

LONGITUDE _____

Site Name: Blackwater Creek in County Park

SAMPLING AGENCY FDEP South ROC SW ROC

OF WATER

Hillsborough River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ 80 ☐ Silviculture ☐ Field/Pasture ☐ 20 ☐ 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 .31 m/s .31 m/s .31 m/s 0.3 m deep 0.6 m deep 0.3 m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: >18 Right Bank: >18 Hydrologic Modification Score (per FT 3101) ☐							
High Water Mark: 1 + .6 = 1.6 (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 Invert ☐ Peri ☐ % Coverage # Times Sampled # 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: 0.3 20.1 7.2 7.3 81 256 / 0.6 Mid: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☒ VOB Bottom: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Meter ID: Hills 10M TOTAL DEPTH 0.6			
Woody Debris (Snags) 3.2 ☐ ☐ Undercut Banks / Roots 1.6 ☐ ☐ Leaf Packs or Mat 7.8 ☐ ☐ Aquatic Vegetation 6.6 ☐ ☐ Rock or Shell Rubble.. ☐ ☐ Sand..... ☐ ☐ 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 ☐	
SAMPLING TEAM Judy Ashton		System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐		AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.	

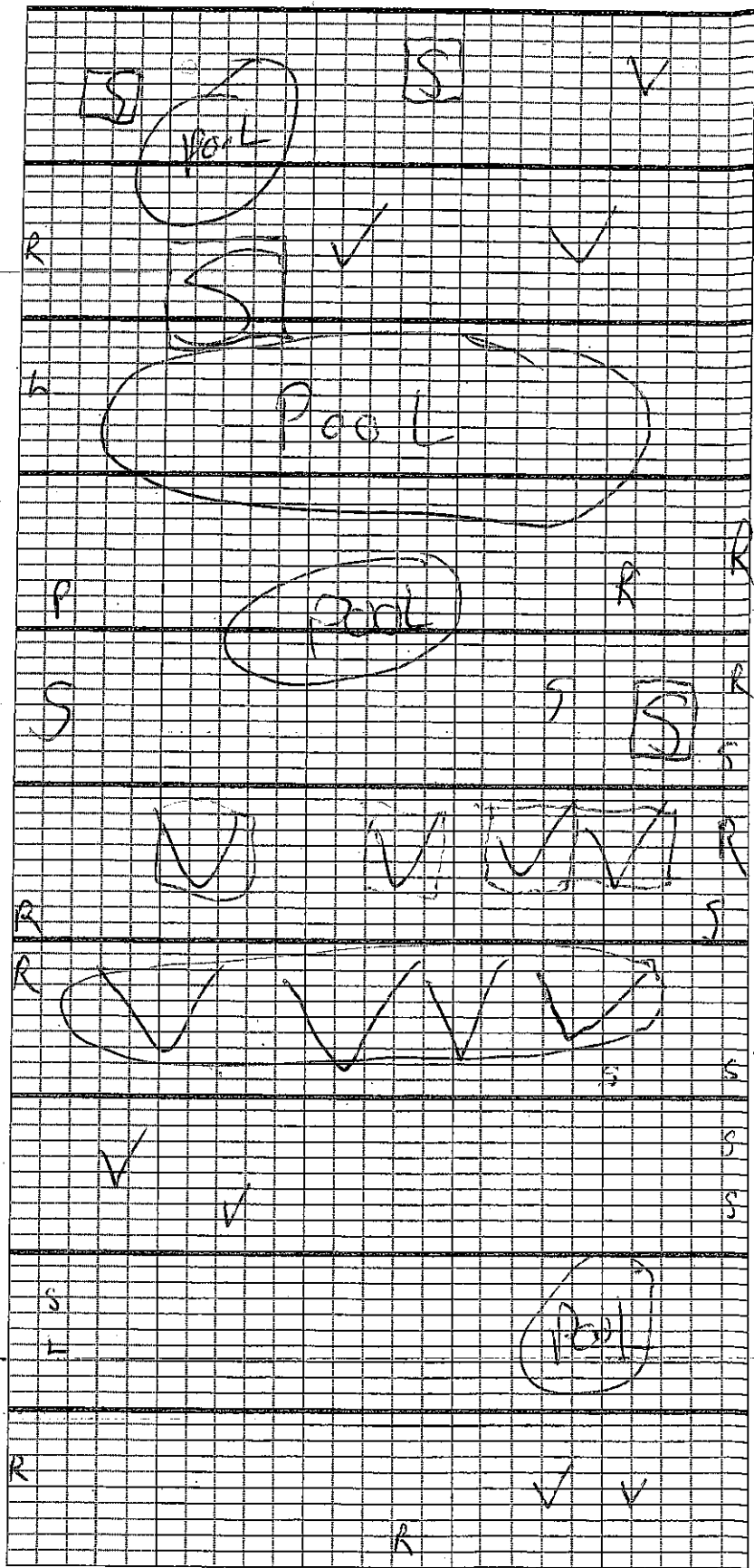
SIGNATURE: Ber Pan

DATE: 4/16/18

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60
55
60
50
60
60
50%
70%
40%
65%
Rock

Location: BLACKWATER CREEK

Date: 4-16-18
Samplers: J. Ashcraft
B. Pashwater

Substrates: Code key, draw proportionate habitat abundance. %

S Snags 3.2
R Roots/undercut banks 1.6
L Leaf Packs (or mats) Few
V Macrophytes 7.8
Rocks noted 66%
Grand Total 78%
Total observed
☒ Pools Range expected YES

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: 718m
Note areas (on map) where natural vegetation is altered or eliminated.

1 sec per 1 m	1m/s	sec	m/s
2	0.5		
3	0.33		
4	0.25		
5	0.2		
6	0.16		
7	0.14		
8	0.12		
9	0.11		
10	0.1		
11	0.09		
22	0.04		

G2SW0065



Blackwater Creek in County Park

Site Name:

Prod. hab
Sweeps (Maj)
Sweeps (Min)

Field IDWIN

1
S = 80 3.2%
V = 196 7.8%
Downstream 3
Rocks = 40 1.6%
4
L = 4
5
Rocks = 66%

GJSW065

Storet Number:

Signature: _____

Be Am

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																	

Revision Date: March 1, 2014

Blackwater Creek

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

County: <u>Hillsborough</u>		Investigators: <u>BP JA</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		89	60	1	N		96
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
10	1			96	70	1			80
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
20	1			88	80	1			87
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
30	1			88	90	1			92
	2								
	3								
	4								
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	6								
	7								
	8								
	9								
40	1			92	100	1			96
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
50	1			94		1			
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								

STORET Station Number:
G2SW0065

Secchi depth 0.6
 Estimated? N

points ranked 4-6 0
 total points assessed 90
 % 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- 2018-04-16-52

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%.